Illinois Post-2006
PROCUREMENT PROCESS

OPTION 3:
HORIZONTAL PRODUCTS

July 26, 2004
Industry Overview

U.S. Low-Cost Electricity Comes from Coal

Over 50% of the Electricity in the U.S. Comes from Coal

¢ = average price per kilowatt hour for CY 2003

% = percent of total generation from coal for 2003

Source: Energy Information Administration, March 2004
USE OF COAL CRITICAL TO SUSTAIN LOW COST

Cost per kWh vs. % of Electricity from Coal

Source: Energy Information Administration, March 2004
Basic Electricity and Energy Infrastructure Needed

• Load growth of more than 60% in last 20 years
  – Little new baseload resources added
  – Little new transmission added
  – Real electricity prices starting to rise
• Nuclear generation capacity reaching output limit
  – 1990, 66% capacity factor - 2003, 90% capacity factor
• Coal generation capacity becoming fully utilized
  – 1990, 59% capacity factor - 2003, 73% capacity factor
• Load expected to grow another 20% over next 10 years
• Clear Skies-like rules proposed by the EPA in December likely to close 5 - 10% of existing coal capacity – small, older, higher cost plants by 2010
• Existing coal fleet has an average age of 35 years
• 7 – 8 year lead time for new coal generation
## Current Generation Profile in the State of Illinois

<table>
<thead>
<tr>
<th>Plant Operator</th>
<th>Generation (MWh)</th>
<th>% of IL</th>
<th>Total MWh</th>
<th>Capacity (MW demo'd)</th>
<th>% of IL Total MW</th>
</tr>
</thead>
<tbody>
<tr>
<td>Exelon Corp.</td>
<td>94,733,036</td>
<td>51.52%</td>
<td>11,462</td>
<td>26.80%</td>
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</tr>
<tr>
<td>Edison International</td>
<td>28,590,396</td>
<td>15.55%</td>
<td>9,115</td>
<td>21.31%</td>
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<tr>
<td>Ameren Corp.</td>
<td>27,618,367</td>
<td>15.02%</td>
<td>6,996</td>
<td>16.36%</td>
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<tr>
<td>Dynegy, Inc.</td>
<td>21,090,256</td>
<td>11.47%</td>
<td>4,140</td>
<td>9.68%</td>
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<tr>
<td>Dominion Resources, Inc.</td>
<td>6,678,077</td>
<td>3.63%</td>
<td>1,108</td>
<td>2.59%</td>
<td></td>
</tr>
<tr>
<td>Springfield Water, Light &amp; Power</td>
<td>1,979,807</td>
<td>1.08%</td>
<td>566</td>
<td>1.32%</td>
<td></td>
</tr>
<tr>
<td>Southern Illinois Power Coop</td>
<td>1,429,045</td>
<td>0.78%</td>
<td>280</td>
<td>0.65%</td>
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<tr>
<td>Calpine Corp.</td>
<td>521,966</td>
<td>0.28%</td>
<td>626</td>
<td>1.46%</td>
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<tr>
<td>MidAmerican Energy Holdings Co.</td>
<td>395,094</td>
<td>0.21%</td>
<td>619</td>
<td>1.45%</td>
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<tr>
<td>NRG Energy, Inc.</td>
<td>236,012</td>
<td>0.13%</td>
<td>592</td>
<td>1.38%</td>
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<tr>
<td>Elwood Energy, LLC</td>
<td>213,064</td>
<td>0.12%</td>
<td>1,430</td>
<td>3.34%</td>
<td></td>
</tr>
<tr>
<td>Constellation Energy Group, Inc.</td>
<td>117,620</td>
<td>0.06%</td>
<td>841</td>
<td>1.97%</td>
<td></td>
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<tr>
<td>Reliant Energy, Inc.</td>
<td>87,406</td>
<td>0.05%</td>
<td>1,314</td>
<td>3.07%</td>
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<tr>
<td>Archer Daniels Midland Co.</td>
<td>85,040</td>
<td>0.05%</td>
<td>30</td>
<td>0.07%</td>
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<tr>
<td>PPL Corp.</td>
<td>59,448</td>
<td>0.03%</td>
<td>528</td>
<td>1.23%</td>
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<tr>
<td>Allegheny Energy, Inc.</td>
<td>18,516</td>
<td>0.01%</td>
<td>669</td>
<td>1.57%</td>
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<tr>
<td>Wisconsin Energy Corp.</td>
<td>11,901</td>
<td>0.01%</td>
<td>304</td>
<td>0.71%</td>
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<tr>
<td>Peoples Energy Corp.</td>
<td>6,254</td>
<td>0.00%</td>
<td>337</td>
<td>0.79%</td>
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</tr>
<tr>
<td>DTE Energy Co.</td>
<td>5,707</td>
<td>0.00%</td>
<td>340</td>
<td>0.79%</td>
<td></td>
</tr>
<tr>
<td>Duke Energy Corp.</td>
<td>4,685</td>
<td>0.00%</td>
<td>640</td>
<td>1.50%</td>
<td></td>
</tr>
<tr>
<td>Aquila, Inc</td>
<td>1,431</td>
<td>0.00%</td>
<td>830</td>
<td>1.94%</td>
<td></td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>183,883,128</strong></td>
<td><strong>42,768</strong></td>
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</tr>
</tbody>
</table>

Source: RDI/Platts COALDat, Capacity & Generation Analyzer, CY 2003
How Were Existing IOU Portfolios Built?

