

ENERGY SYSTEM RESTORATION PLAN



PUBLIC

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1. INTRODUCTION

1.1 Purpose

Puget Sound Energy's (PSE) Energy System Restoration Plan (ESRP) serves as the guidance document for emergency preparedness and response to emergencies having an inverse impact to our electric or natural gas systems. The ESRP assumes an all-hazards approach and applies to all emergencies regardless of the cause, size or complexity of the event.

- Procedures for response, restoration, and recovery are consistent across PSE's service area and should appear seamless to our customers and the public.
- We incorporate and enforce standard policies and consistent operating practices Companywide.

1.2 Scope

The Energy System Restoration Plan serves as PSE's emergency management plan describing the preparedness and response concepts of operations for responding to electric and gas incidents. Included is a description of PSE's service territory, potential hazards, plan activation, organizational structure and response strategies.

This Plan does not provide process-specific procedures already detailed in other PSE documents.

Other plans of reference include, but are not limited to, the following:

- Gas Operating Standards
- Gas Field Procedures
- Electric Line Work Practices and Standards
- Electric Substation Work Standards
- Electric Design Standards
- Energy Emergency Plan
- Gas Cold Weather Action Plan
- Business Continuity Plan
- Baker and Snoqualmie Dam Emergency Action Plans
- Puget Sound Energy Yellow Book Safety Program

1.3 The National Incident Management System

PSE has adopted the National Incident Management System (NIMS), a consistent, nationwide framework and approach that enables government at all levels (federal, state, local, tribal), the private sector and non-governmental organizations to work together to

prepare for, respond to, and recover from the effects of incidents, regardless of cause, size, or complexity.

PSE incorporates the use of Incident Command System (ICS) principles, which provides a consistent, all hazards incident management methodology that allows PSE to integrate seamlessly into a nationally standardized response and recovery structure.

1.4 PSE Commitments

PSE has made a commitment to be safe, dependable, and efficient. During emergency incidents, PSE implements specific emergency response and business continuity plans with the understanding that the Communities in which we serve are reliant upon the services we provide.

- Emergency response and business continuity plans incorporate best-practice models.
- We work to ensure employee and public safety during emergency response efforts. We follow all safety rules.
- We respond to sites that serve critical lifeline services or pose a risk to public safety with the highest priority, and secure the site before allocating resources to other service restoration efforts.
- We participate in emergency planning efforts with external emergency agencies and utility partners and coordinate as needed with partners during active incidents.
- We keep emergency agencies and our customers informed in a timely manner.
- We maintain environmental stewardship during major restoration efforts by complying with all environmental work practices and regulations.

1.5 Training and Orientation

Training is provided on an annual basis. The amount and type of training is dependent on the requirements of the position. Training is organized through a “tiered” approach as follows:

- Tier 1 - Introduction to PSE Emergency Response

Required: All PSE and Service Provider employees involved in emergency response activities

Overview: Provides a general introduction to PSE’s response principles and organization

Method: Online course

- Tier 2 – Location-specific familiarization, including Operating Bases and ECC.

Required: Emergency personnel within the specific assignment location.

Overview: Provides specific detail regarding the organizational structure, chain of command and emergency protocols associated with the assigned emergency response location.

Method: Instructor led.

- Tier 3 – Position-specific training

Required: Personnel in select emergency roles requiring specialized training.

Overview: Provides role-specific instruction.

Method: most courses are instructor led.

1.6 Exercises

- PSE conducts exercises at least annually. Significant plan and procedural changes are incorporated into the exercise. PSE follows recommended practices as set forth through the Homeland Security Exercise and Evaluation Program (HSEEP).
- Exercises may take the form of a Workshop, Tabletop, Functional or Full-Scale exercise.
 - Workshops are used to familiarize participants of risks and to assist in the development of plan components.
 - Tabletop exercises (TTX) are used to generate discussion of various issues regarding a hypothetical, simulated emergency. TTXs can be used to familiarize participants with plan elements, enhance general awareness and decision-making capabilities, validate or enhance plans and procedures or rehearse concepts. A scenario may be included to set the stage for discussion.
 - Functional exercises (FE) are designed to also validate and evaluate capabilities typically directed toward a set of functions or inter-dependent groups of functions. FEs are focused on exercising plans, policies, procedures, and the staff members involved in execution of these elements. In FEs, events are projected through an

exercise scenario with event updates that drive activity. An FE is conducted in a realistic, real-time environment; however, movement of field personnel and equipment is usually simulated.

- Full-Scale exercises (FSE) are typically the most complex and resource-intensive type of exercise. They can involve multiple departments, agencies, organizations, and jurisdictions in order to validate many facets of emergency preparedness. In an FSE, events are projected through an exercise scenario with event updates that drive activity at the operational level. FSEs are usually conducted in a real-time environment that is intended to mirror a real incident, although in a compressed timeframe. Personnel and resources may be mobilized and deployed to the scene, where actions are performed as if a real incident had occurred.

1.7 After Action De-briefs and Improvement Planning

Following exercises and most emergency activations, after-action de-briefs are held to examine how well our plans and preparedness efforts performed and to identify potential areas for improvement. Additionally, PSE conducts investigations of specific incidents according to company or regulatory policies. Investigation outcomes are also used to inform on areas for procedural or plan improvement.

1.8 Information Sharing

PSE strives to provide timely, accurate and consistent communications during emergency incidents and for these reasons, as details become available a Public Information Officer oversees the dissemination of information. PSE communicates information through a variety of methods including:

- PSE website and Customer Outage Map
- News media
- Social messaging including the use of Twitter and Facebook
- Situational Reports to Local, County and State agencies
- Staffing of a Public Information Officer (PIO) during emergency activations.

1.9 Regulatory Authorities

PSE complies with State and Federal regulatory requirements for emergency preparedness, safety and reporting.

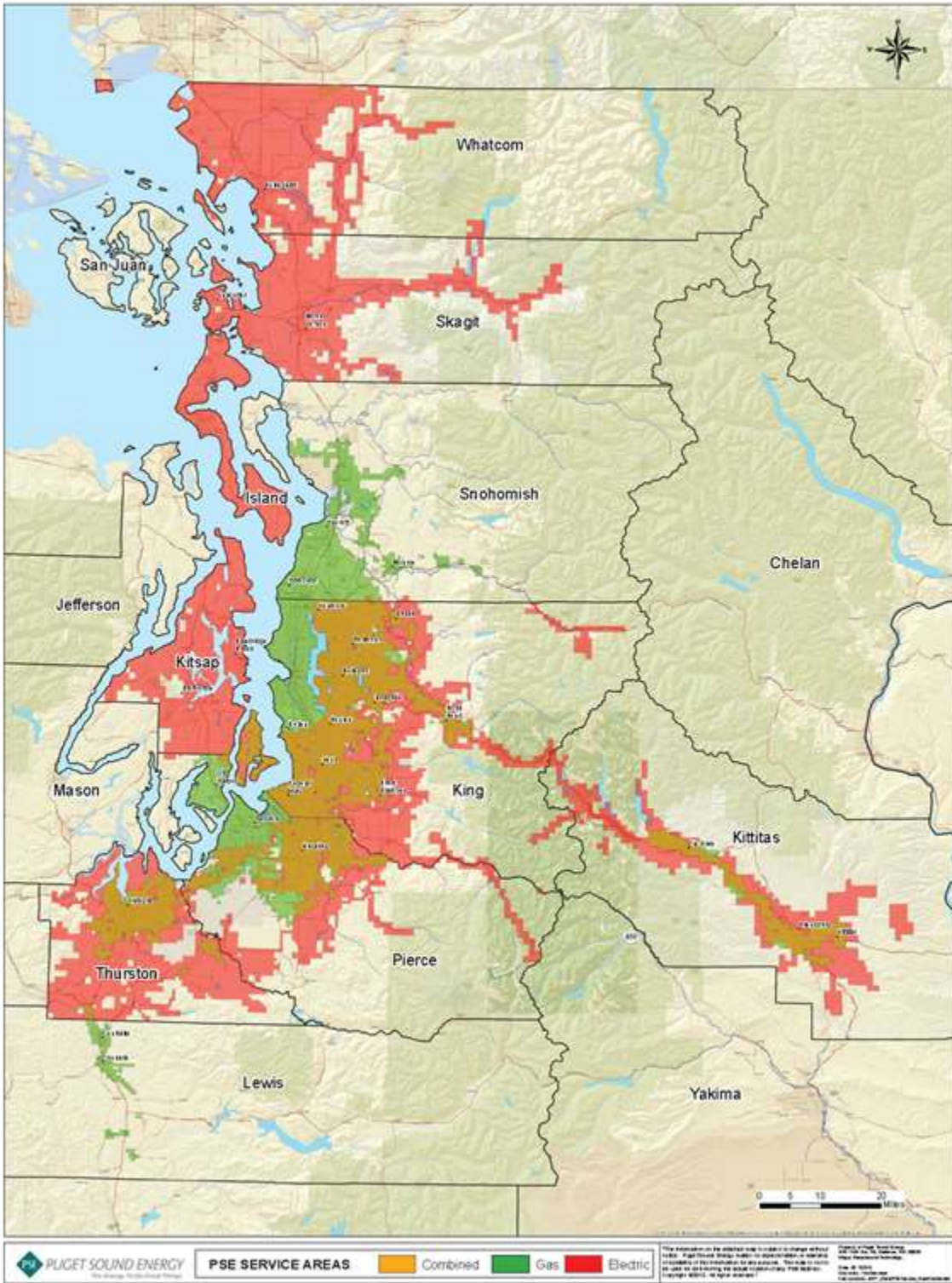
1.10 Plan Availability

PSE's Energy System Restoration Plan is available via both our internal employee website as well as our public-facing web site, PSE.com.

