

Smart Grid Survey 2010

A smart grid perception survey of energy industry professionals



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Spotlight is on the Smart Grid



President Obama Announces \$3.4 Billion Investment to Spur Transition to Smart Energy Grid

Applicants say investments will create tens of thousands of jobs, save energy and empower consumers to cut their electric bills - DOE press release, Oct. 2009



"We need an upgraded electrical grid to take full advantage of the vast renewable resources in this country -- to take the wind from the midwest and the sun from the southwest and power areas across the country," - Vice President Joe Biden, April 2009

But is the Focus Right?



"Here's an odd possibility: parts of the so-called 'smart grid' could actually make the nation's electricity infrastructure less reliable."

– The Grid's Middle Mile, Forbes.com, Feb. 2010



"Pike Research, a clean-tech market research firm, expects the global smart grid cyber security market to grow to \$4.1 billion in 2013 at a compound annual growth rate of 35 percent."

– Wall Street Journal, Feb. 25, 2010

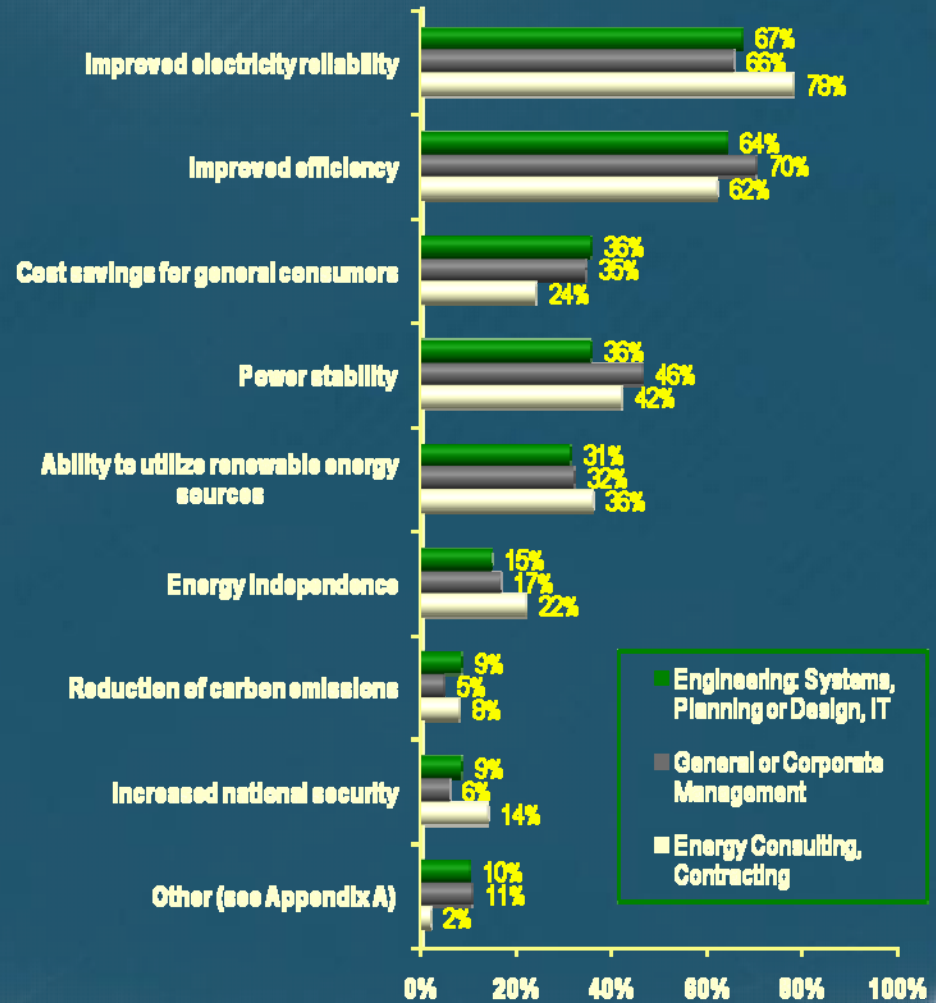
It's Time to Ask the Experts

- In early February, Penton Media conducted an online survey commissioned by smart grid leader S&C Electric Company to nearly 500 energy professionals to investigate perceptions surrounding deployment of the nation's smart grid.
- The results are in and uncover the disposition of managers, engineers and consultants in the electric utility industry on topics such as smart grid challenges, benefits, key technology, government support and public opinion.

