

Emergency Support Function (ESF) # 11

Energy & Utilities



Preface

Critical energy and utility infrastructure such as electrical power, natural gas, fuel and drinking water distribution systems can be damaged or destroyed during catastrophic emergency events. This infrastructure is vital to support the health, safety and welfare of the public during emergency response.

The purpose of this annex is the development of an organized and effective framework to respond to and recover from shortages and disruptions in the supply and delivery of electricity and City-County public utilities, and other forms of energy and fuels.

Primary Agency

Butte-Silver Bow Public Works Department

Butte-Silver Bow, Montana

Emergency Operations Center ESF # 11 – Energy & Utilities

Purpose:

1. To respond to and recover from shortages and disruptions in the supply and delivery of electricity, potable water, and other forms of energy and fuels.

Primary:

- **Butte-Silver Bow Public Works Department Support:**

- NorthWestern Energy
- Public Health Department
- Community Development Department
- Private Sector Fuel Suppliers
- Vigilante Cooperative
- Butte-Silver Bow Facilities Management

Likely Tasks:

- Determine present and future need for energy resources.
- Obtain, coordinate energy resources as requested by field incident commanders
- Staff Energy Group within the Butte – Silver Bow EOC Operations Section.

Likely Tasks:

- Ensure operation of Public Works dispatch and reporting systems.
- Determine condition, status of Public Works resources.
- Identify incident sites requiring Public Works services.
- Determine present and future need for Public Works resources to support:
 - Search and rescue.
 - Heavy rescue.
 - Debris clearance
 - Logistical support for field operations
- Determine condition, status of energy and utilities systems.
- Establish contact and coordinate with other utilities.
- Recommend priorities for utility restoration.
- Coordinate the provision of energy materials, supplies, and personnel.

State of Montana

Primary

- **Environmental Quality**

Support

- Environmental Quality
- NGO Utility Companies
- MT National Guard (DMA)
- Public Service Commission

Actions

- Energy infrastructure assessment, repair, and restoration
- Energy industry utilities coordination
- Energy forecast

Federal Government

Primary

- **Department of Energy**

Support

- Department of Agriculture
- Department of Commerce
- Department of Defense
- Department of Homeland Security
- Department of the Interior
- Department of Labor
- Department of State
- Department of Transportation
- Environmental Protection Agency

Actions

- Assesses impacts.
- Maintains lists of energy-centric critical assets and infrastructures, and continuously monitors those resources to identify and correct vulnerabilities to energy facilities.

Actions

- Focal point for receipt of information on actual or potential damage to energy supply and distribution systems and requirements for system design and operations, and on procedures for preparedness, prevention, recovery, and restoration.
- Assist with requests for emergency response actions as they pertain to the Nation's energy supply.
- Assist with locating fuel for transportation, communications, emergency operations, and national defense.
- Recommend actions to conserve fuel and electric power.
- Provide energy supply information and guidance on the conservation and efficient use of energy.
- Advise on priorities for energy restoration, assistance, and supply.

Comprehensive Emergency Management Plan
Emergency Support Function # 11
Energy & Utilities

Lead Agency: Butte-Silver Bow Public Works Department

Primary Coordinator: Public Works Department Director

Support Organizations: NorthWestern Energy
Public Health Department
Community Development Department
Private Sector Fuel Suppliers
Vigilante Cooperative
Butte-Silver Bow Facilities Management

I. INTRODUCTION.

A. PURPOSE.

Respond to and recover from shortages and disruptions in the supply and delivery of electricity and City-County public utilities, and other forms of energy and fuels.

B. SCOPE.

1. This ESF covers the restoration of energy and utility services which are interrupted due to an emergency and the coordination of services and communications among utilities, and with local, State, and Federal agencies.
2. The terms energy and utilities refers to and encompasses the production, transportation, generation, transmission, storage, distribution and maintenance of all private and public sector systems to supply energy, fuels, communication, and water to the City-County.

“Energy” refers to the electricity, natural gas, and petroleum products transmitted through utility systems;

“Utilities” refers to energy, water sewer and solid waste systems.

