

Annex K
State Emergency Function (SEF) #11
PUBLIC UTILITIES MANAGEMENT

LEAD AGENCY: Colorado Department of Regulatory Agencies (Colorado Public Utilities Commission)

SUPPORTING AGENCIES: Agriculture, Local Affairs, Natural Resources, Office of Emergency Management, Public Health and Environment, Transportation.

I. PURPOSE

The purpose of this SEF is to coordinate the restoration of public utility services (natural gas, electricity, telecommunications, and transportation) during emergencies when state emergency operations are activated and to coordinate with other departments to assist in emergency response and ensure public safety. In addition, during the normal course of business when the State Emergency Operations Center is not activated, the Public Utilities Commission (PUC) staff will coordinate with and assist public utilities, as appropriate, in all-hazards emergency preparedness and response planning, and to heighten awareness associated with the risks of potential terrorist activities aimed at critical utility infrastructures or systems.

II. SCOPE

The scope of this annex is to outline the responsibilities and activities relating to public utilities in the event of an emergency. Upon activation of the State Emergency Operations Center (SEOC), the PUC emergency response personnel will initiate the following functions:

A. Planning Support: Assess and provide information concerning public utility services for areas affected by the emergency. Analyze disaster or potential disaster conditions, statewide needs and national requirements, and recommend to the Governor those functions that should be reduced, strengthened, or maintained during an emergency period.

During the normal course of business, PUC staff will assist utilities in identifying sources of training for utility emergency response personnel to improve awareness of and familiarization with the special additional considerations that may be associated with terrorist events. These include, but are not limited to, the use of Personal Protection Equipment (PPE); recognition of possible terrorist threats and devices; awareness of the potential terrorist threats associated with secondary devices or events; and the procedures for recognizing potential crime scenes and preserving evidence.

PUC staff will also encourage utility participation in vulnerability and risk assessments of critical utility infrastructures and systems. It is obvious that telecommunications, energy and transportation infrastructures are everywhere, are highly visible, and are often uncomfortably exposed. Protecting everything is impossible and impractical. It is essential to identify which risks are acceptable and which are not. Effective identification of critical components, coupled with enhanced physical and cyber security protection of these key assets, can significantly reduce vulnerability.

It is also important to recognize that effective planning must consider the three types of failures that can affect critical utility interdependent infrastructures.

- A **cascading failure** is a disruption in which one infrastructure causes a disruption in another.
- An **escalating failure** is a disruption in one infrastructure that exacerbates an independent disruption of another.
- A **common cause failure** is a disruption of two or more infrastructures at the same time as the result of a common cause.

B. Coordination: Cooperate with other departments to ensure that utility services and public safety issues are coordinated throughout the state. Initiate action as necessary for the emergency regulation of public utilities.

C. Information: Provide the State Emergency Operations Center with current and reliable information concerning utility related problems identified throughout the state.

D. Technical Assistance: Provide technical assistance to aid in damage assessment, economic stabilization, telecommunications support, and transportation issues.

III. SITUATION

A disaster may result from natural or technological hazards, terrorist activities, or from a National Security Emergency that produces extensive damage and results in numerous requests for services to save lives, alleviate suffering, and reestablish basic necessities. Public utilities services assume a significant role in providing a means to accomplish response and recovery operations. Communications, environment, public safety, and security systems can all be affected by disruption of these services. Natural gas, electricity, telecommunications and transportation are all essential services necessary to reduce further suffering and aid in the recovery process.

As was amply demonstrated in the aftermath of the terrorist attacks of September 11, 2001, the telecommunications and energy (natural gas and electricity) industries are two key examples of the **interdependencies** that exist among our Nation's critical infrastructures. This has always intuitively been the case, but the events of September 11th brought it forcefully home and brought to light new vulnerabilities that were not previously fully appreciated. These interdependencies are the physical, cyber, geographic, and logical linkages that exist among critical infrastructures and they must be recognized and considered when planning for protection and emergency response and recovery activities.

Some common examples of interdependencies are: Common or interoperable telecommunications systems are critical for effective emergency response operations. Electric generators often depend on natural gas for their operations (virtually all new generation coming on line is natural gas fired). All utilities are heavily dependent on the availability of electricity and telecommunications systems (these industries rely heavily on electronic and computerized control systems for network operations and other critical functions). Utility infrastructure components often share common corridors and

trenches, thereby multiplying system vulnerabilities to localized physical hazards or sabotage.

IV. PLANNING ASSUMPTIONS

A. In order to determine the effect on public utilities' services, or which utilities have been affected, it will be necessary to receive timely and continuing information on the magnitude, impact and extent of damages related to an incident or situation. Depending on the nature and severity of a disaster, the effects may expand far beyond the location of the event. For example, the September 11th terrorist attacks on the World Trade Center in New York City set off a complex chain of local, regional, national, and global infrastructure and interdependency-related impacts.