1.11 Responsibility

The Emergency Management and Resilience Department (EMRD) is responsible for development of emergency plan components and for maintenance of the ESRP. EMRD involves subject matter experts from Electric and Natural Gas Operations in the development of the plan.

1.12 Service Area



1.12.1 Service Area Description

As Washington State's oldest and largest energy utility, with a 6,000 square-mile service territory stretching across 11 counties, PSE serves 1.1 million electric and over 800,000 natural gas customers, primarily in the Puget Sound Region of Western Washington.

- Yellow: Electric Service only
- Green: Natural Gas Service only
- Orange: Both Electric and Natural Gas services

Electric Service Areas

PSE divides its electric service territory into six geographic regions. These six regions are Northern, North King, South King, Southern, and Western.

1. Northern Region: Whatcom, Skagit, and Island Counties
2. North King Region: North King County (north of Cedar River to Snohomish County line)
3. South King Region: South King County (south of the Cedar River to Pierce County line)
4. Southern Regions: Pierce and Thurston Counties (includes Olympia and Puyallup Operating Bases)
5. Western Region: Kitsap County
6. Eastern Region: Kittitas County

Gas Service Areas

1. Gas service is divided into three geographic regions. These three regions are Northern, King County, and South.
2. Northern region is North Seattle and Snohomish County.
3. King County is divided into East, Central, and South Central.
4. South region is comprised of Pierce, Thurston, and Lewis Counties.

2 HAZARDS AND EMERGENCIES

2.1 Hazards in the Puget Sound Region

The following hazards have the potential to cause widespread outages, severely challenge available energy supplies, and/or significantly overwhelm standard operating procedures.

- Natural Hazards
 - Severe weather (wind, snow/ice, extreme temperatures)
 - Earthquake
 - Flooding
 - Volcanic eruption/lahars
 - Fire (wildland)
 - Landslide
- Human or Technological Hazards
 - Terrorism
 - Cyber attack
 - Pandemic influenza
 - Fire (structural)
 - Hazardous material spill
 - Sabotage
 - Labor strife
- Energy Supply Disruption

Energy supply disruptions can be the result of a natural disaster hazard condition such as an earthquake or flood or the result of human intervention, whether it be intentional, such as an act of terrorism or sabotage or unintentional due to system failure, supply shortage, etc.

2.2 What is an Emergency?

PSE defines an emergency as any unplanned incident, regardless of cause, that either threatens or adversely impacts the Company's:

- Critical Business Functions
- Energy Delivery System
- Facilities
- Personnel (PSE employees and contracted Service Provider Staff)
- Technology Infrastructure

2.3 External Emergency Definitions

There are certain operating definitions of an emergency with which PSE must comply, or must be used to determine the level of response.

PSE's emergency response complies with the following codes and regulations:

- WAC 296-45-035 for the electrical system, "an unforeseen occurrence endangering life, limb, or property."
- WAC 480-93-180 for gas company safety natural gas ensures the Company is in compliance with the provisions of the federal Natural Gas Pipeline Safety Act, 49 CFR part 192."

3 CONCEPT OF OPERATIONS

3.1 Overall Response Priority

PSE's first priority is the safety of the general public, PSE and Public first responders, other PSE employees and our service providers. Response efforts begin following assessments of damage locations. Assessment activity can begin as soon as the area surrounding the damage location/s have been deemed safe.

3.2 Definitions for Electric Emergencies

PSE's definition of an electric emergency is based on the scope of restoration activity in any one geographic region, or activity Company-wide when more than one region is affected. An electric emergency may be defined, but is not limited to the following:

- 12 or more distribution circuits impacted in any one region and escalating;
- 30 or more distribution circuits affected Companywide and escalating;
- Damage to the transmission system that impacts a significant number of customers;
- Continued severe weather conditions such as high winds, snow, or ice;
- A condition that overwhelms our capabilities for response and restoration activity using normal operating procedures and available resources.

3.3 Definitions for Gas Emergencies

PSE's definition of a gas emergency depends on the scope of response effort. Response efforts focus on the safe control of escaping gas. If gas service cannot be safely maintained, the safe shutdown and restoration of gas service is also considered an emergency event.

PSE defines a gas emergency as:

- Main or service breaks, outages, or other incidents that may stretch internal response capability;
- Complex field situation requiring support from an off-site strategy team;
- Response requiring large numbers of employees from multiple departments;
- Gas send-out of which significant distribution system constraints predicted;
- Disruption to Supplier system with potential for adverse impact to PSE's gas system; or,
- Incident resulting in a high-pressure main being removed from service.

A report of gas odor will be treated as an emergency and will be immediately assessed to determine the nature and scope of the emergency.

3.4 Incident Levels

PSE uses incident levels to characterize the overall impact of an incident. Incident severity escalates from level 0 to level 3, each having a corresponding response level.

Level	Electric Criteria	Gas Criteria	ECC Declaration & Activation – Electric Incident	ECC Declaration & Activation – Gas Incident
Level 0 Normal	Normal conditions across system.	<ul style="list-style-type: none"> Report of odor </= 4” break <200 customers impacted < 12 hour Operational Response 	N/A	N/A
Level 1 Elevated	<ul style="list-style-type: none"> Local PSE & Potelco Resources are sufficient – no or low outside crew support needed. 1-5 bases may be open with manageable outage numbers through System Operations coordination. Anticipated short-duration (<24 hours). 	<ul style="list-style-type: none"> Confirmed NG caused fires Explosion reported – Possible NG - Investigation Needed >200 customer outage count > 12 hour Operational response (excludes investigation duration) Multiple, possibly related leak indications – additional support needed Abnormal Weather forecast requiring increased operational activity Reported supply disruption Reported hospitalization or fatality 	<ul style="list-style-type: none"> Electric System Operations notifies Electric Operation Leadership and ECC Director. If a decision to activate the ECC is made, move to Level 2. If ECC is not required, System Operations will continue to monitor and provide status updates. If the situation begins to escalate, System Operations will again notify Leadership and the ECC Director, activating the ECC if needed. 	<ul style="list-style-type: none"> Gas System Operations Manager or Duty Manager notifies appropriate Gas operations & Engineering Leadership and ECC Director. If decision is to activate the ECC is made, move to Level 2. If ECC is not required, Gas Operations will continue to monitor and provide updates through standard notification procedures. If the situation begins to escalate, System Operations will again notify Leadership and the ECC Director, activating the ECC if needed.
Level 2 Significant	<ul style="list-style-type: none"> Multiple operating bases are open. Activity overwhelms System Operations capability Low to medium outside resources may be required ECC activation required to support resource, messaging and prioritization activity 	<ul style="list-style-type: none"> >24 hour response >1000 customers Severe localized damage Explosion – confirmed PSE involved Incident with large response footprint ECC Activation required Verified supply disruption Significant need for gas cold weather actions 	<ul style="list-style-type: none"> ECC Director declares a Level 2 and activates ECC ECC Manager mobilizes ECC staff 	<ul style="list-style-type: none"> ECC Director declares Level 2 and activates ECC ECC Manager mobilizes ECC staff
Level 3 Major	<ul style="list-style-type: none"> Most or all regions are impacted. Maximum level internal response <u>required</u> <u>Extensive</u> resources from outside area required including the use of Mutual Assistance Agreements. 	<ul style="list-style-type: none"> > 5 day response effort Most or all regions are impacted May require a resource allocation plan to move resources from one area to another Potential to require Mutual Assistance for repair and re-light 	<ul style="list-style-type: none"> ECC Director declares Level 3 ECC Manager changes Activation Level on subsequent SitReps 	<ul style="list-style-type: none"> ECC Director declares Level 3 ECC Manager changes Activation Level on subsequent SitReps

3.5 Emergency Activation

This plan is activated through routine evaluation of criteria unique to either gas or electric incidents.

- PSE operations staff vigilantly monitor system integrity, current or forecasted weather conditions, and current system impacts.
- When abnormal conditions exist, duty managers are contacted and alerted to potential or actual plan activation with duty teams activated as deemed appropriate.

Electric Plan Activation

- Deteriorating or sustained poor weather conditions which has the potential to pose a risk to electric service distribution; or,
- Transmission and/or distribution outages trending beyond nominal levels; or,
- When the restoration workload overwhelms standard operating procedures and resource capabilities.

