



NASEO Energy Security Committee
Tuesday, September 13, 2016
4:00 pm – 5:30 pm

Attendees:

David Gipson (GA), Committee Co-Chair	Deana Dennis (EPRI)
Kylah McNabb (OK), Committee Co-Chair	Barbara Tyran (EPRI)
Jammie Harden (GA)	Evelyn Robinson (PJM)
Larissa Williams (MS)	Robert Boonstoppel (DoD)
Molly Lunn (IL)	Dave Blaclock (DoD)
Tristan Vance (IN)	Jenah Zweig (DOE)
Warren Cook (OR)	David townley (CTC)
Paul Miller (LA)	Michael DiRamio (DOE)
David Bracht (NE)	Eric Cote (PFP)
Leslie Yoo (IN)	Nick Dreher (NEEA)
Kristofer Anderson (GA)	Caitlan Callaghan (DOE)
Elmo Roebuck (VI)	Jason Smith (EEI)
Natalie Dallriva (TN)	Marina Leight (Philips)
Ben Bolton (TN)	Joe Cullen (HPC)
Karl Frost (AL)	Fred Hoover (NASEO)
Kerry Campbell (PA)	Shemika Spencer (NASEO)
Jason Mistlbauer (AZ)	Jeff Pillon (NASEO)
Megan Levy (WI)	David Terry (NASEO)
Rick Bender (KY)	Jeff Genzer (NASEO)
Kristy Manning (MO)	Brian Henderson (NASEO)
Sean Skaling (AK)	John Davies (NASEO)
Craig Miller (NRECA)	Rodney Sobin (NASEO)
Matt Duncan (DOE)	Alice Lippert (Consultant)

Welcome and Introductions (*David Gipson, Director, Energy Resources Division, Georgia Environmental Finance Authority; Member, NASEO Board of Directors; Co-Chair, NASEO Energy Security Committee*)

- Thanked everyone for attending.
- Introduced Kylah McNabb, Senior Energy Advisor, Oklahoma Office of the Secretary of Energy and Environment, as the new co-chair for the NASEO Energy Security Committee who briefly discussed the increased role that Oklahoma's SEO is now playing in the ESF-12 arena.

Cybersecurity for Resource-Constrained Utilities: How Rural Electric Cooperatives Are Tackling the Issue (*Craig Miller, Chief Scientist, National Rural Electric Cooperative Association*)

- Pro-active vs. reactive actions taken by electric utilities in responding to cyber threats
- Real key is to react quickly to cyber-attacks (204 days on average to detect penetration of system)
- Develop a model of what “normal” is and what is actually in the system. Establish an equation that detects what’s desired and what’s actually there to more quickly detect breaches
- 900 cooperatives which on average are small and cannot afford cyber experts; business model is cost recovery not profit
- Due to lack of resources are pursuing reactive cybersecurity and coordinated/collaborative approach to remediation (support from U.S. Department of Energy)
- Also using cloud-based technology

Electromagnetic Pulse and Intentional Electromagnetic Interference: Threats to the Power Grid (*Deana Dennis, Senior Manager, External and Government Affairs, Electric Power Research Institute; Affiliates Co-Chair, NASEO Fuels and Grid Integration Committee*)

- Electromagnetic pulse is intentional, man-made attack (E1 – very fast time; E2 – similar to lightning; E3 – long duration and low frequency) and can occur with little or no warning
- IEMI is a form of EMP mainly in the E1 region; IEMI devices are smaller, more portable, less sophisticated and expensive
- IEMI impact delivers a geographically focused impact; a coordinated IEMI attack in numerous locations would be necessary to create a widespread impact on the grid similar to that of an EMP
- EPRI initiated a 3-year research project in collaboration with U.S. Department of Energy; U.S. Department of Defense; National Labs, and industry groups (Edison Electric Institute, American Public Power Association, etc.) to address the potential threat of EMP by studying its impacts and developing technically-based research results.
- EPRI’s EMP program will primarily focus on the bulk power system – including transmission system and components; substations and components; and control centers.
- The goal of this research is to provide a technical basis to:
 - characterize the threat EMP by establishing an unclassified environment that can be used to assess the impacts on the bulk power system;
 - test components to identify at which levels they become vulnerable to EMP – see what the system can withstand;
 - then, use that info to perform system assessments to understand impacts and compare to system performance criteria; then
 - if system performance criteria are not met, identify the types of mitigation, hardening, and advanced recovery options available to employ;
 - then, in terms of decision support, look at “*how do I figure out what to harden and mitigate with?*”; weighing benefits and costs of various strategies; we may find that some techs may also help protect against other threats – which could give more bang for the buck;

- trial implementation – we will provide technical support to utilities who are implementing strategies and provide lessons learned to be shared throughout the industry; and
- finally, stakeholder outreach; we’re going to try to make as much info as possible publicly-available with the understanding that a lot of it is sensitive (Critical Energy Infrastructure Info – CEII) will limit what we can share with the public. Will also provide briefings like this to stakeholders such as NASEO to update them on EPRI’s research findings.

Threats to the Energy Environment and Federal Initiatives to Address Them (*Matt Duncan, Program Manager, State, Local, Tribal and Territorial Energy Assurance, Infrastructure Security and Energy Restoration Division, Office of Electricity Delivery and Energy Reliability, U.S. Department of Energy*)

- looked at current Energy Sector Threat Landscape; provided an overview of DOE Emergency Response and Emergency Support Function (ESF) #12; and discussed DOE Initiatives
- On April 15, Secretary Moniz testified at the U.S. Senate Field Hearing on DOE Functions and Capabilities to Respond to Energy Emergencies in Seattle, WA. Key Themes of his testimony Included: Rapidly Changing Energy Systems and Threats; DOE’s Emergency Authorities; Actions taken since 2014; and DOE Enterprise Solutions
- ISER main areas: preparedness and exercises; situational awareness; and emergency response and recovery
 - Eagle eye tool is currently only available to feds but DOE is working to make platform available to states
- SLTT Energy Assurance Program
 - Outreach effort of OE: build and maintain relationships; education/train/exercise; and develop and maintain energy assurance plans
- DOE regional coordinators map
- Federal Initiatives:
 - Fixing America’s Surface Transportation (FAST) Act Provisions
 - EEAC MOU agreement
 - New and emerging threats – EMD and GMD
 - Cybersecurity for energy delivery systems (OE more active in incident coordination on cyber threats)
 - PPD-41 – will be looking to reach out to utilities and states to engage soon

Energy Security Program Updates and Discussion

(*Jeff Pillon, Director of Energy Assurance, NASEO and Fred Hoover, Senior Program Director, NASEO*)

- Alice Lippert discussed her outreach to other membership trade associations to strengthen relationships, coordination/collaboration between NASEO as well as between their members and ours
- Briefly discussed the upcoming workshop in the west
- Briefly discussed the upcoming energy emergency exercise in Newport, RI
- Lots of states updating energy emergency plans and both events are great in supporting efforts