Top Smart Grid Benefits

Reliability, efficiency and power stability perceived as top three benefits to the smart grid. Energy independence, reduction of carbon emissions and better national security trail far behind

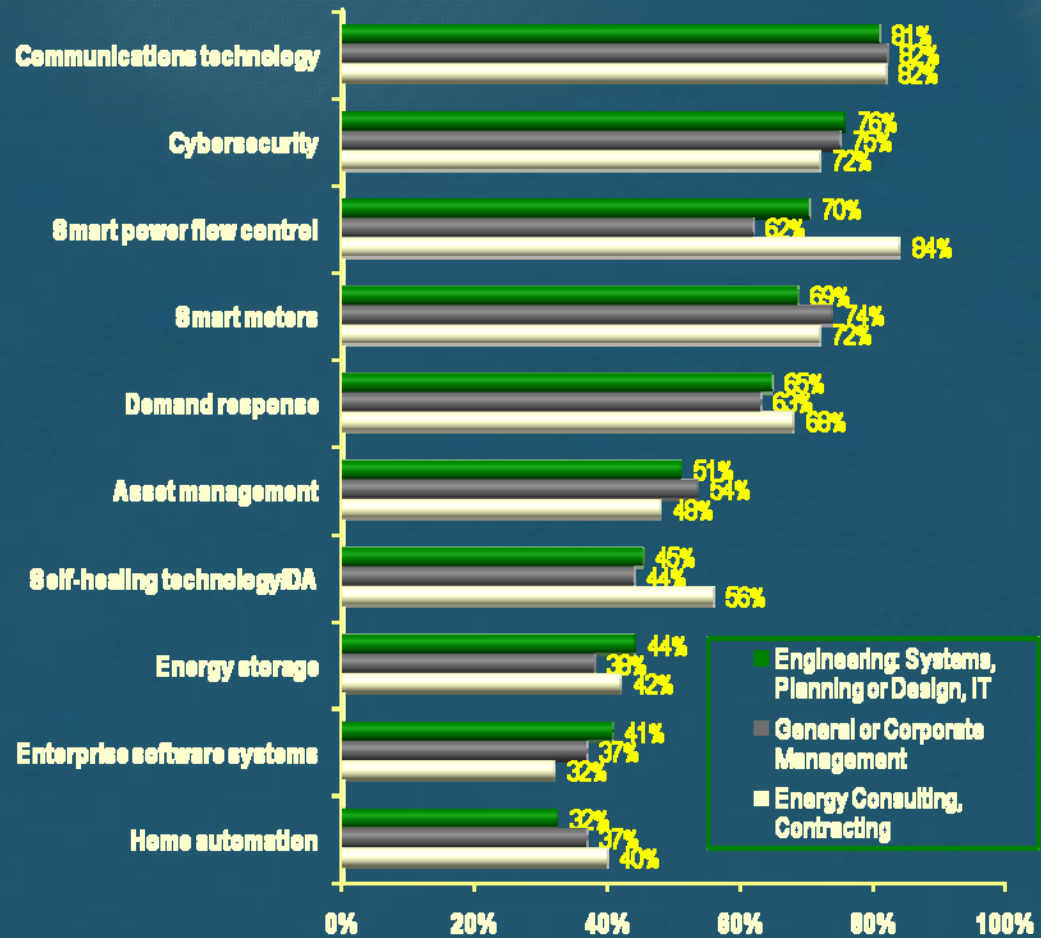
What do you consider as the top three benefits to the deployment of the smart grid?