B. Identification of utility needs by local jurisdictions will assist in determining damage assessments and initial response needs.

C. Delays may be experienced in restoring utility services. Communications and basic quality of life services may be impacted.

D. Damage assessment may be restricted by communication and environmental problems. As necessary and appropriate, PUC staff in the SEOP will coordinate with the Division of Insurance to provide on-site assistance at the disaster scene during recovery operations. Division of Insurance personnel can provide assistance to individuals and businesses in filing insurance claims and participate in damage assessment functions.

E. Normally, public utilities have internal emergency response mechanisms and personnel which will provide the primary source of information to the emergency operations center. Utility response personnel are highly trained and have a distinguished record of safe and expedited restoration of utility services. They are critical to emergency response and recovery operations. They can also provide essential assistance to public works or other functions that may require specialized engineering knowledge, special equipment, and highly developed skills.

V. CONCEPT OF OPERATIONS

A. General

1. When a determination is made to activate the State Emergency Operations Center, a representative from the Public Utilities Commission will respond. Initial assessments will include the extent of the emergency and any effects on local public utilities. These assessments will:
 - a. Provide an aggregate assessment of impact on critical public utility facilities, type and severity of damages, and geographical areas affected.
 - b. Determine the status of emergency response activities initiated by affected utilities.
 - c. Provide utilities with location and status of EOC operations, Incident Command Post, staging areas, mobilization centers, disaster field offices,

and any other information they may need to coordinate recovery operations.

2. SEF #11 activities will commence with the activation of the Emergency Operations Center and a determination that public utilities may be affected or required to facilitate recovery operations. The level of staffing will depend on the extent and seriousness of the emergency. Staffing will be expanded as needed after initial assessments are completed. It is not anticipated that PUC representatives will be deployed with the Field Operations Team unless a specific need is identified by the SEOC.
3. Initial concerns will be to establish communication with affected utilities, or establish alternate means of communication if normal communication is not available.
4. Essential information required by SEF #11 will include the following:
 - a. Geographical area affected by the emergency or disaster.
 - b. Status of gas, electric, transportation and telecommunications services.
 - c. Status of central telecommunications facilities, electric generation and transmission facilities, gas pipeline and delivery systems, and any other public utility issues.
 - d. Specific existing or potential hazards which may affect or limit utility response personnel.
 - e. Status and location of operational facilities in the disaster area.
 - f. Weather information.
 - g. Public utility needs of other SEFs.
 - h. Resource needs.
5. The PUC representative will develop Situation Reports to provide an overall picture of the incident from a public utility perspective and describe response activities that have been undertaken. The report will include the following information:
 - a. Narrative to include statistical or graphical information presenting a current overview of public utility impacts.
 - b. Any major response actions that have been initiated.
 - c. Recommended actions required and unfulfilled needs.
 - d. Priority issues and requirements.
6. The PUC representative will maintain a log of actions taken and record events related to activities concerning public utilities.

7. As the incident moves from response phase to recovery phase, SEF #11 activities will continue from the SEOC. Field operations will normally be performed by the utility emergency response personnel.

VI. ORGANIZATION AND RESPONSIBILITIES

A. Organization

1. All SEF #11 activities will normally be conducted in the State Emergency Operations Center.
2. Staffing will normally consist of two persons, the Department of Regulatory Agencies Operations Manager (the Director, Public Utilities Commission) who will assume the role as the SEF #11 Public Utilities Chief and who will be assisted by a PUC Operations Officer. Staffing would be increased for larger events. The PUC has engineers, economists, financial analysts and other technical staff who have expertise in utility and transportation operations and safety functions and who may be called upon to assist, as needed.

B. Responsibilities

1. Director, Public Utilities Commission (Lead Agency)
 - a. Responsible to the Governor and the State Emergency Operations Chief to coordinate activities relating to restoration of public utility services.
 - b. Will provide staffing to support SEF #11 during activation of the emergency operations center. The Director, Public Utilities Commission will determine the level of staffing necessary depending on the scale of the emergency.
 - c. Will maintain the Colorado State Emergency Operations Plan for those functions for which the Department of Regulatory Agencies is the lead agency and will provide assistance to those agencies where DORA is a supporting agency.
 - d. Will participate in training exercises in support of SEOC activities.
2. Support Agencies: Agriculture, Local Affairs, Natural Resources, Office of Emergency Management, Public Health and Environment, Transportation.
 - a. Any disaster or emergency involving public utilities' services has the potential to affect other areas and departments. Close coordination between departments will ensure that utilities are restored as quickly and safely as possible.
 - b. Support agencies are responsible to provide information and, if necessary, resources to assist in restoration of public utilities, and to assist in public safety issues.