

EMERGENCY SUPPORT FUNCTION #12—ENERGY

LEAD AGENCIES/ORGANIZATIONS

Electric Power

Puget Sound Energy
Tacoma Public Utilities-Tacoma Power
Other Public and Private Nonprofit Electric Utilities
Alder Mutual Light Company
City of Milton
Elmhurst Mutual Power & Light
Lakeview Light & Power
Ohop Mutual Light Co.
Parkland Light & Water Co.
Peninsula Light Co.
Ruston Electric
Tanner Electric Cooperative
Town of Eatonville
Town of Steilacoom

Natural Gas

Williams Northwest Pipeline
Puget Sound Energy

Liquid Fuels

Olympic Pipe Line Company LLC
Phillips 66 Pipeline LLC

SUPPORT AGENCY

Pierce County Department of Emergency Management

STATE LEAD

Washington State Department of Commerce

I. INTRODUCTION

A. Purpose

To provide for effective use of available electric power, natural gas, and liquid fuels products to meet essential needs, and to facilitate coordinated restoration of energy systems affected by an emergency or major disaster.

B. Scope

Energy includes producing, refining, transporting, generating, transmitting, conserving, building, distributing, and maintaining energy systems and system components.

A combination of public and private utilities owns and/or operate the energy infrastructure within the County and are partners and/or leads for the coordinated restoration of infrastructure-related services. Through ongoing planning and coordination, the energy sector provides critical details for incident action planning and decision-making processes during an incident.

This plan is intended to assist government and energy sector stakeholders in overcoming inherent challenges associated with the restoration of energy systems by describing data sharing efforts concerning outages, affected geographical areas, and estimated restoration times, as well as coordinating equipment, specialized labor, and transportation to assist in repairing or restoring energy infrastructure.

Although the energy network consists of systems that span multiple states where geographic disruptions may affect one or more jurisdictions, the intention of this plan is to outline coordination within Pierce County only.

C. Core Capabilities and Actions

The following table lists the core capabilities that ESF #12 most directly supports along with the related ESF #12 actions. In addition to the core capabilities listed in the table, all ESFs support the following core capabilities: Planning, Operational Coordination, and Public Information and Warning.

Mission Area	Core Capability	Description and Actions
Response	Logistics and Supply Chain Management	<p>Deliver essential commodities, equipment, and services in support of impacted communities and survivors, to include emergency power and fuel support. Synchronize logistics capabilities and enable the restoration of impacted supply chains.</p> <ol style="list-style-type: none"> 1. Mobilize and deliver governmental, nongovernmental, and private sector resources to save lives, sustain lives, meet basic human needs, stabilize the incident, and transition to recovery, to include moving and delivering resources and services to meet the needs of disaster survivors. 2. Enhance public and private resource and services support for an affected area.
	Situational Assessment	<p>Provide all decision makers with decision-relevant information regarding the nature and extent of the hazard, any cascading effects, and the status of the response.</p> <ol style="list-style-type: none"> 1. Deliver information sufficient to inform decision making regarding immediate lifesaving and life-sustaining activities and engage governmental, private, and civic sector resources within and outside of the affected area to meet basic human needs and stabilize the incident. 2. Deliver enhanced information to reinforce ongoing lifesaving and life-sustaining activities, and engage governmental, private, and civic sector resources within and outside of the affected area to meet basic human needs, stabilize the incident, and transition to recovery.

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Mission Area	Core Capability	Description and Actions
Response <i>(continued)</i>	Infrastructure Systems	<p>Stabilize critical infrastructure functions, minimize health and safety threats, and efficiently restore and revitalize systems and services to support a viable, resilient community.</p> <ol style="list-style-type: none"> 1. Decrease and stabilize immediate infrastructure threats to the affected population, to include survivors in the heavily damaged zone, nearby communities that may be affected by cascading effects, and mass care support facilities and evacuation processing centers with a focus on life-sustainment and congregate care services. 2. Re-establish critical infrastructure within the affected areas to support ongoing emergency response operations, life sustainment, community functionality, and a transition to recovery. 3. Provide for the clearance, removal, and disposal of debris. 4. Formalize partnerships with governmental and private sector cyber incident or emergency response teams to accept, triage, and collaboratively respond to cascading impacts in an efficient manner
Recovery	Infrastructure Systems	<p>Recover critical infrastructure functions, minimize health and safety threats, and efficiently restore and revitalize systems and services to support a viable, resilient community.</p> <ol style="list-style-type: none"> 1. Restore and sustain essential services (public and private) to maintain community functionality. 2. Develop a plan with a specified timeline for redeveloping community infrastructures to contribute to resiliency, accessibility, and sustainability. 3. Provide systems that meet the community needs while minimizing service disruption during restoration within the specified timeline in the recovery plan.