Gas Plan Activation

- Multiple or major gas main breaks affecting increasing numbers of customers; or,
- Response capability stretched by multiple incidents, requiring prioritization; or,
- Complex field situation, requiring support from an off-site strategy team; or,
- Supplier disruption.

3.6 Overall Response Strategies

- During major incidents, every effort is made to strategically and effectively deploy resources.
- Priorities related to community critical infrastructure are incorporated into incident strategies and objectives.
- PSE's focus is to safely correct problems that can be fixed quickly and to restore the greatest number of customers first.
- Based on conditions, damaged sections of the electrical system may be de-energized and isolated, allowing service to be restored up to the point of damage, leaving the damaged site safe until repairs can be completed.
- When complete repair is not feasible given the extent of the damage, may provide temporary repairs until permanent repairs are possible. When permanent repairs must be delayed, we ensure that they are scheduled and completed in a timely manner.
- If local resource capabilities become overwhelmed due to extensive damage to the system, PSE will acquire additional resources through the use of outside contractors and/or Mutual Assistance.
- Staging areas are established when large numbers of outside resources are needed, but specific job location assignments have not yet been made.
- We include response agencies in our planning and response activities to facilitate coordinated response efforts and share information as needed during an incident to assist in establishing a common operating picture.

3.6.1 Energy Supply Constraint

Under certain emergency conditions in which the delivery of electricity or natural gas is compromised, PSE may implement requests for conservation, gas curtailment and/or controlled electric load shedding. The need to implement these actions is infrequent and generally attributable to two conditions:

- Supply disruption
- High demand for energy that surpasses our peak load expectations. This is typically due to extreme heat or cold weather temperatures.

The strategies related to these conditions ensure we are able to continue to deliver service to as many customers as possible under extreme adverse conditions. The decision to request conservation, curtailment or load shedding is complex. If the decision is made to implement one or all of these strategies, PSE communicates with customers, regulatory agencies and emergency partners to provide as much information as possible and follows regulatory guidelines for doing so.

Specific procedures related to these conditions are confidential and can be found by employees within the Gas Cold Weather Action Plan and within the Energy Emergency Plan.

PSE will ask for community communication support regarding the need to conserve energy through our emergency partners as well as the media.

3.7 Mutual Assistance

Utilities are often willing to assist one another with personnel or equipment to restore service in an emergency. The disruption may be caused by equipment malfunctions, accidents, sabotage, the elements, or other occurrences that prevent existing resources from restoring service in a timely manner.

Mutual assistance provides a cooperative mechanism to augment internal resource capabilities.

- Participation in mutual assistance is voluntary.
- The ability to provide assistance may be limited by situations such as the other utility's own conditions or prior commitments.
- Utilities may belong to a number of mutual assistance rosters, and as a result, prioritize the order in which they will respond to multiple requests for assistance.
- Mutual assistance involves two distinct procedures: Receiving assistance and providing assistance.

3.7.1 PSE's Mutual Assistance Agreements

PSE is a signatory to the following Mutual Assistance Agreements:

- Western Region Mutual Assistance Agreement (WRMAA). The Western Energy Institute (WEI) is the custodian of this agreement.
- Edison Electric Institute (EEI)—Restore Power.
- American Gas Association (AGA)—Natural Gas Operations Assistance Program.
- Regional Coordination Framework

Additionally, PSE maintains on-going working relationships with several contracting service companies who are not parties to the aforementioned mutual assistance agreements.

3.7.1.1 Outside Resource Working Rules

All crews and contractors, including out-of-area mutual assistance crews, will comply with Washington State regulations. They will work under their own work rules and collective bargaining agreements, but will comply with PSE's construction standards and work practices, including switching practices.

3.7.1.2 Safety & Training of External Resources

External resources will go through a PSE Safety and Procedures training when required before starting work on any PSE facility.

3.7.2 Contractor Crossings at the United States/Canadian Border

PSE has entered into an agreement with the United States Customs and Border Protection Agency (CBP) of the Department of Homeland Security to facilitate expedited border crossings for Canadian utility crews into the United States during emergencies caused by windstorm and other weather related issues. The agreement requires advanced notification to the CBP to staff additional screeners on duty allowing quick, thorough screening of Canadian contractors and their equipment for duty in the United States while contracting with PSE.

3.8 Emergency Response Assignments

In addition to day-to-day field responders, personnel of PSE and its service providers who do not regularly perform field operations and/or customer service duties, are assigned to fulfill specific emergency roles required for response efforts.

Emergency roles incorporate the principles of the Incident Command System and are further defined to meet the unique needs of PSE response.

- The Emergency Management and Resiliency Department is responsible for making emergency assignments and does so by ensuring those assigned have the knowledge and skill set required to perform the assigned tasks.
- Personnel may have a primary assignment and secondary assignment.
- Personnel will be asked to only perform jobs for which they are qualified.
- Not all personnel will be assigned an emergency role and the number of personnel required for each role is coordinated through Emergency Management and Resiliency. Ideally, we staff each position with enough individuals to cover shift change and multi-day activations.
- Individuals are assigned to a given location based on the needs of the Organization.
- Shift rotation schedules are pre-established whenever possible, however, pre-planned rotation schedules are not possible for all positions.
- All personnel of PSE and its service providers are expected to respond to emergency situations when called.

3.9 Emergency Communications Capabilities

Personnel in all PSE and service provider facilities, as well as authorized public and private agencies involved in an incident, must be able to communicate with the ECC, System Control, and other department personnel during emergencies.

- Information flow (voice, radio, or data) is critical to PSE's ability to advise customers of the status of emergency situations, and provide meaningful restoration estimates.
- If telecommunications fail at any time during an emergency, the Information Technology/Telecommunications Services Department will assist in their restoration.

3.9.1 PSE Radios, GETS/WPS, Amateur Radio, and Satellite Phones

- Management personnel responsible for emergency response may be provided with PSE radios to facilitate internal communications.
- Radios will be used for two-way communications to deploy resources, when landlines and cellular phones are not operational (e.g., due to earthquake).
- All phone and radio equipment that is assigned (temporarily or long term) must be signed out when received, and signed back in when returned.
- Select PSE employees are enrolled in Government Emergency Telecommunication Service (GETS) and Wireless Priority Service (WPS). In the event the public telephone network is intact, but overwhelmed by a high volume of calls, GETS/WPS users will be able to make urgent calls with priority routing through the public telephone network.
- Additionally, licensed amateur radio operators who are members of PSE's Amateur Radio Emergency Services (ARES) team will be able to provide site-to-site radio traffic using amateur (HAM) radio. This includes amateur radio communications with other PSE facilities as well as external agencies, such as city, county, or state EOC(s), and may include other public and private agencies.
- PSE has a limited supply of satellite phones located at each major operational facility.

3.10 Customer Communications

PSE's Communications Department provides 24/7 communication monitoring. The department assigns a Public Information Officer to work within the ECC as well as mobilizes increased media and social networking staff during emergencies.

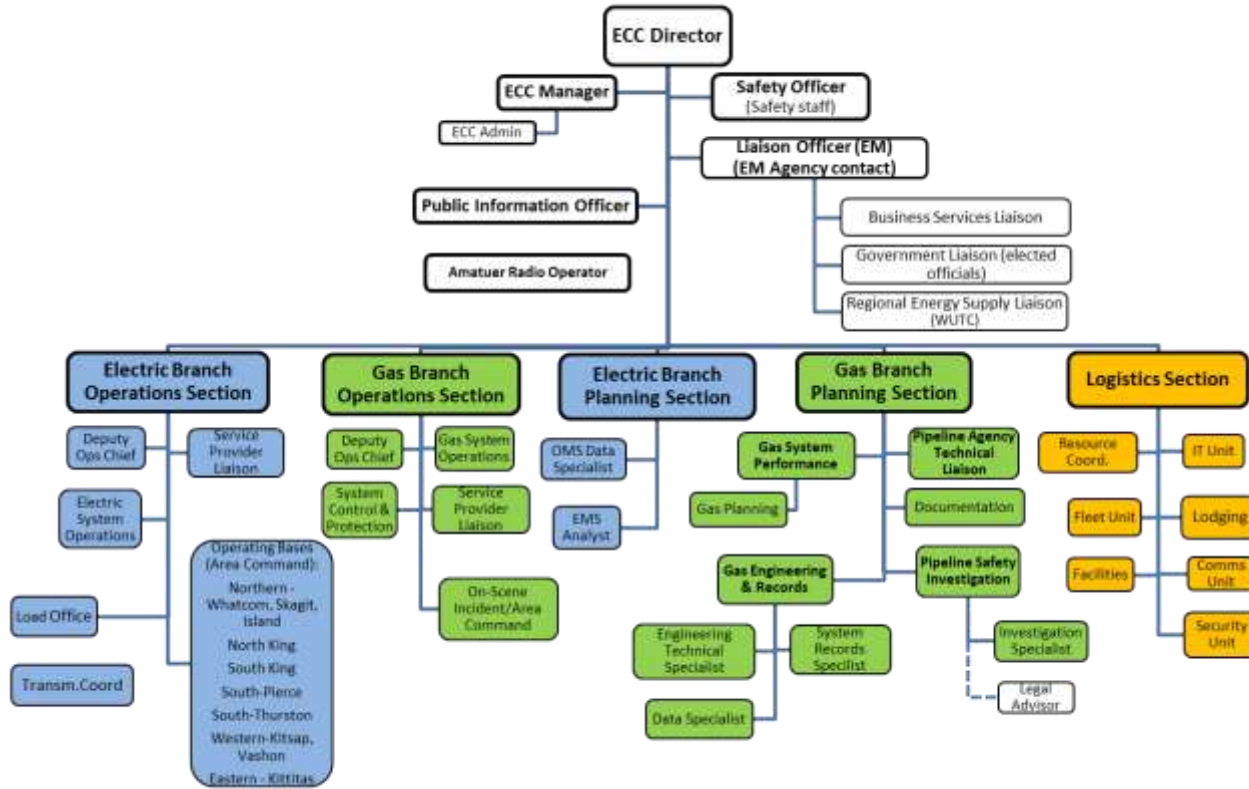
Information is provided to customers in several ways including, an automated voice system, our Customer Care Center and through information posted on PSE.com.

