

Smart Grid Information Clearinghouse

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Presentation to NARUC-FERC Smart Grid Collaborative

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The Regulatory Assistance Project

Maine ♦ Vermont ♦ Illinois ♦ New Mexico ♦ California ♦ Oregon



About the Regulatory Assistance Project

- RAP is a non-profit organization providing technical and educational assistance to government officials on energy and environmental issues. Senior RAP staff all have extensive utility regulatory experience.
 - Richard Sedano was commissioner of the Vermont Department of Public Service from 1991-2001 and is an engineer.
 - Lisa Schwartz was a senior analyst at the Oregon Public Utility Commission and the Oregon Department of Energy.
- Funded by foundations and the US Department of Energy. We have worked in nearly every state and 16 nations.
- RAP also provides educational assistance to stakeholders, utilities and advocates.



What Is the Clearinghouse?

- Objective: To design, populate, manage and maintain a public smart grid web portal that reaches out to a broad user community for information gathering and knowledge delivery
 - Serve as a decision support tool for regulators
 - Provide public outreach, answer questions
- \$1.3 million initiative under ARRA
- Launched September 2009



Clearinghouse Team

- Virginia Tech – Project lead and Clearinghouse home
- EnerNex Corporation – Provide NIST information and liaison to industry
- IEEE – Liaison to industry through its Power Engineering Society (PES) Intelligent Grid Coordinating Committee



What the Recovery Act Says About the Clearinghouse

Sec. 405(3)(E) AVAILABILITY OF DATA.—The Secretary shall establish and maintain a smart grid information clearinghouse in a timely manner which will make data from smart grid demonstration projects and other sources available to the public. As a condition of receiving financial assistance under this subsection, a utility or other participant in a smart grid demonstration project shall provide such information as the Secretary may require to become available through the smart grid information clearinghouse in the form and within the timeframes as directed by the Secretary. The Secretary shall assure that business proprietary information and individual customer information is not included in the information made available through the clearinghouse.



What Information Will Be Included?

- Smart Grid 101
- Demonstration projects and results
- Use cases and functional requirements
- Business cases and cost-benefit analyses
- Standards
- Technologies
- Policies and regulations
- State/utility demand response rates and incentives
- Cyber-security
- R&D by industry, utilities and academia



What Information Will Be Included?

- Publications and presentations
- International activities
- News and events
- Lessons learned and best practices leading to documented benefits (material by *others*)
- Links to additional resources



How Can Regulators Use the Information?

- To better understand what works well – and what does not work so well
- To glean best practices
- For benchmarking
- To keep up-to-date on smart grid activities
- To foster collaboration on smart grid projects



How Will the Clearinghouse Get Its Information?

- Electronic submittals from smart grid grant recipients – and others
- Existing on-line databases
- Commission and utility Web sites
- Governments and national laboratories
- Professional/trade associations, industry user groups
- Equipment manufacturers
- Standards information from EnerNex
- Liaison with Advisory Council, User Group, IEEE



Project Timeline

- September: Startup and draft development plan for DOE review
 - Identify existing databases, plan for collaboration/coordination
 - Approach to collect, manage and maintain information
 - Quality assurance
 - Approach for user support (on-line, by phone)
 - Functionalities, content and initial layout; plan for User Group
- Nov. 3rd – First Advisory Council meeting
- December 2009 – Establish User Group
- February 2010 – Draft layout to Advisory Council, User Group
- March-August 2010 – Beta testing
- September 2010 – Launch public Web site
- Through August 2014 - Manage and maintain Web site



Opportunities for Input

- Advisory Council – NARUC, FERC, DOE, utility associations, NIST, NEMA, NERC, etc. (max. 15 seats)
 - Content recommendations – what, how much, organization and presentation
 - Recommend User Group members
- User Group (up to 30 members)
 - Help Clearinghouse identify available information
 - Recommend how Clearinghouse can be developed, used and improved – site workability and usefulness to advance smart grid
- Under contract to LBNL, RAP will keep Collaborative up-to-date and help convey regulators' needs, interests and recommendations
- On-line discussion forum



Early Recommendations From the Collaborative

Information/data requirements – to be eligible for funding a grantee must agree to provide detailed data and documentation of project results, including the following information, as applicable to the project, to the DOE Clearinghouse [not every project will deal with all the items listed]:

- a) Any internal or third party evaluations, ratings, and/or reviews including all primary source material used in the evaluation;
- b) Detailed data and documentation explaining any improvement in the accurate measurement of energy efficiency, energy conservation, price responsive demand, or demand response resources;
- c) Detailed data and documentation explaining the expansion of the quantity of energy efficiency, energy conservation, price responsive demand, or demand response resources that resulted from the project and the resulting economic effects;
- d) Detailed data and documentation that shows reduction in both electric demand and energy consumption associated with the project;



Early Recommendations From the Collaborative

- e) Detailed data and documentation for any improvements in the ability to integrate non-dispatchable renewable generation resources;
- f) Detailed data and documentation that shows any achievement of greater system efficiency through a reduction of transmission congestion and loop flow;
- g) Detailed data and documentation showing how the information infrastructure supports distributed resources such as plug-in electric vehicles;
- h) Detailed data and documentation that shows how the project resulted in enhanced utilization of energy storage; and
- i) Detailed data and documentation that shows how the project encouraged new business models, market innovation, and third party and private capital participation.
- j) All data on project results must be publicly available while protecting individual customer privacy and commercially sensitive data.



Input From Collaborative

- What information would you like the Clearinghouse to post?
- How do you see regulators using the information?
- How would you like to provide input collectively?
 - For example, through NARUC and FERC Advisory Council members and memos to Clearinghouse with recommendations of the Collaborative
- How would you like to stay up-to-date on the Clearinghouse?
 - For example, Collaborative meetings, Webinars, e-mail



For More Information

- Smart Grid Information Clearinghouse

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Thanks for your attention

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RAP is committed to fostering regulatory policies for the electric industry that encourage economic efficiency, protect environmental quality, assure system reliability, and allocate system benefits fairly to all customers.