

Facility and Support Services

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November 14, 2012

To: Dee F. Bruemmer
County Administrator

From: Dave Donovan, Director
Facility and Support Services

Subj: Discussion of Local Energy Assurance Plan document and process

As you know, over the past two years I have been working with representatives from the City of Davenport and Ross Bergen from the Scott County Emergency Management Agency to gather information for inclusion in a Local Energy Assurance Plan document. This planning effort is funded by the U.S. Department of Energy.

During the planning process we have examined the risks associated with possible interruptions of the various forms of energy that our community relies upon. As part of that effort, we have worked with a consultant to examine many issues, including:

- Identifying what forms of energy (electricity, natural gas, petroleum, etc.) that we rely on most heavily in Scott County;
- Using existing documents and analyses (such as our recently completed Hazard Mitigation Plan) to analyze risks that might interrupt or effect our supplies of energy;
- Exploring ways to mitigate and/or adapt to those risks;
- Identifying stakeholders that are most at risk during an energy event and others that are key to planning, reacting and recovering from energy interruptions;
- Planning for training and exercising of City and County staff on the various provisions of the plan;
- Identifying critical assets and infrastructure;
- Keeping our plan flexible, adaptable and current in the future.

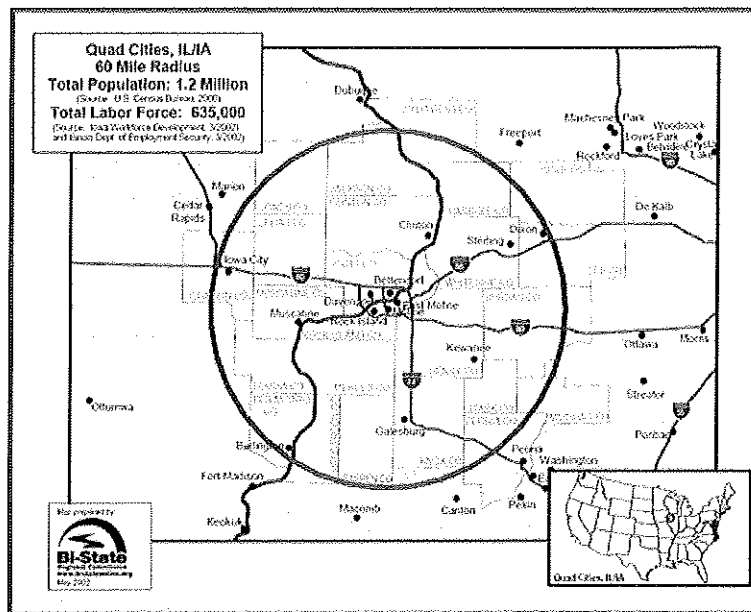
Part of the funding from the U.S. Department of Energy requires that we inform our elected officials about the plan. I will attend the next Committee of the Whole meeting and will make a short presentation regarding the plan at that time. I will also answer any questions you or the Board may have.

Cc: Ross Bergen
Robbin Dunn, City of Davenport

EXECUTIVE SUMMARY

Introduction

The City of Davenport (City) and Scott County (County), Iowa are part of the Quad Cities Metropolitan Statistical Area (MSA), located in eastern Iowa and situated along the Mississippi River. The City and County are approximately 165 miles west of Chicago and 170 miles east of Des Moines. In 2011, the County's population numbered approximately 167,095.



Source: Scott County, Iowa¹

Figure ES-1: Davenport and Scott County, Iowa

The City and County have a history of being vulnerable to adverse weather-related events, such as flooding along the Mississippi River, ice storms, and tornados. Such concerns have prompted the need to plan ahead for response to emergency conditions. As a part of such concerns, the City and County reached out to the United States (U.S.) Department of Energy (DOE) and National Energy Technology Laboratory (NETL) for a grant under the American Recovery and Reinvestment Act of 2009 (ARRA) to create a Local Energy Assurance Plan (LEAP). This LEAP has been created with funds from that grant with overarching objectives to provide guidance to prepare for, monitor, mitigate, and recover from energy deficiencies and disruptions. It is the product of a collaborative effort between numerous City and County departments, private sector organizations, and SAIC Energy, Environment & Infrastructure, LLC (SAIC, formerly R. W. Beck, Inc.) consultant for the City and County. The information contained in this LEAP greatly expedites the City and County's response processes by laying out the key information that is necessary to

¹ <http://www.scottcountyiowa.com/profile.php>

address the safety, health, and economic viability of its constituents. Key elements of the LEAP include:

- Identify critical public (e.g., City and County departments, neighboring communities, state, and federal) and private sector stakeholders (e.g., energy-related utilities)
- Outline the roles and responsibilities of public and private sector organizations
- Present an authority framework for responding to energy emergencies
- Assess the City and County's energy profile
- Identify the critical infrastructure that directly affects the City and County's energy supply
- Outline prevention, preparation, mitigation, response, and recovery tasks for energy-related emergencies
- Provide a database of backup energy resources (e.g., portable and stationary electric generators, battery backup, uninterruptable power supplies, and petroleum storage tanks)
- Examine the interdependencies between different sources of energy
- Achieve cooperation and coordination among public and private sector organizations
- Outline public information and communications strategies
- Conduct a local energy assurance exercise and training
- Promote a continuous process of review and enhancement of the LEAP

Information provided in this Executive Summary brings forward the highlights of the LEAP. Additional information is found throughout the LEAP and it should be read in its entirety.