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2. Gather, assess, and share information on energy and public utility (water, sewer, solid waste) system damage and damage assessments of energy system outages.
3. Coordinate requests for assistance from public utilities officials, suppliers and deliverers.
4. Power, fuel, and other public utilities are critical to protecting lives and property and maintaining the continuity of government, business, transportation, emergency services, and other critical infrastructure.

C. SITUATION.

1. A major or catastrophic event will severely damage and/or destroy power lines, telephone equipment, drainage systems, water and sewer lines, and gas mains. Emergency equipment in the affected areas may be inaccessible and / or damaged. Restoration of these services is essential and must begin immediately.
2. Emergencies may cause shortages in energy supplies or public utility services by disrupting transmission or fuel supply levels, or increasing energy use.
3. Public utility emergencies can include acute shortages caused by power outages and flow disruptions and chronic shortages caused by panic buying of fuels and emergency stockpiling actions.
4. Fuel shortages can be caused by imbalances in supply and distribution.
5. A shortage of energy in one form can cause shortages in other sources.
6. Private sector organizations controlling critical infrastructure, key resources, systems, and networks providing essential functions and services play a key role before, during, and after an incident.

D. POLICIES.

1. During a declared emergency and/or disaster, the Chief Executive may establish energy allocation, use, and restoration priorities for the City-County.
2. During a declared emergency and/or disaster, the Chief Executive may establish and order energy conservation measures for City-County.

II. CONCEPT OF OPERATIONS.

A. GENERAL.

1. A major or catastrophic emergency will cause unprecedented energy and public utility system damage. Power lines, telephone equipment, gas mains, water and sewer, and drainage systems will be destroyed or damaged and must be restored or repaired. Utilities will be decimated, and may be partially or fully inoperable.
2. Many local government and utility response personnel will be unable to perform their prescribed emergency duties. Emergency equipment in the immediate emergency area may be damaged or inaccessible. Resources will be limited in the immediate emergency area. Disaster assistance must begin immediately

B. TASKS AND RESPONSIBILITIES.

1. Pre-Emergency Tasks.

- a. Primary and support departments will collaborate with the BSBOEM to:
 - Maintain this Emergency Support Function (ESF).
 - Identify local energy systems and providers.
 - Establish, maintain resource inventories.
 - Develop database of critical facilities and whether or not they have emergency or standby power supplies.
 - Develop database of existing critical facility generators, noting type of fuel, quantity on hand, and generator load.
 - Develop database listing of reserve generators and develop procedures for acquiring and deploying same with personnel to critical facilities during power failures.
 - Develop listing of priorities with local energy providers for use in emergency restoration services.
 - Develop procedures for assessing damages to local utility distribution systems.
 - Encourage mitigation practices at utility distribution facilities to reduce the potential effects of hazards on the utility's ability to deliver energy to local users.
 - Participate in trainings and exercises.
 - Develop emergency action checklists.

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2. General Emergency Tasks.

- a. Primary and support agencies will:
 - Coordinate energy activities with the appropriate tasked organizations

3. Specific Emergency Concepts and Responsibilities.

- a. **Public Works Department is the primary department for ESF # 11 Energy & Utilities and will:**

- Implement this Energy & Utilities ESF by assuming the position of Energy Group Supervisor within the EOC Operations Section.
- Monitor public utility related issues to prevent a public utility shortage.
- Develop an operations plan for responding to public utilities shortages.
- Provide an assessment report on the status of the water and wastewater systems and the impact of system outages.
- Provide recommendations on priorities for energy, water and other utility restoration.
- Coordinate the implementation of approved priorities for energy, water and other utility restoration.
- Provide personnel, equipment, supplies and other resources needed to restore water and waste water systems critical to saving lives, protecting health, safety and property.
- Provide the EOC Operations Section Chief with frequent updates as to the status of public utilities.
- Maintain records of cost and expenditures to accomplish this ESF and forward them to the EOC Finance/ Administration Section Chief.