Most Important Technologies

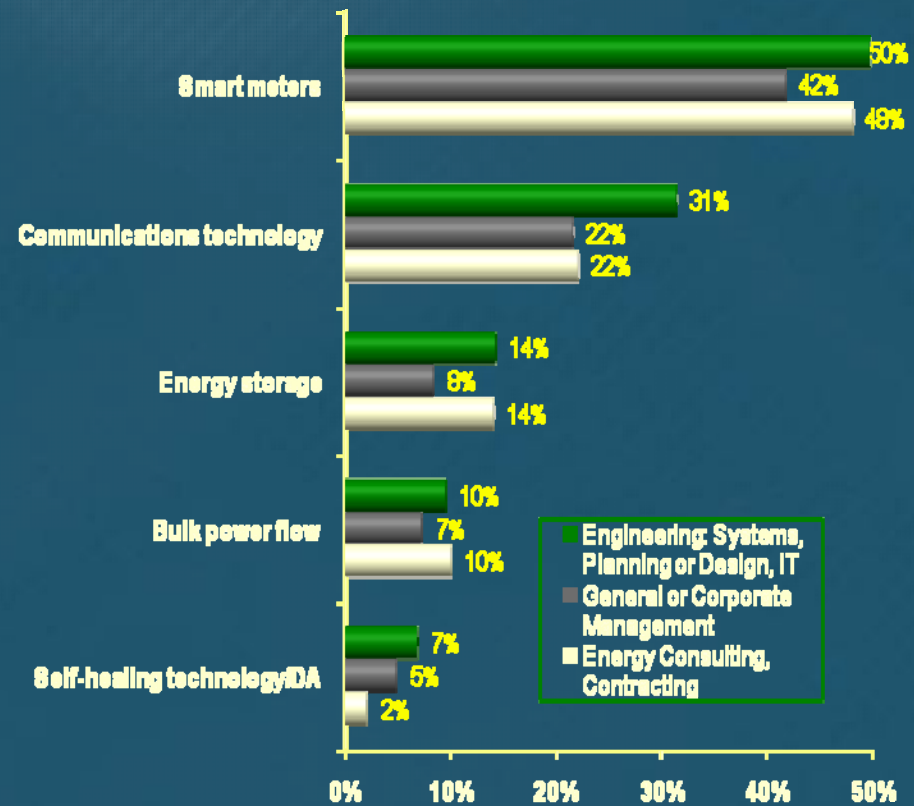
Eighty-one percent of respondents cite communications as most important technology for realization of smart grid. Benefits, cyber-security and smart power flow also critical at 75 and 70 percent respectively

How important are each of the following technologies to deliver the benefits promised by the smart grid?



Public Perception of Smart Grid Technologies

Respondents felt smart meters topped public awareness of all smart grid technologies...



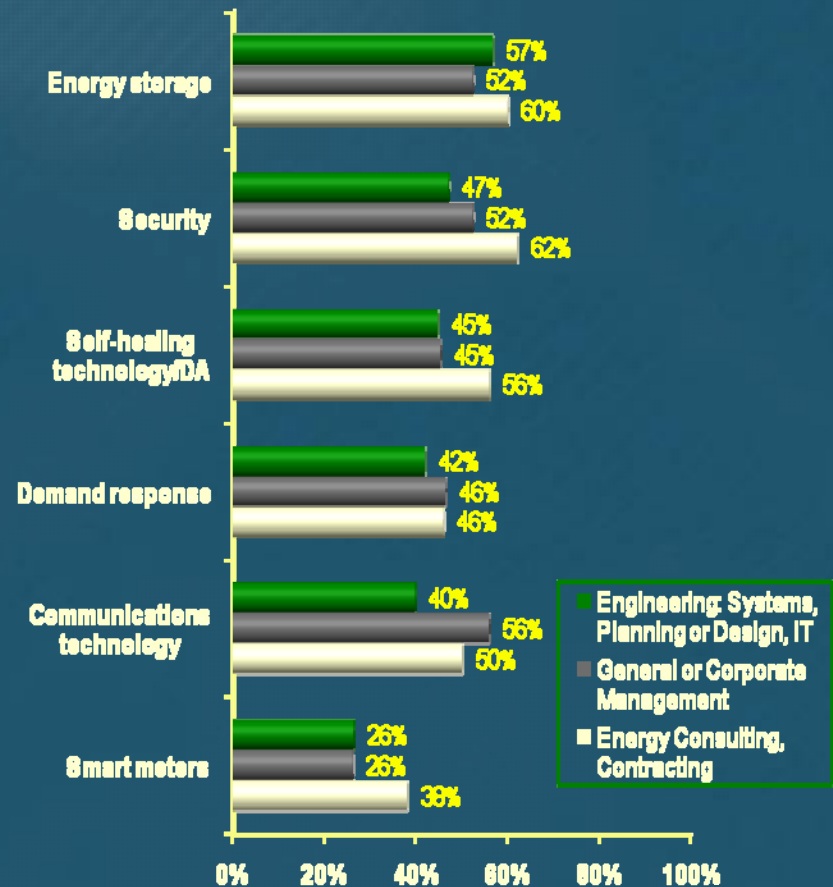
How would you characterize the general public's awareness of the role of each of the following technologies plays in the smart grid?

