STATE OF THE MARKET REPORT  
2003

FERC Briefing
Washington, D.C.
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PJM Market Monitoring Unit
State of the Market Conclusions

- **Energy market** results were competitive

- **Capacity market** results in **PJM Mid-Atlantic Region** were competitive

- **Capacity market** in **PJM Western Region** – no functioning competitive market

- **Regulation market** results were competitive

- **Spinning market** results were competitive

- **FTR market** results were competitive
2003 PJM Average Hourly Load and Spot Market Volume

Graph showing 2003 PJM Average Hourly Load and Spot Market Volume for each month from January to December. The graph compares the average load (grey bars) and average spot volume (orange bars) for each month. The highest load and volume are observed during the summer months, with a notable peak in August for both categories.
Average PJM Aggregate Supply Curves:
June to September 2002 and 2003
PJM Peak Load Comparison:
Friday, August 22, 2003, and Wednesday, August 14, 2002
### PJM Average Hourly Locational Marginal Prices
(in Dollars per MWh)

<table>
<thead>
<tr>
<th>Year</th>
<th>Average LMP</th>
<th>Median LMP</th>
<th>Standard Deviation</th>
<th>Year-to-Year Percent Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>2003</td>
<td>$38.27</td>
<td>$30.79</td>
<td>$24.71</td>
<td>35.2% 46.0% 10.3%</td>
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<tr>
<td>2002</td>
<td>$28.30</td>
<td>$21.08</td>
<td>$22.40</td>
<td>-12.6% -8.3% -50.6%</td>
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<tr>
<td>2001</td>
<td>$32.38</td>
<td>$22.98</td>
<td>$45.30</td>
<td>15.1% 20.3% 76.3%</td>
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<td>2000</td>
<td>$28.14</td>
<td>$19.11</td>
<td>$25.69</td>
<td>-0.6% 6.9% -64.5%</td>
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<tr>
<td>1999</td>
<td>$28.32</td>
<td>$17.88</td>
<td>$72.41</td>
<td>30.4% 7.7% 130.2%</td>
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<tr>
<td>1998</td>
<td>$21.72</td>
<td>$16.60</td>
<td>$31.45</td>
<td></td>
</tr>
</tbody>
</table>
### PJM Load-Weighted, Average LMP (in Dollars per MWh)

<table>
<thead>
<tr>
<th>Year</th>
<th>Load-Weighted Average LMP</th>
<th>Year-to-Year Percent Change</th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Average</td>
<td>Median</td>
<td>Standard Deviation</td>
<td>Average LMP</td>
<td>Median LMP</td>
</tr>
<tr>
<td>2003</td>
<td>$41.23</td>
<td>$34.95</td>
<td>$25.40</td>
<td>30.5%</td>
<td>49.3%</td>
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<tr>
<td>2002</td>
<td>$31.60</td>
<td>$23.41</td>
<td>$26.74</td>
<td>-13.8%</td>
<td>-6.7%</td>
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<tr>
<td>2001</td>
<td>$36.65</td>
<td>$25.08</td>
<td>$57.26</td>
<td>19.3%</td>
<td>22.3%</td>
</tr>
<tr>
<td>2000</td>
<td>$30.72</td>
<td>$20.51</td>
<td>$28.38</td>
<td>-9.8%</td>
<td>7.8%</td>
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<tr>
<td>1999</td>
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<td>$19.02</td>
<td>$91.49</td>
<td>41.0%</td>
<td>8.1%</td>
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<tr>
<td>1998</td>
<td>$24.16</td>
<td>$17.60</td>
<td>$39.29</td>
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</tbody>
</table>
PJM Load-Weighted, Fuel-Cost-Adjusted LMP (in Dollars per MWh)

<table>
<thead>
<tr>
<th></th>
<th>2003</th>
<th>2002</th>
<th>Percent Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>Average LMP</td>
<td>$28.60</td>
<td>$31.60</td>
<td>-9.5%</td>
</tr>
<tr>
<td>Median LMP</td>
<td>$24.40</td>
<td>$23.41</td>
<td>4.2%</td>
</tr>
<tr>
<td>Standard Deviation</td>
<td>$16.94</td>
<td>$26.74</td>
<td>-36.6%</td>
</tr>
</tbody>
</table>
Load-Weighted Average Monthly LMP: Real-Time Market
Type of Fuel Used by Marginal Units
PJM Average Monthly Load

![Graph showing PJM average monthly load with data from 2002, 2003, and 2003 Mid-Atlantic Region, Jan-Apr. The graph displays load in MW (megawatts) on the y-axis and months on the x-axis.]
Price Duration Curve
Hours Above the 95th Percentile
Average All-In Market Price

1999 2000 2001 2002 2003

Energy Cost • Capacity Cost • Ancillary Cost • Uplift Cost

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PJM Average Hourly System LMP
PJM RSI Index Duration Curve: 2002-2003
Average Monthly Load-Weighted Markup Indices
PJM Mid-Atlantic Region’s Capacity Obligations: January through May 2003
PJM Capacity Obligations: June through December 2003
PJM Daily and Monthly Capacity Credit Market Performance: January 2000 through December 2003

This chart illustrates the performance of the PJM Daily and Monthly Capacity Credit Market from January 2000 through December 2003. It shows the volume of credits traded in unfrozen MW, along with the weighted average clearing price in $/MW-day. The data is visualized with bar and line graphs for both daily and monthly credit markets.
Estimated Net Revenue
Combustion Turbine

($ per Installed MW - Year)
Equivalent Forced Outage Rates

Graph showing Equivalent Forced Outage Rates from 1999 to 2003.

- 1999: 6.00%
- 2000: 5.85%
- 2001: 4.00%
- 2002: 5.00%
- 2003: 7.00%

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Queued Capacity by In-Service Date
Average Real-Time Offer-Capped Units (by Month)
Percent of Real-Time Offer-Capped MW (by Month)
PJM Real-Time Imports and Exports: 2003
Annual Zonal LMP Differences: Reference to Western Hub
2003 ARR and Self-Scheduled FTR Portfolio Congestion Hedging
By Transmission Zone and Interface ($1000)

System Totals:
DA Congestion = $199,366,000
ARR Credits = $91,544,000
FTR Target Allocations = $85,899,000
Total Revenue = $177,422,000