- Rate base process with implicit long-term contracts
  - Once asset approved in rate-base, long term recovery of capital cost allowed 30 – 40 year recovery period
- Utilities justified and added resources as dictated by obligation to serve load growth
- Traditional regulatory oversight:
  - Resource plan was low cost
  - Prudence in forecasting, timing and management of spending
- Assets were approved unit by unit, not in full requirements increments.
- Without this implicit term contract, no high capital low operating cost plants, coal and nuclear (and bulk transmission) would have been built
  - Coal assets are the reason the US has affordable electricity prices today
Basic Principles of Option 3: Horizontal Products

- Market-based acquisition by “horizontal” tranche or wholesale market segments
- Utility divides load or classes of load into horizontal blocks
  - Baseload, intermediate, peaking
  - 7 x 24, 5 x 16, 7 x 8
- Utility procurement should approximate horizontal blocks
- Baseload component should include a meaningful tranche of term procurement
  - Provides price stability to consumers
  - Provides opportunity for new low cost resources to compete
- Regulatory approval of product type, term and quantity
- Seeks wholesale competition (auction or RFP) to supply each segment
Extended Principles of Option 3: Horizontal Products

- ICC sets broad guidelines for portfolio management giving utilities the latitude to manage on their own portfolio
- Transparency in procurement process of the utmost importance, especially if utilities buy from unregulated affiliates
  - May require third party to conduct bid process
  - Assumes utilities are price takers with full recovery of costs
- Procurement within each horizontal tranche or segment would have its own set of terms and conditions that take into consideration industry practice, physical limitations and other factors with that segment
  - Level of capital intensity would influence term (base-load needs longer terms)
  - Underlying fuel volatility would influence pricing terms (gas peaking may require an indexed price)
Option 3: Horizontal Products

Pros

• Horizontal Products best matches the way generation assets have been added over the last 40 years which will encourage development.
• Individual generators or new entrants can compete within their horizontal segment.
• Generators & power marketers are not required to have a full requirements portfolio upfront to be able to compete.
  – Reduces barriers to entry for lowest cost resources
  – Allows newer, cleaner more efficient plants to come to market
• Horizontal products and the associated blending of terms, especially long-term procurement, provides numerous benefits leading to price stability
  – Removes price volatility for large percentage of MWh
  – Removes price volatility from contracting year to year
  – Insulates customer from tremendous gas price volatility
  • Electricity customers are not a custom to price swings of 20 – 40% in a year, like the gas customers are today.
Option 3: Horizontal Products Pros Continued

- Horizontal Products with term procurement is consistent with State of Illinois policy of promoting new mine-mouth coal generation to revive Southern Illinois economy.
  - Ability to finance without term contracts is difficult
  - Without term market, very few coal projects are feasible
  - Loads with term contracts severely limited if Illinois retail precluded (municipals & cooperatives in state and loads external to Illinois)

- Horizontal Products with term procurement needed to develop most renewable generation markets

- Allows for consistent apportionment of risks
  - Suppliers manage risks associated with supply such as development risk, environmental regulation risk, construction risk, generation operational risk, etc.
  - Utilities manage system risks such as load growth, weather, diversity of supply, etc.
Option 3: Horizontal Products
Cons from July 19

- Excludes pre-packaged offers that fit load shape and other obligations (Opt. 3A would incorporate additional flexibility)
- LSE must manage load function? (as they do today)
- Possible added transaction costs? (unclear what that means)
- Substantial portfolio risk is retained by LSE? (all depends on cost recovery mechanism and how long customers commit)
- Lack of long-term component will favor established generators (Opt. 3 should have a long-term dimension)
- Regulatory complexity and need for new staff skills? (base-load, intermediate, peaking and block energy are not be new concepts. That is how the system was planned over the last 40 years)
- Potential for stranded costs? (depends on cost recovery)
- Lacks benefits of competitive risk management other than supply
- Short-term nature does not promote base-load and intermediate generation (Opt. 3 should have a long-term dimension)
- Does not promote utilities to purchase base-load (Opt. 3 should have a long-term dimension)
Option 3: Horizontal Products
Cons from July 19 Continued

• Does not promote transmission system improvement (Opt. 3 should have a long-term dimension)
• Supply diversity is only present when the term is long enough (Opt. 3 should have a long-term dimension)
• Deals are subject to the competitiveness of the wholesale supply market
• Short-term contracts pass energy market risk to end-users (Opt. 3 should have a long-term dimension)
• Little or no consumer review or input (Relies on regulatory body and points to the need for transparency)
• LSEs resultant composite purchase price reflects blended/staggered moving average (Customers don’t get the lowest and don’t pay the highest)
• Does not address procurement of hedges (Opt. 3A would incorporate additional flexibility)