- The Company may initiate automated calls to large geographic areas with incident status information or to request conservative use of natural gas or electricity for a period of time.
- At times, the Customer Care Center (CCC) will initiate customer call backs to verify service restoration.
- A Service Outage Map can be viewed by customers through PSE.com for electric outage events. The map draws information from our Outage Management System. An Estimated Time of Restoration (ETR) appears after damage has been assessed and Operating Base personnel have an idea of when field restoration personnel will be able to complete work. In a longer multi-day incidents, Regional ETRs will be posted within the first 24-48 hours. Upon arrival of restoration crews, ETRs are updated to reflect more accurate restoration times.
- During ECC activations, a PIO position is filled within the PSE to assist in ensuring consistent and timely messaging.
- When the ECC is activated, Situation Reports will be provided to Emergency Agency partners. Given the number of communities within our service territories, reports are sent to all County EOCs as well as the State EOC. County agencies are encouraged to forward reports to their local jurisdiction emergency agencies as appropriate.

3.11 Emergency Organizational Structure

PSE uses a scalable organization model using the principles of the Incident Command System for all emergency response locations, allowing response efforts to expand and contract based on the severity or resource needs of the incident.

3.11.1 Emergency Coordination Center (ECC) Organization



3.12 ECC Activation

If an emergency event incident is reported or is anticipated, Electric System Operations for electric or Gas System Operations for gas will consult with the following to determine if ECC activation is needed:

- Operations Leadership
- ECC Director
- Others as deemed appropriate

If the decision to activate the ECC is made the ECC Director will contact the ECC Manager to mobilize ECC staff. Electric System Operations or Gas System Operations will issue an e-mail notification to advise that the ECC is being mobilized as follow:

Subject: ECC Activation Due Heavy Snow and Ice

The ECC has been activated. You will be notified as soon as mobilization has occurred and the ECC is operational.

The ECC Manager will then distribute an e-mail to both internal and external partners advising that the ECC has been activated.

Subject: PSE ECC Activated Due Heavy Snow and Ice

(Include time activated, cause and current known status)

(sample verbiage)

The Puget Sound Energy ECC was activated at 10:30 due to heavy snow and ice which has impacted our service territory. Currently 20,000 customers are without power. The heaviest damage is in Whatcom County. Our current priority is the safety of our responders and the public. Currently damage assessment is underway. More information to follow.

(or,)

The Puget Sound Energy was activated at 10:30 due to a large release of natural gas in the Seattle greenwood area. Our gas first responders are on site and working with local fire and police personnel. Our first priority is the safety of all responders and the general public within the impacted area. A safety perimeter as follows has been established and those not involved in response activities are asked to avoid the area. More information to follow.

3.13 Functions of the Emergency Coordination Center

The Emergency Coordination Center provides direction for a coordinated response effort, supports response effort resources and communications. The following are the primary functions of the ECC.

- Situational Awareness & Common Operating Picture:
 - Responsible for development and oversight of overall response priorities.
 - Develops and communicates the Incident Action Plan.
 - Maintains situational awareness with field progress and concerns via tactical planning calls.
 - Monitors weather forecast, environmental hazards, system-wide damage status, and response progress; anticipates escalating needs.
 - Maintains documentation of response efforts.
 - Schedules and facilitates Tactics and Planning meetings.
 - Schedules and facilitates Operational Briefings (provided via conference call).
 - Ensures a coordinated effort between all areas of response.
 - Coordinates integrated response efforts with Public sector agencies as needed.
 - Issues Situation Reports (SitReps) to internal and external audiences.

- Logistical Support & Coordination
 - Ensures effective allocation of system resources.
 - Approves, secures and tracks outside resources.
 - Escalates the recommendation to activate Mutual Assistance agreements.
 - Acquires additional materials and supplies as needed.
 - Coordinates central staging areas.
 - Monitors and recommends resource demobilization.
 - Provides IT, facilities and security support.
 - Supports food, hotel and transportation (incl. vehicle rental and trailer) requests.
- Communication Support
 - Supports media requests.
 - Facilitates consistent, timely and accurate messaging.
 - Monitors customer & community sentiment.
 - Provides key messaging points for situation reports.
 - Supports Joint Information Center activations (or may request the establishment of a JIC in complex situations where localized PSE service is the primary emergency).

3.14 Emergency Coordination Center Operational Periods and Schedule

When activated, the PSE ECC will generally be open on a 24 basis with two 12-hour operational periods. Generally the operational periods are 06:00 to 18:00 and 18:00 to 06:00. ECC hours and times may be modified depending on the scope of the event.

The schedule of events within an operational period include:

- Development of an Incident Action Plan
- Operational Briefings
- Planning Meetings
- Tactical Meetings
- Situation Reports

3.14.1 ECC Communications

Situation Reports are issued to both internal and external audiences approximately every 3 hours.

A Public Information Officer is located in the ECC and assists in ensuring consistent messaging.

3.15 Emergency Coordination Center Position Descriptions

3.15.1 Command Staff

- ECC Director
- ECC Manager
- Safety Officer
- Business Services Liaison
- Public Information Officer
- Government Liaison

3.15.2 General Staff

- Section Chiefs (these positions report to the ECC Director)
- Section staff members (these positions report to the respective Section Chief)

3.15.3 Command and General Staff Responsibilities

Emergency Response Role	Duties & Responsibilities
ECC Director	<ul style="list-style-type: none"> • Provides strategic leadership for <u>ECC</u> operations and ensures completion of an Incident Action Plan (IAP). • Ensures a coordinated effort between response organizations (internal & external). • Escalates the need for extraordinary support funding to appropriate Company leaders. • Assist in de-conflicting issues of policy or escalated to Sr. Leadership as needed. • Ensures an efficient use of overall resources and approves the activation of Mutual Assistance Agreements. • Ensures all stakeholders have overall situational awareness. • Ensures the development of a demobilization strategy. • Approves Incident Action Plan (IAP), Situational Reports (SitReps) and Snapshot Reports. • Ensures adherence to service and safety compliance policies.

Emergency Response Role	Duties & Responsibilities
ECC Manager	<ul style="list-style-type: none"> • Manages the operation of the ECC. • Develops and communicates the ECC schedule (planning clock). • Develops and distributes internal and external incident updates (Situation Reports; SitReps). • Coordinates ECC staff shift rotation. • Ensures response documentation is maintained including: <ul style="list-style-type: none"> - Incident Action Plan - ECC Sign-in rosters - Resource requests and orders - Situation Reports - Significant media articles • Ensures shift rotation briefings are held. • Determines and ensures coordination of ECC food services and staff overnight accommodations when needed.
Public Information Officer (PIO)	<ul style="list-style-type: none"> • Serve as ECC focal point for internal and external incident messaging. • Coordinates with Corporate Communications, Base Communication Coordinators field PIOs and the Customer Access Center to ensure consistent communication. • Participates in the Planning Meeting, Operations and Communication conference calls. • Monitors customer and community sentiment. • Prepare customer messaging points for Situation Reports and obtains draft approval from ECC Director.

Emergency Response Role	Duties & Responsibilities
Safety Officer	<p>Activated in the ECC for Level 3 Incidents</p> <p>During Level 2 incidents, this responsibility defaults to the Safety Department Duty Manager</p> <ul style="list-style-type: none"> • Monitors safety conditions in restoration areas, providing safety messaging statements into the SitReps as appropriate related to both public and field worker safety. • Assign safety personnel to incident areas to facilitate safety training for foreign crews and to provide on-location safety guidance. • Recon areas of significant impact to better identify hazards and appropriate safety measures. • Ensures retention of foreign crew safety training records.
Business Services Liaison	<ul style="list-style-type: none"> • Is the primary contact for major accounts. • Escalates client-specific issues to the ECC Director, Ops Section Chief and PIO as appropriate. • Requests and relays information to the field PIO and/or Communications Coordinator as needed.