II. POLICIES

- A. All emergency providers, whether publicly or privately owned, will be prepared to respond to energy related needs resulting from an emergency or major disaster.
- B. The agency shall prepare and update contingency plans for implementation in the event of energy supply shortages or emergencies. This duty is carried out under the authority of Chapter 43.21G RCW and Chapter 194-22 WAC.

III. SITUATION

- A. Energy Overview

The largest source of electricity in Washington State comes from hydropower, and Washington is the largest producer of hydroelectricity in the United States. The electric power industry in Pierce County comprises a network of public and private generation and transmission facilities electrically tied together into a wide area synchronous grid: The Western Interconnection. The Western Interconnection is one of the two major alternating current (AC) power grids in North America and stretches from Western Canada south to Baja California in Mexico, reaching eastward over the Rocky Mountains to the Great Plains. Through such networks, the electric power industry has the capability to transmit electric power under extreme conditions. Power is then distributed by electric utilities to individual consumers, which have varying levels of distribution reliability. Many consumers with high-reliability needs—such as hospitals and the news media—have their own in-house generation sources. The Western Electricity Coordinating Council (WECC) is responsible for mitigating risks to the reliability and security of the Western Interconnection. During large-scale power outages, restoration of electric power transmission system(s) for western utilities is coordinated by the WECC Reliability Coordinator(s) (RCs). Pierce County's largest electric utilities by customers served are Puget Sound Energy (PSE) and Tacoma Power. Several other public electric utilities and Private Nonprofit mutual companies provide electric power to the remainder of residents within the County.

The primary transportation source for natural gas in Pierce County is a major international transmission pipeline system: The Northwest Pipeline, owned and operated by Williams. For distribution, energy utilities provide natural gas to most consumers (residential and commercial), with the exception of some large industrial users and infrastructure operators having dedicated sources. Pierce County's main distributor of natural gas is PSE.

Bulk transportation sources for petroleum in Washington State are by vessel, rail, and pipeline. By vessel, barges and tankers transfer crude oil to one refinery, and refined products at three oil terminals (storage facilities) in the Port of Tacoma. The majority of crude oil transported through Pierce County is on BNSF-owned railroad track, moving northward to oil refineries in Skagit and Whatcom Counties. From these refineries, petroleum products (gasoline, diesel, and jet fuel) are transported to Pierce County by an interstate pipeline system: The Olympic Pipeline, owned and operated by BP. A pump station connected to the mainline transports the refined products through a delivery line to a delivery facility in Tacoma. Tanker trucks owned by oil and/or trucking companies are the primary means of distributing petroleum products to fuel stations for general consumption.

B. Emergency/Major Disaster Conditions and Hazards

Refer to the Pierce County Hazard Identification and Risk Assessment (published separately).

C. Planning Assumptions

- Disruptions in energy supply are typically caused by physical damage to energy transmission and distribution systems, unexpected operational failure of such systems, or unusual economic or political events

- The occurrence of an emergency or major disaster could destroy or damage portions of the county's energy and utility systems and disrupt petroleum and natural gas supplies.
- Widespread and prolonged energy failures could occur in an emergency or major disaster.
- Delays in the delivery of all types of energy could:
 1. occur because of transportation infrastructure problems and loss of commercial electric power;
 2. adversely affect Pierce County's services necessary for response and recovery; and
 3. adversely affect necessary services for response and the continuity of public agencies and business operations.
- Facility owners and operators are responsible for the stabilization and restoration of normal operations at energy facilities.
- Public and private sector mutual aid and assistance networks facilitate the sharing of resources to support response.

IV. CONCEPT OF OPERATIONS

A. General

1. Responding to energy and petroleum shortages or disruptions and their effects is necessary for preservation of the public health, safety, and general welfare of the county's residents, workers, and visitors.
2. Smaller/localized energy-related incidents may be coordinated through the Tacoma-Pierce County Emergency Operations Center (EOC)—hereafter called the "EOC"—and large-scale/widespread energy-related incidents will be coordinated by the State.
3. Activities during an energy supply alert or energy emergency could include:
 - a. Assess fuel and electric power damage.
 - b. Assess energy supply and demand.
 - c. Depending on the scope of the incident, Situation Reports may be distributed to the EOC and/or SEOC.
 - d. Depending on scale, the EOC and/or SEOC coordinating with electric utilities, and petroleum and natural gas industries, to identify requirements to repair energy systems.
 - e. Depending on scale, energy utilities coordinating with the EOC and/or SEOC in establishing priorities to repair damaged energy systems.