- b. **Community Development Department:**

- Act as Liaison with the business community for requests for restoration of utility services and / or repair of services during large-scale events.
- Record costs and expenditures and forward them to this ESF's Group Supervisor.

- c. **NorthWestern Energy:**

- Provide an assessment report on the status of power systems and the impact of system outages.
- Provide personnel, equipment, supplies, and other resources needed to restore power systems critical to saving lives, protecting health, safety and property.

- Provide an assessment report on the status of natural gas systems and the impact of system outages.
 - Provide personnel, equipment, supplies, and other resources needed to restore natural gas systems critical to saving lives, protecting health, safety and property.
 - Upon request and when possible, provide an agency representative to the Emergency Operations Center.
 - Provide the Group Supervisor with timely and frequent updates as to the status of the power and natural gas systems in the City-County.
 - Maintain records of costs and expenditures to accomplish the Energy function and forward them to the Energy Group Supervisor.
- d. **Private Sector Fuel Suppliers:**
- As independent entities, respond to requests for restoration of utility services and / or repair of services.
 - Coordinate with the Energy Group Supervisor to prioritize the needs for fuel restoration services.
 - Identify required support agencies, begin mobilization of resources and personnel, and prepare to activate and direct utility restoration resources according to priorities.
 - Coordinate and facilitate the provision of fuel supplies to the City-County in quantities necessary to provide support to the recovery effort and to maintain the basic fabric of the community.
- e. **Public Health Department:**
- Provide emergency public information and protective actions related to public health issues.
 - Coordinate the assessment and certification water potability.
 - Record costs and expenditures and forward them to this ESF's Group Supervisor.
- f. **Facilities Management:**
- Provide available staff, resources, and facilities to support emergency operations related to this support function.
 - Coordinate emergency damage assessments, energy requirements, and repairs to City-County facilities.
 - Coordinate the maintenance, custodial services for continued operation of City-County facilities.

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g. Vigilante Rural Electric Cooperative:

- Provide an assessment report on the status of electric systems and the impact of system outages.
- Provide personnel, equipment, supplies, and other resources needed to restore electric systems critical to saving lives, protecting health, safety and property.
- Provide the Energy Group Supervisor with frequent updates as to the status of their electric systems.
- Maintain records of costs and expenditures to accomplish the Energy and Utilities function and forward them to the Energy Group Supervisor.

C. ROLE OF BUTTE–SILVER BOW EOC.

1. When the EOC is activated, the EOC Manager may activate the Energy Group Supervisor to coordinate all energy and utilities activities. The Energy Group Supervisor is responsible for directing and coordinating emergency programs relating to energy and utilities. The Energy Group Supervisor will make requests to the State EOC through the EOC Manager for additional resources when all City-County resources have been exhausted.
2. Energy and utilities personnel will be alerted according to prescribed departmental/agency policy. The operational priorities for personnel will be assigned by the Energy Group Supervisor. All personnel will report to their pre-designated locations unless otherwise directed by their supervisor at the time they are notified of the emergency. Pre-designation of duties and responsibilities will facilitate a reduction in response time.
3. Energy, water and other utilities will establish and maintain lines of communication in the EOC during major response operations to facilitate coordination of activities and resources.
4. Energy & Utilities Supply ESF # 11 likely tasks are found in the City-County box on the tab page at the front of this section.

D. LIFE SAFETY-DAMAGE ASSESSMENT.

1. An initial EOC priority is to gather as much intelligence about the extent of damage as soon as possible. The primary source for this will be the field response units providing information to the 911 communications center. As soon as possible, Energy and Utilities personnel will report the need for rescue, the number injured and fatalities, damage to buildings, public facilities such as roads and bridges, and utilities. These reports will be compiled and immediately communicated to the EOC duty officer or directly to the EOC if activated.

