



It's Time for Emergency Managers to Prepare for the Fragility of Electric Power Grids

March 24th from 2:30pm-3:30pm ET

Presented by: **Michael Lambert**, Emergency Preparedness/Homeland Security Planner for the Houston-Galveston Area Council of Governments

Presentation Abstract: As regards the electric power grid, the most critical of critical infrastructures, there are vulnerabilities, there are threats and, therefore, there is risk. For too long, emergency managers have operated under set of very specious assumptions regarding the reliability and resilience of the grid.

One of those assumptions is that, no matter the cause of a disruption, the utility companies and electricity providers will be able to isolate the problem and timely turn the power back on. Belief in that assumption certainly has merit if for no other reason than it has always been thus. However, the February 2021 disruption in Texas put many assumptions and beliefs to the lie. The underlying factors which crashed the Texas generation capacity were impervious to any intervention by providers or regulators. Once the incident began, there was simply nothing that could have been done to stop the course of the disaster. It was only after the freezing weather moved on

and temperatures began to rise that returning generation sources could balance with demand and order could be returned.

The one thing this disruption showed was that the system of systems that generate, transmit and deliver our electricity is far more fragile than typically understood.

The stability of the grid is a delicate dance balancing a myriad of factors in real-time that is measured in milliseconds. It takes thousands of highly trained and skilled workers using millions and millions of dollars in complex equipment and technologies to keep all of the elements of the electric grids operating within very, very tight operational parameters.

Even on blue-sky days and working with established technologies, standards and protocols, the grid operates on a knife edge just waiting for something to go even slightly haywire causing a cascading crisis.

But, even now, things getting even more complex ...

The electric power industry is well into a period referred by many as “The Transition.” Owing to public policy and cultural demands, the industry is moving further away from traditional generation capabilities to newer, more intermittent sources all the while witnessing lifestyle-mandates that will continue to cause dramatic increases in demand. “The Transition” will only be accomplished by the development and implementation of new technology, the repurposing and rebranding of existing technology and the refreshing of existing, aging infrastructure. All this change will have to be accomplished in an already highly complex environment that does not allow for even the most temporary operating disruptions. (It is sort of like rebuilding and expanding an urban freeway without being allowed to disrupt or divert traffic.)

Emergency managers must now take a fresh look at the fragility of the infrastructure that provides electricity to their communities, assess their AOR’s vulnerabilities, understand the cascading impacts of a grid down incidents and figure out not only how they will continue to operate in such an incident but how they will go about meeting the needs of those who will be looking to them for help.

This presentation will:

Discuss some of the critical elements of “The Transition” and how they will affect the generation, transmission and distribution and demand for electric power;

Raise awareness of the inherent threats to the stability and resilience of the electric grid arising from “The Transition” and other sources;

Present some high-level steps that emergency managers can take to start the process of preparing for a possible long-duration, wide-spread grid down incident.

Speaker Bio: Michael Lambert is an Emergency Preparedness/Homeland Security Planner for the Houston-Galveston Area Council of Governments where he is responsible for, among other things, assisting jurisdictional leaders in a thirteen-county region with developing disaster preparedness; response; and recovery plans and capabilities for a wide-range of threats including terrorist attacks.

Michael is an experienced emergency manager with a long-standing focus on low-probability, high-consequence disasters, including: the catastrophic loss of containment of highly toxic hazardous materials; pandemic influenza/bioterrorism; and long-duration, wide-spread disruptions to the electric grid.

Michael is a member of the FBI/InfraGard National Disaster Resiliency Council (NDRC) and is a founding member of NDRC’s Water Security Work Group. He is also a member of the national Secure the Grid Coalition, Electric Infrastructure Security Council as well as the All-Hazards Consortium. In his current position he represents H-GAC on the Texas Critical Infrastructure Protection Task Force and serves on a number of other regional homeland security-related working groups and task forces.

Michael is a frequent presenter, panelist and speaker on topics within his area of expertise and is an authorized trainer in variety of emergency management and technical disciplines.

Michael holds a master’s degree in Finance and spent a large portion of his early career in the business world working with a wide-ranging portfolio of companies, non-profit organizations and governmental entities on financial, strategic and governance issues as well as crisis communication and management.