Emergency Response Role	Duties & Responsibilities
County & State EOC Liaison	<ul style="list-style-type: none"> • When requested and when staffing permits, will be positioned in the assigned EOC location with the purpose of being a conduit of information between the assigned County or State EOC and PSE’s ECC. • Escalates localized concerns and issues to the PSE ECC when needed. <p>The position falls within ESF12 (Emergency Support Function for Energy) and as such, may be asked to act as the ESF12 Liaison at a County or the State EOC if it has been <u>requested from these agencies through the PSE ECC.</u></p> <p>PSE will provide a liaison when possible, but may have to deny the request based on internal incident response needs.</p> <p>While this is not an “Operational” position, the individual will relay information of an operational nature to the PSE ECC to aid in decision making as appropriate. During very large-scale incidents, an operational liaison may also be requested.</p>
Operations Section	<ul style="list-style-type: none"> • Determines operational strategies, priorities. • Supports on-scene efforts. • Establishes Operational priorities to include in the Incident Action Plan. • Participates in the Planning Meeting and Operational Briefing conference call. • Escalates concerns and challenges. • Approves mobilization of foreign crew support. • Monitors restoration and/or containment progress, adjusting overall strategies and objectives as appropriate ensuring effective use of response resources including re-allocation of resources as needed. • Monitors the need for LAC mobilization, providing direction as needed. • Determines need for crew and equipment staging areas, • Provides direction regarding competing resource needs. • Establishes a demobilization strategy for closing of bases and release of resources.

<p>Planning Section</p>	<ul style="list-style-type: none"> • Collects and analyzes situational data, sharing with the Director, Section Chiefs and others as appropriate. Data may include outage information, system diagrams, maps, etc. • Compiles and distributes the Incident Action Plan when a written plan is required (complex and longer duration incidents). • Recommends restoration times based on data. • Monitors weather to determine potential impacts on response efforts. • Participates in Planning Meeting and Operational Briefings. • Monitors and tracks response progress and manpower needs, sharing information and recommendations as appropriate.
<p>Logistics Section</p>	<ul style="list-style-type: none"> • Ensures that field resource requests are addressed in a timely manner and that the field is given status updates as appropriate. • Ensures the tracking of progress for resource requests from initial order to arrival at planned destination. • Offers recommendations as to the fulfillment of resource needs. • Anticipates potential resource needs based on changing conditions. • Coordinates with the Operations and Planning Section Chiefs as needed. • Participates in the Planning Meeting and Operations Conference Call.

3.16 Demobilization of the ECC

The ECC will be closed only when support activities are no longer needed and field operations have been returned to standard operating procedures. The decision to close the ECC is made by the ECC Director in consult with Electric and/or Gas Operations.

An e-mail will be distributed to both internal and external audiences to advise of the closing of the ECC.

4 CONCEPT OF OPERATIONS – ELECTRIC

4.1 Emergency Notification

Information regarding electric outages is received through several notification points including the Customer Care Center (CCC), PSE.com and System Operations dispatch. Outage information is then input into an electronic Outage Management System (OMS) for dispatch of the appropriate field personnel.

4.2 Emergency Operations Activation

At the onset of an event, Electric System Operations personnel centrally manage response efforts. When the number of outages and complexity of a situation increases, Electric System Operations transitions oversight of tactical restoration and dispatch to the impacted local electric Operating Base/s. There are seven regional locations (Divisions):

- Skagit (includes restoration support for Skagit, Whatcom and Island Counties)
- North King
- South King
- Pierce (Puyallup Base)
- Kitsap (Poulsbo Base, includes restoration support for Vashon Island)
- Thurston (Olympia Base)
- Kittitas (Ellensburg Base)

The System Operations Supervisor will confer with the Operating Base Unified Division Supervisor (UDS) team in the affected region(s), and the on-duty ECC Manager, in order to determine the need for plan activation. Minimally the following criteria will be reviewed:

- Current and forecasted weather conditions
- Size of the incident (number of circuits impacted)
- Number of crew jobs pending
- Projected length of restoration time based upon currently available resources
- Activity level within System Operations (incident complexity)

PSE's System Operations Supervisor is responsible for declaring that an incident has occurred and for issuing the initial incident level (Level 1, 2, or 3). If the incident level changes after the initial level has been established, the ECC Director (or System Ops if the ECC is not activated), will update the activation level as appropriate.

4.3 ECC-Operating Base Coordination

When multiple operating base regions are impacted, the ECC may be activated to direct overall response priorities and strategies and to provide resource and communications support, allowing regional Operating Bases to focus on tactical restoration response.

4.4 Mobilization of Resources

The first phase of emergency response is mobilization.

Once notified of the need to activate an Operating Base, the PSE UDS and the Service Provider UDS are responsible to mobilize their respective staff based on established callout lists.

Initial mobilization includes the calling out of a Core Team of Storm Room staff as well as field personnel including Damage Assessors, Make Safe Teams, Servicemen and Line Crews.

A Resource Specialists is part of the Core Team and once in place, will continue the call-out of additional resources requested by the UDS. The number of additional resources is dependent on the scope of the event.

The UDS will also ensure the following:

- A sign-in/out roster is maintained for all response personnel.
- All response personnel are briefed on their assignment and understand associated response priorities.
- Work schedule expectations is communicated including establishment of rest periods.
- The local call-out list is exhausted before contacting the ECC for additional resources.

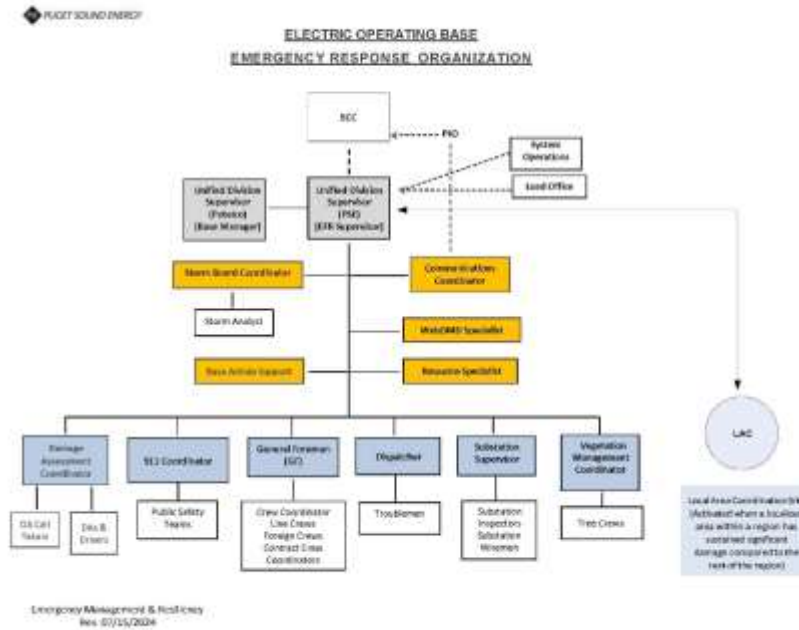
4.4.1 Mutual Assistance and Contract Crew Support

When additional line crew support is needed, the UDS will advise the ECC Operations Section who will then request ECC Logistics to acquire the needed support either from known contractors or through the Mutual Assistance process. Once outside assistance is obtained, these crews will be dispatched either directly to a regional base or will be sent to a staging area to await location assignment.

- Whether at the base or the staging location, outside crews will be provided an orientation to PSE's safety and construction standards.
- Outside crews will report to a given base and will receive work assignments from that base.
- Outside crews are required to check-in and out of the base according to the established work schedule.
- Crews are provided lodging each day while under assignment and will receive breaks according to contractual agreements.

4.5 Regional Operating Base Organization

The following organization reflects emergency functions within the regional Operating Base.



Functions of the Operating Base (Division)

- Development of tactics to meet overall objectives.
- Ensuring priority response for public safety and life safety locations.
- Mobilization of Division response personnel.
- Management of all Division resources including:
 - Operating Base staff
 - Crews, Foreign Crews, Contract Crew Coordinators
 - Troublemens
 - Public Safety Teams
 - Damage Assessors
 - Tree Crews
- Plans for, mobilizes and monitors Local Area Coordination (LAC) sites
- Keeps track of all assigned personnel.
- Provides situational reporting on regional restoration status and restoration times.
- Monitors personnel and response area safety and ensures all responders have the appropriate PPE and other safety equipment.

