



## Informing Smart Grid Strategy and Roadmaps



### **MetaVu's SmartGridCity™ evaluation project uniquely qualifies the firm to help utilities develop Smart Grid deployment strategies**

Now that the hype surrounding Smart Grid is subsiding, it's time utilities transitioned from grand aspirations to actionable deployment strategies, using advanced grid technologies to create practical value for customers and investors. MetaVu is analyzing the costs, benefits, and organizational implications of the SmartGridCity™ demonstration project for Xcel Energy. MetaVu's valuation capabilities and SmartGridCity™ insights can help utilities create grid development roadmaps that are customized to a utility's technical realities, regulatory frameworks, competencies, and 'Points of View'.

MetaVu suggests that utilities answer several fundamental questions before considering desired grid capabilities and enabling systems. The grid capabilities utilities choose to implement in the near future will still be functioning decades from now.

- How can utilities ensure they are making the least risky Smart Grid investments?
- What will the retail electricity market look like in the future?
- How will utilities' roles be different? How will they create and capture value?
- How will legislation and regulation impact the retail electricity market and in what timeframes?
- What energy-related technologies will consumers adopt and how quickly?
- How should a utility's 'Point of View' on these questions influence the grid capabilities and technologies selected?

Various Smart Grid projects are demonstrating that all of the most commonly referenced Smart Grid capabilities are technically feasible. The next questions become much more difficult to answer:

- Which Smart Grid capabilities make the most sense to enable? What are the likely sizes of the economic, environmental, reliability, and satisfaction benefits available?
- For IOUs, how does this answer differ from customer and shareholder perspectives?
- Which combinations of technologies should be utilized to enable selected capabilities?
- Which capabilities should be rolled out universally, and which selectively?
- What organizational challenges will the deployment of Smart Grid capabilities entail?

MetaVu believes that each retail electricity market will evolve uniquely based on several interdependent and mutually-influential factors. A utility's 'Point of View' on the electricity market of the future and the strategies the utility might use to create and capture value in that market are critical to the development of a SmartGrid deployment roadmap.

## Drivers of the Retail Electricity Market of the Future

### Regulation/Legislation

- Retail Wheeling/Deregulation
  - Decoupling/Cost Recovery
  - Dynamic pricing mandates
- Renewable/Distributed Portfolio Standards
- Carbon tax/Cap and Trade

### Customer Adoption

- Demand Response
- Renewable DG/PV Solar
  - Electric Vehicles
  - Energy Efficiency

### Grid Capabilities

- Voltage management
- Power factor correction
- Distribution Monitoring & Automation
  - Metering
  - Communications

### Economics

- Generation characteristics
  - Fuel costs
- Renewable resource availability
- Developments in retail and utility technologies
  - Costs to Serve

Utilities are making decisions about new grid technologies that will cost hundreds of millions of dollars to implement and will shape utility roles and business models for decades. Invest in a body of knowledge before investing in hardware and software. Consider the services of an objective and experienced Smart Grid strategy and deployment roadmap consultant like MetaVu to:

- Establish Points of View on the electricity market of the future and the utility role
- Create an ongoing process to revisit and update the Points of View on a periodic basis
- Measure the benefits, costs, and organizational implications of grid development scenarios specific to each utility's situation
- Establish a grid technology strategy that offers 'no regrets' advances in the short-term while maintaining flexibility in the long-term
- Develop a Smart Grid deployment roadmap that ensures desired capabilities are made available in the most cost effective, forward looking, and operationally-effective manner possible

### Who is MetaVu?

For almost a decade MetaVu, a leading management consulting firm specifically focused on the nexus of energy and the environment, has been delivering exceptional strategic value to blue-chip clients. The company boasts 100% satisfaction from clients in energy-centric industries with large environmental footprints including oil and gas, electric utility, forest products, chemicals, manufacturing, and others.

For a no-obligation consultation on your utility's Smart Grid initiatives and strategies, or to participate in one of MetaVu's Smart Grid maturity peer benchmarking surveys at no cost, please contact Paul Alvarez, utility practice leader, at 303-679-8340, or at [pja@metavu.com](mailto:pja@metavu.com).