
# White House Grid Modernization Event

Eisenhower Executive Office Building

Monday, June 13, 2011 • 10AM – 1PM

**10–11:30AM** **Opening Session** **South Court Auditorium**

- Opening Remarks by Dr. John P. Holdren, *Assistant to the President for Science and Technology*
- Remarks by Nancy Sutley, *Chair, Council on Environmental Quality*
- Presentation from Harker School (San Jose, CA) students Shreya Indukuri and Daniela Lapidous
- Remarks by Tom Vilsack, *Secretary, Department of Agriculture*
- Remarks by Steven Chu, *Secretary, Department of Energy*
- Panel on Grid Modernization led by Phil Weiser, *Senior Advisor, NEC*

  Panelists:
  - Cheryl LaFleur, *Commissioner, FERC*
  - Commissioner Tony Clark, *President, NARUC*
  - Bob Shapard, *CEO, Oncor*
  - David Hayes, *Deputy Secretary, Department of Interior*

**11:40AM–12:35PM** **Breakout Discussions**

1. ***Regulatory reform efforts and emerging business models*** **EEOB 230A**
   Panel leaders: Phil Weiser, *National Economic Council;* Patricia Hoffman, *Department of Energy;* and Paul Centolella, *Ohio Public Utility Commission*
2. ***Innovation and interoperability: Timely access to, and protection of, energy data, and the innovative potential of new products and services*** **EEOB 428**
   Panel leaders: Aneesh Chopra, *White House Chief Technology Officer;* George Arnold, *National Institute of Standards and Technology;* Arun Majumdar, *Department of Energy;* and Maureen Harris, *New York Public Service Commission*
3. ***Long term planning strategies*** **EEOB 530**
   Panel leaders: Jason Bordoff, *Council on Environmental Quality;* Lauren Azar, *Department of Energy;* John Norris, *Federal Energy Regulatory Commission;* and Orji Isiogu, *Michigan Public Service Commission*

**12:45–1PM** **Wrap-Up and Conclusion** **South Court Auditorium**

- Wrap-up of the day: Aneesh Chopra, *White House Chief Technology Officer*

# FACT SHEET: The President's Plan for a 21st Century Electric Grid

A 21st century electric grid is essential to America's ability to lead the world and create jobs in the clean energy economy of the future. In his State of the Union address, President Obama outlined a vision for doubling America's use of clean energy by 2035 and achieving the goal of putting one million electric vehicles on the road by 2015. Realizing these goals will be critical to America winning the future, the Administration has already made historic investments in clean energy technologies, grid modernization, and electric vehicle infrastructure. But more needs to be done to build on that foundation.

Building the necessary transmission infrastructure and utilizing modern information and communications technologies—that is, "smart grid" technologies—will facilitate the integration of renewable sources of electricity into the grid, accommodate the growing number of electric vehicles, help avoid blackouts and restore power quicker when outages occur, and reduce the need for new power plants. Smart grid technologies also provide a foundation for innovation by entrepreneurs and others who can develop tools to empower consumers and help them make informed decisions. A first generation of innovative consumer products and services—such as thermostats that can be controlled from a smart phone, or websites that show how much energy a house is using—can continue to help Americans save money on their electricity bills, and there is great potential to do even more.

As part of President Obama's *Blueprint for a Secure Energy Future*, the Administration released *A Policy Framework for the 21st Century Grid*, which highlights the opportunities that a modernized electric system provides for America. Produced by the Cabinet-level National Science and Technology Council, the framework provides a roadmap to ensure that all Americans benefit from investments in the Nation's electric infrastructure.

In conjunction with the release of *A Policy Framework for the 21st Century Grid*, the Administration announced a number of public and private initiatives:

- $250 million in loans for smart-grid technology deployment as part of the US Department of Agriculture's Rural Utility Service, which is focused on upgrading the electric grid in rural America.
- The launch of *Grid 21*, a private-sector initiative to promote consumer-friendly innovations in the Nation's electric system aimed at ensuring that all Americans have opportunities to benefit from the smart grid.
- New commitments by the Department of Energy to focus on improving consumer access to their own energy information, including the development of a crowd-sourced map to track progress, a data-driven competition designed to harness the imagination and enthusiasm of America's students to encourage home energy efficiency, and new EIA efforts to measure progress.
- Expanded partnerships to continue working with States and stakeholders, including an initiative to share lessons learned from Recovery Act smart grid investments, a series of

regional peer-to-peer stakeholder meetings, and updated online resources available at: www.SmartGrid.gov.

