What Price Reliability?

or

How To Intervene in a Market When It May Not Be Failing

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Commissioner
Massachusetts Division of Energy Resources
Harvard Electricity Policy Group
Austin, Texas
December 2, 2004
New Generation Has Increased Capacity Reserves

![Bar Chart](chart.png)

Actual vs. Forecast Generation and Demand from 1996 to 2010

Source: CELT Report 2003
ISO-NE’s View: Supply Surplus is Short-Lived

(Approximately 1,600 MW of Potential Unit Attrition)

SOURCE: NECA Presentation by ISO-NE, 11/10/04
Capacity Clearing Prices in NE

ISO-NE Capacity Proposal
March 2004

• ISO-NE filed its proposal at a time when
  – More than 40% of generation was financially “distressed” and
  – More than 5% was receiving “reliability must run” payments.
• ISO-NE proposed a “market” for capacity
  – Load Serving Entities must buy capacity to cover their obligations
  – Generators may sell their capacity at a “regulated” price
• “Administrative” Demand Curve
  – Similar to NY
• Reserve capacity calculated in each of 4 zones:
  – Greater Boston, CT, ME and Rest of NE
• LSE’s may hedge with bi-lateral contracts
An Alternative Capacity Proposal
March 2004

• A single, region-wide demand curve
  – based on NY’s state-wide curve

• Generators must make minimum commitment to operate at least three years beyond the current capacity payment

• Capacity level should be calculated on then-current “objective capability” (OC)
  – Not on the historic level of excess capacity

• Payments halt at 12 percent above OC
  – Rather than 18 percent above

• Align rules with NY to eliminate market seams
Revised ISO-NE Proposal
August 2004

- In June, FERC accepted most of ISO’s proposal
  - Endorsed “locational” capacity markets
  - Divided CT into two separate zones
- Maximum capacity value set at twice the cost of new entrant
- Generators must be available during “critical hours” to receive payments
- Capacity payments reduced by
  - revenue from infra-marginal rents
  - “reliability” revenues
- “Reliability” contracts end in 2006
- Market power mitigation measures to be worked out based on input from intervenors
- Clarified allocation of capacity among market participants and rights to transfer capacity
ISO’s Most Recent Demand Curve

Have less...pay more. Have more...pay less.

Source: NECA Presentation by ISO-NE 11/10/04
Comparison of ISO-NE and National Grid
Alternative Demand Curve Proposal

Source: NGRID - C. Hamel Answering Testimony, 11/4/04, Exhibit NG-1
# Estimated Cost Impacts of ISO-NE and National Grid Capacity Proposals

## NEMA Annual Cost Impact

<table>
<thead>
<tr>
<th>Capacity</th>
<th>Surplus above OC</th>
<th>Reserves Level</th>
<th>ISO DC Supply Cost Increase (%)</th>
<th>NGRID DC Supply Cost Increase (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>5,864</td>
<td>1%</td>
<td>13%</td>
<td>84%</td>
<td>53%</td>
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<tr>
<td>5,922</td>
<td>2%</td>
<td>14%</td>
<td>72%</td>
<td>48%</td>
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<td>34%</td>
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<td>6,387</td>
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<td>23%</td>
<td>10%</td>
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<tr>
<td>6,503</td>
<td>12%</td>
<td>24%</td>
<td>13%</td>
<td>0%</td>
</tr>
</tbody>
</table>

Source: NSTAR and DOER Analysis
Some Questions to Ask About a Market Intervention

• What exactly is the nature and size of the risk?
• What interventions are possible and which will be the least disruptive?
• Can the intervention be made to work like a market would work?
• Can the intervention be made to halt or fade away as the need for it decreases?
• Can the disruption be offset over time by changes in other parts of the market?