4.5.1 Local Area Coordination (LAC) Site Organization

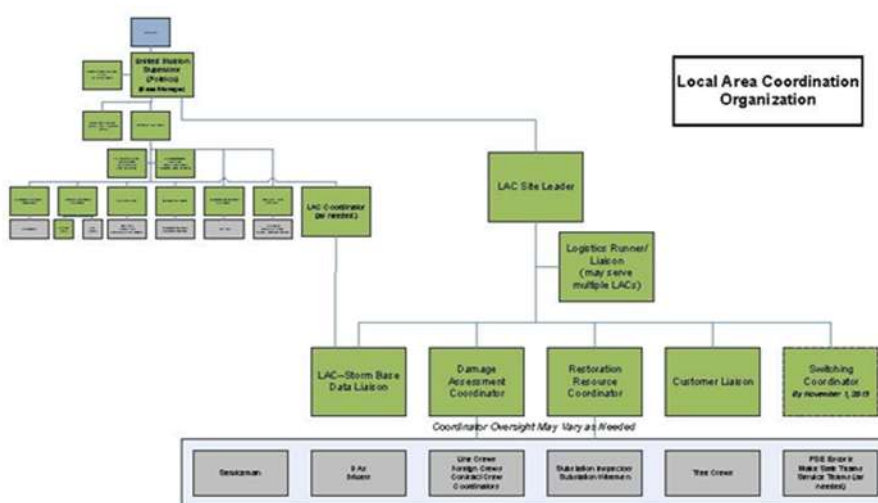
A Local Area Coordination (LAC) site will be utilized to expedite electrical system restoration when a given area within a region has sustained significant damage. The LAC works somewhat independently, yet still remains a sub-set of the Regional Operating Base. The LAC is responsible for the following:

- Communicate real time restoration activities to Load Office, System Operations, and Storm Base
- Manage all assigned restoration resources for the LAC including servicemen, damage assessors, Service Provider crews, foreign crews, and crew coordinators
- Manage material distribution
- Analyze and create restoration strategies
- Coordinate system restoration strategies with Load Office, System Operations and Storm Base
- Communicate estimated restoration times to storm base
- Track temporary repairs, units of property and clean-up needs

4.5.1.1 Triggers for Opening an LAC

The Unified Division Supervisors (UDS), in conjunction with the ECC, will determine if an LAC is needed during a storm event, and in what locations based on the following criteria:

- The number of crews being managed out of the storm base have or will be exceeding the management resources available at the storm base
- The extent of damage in the service territory is extensive and customers will be out of service longer than the other areas
- The location of the damage is localized and extensive
- The area has been, or will be affected by a second or third weather event during the pre-existing storm event.



4.6 Damage Assessment Priorities

While some restoration activity will begin immediately, the activity of assessing damage is critical to establishing ongoing repair and restoration priorities. In general, damage assessment priorities are as follows:

- Transmission lines and switching stations
- Distribution substations and distribution feeders
- Distribution laterals
- Individual service lines

Damage information is also identified through a variety of informational sources.

Information Source	How Source is Used
Outage Management System	Logs outage calls received by the CAC. Provides reports on location, circuit, number of customers affected, estimated time of restoration, etc.
Customers	Provides information to the CCC, Major Accounts via dedicated phone line to Supervisor System Operations' office, or through city/county 911 centers.
Electric First Response Troublemakers	Provides damage assessment directly from the site to System Operations/Dispatch/Operating Base.
Energy Management System (EMS)	When available, indicates device status (open or closed breakers, switches, etc.) and power flow in transmission and distribution stations.
Windshield Survey Teams	Provides an initial high-level scope of damage information.
Damage Assessment Teams	Provides specific damage assessment information that is used to determine and assign appropriate resources for restoration.
Fire and Police Departments and other City/County Emergency Management Personnel	Provides information about damage locations.

4.7 Safety Priorities

- Respond to emergency calls from fire, police, and other 911 sources.
- Make hazardous areas safe for the public and PSE employees.
- Secure unsafe sites before moving to service restoration.

4.8 Electric Restoration Priorities

PSE will restore facilities so that the greatest numbers of customers are back in service in the least amount of time.

Restoration work is assigned after a damage assessment has been performed on impacted equipment locations. Once the type of damage and work is known, the appropriate resource is dispatched to begin restoration work.

Generally, energy distribution facilities are restored in this order:

1. Transmission
2. Distribution
3. Individual services

Within the above context, PSE considers additional priority restoration of:

- Hospitals
- Regional airports
- Water, waste water treatment plants and/or sewage pumping stations
- Other community lifeline services, such as emergency response facilities (e.g., emergency operations centers, 911 centers)
- Emergency shelters
- Facilities from which people cannot be easily relocated. Examples include nursing homes, assisted living facilities, etc.

Each Operating Base has a regional list of critical community infrastructure for restoration priority.

4.8.1 Restoration Priority #1: Transmission System

The transmission lines (T-lines) and transmission substations are the highest priority for restoration. Power Dispatchers in the Load Office, or their designees, will request crews and other assistance to restore the transmission system as soon as possible. As the emergency progresses, the Power Dispatchers provide restoration priorities for transmission lines and stations to the appropriate operations regions, Substation Department and the ECC.

All regional Operations personnel and related departments work with the Power Dispatchers and their designees to identify outages, and stabilize and repair the transmission system as their number one priority.

Regional Transmission

Each region identifies its transmission restoration priorities. These restoration priorities follow the general corporate restoration guidelines of restoring the maximum number of customers in the least amount of time, but are more specific, listing circuits and substations by name. They are reviewed annually and updated in each region.

The following table offers high, medium, and low restoration priority guidelines for the transmission system:

Priority	Transmission Lines That Are . . .
High	<ul style="list-style-type: none"> • Connected to critical generation. • Critical inter-utility connections. • Greater than 100 MVA of load affected by outage. • Serving more than 25,000 customers. • Radial feeds. • T-lines that are needed to avoid overloads in the remaining transmission system.
Medium	<ul style="list-style-type: none"> • Segments that are part of a loop, but where substation(s) are affected. • Greater than 50-100 MVA of load affected by outage. • Serving 10,000 to 25,000 customer. • T-lines that are needed to avoid under-voltages in the remaining transmission systems.
Low	<ul style="list-style-type: none"> • Segments that are part of a loop where no substations are affected. • Less than 50 MVA or less of load affected by outage. • Serving less than 10,000 customers. • Outages do not cause service interruptions.

4.8.2 Restoration Priority #2: Distribution Substations

PSE works to restore as many substations as possible by partitioning and isolating damaged portions of the high voltage system. Restoration of loops is secondary in the initial phase of restoration.

High	Medium	Low
<ul style="list-style-type: none"> • >6,000 customers affected by outage. • Distribution substations serving critical loads: • Hospitals, airports, public transportation, police, fire facilities • High density urban/residential areas • Key accounts, Schedule 48, and other “at risk” customers • Other industrial and commercial load with large loss due to process disruption • Substations that can be returned to service quickly 	<ul style="list-style-type: none"> • 4,500-6,000 customers affected by outage. • Distribution substations serving: • Emergency shelters, blood banks, nursing homes, schools • Medium density residential areas • Community wells, sewer lift pumping stations 	<ul style="list-style-type: none"> • < 4,500 customers affected by outage. • Distribution substations serving: • Low density rural areas • Accounts with adequate backup generation • Substations that take a significant amount of time to repair

4.8.3 Restoration Priority #3: Distribution Feeders

System Operations, Electric First Response, and Service Provider management direct Electric First Servicemen and crews working with all Operations regions, to restore and energize the feeder system.

- This work takes priority over restoring primary laterals.
- As Damage Assessment teams report back to their respective service center, all feeders, or portions of feeders found to be in the clear will be reenergized as ordered by System Operations.

4.8.3.1 Transmission Effect on Distribution Feeders

Energizing distribution feeders may be delayed in some cases until transmission lines are back in service and capable of withstanding the additional feeder load.

High	Medium	Low
<ul style="list-style-type: none"> • >2,500 customers affected by outage. • Distribution feeders serving: • Hospitals, airports/ public transportation, police and fire facilities • High density urban/ residential areas • Key accounts, Schedule 48, and other “at risk” customers • Other industrial/ commercial load with large loss due to process disruption • Feeders that can be repaired quickly 	<ul style="list-style-type: none"> • 1,500-2,500 customers affected by outage. • Distribution feeders serving: • Medium density residential areas • Emergency shelters, blood banks, nursing homes, schools • Community wells, sewer lift pumping stations 	<ul style="list-style-type: none"> • <1,500 customers affected by outage. • Distribution feeders serving: • Low density rural areas • Accounts with adequate backup generation • Feeders that take a significant amount of time to repair

4.8.4 Restoration Priority #4: Distribution Laterals

- When the feeder system is restored, the fourth priority is restoration of distribution laterals.
- Laterals usually are prioritized on a case by case basis.
- The emphasis is to restore the largest number of customers in the shortest possible time.
- As soon as practicable, crews will transfer de-energized circuits to live circuits or substations.

4.8.5 Restoration Priority #5: Individual Service Lines

Service lines, particularly those in remote areas, will most often be last in priority order for restoration. This will depend on crew or Electric First Response Servicemen availability, location, and other ongoing restoration efforts.

