

Terrorist Threats Against Energy Transmission Systems

How Well Prepared Are You?

“Scenario driven” exercises and similar threat assessments are frequently used by federal, state, and local officials to strengthen their emergency response. To date, these exercises have rarely included the private sector or focused on critical infrastructure systems such as energy transmission. Now, ICF Consulting has conducted one of the United States’ first joint public and private sector exercises focusing on terrorist threats to electric power transmission systems.

Designed to test existing plans and educate key personnel on new threats and vulnerabilities, this exercise for a federal client tested the capabilities of state, local, and private-sector organizations to jointly respond to a terrorist attack on energy transmission systems.

ICF Consulting used its experts in energy and emergency management to develop, implement, and assess the exercise. Of particular value was the ability of the ICF Consulting Team to model power transmission systems, anticipate potential problems, and evaluate the time and materials required to reenergize the network to keep the lights on. Using ICF Consulting’s suite of transmission modeling capabilities and the Team’s knowledge of federal, state, and local response plans and protocols, participants were tested on decision-making, roles and responsibilities, and the ability to forward accurate and timely advice to senior officials in government and industry.

Modeling was used to simulate multiple contingency outages on the transmission network to determine whether the system would be stable, secure, and reliable. For those scenarios where there were reliability problems, remedial



action schemes were designed to pick up as much load as possible within the shortest amount of time. Remedial action schemes included the levels of equipment inventories to be maintained at the utility level and those to be jointly maintained with other utilities.

The project also presented an unusual opportunity to combine the disciplines of energy and preparedness planning into one activity, requiring an equally unusual partnering of public and private interests.

The interface between two “cultures”—the private, engineered approach of energy interests and the response and public policy orientation of emergency managers—served as a mutually enlightening look at how to effectively maximize human resources in responding to a crisis. The public sector function of response planning and recovery coordination does not always seek a private sector interaction; similarly, business continuity and contingency planning in the private sector is not always informed by public sector roles and responsibilities.

In this exercise, the information flowed in both directions. Public officials learned about the private sector’s role in trouble-shooting system failures, and private sector managers learned about coordinated response activities from federal, state, and local officials. The resulting benefits included an interest in furthering this new partnership through future collaborative efforts, and a commitment to revisit planning activities in both sectors based upon lessons learned from the exercise.

ICF Consulting is encouraging future clients to build an expanded perspective and capability to respond to the multi-disciplinary nature of homeland security and emer-

Perspectives

gency planning for all sectors. One specific lesson learned: it is essential to engage the private sector in the design and execution of critical infrastructure exercises since the private sector owns and operates a majority of the energy infrastructure in the United States.

Furthermore, ICF Consulting believes the public sector needs to lead/push the private sector to work together in critical infrastructure exercises because, increasingly, differ-

ent parts of a community's energy supply are owned by multiple companies. Getting these companies to work through the interdependencies and cascading effects of multiple system failures may be the first time they have jointly worked to minimize damage due to energy failures and the impacts on our economies and communities.

For more information about ICF Consulting's exercise capabilities, please visit www.icfconsulting.com/em. 