

SMART GRID BUSINESS CASE DEVELOPMENT SERVICES

Wired Group experience conducting comprehensive, independent evaluations of large U.S. smart grid deployments can help utilities make the most cost-effective and valuable grid investments possible.

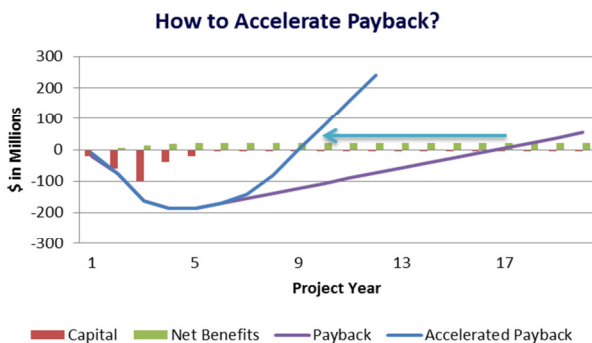
Utilities and stakeholders want to know: which smart grid investments will create the greatest value?

Utilities considering large investments in their grids are bewildered by the vast array of capabilities to be prioritized and the large number of viable implementation options available. They are intimidated by the complex inter-relationships among potential technology solutions and the long-term consequences of their investment and implementation choices. And they are largely unaware of the ongoing organizational, systems, operational, and service changes that will be required if they are to maximize the value of their smart grid investments.

High-stakes decisions are made more difficult by the high expectations held by customers and governing boards. These stakeholders demand reasonable investment payback periods and quantifiable benefits, including:

- Reduced electricity leakage/theft
- Improved reliability
- Reduced Operations & Maintenance expense
- Increased customer options and flexibility
- Reduced line losses
- Deferred increases in capacity

Wired Group experience evaluating large smart grid deployments helps utilities make the best possible smart grid investment choices and develop the best possible implementation plans



The Opportunity

Utilities have the opportunity to make the best grid investment choices for their customers by learning lessons from the utilities that have gone before them. A clear understanding of what has worked in the past – and what hasn't worked so well and why – is the best asset a utility can bring to its smart grid business case development process. Utilities that take the time and effort to

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understand the outcomes of other large smart grid deployments reap multiple benefits in that they:

- Accurately prioritize capabilities relative to cost/benefit opportunity
- Avoid technology selections that increase system security and data privacy risks
- Avoid technology choices that preclude subsequent optimization or capability development
- Optimize capital by identifying opportunities to employ the 80/20 rule (identifying the 20% of investment that yields 80% of the benefits)
- Plan the organizational, operational, and systems change management plans that are required if the value of smart grid investments is to be maximized for customers.

Business Case Development Services

Utilities that are contemplating smart grid investments can take advantage of the Wired Group's experience evaluating large smart grid deployments to maximize investment value and reduce risk. Each utility brings a unique set of issues, characteristics, and economics to its smart grid project planning; Wired Group business case development services have been designed to embrace these differences while leveraging lessons learned.

- **Understand the Vision/Roadmap**
In the Wired Group's experience a logical distribution strategy is critical to developing sound business cases for discrete roadmap components. We'll start with what you have, or help you develop what you need. If you don't know where you are headed, no business case is likely to get you there.

- **Understand Utility-Specific Situations**

The Wired Group endeavors to understand utility-specific issues, operating costs, and characteristics, including regulatory and ratemaking incentives and constraints. Attempts are made to anticipate future electric markets in which the grid will operate.

- **Develop Benefit and Cost Estimates**

Relying on best practices, the Wired Group helps clients evaluate the pros and cons of capability and execution options in the context of their roadmap. We apply local variables to known value propositions to estimate benefits, and complete the research needed to confidently assess likely costs.

- **Plan Initial Implementation**

Next, the Wired Group identifies critical success factors and develops implementation plans to address them. These include project management, systems integration, process improvement, and change management plans that ensure anticipated capabilities and benefits follow from investment.

Finally, the benefit and cost estimates are combined with the implementation plans into a business case draft which is socialized internally and edited for wider release and publication.

Standards-Based, Field Tested

The Wired Group perspective has been developed through the use of emerging standards, including EPRI's cost-benefit methodology and Carnegie Mellon's Smart Grid Maturity Model. The Wired Group has refined the application of these standards in comprehensive, independent evaluations of large, high-profile smart grid deployments, including:

- **Xcel Energy's SmartGridCity™**
- **Duke Energy's Ohio deployment**