

DOE Deploys Staff in Support of Hurricane Isaac

Hurricane Isaac, the fourth hurricane of the 2012 Atlantic hurricane season, made its first landfall on August 28th in Plaquemines Parish, Louisiana and a second landfall along the coast of southeast Louisiana, just west of Port Fourchon, on August 29th. A large storm with a 50 - 60 mile-wide eye and 80 miles per hour sustained winds, Hurricane Isaac intensified slowly, yet remained a Category 1 hurricane at landfall, bringing large and dangerous storm surge to the coast, extending from Central Louisiana to the Panhandle of Florida.

Just prior to landfall, DOE's Office of Electricity Delivery and Energy Reliability (OE) began producing and distributing situation reports and posting them on the OE Web site. The reports summarized Hurricane Isaac's impacts to the energy sector, and detailed restoration status and ongoing efforts. OE also activated and staffed the Energy Response Center (ERC) at DOE Headquarters. From the ERC, state-of-the-art capabilities were utilized to monitor the Nation's energy infrastructure in near real-time, geospatially map energy assets and systems, manage information flow from multiple response locations, and conduct status briefs.

In advance of the storm, the Federal Emergency Management Agency (FEMA) activated DOE's Emergency Support Function #12 (ESF #12) personnel to a number of FEMA locations to support Federal response efforts. DOE ESF #12 staff deployed to FEMA Headquarters at the National Response Coordination Center (NRCC) in Washington, DC, the FEMA Region IV Regional Response Coordination Center (RRCC) in Atlanta, GA, Region VI RRCC in Denton, TX, the Baton Rouge, LA Incident Management Assistance Team (IMAT), the Florida Emergency Operations Center (EOC), and the Mississippi EOC. ESF #12, in conjunction with DOE, coordinated closely with other Federal partners, State and local government entities, representatives from the energy sector and from energy industry associations.

Isaac impacted off shore oil and natural gas production, shut-in pipelines, reduced refinery production and natural gas processing, and caused widespread power outages across five states. At the height of the storm, over one million customers were without power and a state of emergency was declared for Alabama, Florida, Louisiana, and Mississippi. In an effort to address the limited crude oil shortages caused by Hurricane Isaac, in late August, the Secretary of Energy announced that the Department would loan Marathon Petroleum Company one million barrels of sweet crude oil from the Strategic Petroleum Reserve's Bayou Choctaw site in Louisiana to lessen the short term impact on the company's refining capacity in the aftermath of Isaac.

Following Hurricane Isaac, OE Deputy Assistant Secretary, William Bryan, traveled to Louisiana where he assessed the impacts to the electricity infrastructure. He also met with representatives from the utilities, and praised the success of their restoration efforts and in particular, their extensive and well organized mutual assistance process which significantly shortened restoration timeframes across the region.

DOE's Hurricane Isaac situation reports are available at: http://www.oe.netl.doe.gov/named_event.aspx?ID=66.



DOE staff with Homeland Security Secretary Napolitano.
Photo courtesy of Bethany Trotter, FEMA

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DOE Supports U.S. Secret Service for National Political Conventions

The Republican and Democratic National Conventions are classified by the Secretary of Homeland Security (DHS) as National Special Security Events (NSSE). As with all NSSEs, the U.S. Secret Service (USSS) is designated as the lead federal agency for the planning, coordination, and implementation of security operations for these events.

In preparation for the August 27-30 Republican National Convention in Tampa, Florida, the USSS relied upon the expertise of a team from DOE to provide assessments of the critical energy infrastructure in and around the Tampa region and to design a suite of products specially targeted to their needs. The team, which was led by Robert Reed, has supported numerous NSSEs and was specifically requested by the USSS not only because of the team's extensive experience, but because of their ability to manage the complex energy issues associated with these kinds of events.

During the months leading up to the Republican Convention, Mr. Reed and his staff worked with both the USSS and local utilities in the region to develop a series of critical infrastructure assessments. Several days prior to the event, they conducted their final assessments in conjunction with the USSS and the utilities. During the convention, the team was also in Tampa where they provided 24-hour coverage in the Multi-Agency Communications Center (MACC).

A similar approach was also used for the Democratic National Convention on September 4-6 in Charlotte, North Carolina. In the months preceding the convention, the team once again worked closely with the USSS and the local utilities, supplied a series of event-specific products, conducted infrastructure assessments, and staffed the MACC throughout the convention.

DOE Sponsors Third Annual Regional Electric Utilities Workshop



Highlighted states representing the Southwest region.

The Electric Reliability and Drought Impacts Workshop: Partnering with Industry to Promote Reliability, Survivability and Resiliency, was held July 25-26 in Denver, Colorado. This workshop represents the third in a series of annual regional workshops conducted by the Department of Energy for electricity sector owners and operators. The first workshop, DOE's July 2010 *New Madrid Seismic Zone Workshop*, was held in Memphis and brought together electricity sector stakeholders in the region to begin a dialogue focused on preparation and response to a potential catastrophic New Madrid/Wabash Valley earthquake. The second event, the July 2011 *Department of Energy Space Weather Workshop*, was held in Boston and served as a forum for utilities to discuss technical solutions to space weather challenges such as geomagnetically-induced current and geomagnetic disturbances (GIC/GMD).

This year's event focused on the southwest region and was designed to provide a regulator-free environment in which utility owners and operators and DOE could discuss the impacts of drought on electric power systems, equipment, and critical functions within each utility's current operating environment. The discussions provided an opportunity for participants to share their experiences responding to the consequences of sustained drought, discuss mitigation techniques and recovery actions, and identify and consider various issues of concern to both owners and operators and DOE.

According to data from the U.S. Drought Monitor, a joint endeavor by the National Drought Mitigation Center at the University of Nebraska-Lincoln, the National Oceanic and Atmospheric Administration, and the U.S. Department of Agriculture, during the summer of 2012, 56 percent of the lower 48 states were experiencing drought conditions. Such dry conditions can not only result in heightened water supply concerns, but may also provide favorable conditions for increased wildfire activity across many parts of the country. In addition, the operating challenges and implications resulting from these extreme temperatures and drought conditions can potentially impact operational reliability on the electric power grid.

DOE and Argonne National Laboratory performed high-level analysis to better understand the potential impacts on the power grid as a result of extreme drought conditions. The analysis is based on a hypothetical, but plausible, drought scenario. The analysis applied modeling techniques to assess the impact of the drought scenario on the power systems comprising the U.S. Southwest supply and demand balance, and included thermal and hydro capacity losses, reserve margin reductions, and overall systems reliability and vulnerability. The analysis was used as a starting point for discussions at the workshop to encourage information sharing and mitigation techniques among the participants.