E. EVACUATION.

1. Energy and Utilities officials will implement evacuation orders due to unsafe buildings, fire danger, hazardous materials, or any other reason identified by competent authority. Officials will take all lawful actions necessary to save lives and property.
2. Evacuation orders will be coordinated with the EOC to ensure the evacuees are moved to an appropriate shelter, and the needs of special populations and individuals are provided for. (see Evacuation Strategy-published separately)

F. FIELD OPERATIONS.

1. Emergency actions may include:
 - Once notified of an emergency situation, sending response teams/personnel, equipment, and vehicles to the emergency site, staging areas, or other location, as appropriate.
 - Identifying an Incident Commander (IC) and establishing an Incident Command Post (ICP). Assign appropriate personnel to IC staff.
 - Potentially performing IC duties at the emergency scene.
 - When requested, send a senior representative to the EOC, when the EOC has been activated during an emergency.
 - Notifying the EOC of the situation if the original notification did not come from the EOC.
 - Assisting, as appropriate, in the evacuation of people at risk in the immediate area in and around the emergency scene.
 - Alerting all emergency response organizations of the dangers associated with technological hazards and fire during emergency operations.
2. Energy and Utilities personnel will establish inner and outer perimeters to secure an emergency scene. A strict policy of limited access to the emergency area will be rigidly enforced to ensure the safety and well-being of the community. All movement into and out of the secured area(s) will be requested and approved through the established command post(s).
3. Security will be provided for essential facilities if required, and law enforcement will assist the Energy and Utilities personnel in restricting access to unsafe buildings or areas.
4. Hazardous Materials Response.
 - a. Energy and Utilities personnel responding to a potentially hazardous material environment will ensure that they have a full understanding of the Incident Commander's assessment of the situation and that they take full and proper precautions to protect themselves.

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- b. Only personnel having proper training should be deployed to a hazardous material incident.

III. ATTACHMENTS AND REFERENCES.

A. ATTACHMENTS.

1. Energy & Utilities (ESF # 11) Checklist.

B. REFERENCES.

1. Butte-Silver Bow Evacuation Strategy.
2. Butte-Silver Bow Emergency Operations Center Operating Guide.
3. Butte-Silver Bow Joint Information System Plan.
4. NorthWestern Energy Emergency Plans for Butte Division.
5. National Infrastructure Protection Plan.
6. National Response Framework, ESF-12 Energy (2008).

C. PROVISIO.

This support annex has been prepared in accordance with the standards of the National Incident Management System and other Federal and State requirements and standards for emergency plans applicable as of the date of the plan's preparation.

The plan provides guidance only; it is intended for use in further development for response capabilities, implementation of training and exercises, and defining the general approach to incident response. The actual response to an incident is dependent on:

1. The specific conditions of the incident, including incident type, geographic extent, severity, timing, and duration;
2. The availability of resources for response at the time of the incident;
3. Decisions of Incident Commanders and political leadership; and
4. Actions taken by neighboring jurisdictions, the State, and the Federal Government.

These and other factors may result in unforeseen circumstances, prevent the implementation of plan components, or require actions that are significantly different from those described in the plan.

Attachment 1

ENERGY & UTILITIES (ESF # 11) CHECKLIST

<p>Pre-Emergency</p>	<p>Coordinate with the BSBOEM to:</p> <ul style="list-style-type: none"> <input type="checkbox"/> Maintain this Emergency Support Function (ESF) document. <input type="checkbox"/> Identify local energy systems and providers. <input type="checkbox"/> Establish, maintain resource inventories. <input type="checkbox"/> Develop database of critical facilities and whether or not they have emergency or standby power supplies. <input type="checkbox"/> Develop database of existing critical facility generators, noting type of fuel, quantity on hand, and generator load. <input type="checkbox"/> Develop database of reserve generators and develop procedures for acquiring and deploying same with personnel to critical facilities during power failures. <input type="checkbox"/> Develop listing of priorities with local energy providers for use in emergency restoration services. <input type="checkbox"/> Develop procedures for assessing damages to local utility distribution systems. <input type="checkbox"/> Encourage mitigation practices at utility distribution facilities to reduce the potential effects of hazards on the utility’s ability to deliver energy to local users. <input type="checkbox"/> Participate in drills, exercises. <input type="checkbox"/> Develop emergency action checklists.
<p>Emergency</p>	<ul style="list-style-type: none"> <input type="checkbox"/> When notified, report to the Butte – Silver Bow EOC. <input type="checkbox"/> Coordinate energy activities with the appropriate tasked organizations.
<p>Emergency Operations Center (EOC)</p>	<ul style="list-style-type: none"> <input type="checkbox"/> Implement this Energy & Utilities Supply ESF by assuming the position of Energy Group Supervisor within the EOC Operations Section. <input type="checkbox"/> Determine condition, status of City-County energy and utility systems. <ul style="list-style-type: none"> - Initiate damage assessment/recovery activities for local power, gas, water distribution systems. - Determine possible affected areas, structures and resources needed for energy restoration. <input type="checkbox"/> Establish contact and coordinate with NorthWestern Energy. <ul style="list-style-type: none"> - Request that NorthWestern Energy send a representative to Butte – Silver Bow EOC or provide liaison contact information. <input type="checkbox"/> Coordinate with support departments/agencies, to establish priorities and develop strategies for the initial response and restoration of utilities.

