



You Can Help Utility Clients

Avoid Overlooking A Critical Aspect of Smart Grid Transformation

IN A SMART GRID TRANSFORMATION, the smart investment for utilities is to plan well. The smart move for service providers is to acquire the skills and tools to help their utility clients plan thoroughly—for all grid transformation aspects, including one they may be overlooking.

“Relationships that are built with SGMM go beyond SGMM.”

—An SEI-Certified SGMM Navigator

Executive Summary

Electric utilities would be wise not to overlook one area that can make or break a smart grid implementation—customer acceptance. A study by one utility industry analyst firm notes that four out of five North American utilities—as well as three out of four European utilities—acknowledge that low customer engagement will limit “the ability of smart grid technology to live up to its potential.”¹

As a service provider, you can provide the help that utilities need to address customer acceptance—and other essential aspects—of smart grid technology. You are already positioned as program advisor to your utility clients. With the right tool and skills, you can become a trusted advisor—complementing your knowledge with best practices for planning, implementation, and assessment.

This paper proposes that an effective tool to use in advising your utility clients is the Smart Grid Maturity Model (SGMM). Created by utilities for utilities, the SGMM is a comprehensive model that ensures utilities will be able to consider essential aspects of grid transformation.

You can gain the skills to use this model, for the benefit of your utility clients and as part of your business strategy, through a certification program offered by the Software Engineering Institute (SEI), a recognized leader in maturity model development, transition, and stewardship.

While necessary, utilities’ spending on hardware and software is not sufficient to gain the benefits of a smart grid transformation

Most of the spending for smart grid transformation—projected to be \$46.5 billion globally by 2015²—is on significant upgrades for transmission and distribution, including smart meters.³ In the United States, 36 million smart meters have been deployed—one for every three homes—with another 29 million expected to be installed by 2015.⁴

Utilities and others are investing another sizeable chunk of money in software and related IT services.⁵ Pike Research says that the smart grid software market will grow to \$2.9 billion annually by 2017. Add in related IT services and the software-related market doubles from \$4.3 to \$8.6 billion by 2017.⁶

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1. zdnet.com/article/utility-industry-bets-on-smart-grid-by-2030-but-concerns-remain
 2. investmentu.com/2012/April/smart-grid-enernet.html
 3. businesswire.com/news/home/20120409005061/en/Worldwide-Smart-Grid-Spending-Reach-46.4-Billion
 4. greenbang.com/how-many-smartmeters-are-there-in-the-us_21821.html
 5. globalsmartgridfederation.org/2016/11/18/overview-of-the-global-smart-grid-cyber-security-market
 6. navigantresearch.com/newsroom/global-smart-grid-it-market-will-reach-8-6-billion-by-2017

However, in order to implement a smart grid vision, customer engagement is vital because they “will have to pay for the capital cost of the new infrastructure for communication and data processing needed...”⁷ A survey by PricewaterhouseCoopers LLP (PwC) of power and utilities company executives concludes that a lack of customer engagement will restrict the likelihood of smart grid success.

- The study also points out that low customer engagement will impair utilities’ main smart grid goals, which are “to establish closer relationships with customers (66% of respondents), and to better manage peak energy demand (62% of respondents).”
- The PwC study found that four out of five North American utilities and nearly three out of four European utilities “cited lack of customer engagement as a likely limiting factor (medium to high probability) on the ability of smart grid technology to live up to its potential.”⁸

You are well positioned to guide utility management toward improving customer engagement, a key to smart grid acceptance

Because you offer service to many functions along the utility customer value chain, you could already be considered a program advisor to utilities.

For instance, you already might be working with utilities to facilitate better data exchange with customers through web portals or other means. You might also be involved in customer-facing activities such as demand response programs or outage communications management. Because of your involvement, you can recognize where utilities’ operations have become siloed and need to be integrated to drive improved customer engagement throughout the organization.

When you help your utility clients gain from greater integration and efficiency, you also will gain from greater strategic access. (For more, see our business benefits summary.)

