

Strengthening Healthcare and Public Health Sector Risk Management and Resilience

November 2016

CHALLENGE: Resilience of Hospitals

Healthcare and public health leaders are responsible to their boards of directors and patients for, among many other things, the safety and security of their critical infrastructure. Standard operating plans for hospitals requires evacuation when the power is out for an extended period and backup generators cannot be refueled. A shortcoming of this policy is that long-term regional or nationwide outages would require shutting down hospitals when they are needed most. Local power generation and fuel storage needs to be provided economically so that hospitals can be resilient in the face of the threats to large, vulnerable, centralized grids.

This project will help educate healthcare and public health leaders on low frequency threats (including cyber and electromagnetic pulse [EMP] events) that could shut down large numbers of hospitals. It will also suggest ways for leaders to maintain resilience of their critical infrastructure in a cost-effective manner.

APPROACH: Develop materials and demonstrate effectiveness of resilience efforts

A steering committee has been established that will oversee two teams:

1. One team will research and develop a handbook and website using nontechnical terms to educate healthcare and public health leaders about EMP and other events threatening institutional viability. This handbook will also suggest ways to protect their critical infrastructure.
2. Provide, through subcontractor expertise, consultations with three hospital facilities to demonstrate how EMP-protected microgrids can provided energy off the electric grid in a cost effective manner.

The Department of Defense has pioneered this approach at select military bases. The project will be implemented in three hospitals separately in the Western, Midwestern, and Eastern parts of the United States.

The end users are hospitals and public health agencies that need to maintain independence from the electric grid and provide enhanced safety and security for patients and workers.



Electrical power substation (DHS)

NEXT STEPS: Development and Implementation

The project team is recruiting and making contacts with interested hospitals and has identified subcontractors for partnership. Upon receiving signed letters of agreement from the hospital chief executive officers, the team will provide consultations and develop financial profiles to demonstrate the cost effectiveness of EMP-protected microgrids.

The current timeline intends for demonstrated effectiveness by July 2017. Success will be measured by having at least three hospitals in the process of having EMP-protected microgrids installed and by having a handbook and website available for leaders by September 2017.

The National Infrastructure Protection Plan (NIPP) Security and Resilience Challenge is managed by the Office of Infrastructure Protection, within the National Protection and Programs Directorate of the Department of Homeland Security (DHS), in partnership with the National Institute for Hometown Security (NIHS). To learn more about this project, contact Jay Robinson, Program Manager, DHS, at Jay.Robinson@hq.dhs.gov or Ewell Balltrip, CEO, NIHS, at eballtrip@thenihs.org.



Homeland Security