Percent of respondents indicating at least "somewhat aware."

Funding of Smart Grid Technologies

And least likely to be perceived as underfunded...

Do you think the U.S. is targeting smart grid financial investment appropriately to each of the following that comprise the smart grid

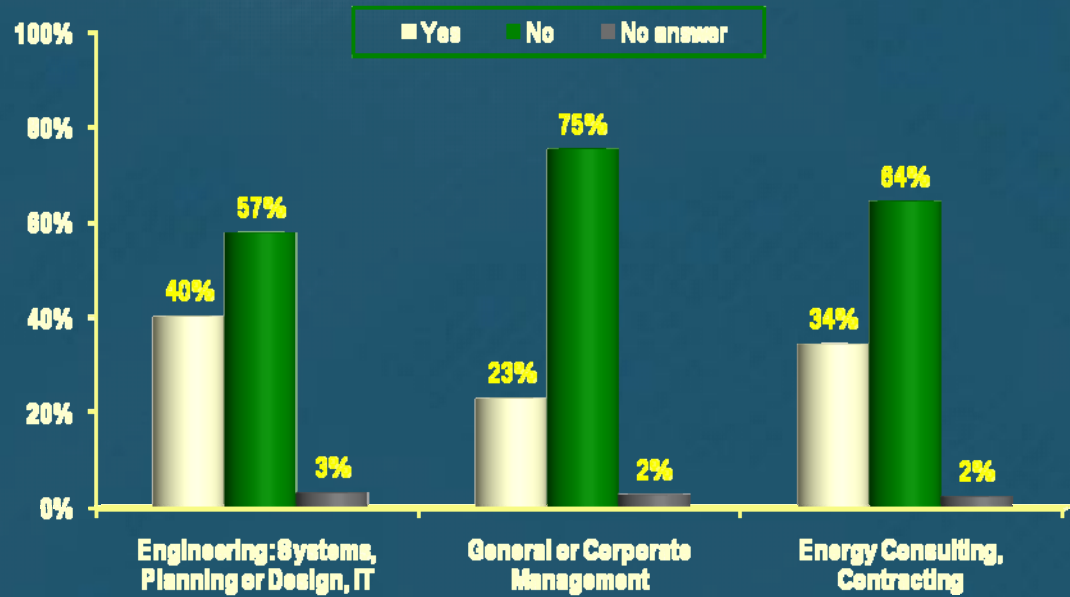


Percentage of respondents indicating a technology is "underfunded" or "significantly underfunded"

Infrastructure

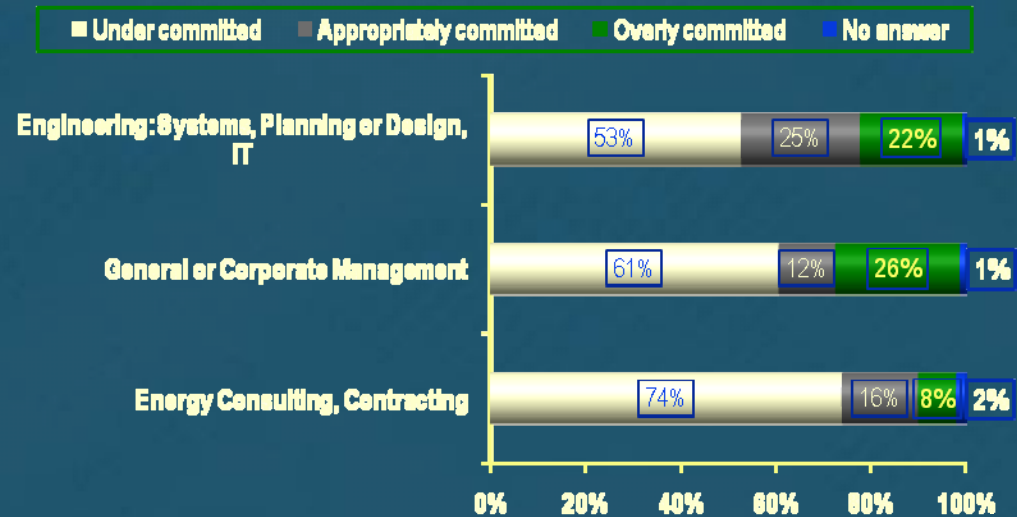
Yet respondents also believe there isn't an adequate infrastructure in place to capture smart meter benefits