All that you need are an effective tool and the appropriate skills

The Smart Grid Maturity Model (SGMM) provides that tool, and SEI certification as an SGMM Navigator provides the skills to guide utilities in making effective use of it.

- Utilities in the Global Intelligent Utility Network Coalition (GIUNC) created the SGMM as a management tool.
- The Software Engineering Institute (SEI) has developed the SGMM Navigator certification program to foster SGMM adoption, in support of the U.S. Department of Energy and with input from a broad array of stakeholders.

Guided by SGMM Navigators, utilities can leverage the SGMM to plan their smart grid journeys, prioritize their options, and measure their progress as they move toward the realization of a smart grid vision. For customer acceptance, in particular, SGMM Navigators can help utilities to establish the current state and form a plan for improving readiness in pricing, customer participation and experience, and advanced services through such practices as

- using smart grid technologies to enhance the customer’s experience, benefits, and participation
- assessing the impact on the customer of new services and delivery processes
- fully empowering its customers to make and execute their own choices regarding the use, source, and cost of energy, while protecting the security of the grid and customer privacy
- integrating a common customer experience
- assuming a leadership role in industry-wide information sharing and standards development efforts for smart grid

SEI-Certified SGMM Navigators report that they are in a position to work more strategically with their utility organization customers.

7. How Will Customers Pay For The Smart Grid? Tim D. Mount, Alberto J. Lamadrid, Wooyoung Jeon, Ray Zimmerman and Carlos E. Murillo

8. zdnet.com/article/utility-industry-bets-on-smart-grid-by-2030-but-concerns-remain

SEI-certified SGMM Navigators receive these tools to help utilities leverage the SGMM:

- marketing materials
- scripts (expert-level guidance) for each major phase of the SGMM Navigation process
- agenda templates for all meetings with suggested topics, timing, and participants
- checklists for preparing for the two on-site workshops in the SGMM Navigation process
- role specifications that ensure that the right people are involved in the process
- templates for documenting meeting results and making workshop presentations
- forms for process and participant experience reports
- survey form(s), including the scorable SGMM Compass Survey

SGMM Navigators Report Benefits in Client Relationships and Business Development

Build a stronger relationship.

By interacting with a utility's smart grid stakeholders to establish a vision for smart grid transformation, an SGMM Navigator can learn more about a client's priorities.

During the Navigation process, one SGMM Navigator learned that a client was planning a related project budgeted at more than \$100 million.

Penetrate the market more effectively.

The SGMM and the Navigator certification program open doors for work with a wide variety of utility clients.

One SGMM Navigator was able to demonstrate to a state energy planning agency how assessment against the SGMM would help its participating publicly owned utilities define a pathway to a smart grid vision that is based on future requirements of energy policy objectives.

Become a partner of choice.

From working on a smart grid transformation project with a large investor-owned utility, one SGMM Navigator found that "relationships that are built with SGMM go beyond SGMM."

This service provider now enjoys opportunities to offer its client end-to-end services—from guidance, through implementation, to assessment.

Help clients develop a smart grid business case.

The roadmapping that results from the SGMM Navigation process points a utility toward steps to take in a transformation effort.

As one SGMM Navigator discovered, this roadmapping can also help to build a business case for that effort, because it is comprehensive and drives toward a consensus among stakeholders.

Compete for business worldwide.

SGMM Navigators are finding that their SEI certification credentials put them in a position to compete for consulting opportunities globally.

Learn more about the SGMM

Navigator Role

- Visit us for full information on obtaining this certification: sei.cmu.edu/certification/opportunities/sgmm/index.cfm
- Join the SGMM mailing list. Write to us at info@sei.cmu.edu
- Join our group on LinkedIn: The Smart Grid Maturity Model User Forum
- Download SGMM documents, visit sei.cmu.edu/smartgrid/start/downloads
- Follow SGMM on Twitter at twitter.com/SGMM_Navigator

About the SEI

For four decades, the Software Engineering Institute (SEI) has been helping government and industry organizations to acquire, develop, operate, and sustain software systems that are innovative, affordable, enduring, and trustworthy.

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