



**EPRI**

ELECTRIC POWER  
RESEARCH INSTITUTE

# The Smart Grid Information Clearinghouse

**EPRI Smart Grid Demonstration Advisory  
Meeting**

2-3-09

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# Smart Grid In The News

“To build an economy that can lead this future, we will begin to rebuild America. Yes, we’ll put people to work repairing crumbling roads, bridges, and schools by eliminating the backlog of well-planned, worthy and needed infrastructure projects. But we’ll also do more to retrofit America for a global economy. That means updating the way we get our electricity by starting to build a new smart grid that will save us money, protect our power sources from blackout or attack, and deliver clean, alternative forms of energy to every corner of our nation. It means expanding broadband lines across America, so that a small business in a rural town can connect and compete with their counterparts anywhere in the world. And it means investing in the science, research, and technology that will lead to new medical breakthroughs, new discoveries, and entire new industries.”

**Remarks of President-Elect Barack Obama  
As Prepared for Delivery  
American Recovery and Reinvestment  
Thursday, January 8, 2009**

# Smart Grid In The Stimulus Package

- **The economic stimulus package includes \$32 billion for energy, including investments in smart grid, energy efficiency, PHEVs, CCS technology, and renewable energy. Specific provisions are highlighted below:**
- **Reliable, Efficient Electricity Grid: \$11 billion for research and development, pilot projects, and federal matching funds for the Smart Grid Investment Program to modernize the electricity grid.**
- **Renewable Energy Loan Guarantees: \$8 billion for loans for renewable energy power generation and transmission projects.**
- **Local Government Energy Efficiency Block Grants: \$6.9 billion to help state and local governments make investments that make them more energy efficient and reduce carbon emissions.**
- **Energy Efficiency and Renewable Energy Research: \$2 billion for energy efficiency and renewable energy research, development, demonstration, and deployment activities. Funds are awarded on a competitive basis to universities, companies, and national laboratories.**
- **Advanced Battery Loans and Grants: \$2 billion for Advanced Battery Loan Guarantee and Grants Program to support U.S. advanced vehicle battery/battery systems manufacturers.**
- **Smart Appliances: \$300 million to provide consumers with rebates for buying energy efficient Energy Star products.**
- **Electric Transportation: \$200 million for a new grant program to encourage electric vehicle technologies.**
- **Industrial Energy Efficiency: \$500 million for energy efficient manufacturing demonstration projects.**
- **The bill is accessed at: <http://appropriations.house.gov/pdf/RecoveryBill01-15-09.pdf>**

# Demonstration Task

**Now that the task is before us  
which way do we need to go?**

**We could all run off and do our  
own thing our own way or**

**we could work together to  
develop the most efficient,  
effective method.**

**That's what the demonstration  
projects are all about.**



# Smart Grid Information Clearinghouse

- The purpose of this work is to develop, populate, and maintain a Smart Grid Information Clearinghouse website to contain technical and policy information on Smart Grid development and practices.

**Smart Grid Network**

- Utility Communications
- Internet
- Renewables
- Efficient Building Systems
- PV
- Control Interface
- Smart End-Use Devices
- Distributed Generation & Storage
- Plug-In Hybrids
- Advanced Metering
- Consumer Portal & Building EMS
- Distribution Operations
- Dynamic Systems Control
- Data Management

- enhance markets,
- improve reliability and service,
- reduce costs and improve efficiency.

Smart Grid News

Current Archive

Energy Central features an Intelligrid report by EPRI's Don Von Dollen – Month, Day, 200X

EPRI's Green Grid report featured on Carbon Offsets Daily – Month, Day, 200X

M2M Radio discusses Smart Grid with EPRI's Don Von Dollen – Month, Day, 200X

EPRI Releases Report on Energy Savings and Carbon Emissions Reductions Enabled by a Smart Grid – December 4, 2008

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# Smart Grid Information Clearinghouse continued...

- The Clearinghouse is envisioned as the first-stop shop for public Smart Grid information that also directs website users to other sources for non-public information, both in the United States and other nations with leading Smart Grid development and implementation.

