

Friday June 5 2009

## Shpigler coaches utilities on winning federal grant money

Any firm preparing to apply next month for federal smart grid project matching grants had better build and write a good business case first.

"It's not a step you can bypass," Shpigler Group President David Shpigler told us yesterday following his UTC Telecom 2009 presentation on building the smart grid business case. "If you don't have that done, there's no way the DOE is going to prioritize your plans ahead of those that have put the work in."

Shpigler and his strategy management consulting firm have been helping electric utilities put together smart grid and broadband trials and business plans for years and last time we checked it seemed almost every utility we spoke to had worked with him at some point. He's still at it and his talk focused on what's changed lately.

There is still time to get a business case together for a grant application but barely. The first application deadline is July 29 but we've reported that July 20 would be a safer bet since the website DOE uses to receive applications -- [www.grants.gov](http://www.grants.gov) -- has been reported to be unstable (SGT, [May-06](#)).

Also, DOE set two other grant application deadlines -- in December and March -- but many industry experts and observers believe the department will dole out all of the grant money in the opening round.

"Probably within a month, you can have a very robust and compelling business case and develop the needed analysis," estimated Shpigler, and his firm is working on four smart grid initiatives that will submit ARRA grant applications.

He listed steps firms starting from scratch need to take:

- Put together a smart grid business case team. "Hopefully some folks internally have already gone through the analysis process or you outsource the process to someone who's gone through this. In either case, you have to pull together subject matter experts from all the different portions of the organization that will be impacted -- from metering, distribution operations, substation, finance, call center, everybody."

- Hold a "big, all-hands-on meeting upfront, to make sure everybody's on board" and to find agreement on smart

grid plan goals. Make sure to get buy-in from senior management.

- Pull together relevant and accurate data.
- Put someone centrally in charge of the analysis.

- Identify the specific components of cost avoidance and other sources of benefit. "At the same time, identify what specific costs will be incurred in realizing those benefits. I refer to it as the "bouncing ball." There's no funny math going on. For each program you're looking at, you have to calculate the benefit, the operating cost and the capital cost -- and you run your business case based on that."

- Run the numbers, looking at what-if scenarios. "What if we do an advanced metering and retail-oriented program and [focus] less on the distribution automation and substation automation? What if we incorporate those in?"

- Meet once or twice a week "to keep everyone on track." Some choose a conference call each Wednesday and an in-person meeting each Friday.

- A week or two after the first meeting, report on initial outputs and get people's reaction. "People typically react when they have real values to work with."

- Refine estimates, organizational silo by silo -- and feed the updated information to the person in charge of analysis.

- Build in time for revisions ahead of the ARRA grant application deadline. "Ask if the results pass the laugh test. Does this make sense?"

Where applicable, Shpigler suggested working with state commissions to make sure they're on board (and for more advice on approaching regulators for help winning federal grant money see the lead story in yesterday's issue of SGT, [Jun-04](#)).

In his conference presentation yesterday in Las Vegas, Shpigler urged utilities to consider "a rapidly changing market dynamic," including:

- The Environment. "Concerns over environmental impact of utility operations are at an all-time high. Awareness of issues involving greenhouse gases and the promotion of 'green power' has never before been at such a high level in the public consciousness."

- Customer Demands. They are higher than ever and are only expected to rise. "Larger houses, exponentially larger

amounts of electric usage, and higher expectations for reliable service in a digital economy have given rise to a more demanding customer that is less tolerant to service interruptions than ever before."

Shpigler often hears utilities say that the level of service they give customers is comparable to what they delivered 30, 40, 50 years ago. The difference is, customers were happy with it back then, he quoted.

He also quoted DOE's vision for the "next generation" utility:

- Vision 2010: Smart meter enabled with two-way communication; intelligent home and smart appliances; demand-side management & DG; advanced conductors and higher transmission capacity.

- Vision 2020: Perfect power quality through automatic correction for voltage, frequency and power factor issues; high temperature superconducting (HTS) wires -- used within generation and for transformers will make a significant difference as will superconducting cables for long distance transmission.

- Vision 2030: Reliable and secure digital-grade power for customers; access to affordable pollution-free, low-carbon electricity generation produced anywhere in the country; affordable energy storage devices available to anyone; completion of a national superconducting backbone.

Shpigler highlighted supply automation, AMI and supply control and optimization as applications that, in a smart grid deployment, can create value.

Don't go for broke, he cautioned. One utility he consulted for had a "laundry list" of smart grid projects it thought would make sense but in writing a business case, "it found that its dumb grid wasn't actually that dumb. They were going to spend a whole lot of money to not get much better than they are today."

DOE in April issued guidance for an application and evaluation process for two programs through ARRA: a draft notice of intent (NOI) for \$3.3 billion in funding for the Smart Grid Investment Program and a draft funding opportunity announcement (FOA) for \$615 million in regional smart grid demonstration projects. DOE is expected to issue FOAs for the Smart Grid Investment Program on June 17.

More information about the application process can be found at [www.grants.gov](http://www.grants.gov) and [www.recovery.gov](http://www.recovery.gov).