Do you believe the right infrastructure is in place for smart meters to live up to their promise?



Government Support

The majority of respondents believe U.S. policy-makers need to increase their level of commitment to building the smart grid

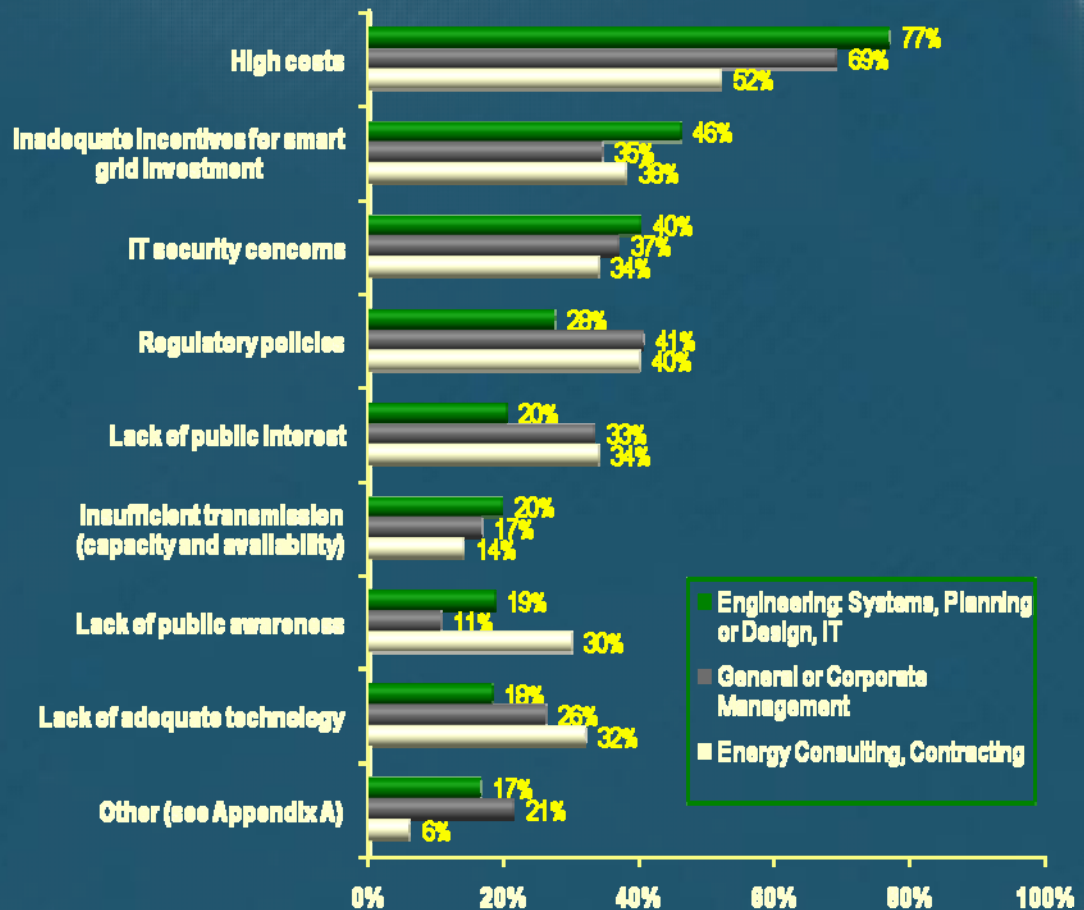


How would you characterize U.S. policy makers commitment to building a smart grid?

