

WEDNESDAY, 9 NOVEMBER 2011

## Preparing for a post-stimulus world

### GridWise Global Forum speakers hail positive ARRA impact, look ahead

The mood on the first day of the 2011 GridWise Global Forum reflected a sense of achievement, thanks to the \$4.5bn stimulus package approved back in 2009 and the continued drive of US smart grid investment today. In fact, a panel of stimulus recipients suggested that the stimulus dollars had delivered benefits *above and beyond* what had been expected. David Hallquist, CEO of Vermont Electric Cooperative, explained that stimulus had allowed his utility to accelerate its capital plans, improving its outage management and metering systems ahead of schedule. As a result, its storm response has dramatically improved, to the point where its customers sent in 150 "thank you" cards for its prompt response in dealing with a particularly large storm in 2010. VELCO has, somehow, managed to create "a pleasurable experience during an outage", he said. Other panelists, from Midwest ISO, CenterPoint Energy, Battelle and the City of Fort Collins, Colorado, all agreed that projects utilizing stimulus funding have delivered genuine benefits to their consumers.

In the immediate future though, participants believe that the role of federal government in smart-grid deployments is likely to be reduced. With economic uncertainty and the need to manage the federal deficit, the industry is relying on momentum and lessons learned from stimulus projects to filter down to the state level, where legislators and regulators can help utilities benefit from smart-grid investments. Asked whether more federal funding would be necessary at this stage, panelists generally agreed that, even if it were forthcoming, it might not be the most constructive. Instead, the key ingredient will be to create the right environment for private investment, whether through public-private partnerships or through smarter regulation. Said John Jimison of the Energy Future Coalition, "[at the federal level] we wanted to create an environment where the natural benefit of technologies should create the right path for investment, without picking technologies. I think that's the right role for the federal government."

In the longer term, there is even more to do. Utilities' business models will have to undergo some transformation in order to truly maximize value from the smart grid. In 15 years there will still be a regulated structure where returns are allocated by regulators, but what other services will utilities offer, and what might those returns be based on? As Chris Hill of AT&T explained, once you have a fully IP-enabled grid, utilities will be looking at providing finished products and services to the customer. The question becomes: how much do you open up in terms of APIs for others to layer services onto, and how much innovation do you allow on top of that?

BROUGHT TO YOU BY:

**Bloomberg**  
NEW ENERGY FINANCE

November 8-10, 2011 · Ronald Reagan Building and International Trade Center · Washington, DC

It will not be an easy task preparing for a future where pipes and wires are just one of many things a utility needs to think about. For Eimund Nygaard, CEO of Lyse Energi in Norway, the number one challenge is, "Getting the right people. We need to develop and change, and to do that I need to bring in new people who are used to competition - market-oriented people."

For others, security is what keeps them awake at night. FERC Commissioner John Norris says: "Cyber-security is a critical issue. We are struggling with it from a FERC point of view, and from a NERC point of view." The trouble is that there is a vast difference in capability across different utilities, and some of them are intimidated by the cost of compliance. But it goes deeper than that. The problem, says Edmund Schweitzer of Schweitzer Engineering Laboratories, is that we live in a "culture of compliance, as opposed to a security culture." In other words, utilities and vendors are still playing catch-up with security standards, rather than thinking about security from the ground up.

So how does the US progress report card read overall? According to US Secretary of Energy Steven Chu, who spoke during the keynote session, when it comes to the smart grid, the US faces a choice today: continue to be "late adopters" and watch other countries move ahead - or do what it takes to upgrade electrical infrastructure, to compete in the 21st century global economy.

In the long run, as Chu explained, technologies such as solar PV and wind generation will only become cheaper as scale-up effects continue to drive down manufacturing costs. Regardless of whether the US adopts a national energy policy that puts a price on carbon emissions, these technologies are here to stay, and it is up to the utility industry - the private sector in particular - to invest in networks that can integrate them successfully.

While the federal government may not be able to fund another round of smart grid deployments, it is supporting important technology developments that could prove game-changing in future: silicon carbide based thyristors, for example, or low-cost power routing for transmission networks.

Uzi Landau, Minister of National Infrastructures for Israel, echoed Chu's comments, saying that while Israel is in many senses a small island - spatially, economically, politically and in terms of energy infrastructure - it does have major strengths in technology development. Israel has the human capital, the institutions and the technical expertise to develop smart grid solutions, and it can use these to reduce its dependence on oil, and its "addiction to electricity".

On Wednesday, the conference shifts its attention very much to the future with sessions on new technologies and new challenges related to integrating renewables onto the grid.

BROUGHT TO YOU BY:

**Bloomberg**  
NEW ENERGY FINANCE

November 8-10, 2011 · Ronald Reagan Building and International Trade Center · Washington, DC