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The Modern Grid Strategy is a DOE-funded project conducted by the National Energy Technology Laboratory

Energy Independence and Security Act of 2007 (EISA) – Will It Stimulate Modernization?

EISA Title XIII can break the “log-jam”

From a national perspective, grid modernization is a good deal. As mentioned in a previous *SGN* article, the Electric Power Research Institute (EPRI) concluded that the benefit-to-cost ratio to achieve the “Power Delivery System of the Future” was in the range of 4:1 to 5:1.¹ (see link to previous *SGN* article below). So, if it’s such a good deal, why isn’t everyone jumping on board?

Achieving a Smart Grid in the U.S. requires the alignment and cooperation of many stakeholders including regulators, utilities, consumers, vendors, R&D organizations, and academia. But the societal value proposition mentioned in the EPRI report may not be fully appreciated at the individual stakeholder’s level, even though each stakeholder is also a member of society. So while it is the *total benefits* that make the Smart Grid such a good deal, the challenge is to create incentives to encourage investment and participation by the *individual stakeholders*. Only then will the full set of individual and societal benefits be realized.

Enter the federal government – Title XIII of the Energy Independence and Security Act of 2007 (EISA) is a very good start.

How does Title XIII support grid modernization?

Title XIII establishes our *national policy* for grid modernization, creates new federal *committees*, defines their *roles and responsibilities*, addresses *accountability* and provides *incentives* for stakeholders to invest.

National policy

“It is the policy of the United States to support the modernization of the Nation’s electricity transmission and distribution system to maintain a reliable and secure electricity infrastructure...” This statement is a clear and much-needed declaration of our national leadership’s support for grid modernization.

Committees, organization, roles and responsibilities

Title XIII establishes the Smart Grid Advisory Committee, accountable to the Secretary of the U.S. Department of Energy (DOE). It assigns the Smart Grid Task Force, accountable to the Assistant Secretary for the DOE Office of Electricity Delivery and Energy Reliability, to bring focus to the advancement of the Smart Grid agenda. The leadership of these organizations, effectively implemented, can bring attention and priority to the development of the Smart Grid, thereby enabling the societal benefits that make it a good deal.

Accountability

Establishing a national policy and creating new organizations are necessary steps (although not sufficient) for achieving a Smart Grid. But success really depends on getting steady results. Title XIII requires progress reports on the status (results) of Smart Grid deployments nationwide and the identification of any regulatory or governmental barriers that impede deployment. The first report is due in 2009 with subsequent reports due every other year. Stakeholders of the Smart Grid should pay close attention to these reports to ensure that progress in achieving a Smart Grid continues to move forward.

Title XIII also holds state regulators accountable by “requiring them to consider”:

- requiring utilities to first look at Smart Grid solutions - including societal benefits - prior to undertaking investments in non-advanced grid technologies
- allowing utilities to recover capital, O&M and other costs
- allowing recovery of the book value of technologically obsolete assets

These requirements provide an important roadmap for state regulators, who are best positioned to eliminate policy barriers that impede modernization.

Incentives

For many stakeholders, Title XIII provides incentives that represent a significant level of funding from federal resources:

- The Smart Grid Regional Demonstration Initiative (RDI) provides up to a 50% cost share to utilities for qualifying advanced grid technology investments included in a demonstration project (up to \$100M available per year for the next 5 years). The value of the RDI is to demonstrate the performance of suites of Smart Grid technologies and to provide the real-world data – data that will validate the proposition that the Smart Grid generates benefits that far outweigh its costs.
- The Smart Grid Investment Matching Grant Program provides reimbursement of one-fifth (20%) of the cost of qualifying Smart Grid investments.

Stakeholders should consider these opportunities as they move forward with their plans to modernize their grids. Will there be a gold rush?

Will EISA stimulate modernization?

Overall, Title XIII has addressed the first steps. The policy is set, the organizational structures will soon be in place, required reporting will drive accountability, state regulators have been directed to evaluate their policies, and incentives have been identified. Now, state regulators must take over the leadership role by changing regulatory policies that discourage investments in grid modernization. Once this critical contribution is made, the “gold rush” can begin in earnest.

The National Association of Regulatory Utility Commissioners (NARUC) and the Federal Energy Regulatory Commission (FERC) recently formed the NARUC – FERC Smart Grid Collaborative which promises increased dialogue between these two bodies. That should put state regulators in more of a leadership role, give them the opportunity to better understand Smart Grid concepts, and help them identify what policy changes are needed to stimulate progress in grid modernization. The combination of Title XIII and leadership from state regulators is a recipe for success.

What’s the payoff?

EISA has recognized that grid modernization is absolutely essential to a vibrant, healthy, secure, and prosperous America in the 21st century - a century that promises to be unlike its predecessors in many ways. EISA represents a significant financial commitment to industry stakeholders who participate. It can be the catalyst that motivates all stakeholders to act in concert to make America’s grid a model for the world.

Thus far, the Act has only been “authorized”. Funds would need to be appropriated by Congress to implement the provisions of Title XIII before it will make a difference in our quest towards achieving the Smart Grid. Once that occurs, let the gold rush begin!

A great deal of additional information is available on the NETL website (see link below):

<http://www.netl.doe.gov/moderngrid/>

[Previous SGN article on NETL’s Modern Grid Strategy:](#)

http://www.smartgridnews.com/artman/publish/article_419.html

¹ Electric Power Research Institute (2004, July). Power Delivery System of the Future. A Preliminary Estimate of Cost and Benefits, Technical Report 1011001, (Final Report),