

By George Burmeister and Steve Foute

# KEEPING THE LIGHTS ON



In an emergency, will your government have the power it needs to provide the services you and your constituents count on?

*“The term ‘energy assurance’ is new to many people, and yes, it is competing with other issues for attention, but once you understand that it can help you manage your city more effectively, you have to pursue it.”*

Imagine working late at city hall one night and the lights begin to flicker. Next, only a few city buildings and key public gathering places remain lit. The rest of the region surrounding your city sits in total darkness. The power is out for two days, yet the city continues to operate with minimal disruption. It was spared from the worst effects of a power outage because a couple of years ago it became involved in energy assurance or energy security planning.

Today, more local governments are paying attention to energy security issues, which means they are concerned about their ability to maintain essential community services in the face of an energy disruption. And rightfully so: many essential local governments services fall into jeopardy when the power goes out. Local governments are apprehensive about the spate of energy outages because basic economic activity can be adversely affected without power, even for a short time. “We had to change our thought process and build energy into our business continuity plan and figure out how we could make it through a power outage that lasted several days,” says Casper, Wyo., Assistant City Manager Linda Witko.

### ADVANCE PLANNING IS MISSING

In planning for Y2K and following 9/11, communities paid heavy attention to crafting and practicing emergency response plans. Now, however, many realize that their emergency response plans do not include actions that specifically address energy disruptions. Given the increasing importance of energy across most services, this gap is now deemed unacceptable by many.

Although local government energy security planning includes three steps (preparedness and investment, response and restoration), most communities have not completed the first step: pre-event energy outage preparedness and investment. A group of 43 cities — from large communities (Boston, Chicago, Denver and Philadelphia) to medium and small cities (Baton Rouge, La.; Raleigh, N.C.; Hailey, Idaho; and Roswell, Ga.) — have been designing energy assurance plans since 2006 with Alexandria, Va.-based Public Technology Institute (PTI), supported by the U.S. Department of Energy’s Office of Electricity Delivery and Energy Reliability – [www.doe.gov](http://www.doe.gov). “It comes down to assuring that local governments are energy self-reliant until normal energy

## Three steps to energy assurance

To ensure that a community’s economic activity and essential services are maintained throughout an energy disruption, there are three key steps:

- 1. Understand what role energy plays in a community service such as fire protection.** For example, fire trucks need liquid fuel to respond to calls and provide rescue services. However, power is needed to pump the fuel into these same vehicles;
- 2. Determine what actions are needed to address any energy security weaknesses until normal energy services are restored.** In the case of fire protection, perhaps the necessary action is investing in a back-up generator with adequate fuel storage on-site so the fire department can remain functional for 72 hours or more; and
- 3. Implement the actions that mitigate the energy security weaknesses that were discovered.** For this third step, a defensible case needs to be made to the budget office and policy-makers so they can make informed decisions that result in timely investments.

## Resources for local government energy assurance planning

The following are available for free at: [www.energyassurance.us](http://www.energyassurance.us)

- >> Local Government Energy Assurance Guidelines, Versions I and II
- >> Energy 101: Key Energy Concepts for Local Governments
- >> Local Government Guidelines for Working with the Media During an Energy Emergency
- >> Cyber Security Concerns for Local Government Energy Assurance
- >> Smart Grid 101 for Local Governments
- >> Renewable Energy and Energy Assurance Planning for Local Governments
- >> Introduction to Energy Infrastructure Interdependencies
- >> The Role of Amateur Radio in Local Government Energy Assurance
- >> A Guide to Financing Instruments and Funding Opportunities for Energy Assurance

# How to build an energy security plan

The U.S. Department of Energy and PTI have assembled a simple process for building an energy security plan. Some of the main elements of the process are:

- >> Build an energy assurance team and develop partnerships with stakeholders;
- >> Compile a local energy profile;
- >> Identify and prioritize local key assets and understand the essential services they provide;
- >> Figure out ways to protect or “harden” those assets against an energy disruption; and
- >> Develop a strategic investment plan of projects and actions.

More information on the process is available by contacting Ronda Mosley at [rmosley@pti.org](mailto:rmosley@pti.org). PTI is available to provide technical assistance to all jurisdictions developing energy assurance plans.

services are restored,” says PTI’s Assistant Executive Director Ronda Mosley. “This requires partnerships with utilities and many others.”

Tricia Sears, project director for Portland, Ore.’s energy security plan, says that the program helped the city identify its energy weaknesses and strengths. “Our energy assurance planning enabled us to pull together sustainability, transportation, energy and emergency issues and integrate them,” she states.

In a separate project, PTI is helping the California Energy Commission (CEC) reach its goal of having 50 local government energy security plans complete by early 2013. Getting the attention of California local governments may be easier because of the recent numerous energy disruptions and billions of utility-funded local government energy efficiency programs invested over the last decade. “The term ‘energy assurance’ is new to many people, and yes, it is competing with other issues for attention,” says Witco. “But once you understand that it can help you manage your city more effectively, you have to pursue it.”

Because of the many threats from hazards such as natural events and terrorism, power outages, and the possible supply disruption from foreign sources of petroleum, local governments must work with utilities, regional councils of governments, neighboring communities and other stakeholders to build strong energy assurance plans. For example, local governments in the California San Joaquin Valley are considering energy security issues regionally, and in the interest of self-reliance, discussing options for shoring-up their local energy supplies. Not only are cities like Visalia, Calif., designing their own energy security plans, the region is parlaying its experience with climate action and sustainability plans into partnerships with Fresno and other regional cities.

They also are thinking regionally to keep energy dollars and jobs in their area. “We see increased interest from our members in energy planning,” says Fred Abouseman,



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executive director of the National Association of Regional Councils. "Lots of jobs are at stake with new shale gas finds and renewables. When you combine energy assurance efforts with general planning efforts, the community wins."

Local governments also are finding themselves engaged in what typically has been a utility-only world. City leaders are perhaps for the first time building real partnerships with their energy suppliers, and learning about smart grid opportunities, cyber security threats and exploring various types of alternative energy generation. They are writing new energy security plans to minimize the impact of future service disruptions and to reduce economic risk.

### AN INSURANCE POLICY AGAINST LOSS

Some local governments are considering their energy security planning as an investment similar to an insurance policy. "You pay a small premium up-front to protect against something you hope never happens," Mosley says.

However, energy security planning does not have to be resource intensive, she says. She suggests several low- and no-cost options used by some local governments:

- >> Identify and document all generator locations, the fuel used in each, their fuel capacity and make sure these generators are exercised.
- >> Locate and map fuel storage facilities.
- >> Require that all government fleet vehicles have at least a 1/2 tank of fuel at the end of a shift.
- >> Traditional telecommuting and four-day work weeks help control the load growth and energy used by your local government
- >> Review all existing fuel contracts, ensuring that your government is "first in line" in an energy emergency.
- >> Review all available materials related to any past energy emergency, and put together a short document that outlines the lessons learned
- >> Pre-position equipment such as

emergency generators, portable indoor heaters, battery chargers and portable lighting where they might be needed in an emergency.

- >> Start an awards program that recognizes voluntary innovative energy saving strategies in the residential, commercial sector or industrial sectors.

If an emergency occurs that affects energy, local governments must be prepared to "go it alone" for at least 72 hours because state and federal

governments may not be able to provide assistance for at least that long, Mosley says. "If that happens, a local government is better prepared if it has an energy assurance plan," she says.

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