4.9 Repair Planning

As soon as possible after system restoration, the following personnel will document abnormal conditions existing after the storm:

- Operating Base Management
- System Operations
- Electric First Response
- Dispatchers
- Meter Department and Substation personnel (if available)

4.10 Estimated Time of Restoration Notification

Once conditions in the field have stabilized and damage assessment can safely begin in earnest, PSE will, whenever possible, evaluate and communicate information using the following timeframes*:

- Within 24 hours: The overall “scope” of the incident
(e.g., “Restoration efforts across PSE’s service area are anticipated to take 7 days”);
- Within 48 hours: Estimated restoration time line by county (e.g., “North King County is anticipated to be restored by Thursday, Pierce County is anticipated to be restored by Friday, and Skagit County is anticipated to be restored by Saturday”);
- Within 72 hours: PSE will seek to provide community-level information
(e.g., “PSE anticipates West Bellevue to be restored by noon Thursday, Puyallup by 6 p.m. on Thursday, and the majority of the Mt. Vernon area by midnight, Saturday”).

Delivery of information within these time frames is dependent upon safe accessibility to damage locations.

4.11 Lodging

Lodging will be provided for outside crew resources. Additionally, when travel conditions pose a hazard, either due to road conditions or through potential fatigue risks, the UDS may request lodging for emergency response storm room and PSE field personnel.

In most cases lodging will be provided on a shared-room basis, however reasonable discretion may be made by the UDS. Exceptions should be communicated to the Lodging Coordinator.

4.12 Demobilization and Closing of Operating Bases

The decision to close an Operating Base will be made by the UDS team at the Operating Base in collaboration with the System Operations Supervisor and Operations Section Chief.

When closing the base, the following items must be done:

- Ensure documentation of locations with temporary repairs and establish a plan for making permanent repairs.
- Check temporary circuits, alternate feeds, and emergency repairs for capability of carrying peak loads until permanent repairs are made.
- Note abnormal feeds and return to normal.
- Patrol all sections of the distribution system where tree wire is installed, ensuring it is free of any limbs or in contact with leaning trees.
- Establish an Incident hard copy file which includes at a minimum, the following:
 - Sign-in/out rosters for each day of emergency operations.
 - Base Call Out sheet for the incident has been saved to the Emergency Operations Share Point site and that a hard copy is placed in the incident file.
 - Operating Base action plans.

4.13 Releasing of Contracted Crews

Prior to the releasing of contracted crews, the PSE UDS shall contact the ECC Operations Section Chief to determine if the resource is needed elsewhere in the system.

If the crew/s may be released:

- Documentation of sign-out must be obtained and filed
- PSE assigned equipment must be checked-in

5 CONCEPT OF OPERATIONS: ELECTRIC –WILDFIRE PUBLIC SAFETY POWER SHUTOFFS

5.1 Purpose

PSE has developed a detailed procedure to execute proactive de-energizations of targeted overhead electrical lines during elevated wildfire risk weather conditions. De-energizing overhead power lines before the arrival of strong winds is a critical safety measure that aims to mitigate the chance of an ignition, as well as the spreading of a wildland fire. Strong winds can cause vegetation, including limbs, branches or off Right-of-Way whole tree failures to occur. Following a PSPS, and before re-energization, it is paramount that PSE perform inspections on all affected electrical lines once the high risk weather conditions have expired. It is important to recognize that the restoration guidelines outlined here are intended for resource planning and initial response strategies. However, each incident will present its own unique challenges, potentially affecting life safety; therefore, real-time priorities must remain adaptable to ensure the safety of our communities.

The unique requirements for initiating a PSPS, require some modification to PSE’s standard response to electric outages. The following provides information related to PSPS notification and operations protocols.

5.2 Resource Mobilization and Staging:

A key component of PSE’s preparation and response strategy is the early, strategic mobilization of qualified Electric First Response (EFR) employees, as well as repair crews, within the regional boundary of a Public Safety Power Shutoff (PSPS). Safely mobilizing resources ahead of strong winds and critical fire weather, while still keeping our employees at a safe distance, is crucial for ensuring a quick and effective response. Pre-mobilization of resources ensures that teams can arrive safely, avoiding the challenges, risks and delays associated with navigating through debris, blocked roads or other fire-related hazards. These efforts enable the efficient deployment of resources to begin field patrols as soon as the weather risks have passed and it is safe to do so.

The assignment of EFR employees, whom hold the primary responsibility for field inspections and patrols of electrical infrastructure, will be based on the priority guidelines detailed below for impacted transmission lines and distribution feeders.

5.3 Patrol Execution

PSE will deploy the qualified field employees to begin assessment and patrol as soon as the critical fire weather conditions have passed. This milestone correlates with the end of the active critical fire weather conditions and is referred to as a “Weather All-Clear”. Waiting for the weather to pass before initiating field inspections of electrical infrastructure is crucial for several reasons. First, safety of first response employees during these dangerous conditions is an unwavering objective, and this strategy ensures employees remain at a safe location during these hazardous conditions. Second, it is necessary to ensure that all

impacted overhead infrastructure is fully inspected prior to commencement of re-energizing activities, because a potential ignition source could exist if vegetation made contact with an electrical line during the hours of a PSPS. This approach ensures the safe and thorough completion of a PSPS. The discovery of damaged infrastructure during a field inspection will necessitate the dispatch of pre-staged repair crews. The deployment of repair crews will follow immediately upon discovery of a damaged condition.

5.4 Incident Tracking and Documentation

PSE has developed a process to document and track the discovery and subsequent repair of any abnormal findings during field inspections. PSE will utilize the Outage Management System (OMS) to manually create an incident that can be tracked through its complete life cycle. Each incident in the OMS will correlate directly with each specific abnormal faulted condition and will be visible on PSE's OMS. This process ensures the careful documentation and tracking of any findings while the surrounding, healthy sections of the power system continue to be restored. This process also allows PSE to transparently communicate any critical discoveries with key stakeholders and community members.

5.5 Restoration Priority Guidelines

PSE has established restoration guidelines to inform the initial response planning for resource assignment and repair priorities. While these guidelines provide a foundation for resource allocation priorities, life safety impacts will remain the number one priority for PSE. Life safety impacts encompass incidents from various forms of intake, including but not limited to: 911 Dispatcher intake, high-priority customer calls routing through the PSE Call Center, windshield survey or field discovery, as well as any high priority calls from emergency response partners. PSE will also ensure that customers with a Life Safety designation are managed in this tier of priority. In our high fire threat areas, these Life Safety customers have been identified and located to ensure there is visibility to our Operations teams where they are located in our electrical system. Restoration timelines are dependent on the location and severity of repairs discovered.

5.6 Vulnerable Population Consideration

Following the life-safety priorities described above, PSE has defined an equity designator to guide restoration priorities. The equity measure utilized for this purpose is the number of customers in a high fire threat area with a Vulnerable Population designator. As defined by the RCW 70A.02.010 of Washington State, a Vulnerable populations is defined as population groups that are more likely to be at higher risk for poor health outcomes in response to environmental harms, due to: (i) Adverse socioeconomic factors, such as unemployment, high housing and transportation costs relative to income, limited access to nutritious food and adequate health care, linguistic isolation, and other factors that negatively affect health outcomes and increase vulnerability to the effects of environmental harms; and (ii) sensitivity factors, such as low birth weight and higher rates of hospitalization.

6 CONCEPT OF OPERATIONS – GAS

6.1 Emergency Notification

The Customer Care Center (CCC) receives trouble calls from all types of customers. Gas Dispatch and Gas Control receive trouble calls directly from area public safety 911 centers (police, fire, EMS call centers). Information is most commonly received via normal phone lines.

Information may also come directly to personnel as part of their normal work through their interactions with work contacts or through relationships in the community. Employees of PSE and/or its service providers who are likely to receive word of service problems include the following:

- Gas/Electric personnel
- Government and Community Relations Managers
- Major Account Executives

Media reports and reporters' inquiries may also call PSE's attention to major service disruption problems. In addition, System Control personnel detect problems in the course of monitoring automated gas transmission/distribution information systems.

6.2 Emergency Operations Activation

Any incoming report that involved damage or potential damage to the natural gas system is deemed an emergency. Upon receipt of the incoming information into Gas Dispatch, the appropriate resource will be dispatched to the location. The level of response activation is determined by the type and scope of the emergency issue. Emergency response begins at the local level and may be escalated to include additional responders and activation of the ECC if required.

The types of situations requiring response include, but are not limited to the following:

- Uncontrolled escape of gas into the atmosphere or into the ground that presents a risk to persons or property.
- Assistance request from a local emergency response agency.
- Gas odor or a dangerous malfunction of an appliance, regardless of the cause.
- Report of fire or explosion due to natural gas facility.

6.2.1 ECC-Field Command Post Coordination

If the ECC has been activated in support of gas response field efforts, the ECC will assist in establishing priorities and ensuring internal and external messaging. The ECC will also support tactical planning efforts by providing system records, standards and maps as needed. The ECC will also assist in resource management including the need for additional field personnel, equipment and materials.