The screenshot shows the EPRRI Smart Grid Resource Center website. The header includes the EPRRI logo and navigation links for Home, Use Case Repository, Event Calendar, and Smart Grid Demo. The main content area is titled "Smart Grid Resource Center" and provides an overview of the site's purpose. It features a "Smart Grid" section with a list of goals, a "Smart Grid Use Case Repository" section, and a "Smart Grid News" section with recent articles. A diagram titled "Smart Grid Network" illustrates various components like Utility Communications, Efficient Building Systems, Renewables, and Smart End-Use Devices. The footer contains copyright information and links to policies.

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Smart Grid Resource Center

Home | Use Case Repository | Event Calendar | Smart Grid Demo

### Smart Grid Resource Center

This site serves as a home for information about EPRRI Smart Grid research, demonstration projects, and the Smart Grid Use Case Repository.

#### Smart Grid

A Smart Grid is one that incorporates information and communications technology into every aspect of electricity generation, delivery and consumption in order to:

- minimize environmental impact,
- enhance markets,
- improve reliability and service,
- reduce costs and improve efficiency.

#### Smart Grid Use Case Repository

The Use Case Repository is a public resource for the electric power industry to house Smart Grid related use cases as well as provide a forum for the industry to contribute to this effort by submitting their own use cases.

- [Use Case Repository](#)

#### Smart Grid Advisory Update Newsletter

- [December](#)
- [November](#)
- [September](#)

#### Smart Grid News

Current | Archive

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# Smart Grid Information Clearinghouse continued...

- Through direct sharing and dissemination of information on knowledge gained, lessons learned, and best practices, the Clearinghouse will serve to promote and facilitate coordination and collaboration in Smart Grid development and practices, and also as a public forum for information outreach to all interested parties including the general public.

SMART GRID RESOURCE CENTER

Home Use Case Repository Event Calendar Smart Grid Demo

Use Case Repository

About the Repository

### Smart Grid Use Case Repository

**Use Case Categories**

- General (18)
- Customer Services (22)
- Distributed Energy Resources (3)
- Distribution Operations (3)
- Market Operations (5)
- Transmission Operations (8)

[View all Smart Grid Use Cases \(61\)](#)

The Use Case Repository is a collection of Smart Grid use cases and requirements developed within the industry as well as through EPRI's smart grid demonstration initiative. All Use Cases are delivered as PDFs. All Use Cases are under the [Creative Commons license](#). You may use the [NIST Use Case Template](#) to create your own use cases and submit them to [mwakefield@epri.com](mailto:mwakefield@epri.com) for posting.

Name	Size	Published
<b>Category: General</b>		
<a href="#">Adaptive Transmission Line Protection</a>	254k	1/8/2009
<a href="#">Application Adjusts Load To Meet System</a>	11k	1/8/2009
<a href="#">Capacity Based On Settings From System Operator</a>	11k	1/8/2009
<a href="#">Adaptive Transmission Line Protection</a>	254k	1/8/2009
<a href="#">Application Adjusts Load To Meet System Capacity Based On Settings From System Operator</a>		
<b>Category: Customer Services</b>		
<a href="#">Adaptive Transmission Line Protection</a>	254k	1/8/2009
<a href="#">Application Adjusts Load To Meet System</a>	11k	1/8/2009
<a href="#">Capacity Based On Settings From System Operator</a>	11k	1/8/2009

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# The Website

- We are using the domain [www.smartgrid.epri.com](http://www.smartgrid.epri.com). In addition [www.smartgrid.epri.com](http://www.smartgrid.epri.com) and [www.epri.com/smartgrid](http://www.epri.com/smartgrid) will both point to the www domain.



# Moving Forward

- The website is currently being populated and includes current news and events, a research page, public documents page, links page and a use case repository page.
- The use case repository is our first step in presenting the website to the public as a useful tool.
- To date we have approximately 110 different use cases covering a wide variety of Smart Grid functions.



# The Use Case Repository

- Use Case Repository Page will include the Use Case Homepage, Use Case 101 with tutorials to help users understand the use case as a development tool, Use Case Templates to give users an starting point and an idea of what other users are implementing, a definitions page to help us all speak the same language, searchable Use Cases that have been or are being used in systems today and the ability for users to upload use cases (users who would like to upload use cases will first need to register, once registered, they can upload use cases)

## EPRI's Invitation...

- EPRI is opening an invitation to submit use cases and articles of interest to the website to ensure the website is a valuable tool for the industry.



# Together...Shaping the Future of Electricity