- Continued progress on international collaboration to facilitate smart grid trade with the Asia-Pacific region. The United States Trade Representative and the National Institute of Standards and Technology (NIST) are working with the Asia-Pacific Economic Cooperation (APEC) forum to cooperate with other nations on smart grid interoperability standards, crucial to increasing market opportunities throughout the region, including for American firms.
- The formation of a Renewable Energy Rapid Response Team, co-led by the White House Council on Environmental Quality, the Department of Interior, and the Department of Energy, to improve Federal coordination and ensure timely review of proposed renewable energy projects and transmission lines, to ensure that renewable energy can power cities and towns across America, and to increase reliability and save consumers money by modernizing the grid.

Further, it is more important than ever that as we upgrade the electric system we also ensure that it is adequately protected from cyber attacks and can recover quickly from any attacks that may occur. To keep the grid safe, the Administration will:

- Ensure grid operators have access to actionable threat information to the electric grid;
- Support research and development for better cybersecurity measures; and
- Work with private-sector stakeholders to establish accountability for meeting cybersecurity standards.

Finally, to help speed the maturation of a smarter grid, the Department of Energy, as proposed in the President's FY' 12 budget request, is planning to a create a Smart Grid Innovation Hub to bring together Federal researchers, private-sector innovators, and representatives from the Nation's utilities to support research, development, and deployment of smart grid technologies. In addition, the Department's Advanced Research Project Agency-Energy is funding new grid-controls research and is collaborating with utilities and military bases to test promising new transformational technologies.

*Background*

Much of the current electric grid has changed very little since Thomas Edison brought the first commercial power grid online at the end of the 19th century. Even in today's information age, many utilities don't have real-time information on the state of the grid or know when their customers have lost power. To spur the development of a smarter grid, the Recovery Act invested $4.5 billion—matched by over $5.5 billion of private funding—to modernize America's aging energy infrastructure and provide more reliable power.

*The Four Pillars of the Administration's Smart Grid Strategy*

*A Policy Framework for the 21st Century Grid* recognizes the importance of State and local jurisdictions and offers a collaborative path forward to modernize the grid. The framework

features four pillars, which are supported by Administration actions, and includes further policy recommendations to promote investment, job growth, and innovation:

- **Enabling Cost-Effective Smart Grid Investments:** To ensure we learn from the Recovery Act smart grid investments, the Department of Energy will release consumer behavior studies and lessons learned from demonstration projects. Enabling electric utilities to deploy these technology advancements faster and use them more effectively can lead to refined electric rate structures to give consumers the ability to save money by using energy more intelligently.
- **Unlocking the Potential of Innovation in the Electricity Sector:** A modernized grid can be a powerful platform for spurring the creation and deployment of new products and services in the electric sector as a means of delivering comfort, convenience, and savings to energy customers. Smart grid technologies can help integrate renewable energy, manage times of high electricity demand, and save money for consumers who participate in demand response programs. To enable the development of these new technologies, products, and services, NIST is overseeing the effort to develop open standards that will help create national markets for smart grid technologies and promote plug-and-play operability for devices such as appliances that automatically use energy when it is the cheapest or cleanest.
- **Empowering Consumers and Enabling Informed Decision Making:** Traditionally, consumers receive a monthly electricity bill that includes little information about their energy use. Numerous studies have shown that providing simple feedback on energy consumption to residential consumers—via bill inserts, websites, or in-home displays—can reduce electricity use by 4 to 15 percent. Consumers deserve access to their own energy usage information in machine-readable formats so they can better understand how they are using electricity and take advantage of new tools and services to manage their energy use. With proper privacy safeguards and consumer protections, a smarter electricity system can benefit all consumers.
- **Securing the Grid:** Protecting the electric grid from cyber attacks and improving its recoverability in the event of one is essential to ensuring sustained national security and prosperity. To keep the grid safe, the Administration will make sure grid operators have access to actionable threat information to the electric grid. The Administration will also support research and development for better cybersecurity measures, as well as work with private sector stakeholders to establish accountability for meeting cybersecurity standards.