- f. Coordinate temporary, alternate, or interim sources of emergency fuel and power; obtain current information regarding damages to energy supply and distribution systems.
- g. Assess the requirements for on-going recovery.
4. During long-term recovery outages:
 - a. Continue to work with their priority customers
 - b. Continue to communicate with the EOC on priorities for restoration timeframe.
- B. Mitigation Mission
 1. System improvements are a normal part of utility asset management programs.
 2. Participate in development of organizational mitigation plans.
- C. Response Mission
 1. Local Electric Utilities have Emergency Response/Operations Plans.
 2. Plans are exercised.
 3. Plans are reviewed and continuously improved following exercises and/or real-world incidents.
 4. The NIMS Incident Command Structure informs these plans.
 5. Refer to the responsible organization's mitigation plan for identifying and mitigating vulnerabilities to critical assets.
- D. Recovery Mission
 1. Replacing temporary infrastructure with permanent infrastructure.
 2. Continuing to prioritize recovery activities based on the greater good for the community.
 3. If rebuilding existing infrastructure in an area that no longer supports or requires the service, then it may be more practical to rebuild a new location.

V. RESPONSIBILITIES

All lead agencies/organizations for ESF #12 must have established disaster-related policies, systems, and procedures for:

- personnel accountability, safety, lines of authority and succession;
- providing logistical support to their personnel and equipment;
- facility/infrastructure damage assessment and reporting;
- continuity of operations to maintain essential services; and

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- facility/infrastructure repair and restoration.

Electric Power: Tacoma Power, Puget Sound Energy, and other public and Private Nonprofit electric utilities within Pierce County provide electric power to their customers.

Natural Gas: Williams Northwest Pipeline is the main supplier of natural gas in Pierce County and Puget Sound Energy is the main distributor of natural gas.

Liquid Fuel: Olympic Pipe Line Company LLC and Phillips 66 Pipeline LLC are major suppliers of petroleum products (gasoline, diesel, jet fuel, etc.) for the region.

Lead Agencies/ Organizations	ESF Responsibilities
Puget Sound Energy Tacoma Power Olympic Pipe Line Company LLC Phillips 66 Pipeline LLC Williams Northwest Pipeline	<ol style="list-style-type: none"> 1. Perform life safety and property preservation operations when indicated. 2. Assess infrastructure damage, supply adequacy, and market situation. 3. Determine location, extent, and restoration of supply and outages or disruptions. 4. Identify and coordinate restoration priorities with other affected energy companies. 5. Participate in unified command, when applicable. 6. Liaison with, and provide timely Situation Reports to the EOC when requested. 7. Provide a public information officer to the Pierce County JIC, when requested. 8. Comply with energy allocations and curtailment programs. 9. Secure mutual assistance, as needed.

Support Agency	ESF Responsibilities
Pierce County Department of Emergency Management	<ol style="list-style-type: none"> 1. Activate the EOC/JIC as necessary to support emergency operations. 2. Notify all affected jurisdictions and stakeholders of operational and situational conditions and provide frequent and regular status updates. 3. Coordinate delivery of state or federal resources, when requested.

VI. AREAS OF COORDINATION CROSSWALK

The following table describes the typical functions concurrently active during incidents involving ESF #12. Other ESF annexes are listed as a reference to guide coordination.

Function	Agency	ESF Annex
Hazardous Materials Response	Fire Districts, WA Ecology	ESF #10

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Function	Agency	ESF Annex
Coordination and Information Sharing	Pierce County Department of Emergency Management	ESF #5
Debris Management/Road Clearing	Pierce County Planning & Public Works	ESF #1 and #3
Route Finding and Notification	Pierce County Planning & Public Works/WSDOT	ESF #1
Safety and Security	Pierce County Sheriff's Department/local jurisdiction law enforcement agency	ESF #13

VII. AUTHORITIES AND REFERENCES

- Chapter 194-22 WAC: Washington State Curtailment Plan for Electric Energy.
- McChord Pipeline, Facility Oil Spill Response Plan.
- Olympic Pipe Line, Emergency Response Plan.
- Puget Sound Energy, Corporate Emergency Response Plan.
- RCW 43.21G.050: Duty of executive authority of state and local governmental agencies to carry out supply alert or emergency measures—Liability for actions.
- Tacoma Public Utilities, Continuity of Operations Plan.
- Tacoma Power Emergency Response Plan.
- Williams-Northwest Pipeline, West Public Safety Response Manual.

VIII. TERMS AND DEFINITIONS

- (See Appendices I and II)
- **Energy Supply Alert:** A situation which threatens to disrupt or diminish the supply of energy to the extent that the public health, safety, and general welfare may be jeopardized.
- **Energy Emergency:** A situation in which the unavailability or disruption of the supply of energy poses a clear and foreseeable danger to the public health, safety, and general welfare.

IX. ATTACHMENTS

- (None)