Trends in Electric Utility Risk Management

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Energy & Utilities Practice Leader

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Overview

• Background
• Trends by Risk Focus Area
• ERM – Is it here to stay? How is it being done well?
• Utilities of the Future and Risk Management
Experience on Demand

• St. Louis-based management consulting firm, serving all sizes of new and existing businesses.

• Core services
  – Strategic plan development and execution support
  – Economics, finance, and risk management
  – IT strategy
  – HR strategy
  – Supply chain management
  – Process improvement
  – Project management support
  – Executive coaching
Professional Background

BSNE
MBA

R. W. Beck
Risk and Energy Markets Consulting Practices

Ameren
Transmission Capital & Risk Management

Union Electric
Nuclear Fuel Engineer

Ameren
Energy Marketing & Trading

Deloitte
Global Energy Markets / GRRS

Experience on Demand
Management Consulting

Investor-Owned Utilities

All forms of Electric Utilities; Financial Institutions

Utilities
Government Infrastructure Power Water Manufacturing

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The Basics

• What is Risk?
  – Potential for loss
  – Possibility of falling short of expectations
  – Uncertainty in outcomes
  – Event or condition that could cause performance shortfalls compared to expectations
  – The effect of uncertainty on objectives
  – Many others...
The Basics

• Practical examples of the evidence of risk
  – Missing earnings targets
  – Frequent and/or extended outages
  – Excessive customer price fluctuations
  – Workplace accident
    • Minor
    • Fatal
  – Being fired

Expectations are the foundation for assessing risk
The Basics

• Risk Types
  – Strategic
  – Operational
  – Financial
  – Legal/Regulatory
  – Hazard/Acts of Nature
What are the biggest risks you believe your company faces?
Trends by Risk Focus Area

- Insurance
- Energy Risk
- Strategic & Regulatory
ERM – Here to Stay? How?

The attention on ERM is cyclical, but continues to expand

<table>
<thead>
<tr>
<th>Development</th>
<th></th>
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<tbody>
<tr>
<td>2002:</td>
<td>Sarbanes Oxley Act</td>
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<tr>
<td>2004:</td>
<td>OMB Circular A-123 update: Management’s Responsibility for Internal Control</td>
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<tr>
<td>2009:</td>
<td>ISO 31000: Risk Management</td>
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</tbody>
</table>
ERM Standards

• COSO Enterprise Risk Management – Integrated Framework
ERM Standards

• ISO 31000: Risk Management
Risk and the Utility of the Future

• Local utilities have unique advantages
  – Access to the grid for reliability
  – Convenience
  – Safety
  – Connection to community
  – What are some others?

Paul Zummo, Director, Policy Research and Analysis
American Public Power Association
Local Utility Risks

- While risk of displacement of local utility is low, risk of displacement of management team is **not** necessarily low
- Game can still be lost

The Ducks went on to score 24 unanswered points en route to a 51-27 win.
Local Utility Risks

• Ways to lose
  – Ignoring customer/societal trends
  – Negligence leading to harm to people or property
  – High prices combined with poor service
    • Higher prices in general and/or large price fluctuations
    • Poor reliability
    • Poor customer service
  – Inability to obtain capital
    • Erosion of liquidity and cash flow to the point where debt service cannot be met
Improving Customer Service

• **Lessons from History**
  – All businesses are subject to both competition and changes in customer preferences

• Major companies and brands that are no longer with us
### Municipal Utility Scorecard Factors

<table>
<thead>
<tr>
<th>Broad Scorecard Factors</th>
<th>Factor Weighting</th>
<th>Scorecard Subfactor</th>
<th>Subfactor Weighting</th>
</tr>
</thead>
<tbody>
<tr>
<td>System Characteristics</td>
<td>30%</td>
<td>Asset Condition (Remaining Useful Life)</td>
<td>10%</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Service Area Wealth (Median Family Income)</td>
<td>12.5%</td>
</tr>
<tr>
<td></td>
<td></td>
<td>System Size (O&amp;M)</td>
<td>7.5%</td>
</tr>
<tr>
<td>Financial Strength</td>
<td>40%</td>
<td>Annual Debt Service Coverage</td>
<td>15%</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Days Cash on Hand</td>
<td>15%</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Debt to Operating Revenues</td>
<td>10%</td>
</tr>
<tr>
<td>Management</td>
<td>20%</td>
<td>Rate Management</td>
<td>10%</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Regulatory Compliance and Capital Planning</td>
<td>10%</td>
</tr>
<tr>
<td>Legal Provisions</td>
<td>10%</td>
<td>Rate Covenant</td>
<td>5%</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Debt Service Reserve Requirement</td>
<td>5%</td>
</tr>
<tr>
<td>Total</td>
<td>100%</td>
<td>Total</td>
<td>100%</td>
</tr>
</tbody>
</table>

Ideally, rates increase marginally and steadily, rather than choppyly. It is common for utilities to split their rates into a “base” charge (flat rate charged to all users) plus a “volumetric” charge (per unit costs based on flow/usage). Utilities funded to a greater extent by the volumetric charge face greater risks, since volume can be economically sensitive or decline because of a shift in consumption patterns.
Thank You!

We appreciate the opportunity to serve

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