Energy Assurance Response and Planning Team

The City and County maintain separate Energy Assurance Coordinators for their respective jurisdictions and infrastructure. The roles and responsibilities of each Energy Assurance Coordinator is: (1) to develop and maintain a sound LEAP planning process and (2) engage a wide range of public and private stakeholders to facilitate mitigation and resiliency measures in the event of an energy emergency.

City and County Energy Assurance Coordinators are primarily responsible for developing and maintaining the LEAP, partnership and coordination among public and private sector organizations. This is critical to improved preparedness and response in the event of an energy disruption or large-scale energy emergency. Therefore, the LEAP is developed in collaboration with public and private stakeholders, to coordinate, organize, and build energy-related response mechanisms and strategies. The City and County's primary energy-related stakeholders are summarized in the following table.

**Table ES-1
Primary City and County Energy Related Stakeholders**

Organization	Department/Responsibility	Contact	E-Mail	Phone
City	Emergency Management	Robbin Dunn	rrd@ci.davenport.ia.us	563.327.5159
City	Fleet	Jonathan Meeks	jkm@ci.davenort.ia.us	563.326.7922
County	Emergency Management Coordinator	Ross Bergen	scema@msn.com	563.484.3050
County	Facility & Support Services	David Donovan	ddonovan@scottcountyiowa.com	563.326.8228
MidAmerican Energy	Electricity and natural gas	Steve Hampton	sjhampton@midamerican.com	563.333.8822
Alliant Energy	Electricity and natural gas	Dispatch	N/A	800.255.4268
Eastern Iowa Electric Coop	Electricity	Dispatch	info@easterniowa.com	800.728.1242
Blick & Blick	Petroleum distributor	Steve Blick	sblick@frontier.com	309.582.2012
Blick & Blick	Petroleum distributor	Gene Hofer	ghofer@frontiernet.net	800.535.9468
Eastern Iowa Petro	Petroleum distributor	Brent Seeser	eipbrent@gmtel.net	800.397.2921
Fauser Petroleum	Petroleum distributor	Don Kohagen	dkohagen@fauserenergy.com	319.830.3539
Fauser Petroleum	Petroleum distributor	Noel Knight	nknight@fauserenergy.com	800.328.7371
Molo-Quint Petroleum	Petroleum distributor	Chuck Penn	cpenn@molocompanies.com	888.236.0497
U.S. Dept. of Energy	Office of Electric Delivery and Energy Reliability	Alice Lippert	Alice.lippert@hq.doe.gov	202.586.9600
Iowa Utilities Board	Iowa Utilities Board	Duane Fournier	Duane.fournier@iub.iowa.gov	515.725.7315

The above list contains only the primary points of contact. A more comprehensive list of entities, names, phone numbers, and e-mail addresses is found in Appendix A (Steering Committee Members).

Roles and Responsibilities

The City and County have no direct authority in the planning, engineering, operation or maintenance of electric, natural gas or petroleum infrastructure. They are, however, responsible for other functions that may affect the resiliency of energy supply, such as the operation of the Emergency Operations Center (EOC), Emergency Communications Center, clearing debris and snow from roadways, backup electric generators, and distributions from its petroleum reserve. In addition, local government may provide input as to the prioritization of emergency restoration of public utilities and distribution of petroleum products and support utility and petroleum companies by assisting in coordination of available public and private resources.

Tasks that directly affect most of the local electric and natural gas infrastructure are the responsibility of MidAmerican Energy (MidAmerican). Certain areas of the

County receive electric service from Alliant Energy (Alliant), Eastern Iowa Electric Cooperative (Eastern Iowa), and municipal electric utilities in Buffalo, Eldridge, and Long Grove, Iowa. The City and County rely upon four distributors for its supply of petroleum (Blick & Blick, Eastern Iowa Petroleum, Fauser Energy, and Molo-Quint).

Emergency Authority Framework

The LEAP contains an outline of the laws that relate to energy assurance planning, including the city, county, state, and federal legal authorities and regulations, which are pertinent during an energy-related emergency. Such comprehensive discussion and list of pertinent legal authorities is found in Section 2 (Emergency Authority Framework).

Phases of Energy Emergency Response

A framework for energy emergency management is contained in this LEAP, which is comprised of the following five phases.

- **Prevention:** Identify actions that minimize the occurrence of an energy-related event.
- **Mitigation:** Reduce or eliminate long-term risks to protect people and critical infrastructure, and minimize the cost of energy emergency response and recovery.
- **Preparedness:** Reduce or eliminate a threat and protect critical infrastructure and key resources.
- **Response:** Review the actions to be taken immediately after an energy-related event.
- **Recovery:** Identify efforts to rebuild and revitalize affected communities.

