

# **Energy Emergency Preparedness Quarterly**

**VOLUME 2, ISSUE 3**

**JULY 15, 2013**

## **DOE Pilot to Improve Hoboken's Electric Grid Post-Hurricane Sandy**

In the aftermath of the widespread destruction and extensive power outages Hurricane Sandy inflicted upon Hoboken, New Jersey and the surrounding region, the Department of Energy, in partnership with the New Jersey Board of Public Utilities, the City of Hoboken, and Public Service Electric & Gas Company (PSEG) is helping to develop strategies for improving the reliability and resiliency of the local electric grid in Hoboken.

*Deputy Assistant Secretary  
ISER*



*William N. Bryan*

As part of an agreement signed in June, DOE's Office of Electricity Delivery and Energy Reliability Power Systems Engineering and R&D (PSE R&D) Division is funding a microgrid feasibility study to examine various approaches to ensure the resilience of the city's critical facilities in the event of a grid power failure. The study will help the City of Hoboken and PSEG identify priority energy needs and energy system functions for numerous outage durations, and assess the potential benefits and costs associated with implementing distributed generation and smart-grid technologies. Deputy Assistant Secretary Dr. Ravi Gorur and DOE Smart Grid R&D Program Manager Dan Ton, who are leading this effort for DOE, continue to make technical scoping visits to the region, coordinate with project partners, and provide technical assistance during each phase of the pilot.

Central to this initiative is the application of Energy Surety Design Methodology (ESDM), a quantitative Risk Assessment Methodology (RAM)-based tool developed at Sandia National Laboratories which enables communities to assess and determine their unique critical power delivery functions and needs. ESDM, "directly links energy surety (safety, security, reliability, sustainability, and cost effectiveness) with critical power needs. This is accomplished "by integrating distributed energy resources (DERs), including backup generators, local photovoltaic systems, small wind turbines, electrical energy storage, etc., into a local electrical distribution service area (microgrid)."

While ESDM has already been implemented at a number of U.S. military bases, the Hoboken pilot project represents the first non-military application of the ESDM for an entire community. The technology deployment and lessons learned from this pilot can be applied to help Hoboken and other cities and towns across New Jersey and ultimately, across the country, to minimize the consequences and shorten recovery time from catastrophic events such as Sandy. \*([http://energy.sandia.gov/?page\\_id=819](http://energy.sandia.gov/?page_id=819))

## **President Obama Discusses Hurricane Preparedness with Utility CEOs at DOE**

President Obama, accompanied by DOE senior response officials, including Acting Secretary Daniel Poneman, Assistant Secretary Patricia Hoffman, and Deputy Assistant Secretary Bill Bryan, met with electric company CEOs and energy sector trade association representatives at Department of Energy headquarters to discuss preparations for the upcoming Atlantic hurricane season.

The President thanked the utility executives for their companies' efforts following Hurricane Sandy and their ongoing commitment to the communities impacted by the storm. During the meeting they shared valuable lessons learned from both the Federal and industry perspective, and discussed ways in which the Federal government and industry could partner to better address major power outages and improve response efforts during future events.



*President Obama discusses hurricane preparedness at the Department of Energy. White House photo*



## **DOE Supports Electric Infrastructure Security Summit IV**

The Fourth Annual World Summit on Infrastructure Security, the Electric Infrastructure Security Summit IV (EISS IV), was held May 20-21 at the U.S. Capitol Building in Washington, DC. The Electric Infrastructure Security Council conducts the EIS Summit series, a government/NGO partnership that was established to enhance coordination and cooperation in infrastructure protection against electromagnetic threats through collaboration with government representatives, corporations, and other NGOs.

Shaped largely by the progress made at prior Summits, (EISS III was held last May in the U.K. Houses of Parliament in London, and EISS I and II were held in the UK and Washington, DC, respectively) EISS has developed into a new international infrastructure security framework. The theme of EISS IV, Resilience and Synergy, primarily focused on electromagnetic threats, but also included common power grid risk and resilience options for cyber threats, terrestrial weather, and other hazards.

The afternoon keynote address was furnished by Acting Secretary of Energy Daniel Poneman who discussed the challenges for our Nation's grid and DOE's efforts to strengthen it. In his remarks, he pointed out several examples of important DOE initiatives to strengthen the grid: the deployment of smart grid technologies and systems as prescribed under the Energy Independence and Security Act of 2007 (EISA) and the American Recovery and Reinvestment Act of 2009 (ARRA); the Department's focus on cyber security; and DOE's partnership on the North American Electric Reliability Corporation's (NERC) Geo-Magnetic Disturbance (GMD) Task Force.

Deputy Assistant Secretary William Bryan provided opening remarks before participating in a panel titled "The Role of Government and Regulators", stating that "DOE is engaged on all fronts to understand the sector, the threats to the sector, and how to mitigate these threats." The Department is "heading in a direction for solutions", he said, and mentioned Sunburst, a DOE-funded Electric Power Research Institute (EPRI) project to identify large transformers most susceptible to GMD, and DOE's 2012 study assessing the procurement and availability of large power transformers—long a major concern for the U.S. electric power sector—as critical initiatives that have produced results. In closing, he remarked that DOE is "working to ensure that industry has a voice at every table to ensure operational reliability while also ensuring safety and security."

## **DOE Conducts Annual Regional Coordinator Workshop**

DOE held its Annual Regional Coordinator Workshop on May 14-15 at the Patuxent River Naval Air Station in Maryland. DOE, as the designated Federal Sector-Specific Agency, is the lead Federal agency responsible for coordinating the Energy Sector's emergency preparedness requirements, and under the National Response Framework, during federally declared disasters, also directs Emergency Support Function 12 (ESF-12) activities for the Energy Sector. The Office of Electricity Delivery and Energy Reliability (OE) is the Department's lead office for coordinating these responsibilities. In support of these requirements, DOE has a Primary and Alternate Regional Coordinator (RC) assigned to each of the ten FEMA regions. The RCs serve as the primary points of contact for all energy-related activities within their region and develop in-depth knowledge of critical regional energy infrastructure and issues.



Jamie Clark, DOE Eastern Regional Program Manager, discusses policy implementation with the Regional Coordinators at their annual workshop.

The annual workshop provides a forum in which the RCs can meet to share best practices, examine unique local and regional challenges, and discuss State and National-level policy requirements. This year DOE made some additions to the program by welcoming three new Alternate RCs to cover Regions IV, V, and IX. The newest members quickly joined the discussions which ranged from enhancing DOE's capabilities by optimizing the RC role; identifying resource requirements; the status of Presidential Policy Directive 8 (PPD-8); and valuable lessons learned from Hurricane Sandy and the ongoing recovery efforts.

The Regional Coordinator program plays a significant role in DOE's efforts to engage and build critical relationships, both within the responder community and across the energy sector. The annual workshop helps to strengthen these partnerships and also ensures there is a more unified DOE presence across all the Regions.