Electric Wholesale Market Regimes in the United States: Implications for Investment

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The Three Electric Wholesale Market Regimes in the United States

Western Bilateral Markets

Southeastern Residual Market

RTOs with Day-Ahead Markets

SPP
## Three Electric Markets

**Spot Electric Power Trading on ICE by Region, 2007, ‘000 GW Hours**

<table>
<thead>
<tr>
<th>Region</th>
<th>Physical Trading</th>
<th>Financial Trading</th>
<th>Load in 2006</th>
</tr>
</thead>
<tbody>
<tr>
<td>Northeast</td>
<td>0.5</td>
<td>91.1</td>
<td>1,026.4</td>
</tr>
<tr>
<td>Midwest</td>
<td>1.4</td>
<td>40.6</td>
<td>520.0</td>
</tr>
<tr>
<td>West</td>
<td>66.9</td>
<td>&lt;0.1</td>
<td>709.8</td>
</tr>
<tr>
<td>Southeast</td>
<td>1.4</td>
<td>0.0</td>
<td>802.3</td>
</tr>
<tr>
<td>ERCOT</td>
<td>21.3</td>
<td>1.8</td>
<td>305.7</td>
</tr>
</tbody>
</table>

Source: ICE and Form 714. (Note that ICE has no contracts within SPP.)
What Does This Mean for Short and Mid-term Investment?

### Primary Value Streams for New Projects

<table>
<thead>
<tr>
<th>Commodity Value</th>
<th>Capacity Value</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>RTOs with Day-Ahead Markets</strong></td>
<td><strong>Projected RTO Day-Ahead Price Stream (Tied to Real-Time Prices)</strong></td>
</tr>
<tr>
<td><strong>Western Bilateral Market</strong></td>
<td><strong>Projected Bilateral Day-Ahead Price Stream</strong></td>
</tr>
<tr>
<td><strong>Southeastern Residual Market</strong></td>
<td><strong>Long-term Competitive Procurement Price (sort of, where applicable)</strong></td>
</tr>
</tbody>
</table>
What Does This Mean for Long-term Investment?

Key Difference = Greater Systemic Risk in Building Baseload Coal and Nuclear

- Coal – Carbon
- Nuclear – Safety, Decommissioning, Waste
- All – Lead Times

How Will Different Market Regimes Handle the Risk-Sharing Issues?