The responsibility for responding to an energy emergency begins at the local level. Local government and emergency managers are primarily responsible for mitigating for, preparing for, responding to, and recovering from an incident or large-scale emergency. When events outweigh the City or County's resources, local government is expected to reach out to the state of Iowa (through the County's Emergency Management Agency) and, subsequently, the federal government for assistance.

The City and County's assets will be called upon to monitor, mitigate or respond to a disruption in energy supply. Assets of special importance are discussed in the LEAP and noted below.

Key Assets within the City and County

The City and County have numerous assets that may be called upon to monitor, mitigate or respond to a disruption in energy supply. Assets of special importance are discussed in the LEAP and noted below.

- City and County Command Centers
- Emergency Operation Center (EOC)

- Emergency Communications Center
- Joint Information Center (JIC)
- Backup electric generators
- Petroleum storage (unleaded gasoline and diesel)

This LEAP contains an inventory of the above assets, as found in Section 9 (Key Assets within the City and County).

Crisis Communications

One of the most effective actions that can be taken during an energy emergency is to implement a well-planned and comprehensive public information program. Timely and accurate information on the nature, severity, and likely duration of the energy emergency will lessen confusion, uncertainty, panic, and will facilitate cooperation from the public. Section 10 (Crisis Communications Protocol) establishes a program that implements response for a variety of energy emergency situations.

Mitigation

Three separate mitigation frameworks are presented in Section 15 (Energy Emergency Mitigation), which addresses electricity, natural gas, and petroleum. Each framework is founded upon the City and County's existing assets and its relationships with incumbent energy providers. Overall, MidAmerican is primarily responsible for prevention, preparedness, mitigation, response, and recovery of electric energy and natural gas. The City and County's role focuses on the application of its substantial inventory of backup electric generators. Similarly, while petroleum distributors represent the first line of local action, the City and County are well positioned to use its inventory of diesel and unleaded gasoline that is currently located in on-site storage tanks.

In the event of a large-scale disruption in energy supply, the City and County have the following backup capabilities:

- **Electricity:** An inventory of backup electric generators is contained in Appendix D and discussed in Section 9 (Key Assets within the City and County).
- **Natural Gas:** The City and County do not have any backup supplies or plans to respond to a disruption in natural gas supply.
- **Petroleum:** The City and County generally maintain enough unleaded gasoline and diesel fuel in its storage tanks to facilitate on-going services for approximately 19 days. City and County petroleum storage tanks are discussed in Section 9 (Key Assets within the City and County).

Recommendations

This LEAP presents a number of observations that the City and County should consider to improve its energy resiliency. The more significant recommendations include:

- Continue strengthening stakeholder relationships.
- Continue to collaborate with neighboring communities to develop a regional critical location inventory and backup electrical generator inventory.
- Maintain hard and electronic copies of the LEAP at the Scott Emergency Communications Center (SECC), Davenport Public Works Center, Scott County Administration Building, and fire and law enforcement facilities.
- Ensure that appropriate staff is trained on the LEAP.
- Conduct an energy assurance-related tabletop exercise once every two years.
- Update the LEAP once every two years, with routine modifications made on a case-by-case basis.
- Encourage key energy suppliers to adopt cyber security processes.
- Track on-going disruptions to energy supply (electricity, natural gas, and petroleum).
- Confirm that electric panels at critical locations (outside of the City and County's jurisdiction) are compatible with backup generators to improve response and recovery efforts.
- Consider developing a list of City and County Standard Operating Procedures pertinent in the event of an energy-related emergency.
- Include the response and mitigation measures of key stakeholders (e.g., fuel suppliers and health care facilities) into emergency planning processes.
- Investigate how the City and County might place critical staff in local hotels during an energy emergency.
- Establish a plan for operating only essential functions during an energy emergency.
- Investigate approaches to improve inter-agency communications during the early phases of an emergency.
- Include local cellular communications service providers in emergency response.
- Complete the full inventory of private sector LEAP stakeholders, their contact information, capabilities and other pertinent details that will facilitate City and County-wide response, recovery and resiliency to energy disruptions.
- Identify alternative communication protocols that will improve stakeholder participation in the EOC when participation by an on-site representative may be difficult for response and recovery efforts.
- Research improvements in backup electric supply for traffic signals at priority intersections (if such backup supply is not currently available).

- Research backup generator capabilities of petroleum suppliers, gas stations, grocery stores, schools, banks, and other critical locations.
- Encourage MidAmerican to identify which natural gas compressors operate by grid electricity (that affect the City and County's natural gas supply).
- Research ways to share weather and emergency-related data between energy suppliers, City, and County.
- Determine whether the City and County's fuel management plans need to be updated or formalized.
- Identify City and County human resource requirements during an emergency.
- Develop energy emergency communication guides, templates and pre-scripted messages to facilitate timely, coordinated, and accurate public information.
- Maintain contracts for electricians to support emergency operations and identify back-up generator suppliers.