Barriers to the Smart Grid

The majority of respondents cite high costs as the key barrier to smart grid deployment followed by inadequate incentives, IT security concerns and regulatory policies

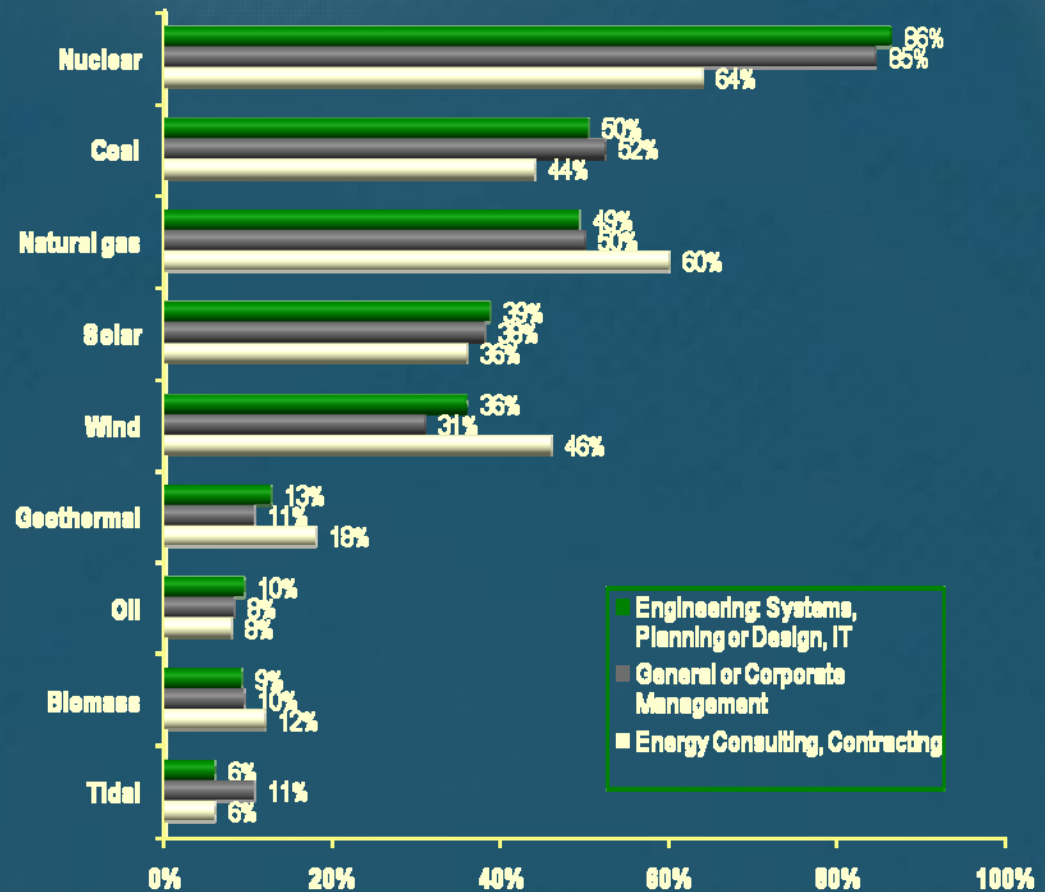
What do you consider the top three barriers to deployment of the smart grid?



Key Energy Sources

A strong majority of respondents believe nuclear power is the most important source of the world's future energy supply

What do you believe will be the three most important sources of the world's energy supply?



Conclusions and Insights

- Reliability and efficiency are the core benefits to the smart grid
 - As an industry, we need to do a better job focusing on the technologies that yield these benefits
- AMI plays a significant role in the smart grid, but as shown in the survey, a fully functional smart grid is about more than smart meters
 - There is a clear need to deploy system-wide intelligent automation that will ensure reliable flow of the electric power, facilitate self-healing, and enable integration of renewables into the grid
- The industry feels a lack of government support, high costs and lack of adequate infrastructure for smart meters
 - We need to work to get costs down and educate policy-makers on what it will take to establish a working smart grid