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- Coordinate the provision of energy materials, supplies, and personnel for the support of emergency activities being conducted by the Butte-Silver Bow EOC.
- Communicate with and monitor City-County and utility response actions.
- Maintain communication with utility representatives to determine emergency response and recovery needs.
 - Contact electric, gas, telephone, and water utilities serving the emergency area to obtain information about damage and/or assistance needed in their areas of operation.
- Determine region's generating capacity, expected peak loads; expected duration of emergency event, explanation of utilities' actions; and recommendations of local agency actions in support of the utilities.
- Provide assistance to local providers in locating and acquiring equipment necessary to restore local electrical and gas capabilities, and to restore the water/wastewater systems.
 - Coordinate City-County government equipment and personnel as required to aid in this restoration.
 - Procure needed resources to repair damaged energy systems. Such resources could include transportation to speed system repair as well as logistical support for utility field operations
 - Work with local and state emergency organizations establish priorities to repair damage to such systems.
- Monitor the procedures followed by individual utilities during energy generating capacity shortages to ensure County-wide action and communication.
- Determine present and future need for energy and utility resources.
 - Coordinate with ESF #6 Mass Care to identify emergency shelter power generation status/needs.
 - Coordinate with support agencies and other ESF's with assistance in providing resources for emergency power generation.
- Receive and assess requests for aid from City-County, state and federal agencies, energy offices, energy suppliers, and distributors.
- Obtain, coordinate energy and utilities resources as requested by field incident commanders.
- Sources for resources can include:
 - State and federal agencies.
 - Private industry.

	<ul style="list-style-type: none"> <input type="checkbox"/> Establish, maintain contact with State EOC through the Butte-Silver Bow EOC. <ul style="list-style-type: none"> - Coordinate delivery of energy and utilities resources to affected areas. <input type="checkbox"/> Update the PIO with accurate assessments of energy supply, demand and requirements to repair or restore energy systems. <ul style="list-style-type: none"> - Inform PIO about generating capacity shortfalls. <input type="checkbox"/> Maintain accurate logs and other records of emergency responses. <input type="checkbox"/> Draft recommendations for after-action reports and other reports as appropriate.
<p style="text-align: center;">Recovery Actions</p>	<ul style="list-style-type: none"> <input type="checkbox"/> Coordinate the provision for resources to assist local, state and federal agencies in restoring emergency power and fuel needs. <input type="checkbox"/> Review recovery actions and develop strategies for meeting local energy needs. <input type="checkbox"/> Continue to monitor local, state and utility actions. <input type="checkbox"/> Coordinate restoring of energy utilities (electrical, gas, etc.) to all City-County buildings. <input type="checkbox"/> Participate in after-action briefings and develop after-action reports. <input type="checkbox"/> Return organization and personnel to a state of operational preparedness. <input type="checkbox"/> Support personnel through Critical Incident Stress Management as necessary. <input type="checkbox"/> Forward recorded costs and expenditures to this ESF's Group Supervisor for reimbursement.

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