6.3 Mobilization of Resources

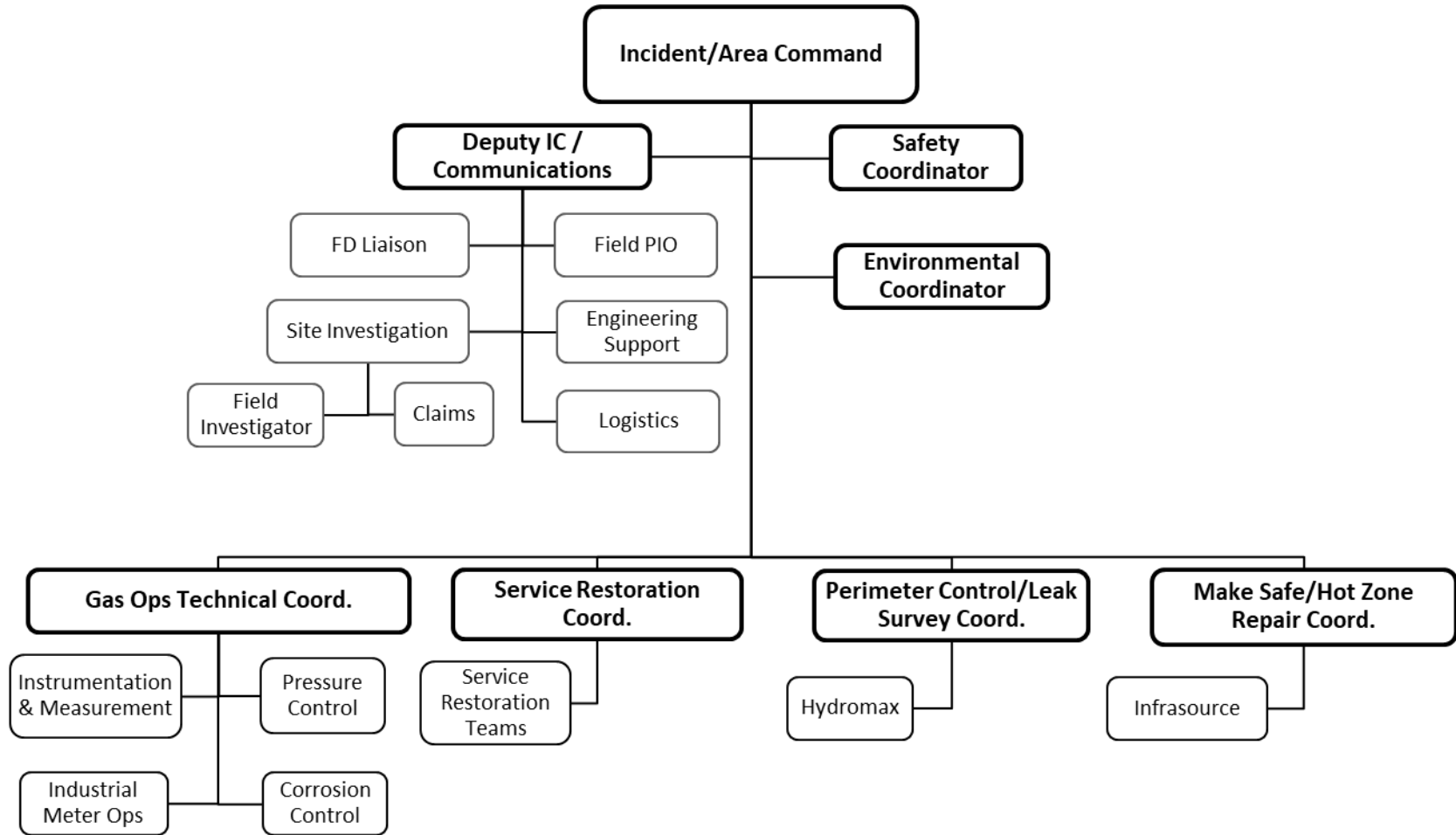
Upon notification of a potential gas-involved incident Gas Dispatch will dispatch an appropriate field resource. Gas Dispatch will also inform the Gas First Response Area Supervisor (or Duty Supervisor if off-hours). The field resource will act as the Incident Commander until the Area Supervisor arrives, at which time the Supervisor will assume Incident Command.

Prior to arrival of the Supervisor, the field employee will be in contact with Gas Dispatch to begin call-out requests for required emergency personnel to report to the emergency site.

Gas Operations Dispatch may also be contacted to request support resources from PSE service providers and other departments as required.

The first GFR employee on-scene will also determine the best location for the Incident Command Post and will notify Dispatch of the location where additional responders should report. The ICP may be informal (out of a field truck) or more formal (within an emergency trailer or tent). The size of the ICP is dictated by the scope, complexity and anticipated duration of the incident.

6.4 On-Scene Gas Emergency Organization Chart



6.5 Site Safety and Accountability

The Incident Commander will ensure overall site safety and accountability and will ensure all responders check-in and out at the ICP location.

6.6 Gas Involvement Types

PSE's Gas First Response personnel will refer to the PSE Gas Operations Field Guide for current updated checklists.

Type	Characteristics
Direct	<ul style="list-style-type: none"> • Notification call is received from the general public, building occupants, or emergency agencies. Gas First Responders may or may not be at the site upon arrival of the first responder. • Broken and blowing gas service or main. • Main or service obviously stressed due to ground movement and in danger of imminent failure. • Building explosion with gas as primary cause. • Structure fire with gas as primary cause. • Any report of burning gas. • Early indications of area gas outage – unknown cause. • Vehicular contact and damage to aboveground gas facility. • System over-pressure or low pressure. • Reports of personal injuries or property damage related to gas. • Utility calling to report odor in vault or chamber. • Hazardous gas levels in areas such that persons or structures are placed at risk, when source of gas is not identified.
Indirect	<ul style="list-style-type: none"> • Call usually originated by emergency response agency that is already at the site and in control. • Fire in structure with gas service but there is no gas burning nor in area of fire. • Explosion or hazardous malfunction in building using gas for industrial process. • Explosion or fire in structure where gas is not directly involved.
Unknown	<ul style="list-style-type: none"> • Unidentified odors.

	<ul style="list-style-type: none"> • Reports of unexplained illness. • Building explosion or fire in building not served with gas. • Any request for support from a local emergency agency.
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6.7 Control and Restoration Priorities

6.7.1 Control Priorities

The first priority is the protection of life and property through evacuations and establishment of a safe perimeter. Establishment of a safety perimeter includes conducting an initial windshield assessment of the area and through consultation with first responders already on scene. Once the incident perimeter has been established, control of the emergency can be obtained through a number of different tactical approaches. In general, control is established through the following:

- Immediate vicinity/incident site, such as:
 - Use of adjacent IP or service valves
- Local area based on assessment, such as:
 - Excavation or use of already exposed pipe to mechanically squeeze or clamp the main or service
 - Activation of the Emergency Section Plan and closing of specific, numbered IP valves located throughout the system
- Expanded and adjoining areas based on assessment, such as:
 - Use of HP or Gate Station valves as directed by the Gas Planning section.

Specific field procedures for gas control are located within the Gas Field Procedures and Gas Operating Standards.

6.7.2 Restoration Priorities

Restoration of the natural gas system, whether the effort is minor or significant, is a multi-step process that requires careful planning, coordination, and execution of procedures by qualified individuals. It is incumbent upon the personnel managing and executing the restoration to do so in a deliberate fashion that follows Gas Operating Standards and Gas Field Procedures, and not feel pressure to accelerate this process, or skip steps that are critical to safety.

Due to the hydraulic nature of the system, it is difficult to re-energize discreet parts of the system in anything other than a linear fashion emanating from the gate stations. Depending on the time of year and system conditions, some targeted planning of specific areas may be possible. If possible, the priority of restoration shall be:

- Hospitals and other emergency service facilities
- Critical energy infrastructure requiring natural gas supply

- Urban centers
- Suburban regions
- Rural areas

The priority of system restoration will balance the availability of materials, personnel, and logistics to generally target the highest number of impacted customers in the safest and shortest timeframe possible. It is generally assumed that the repairs and restoration will take place starting at the gate stations and emanating east and west, purging the system back into service as resources allow.

The on-scene Incident Commander confers with an on-scene Engineering Support Lead as needed to assist the determination restoration approach as needed.

Once gas system damage is repaired, PSE must work with customers to re-light in-residence systems that operate from natural gas. In these cases, we must ensure that customers do not turn on appliances on their own. PSE will coordinate directly with customers in this process through various messaging including “door hangers”, voice messaging and phone calls. In large-scale emergencies that have impacted a large number of customers, we may request messaging assistance from local jurisdictions as well as the media.

6.8 Coordination with Other Local Responders

The Incident Commander shall appoint appropriate field personnel to coordinate with local area first responders such as Fire and Law Enforcement. The Fire Department liaison will be the Deputy IC or in larger events a specific Fire Department liaison will be appointed to ensure necessary coordination and information sharing with Fire Command. This role will also liaise with on-site law enforcement including attending Public ICP operational briefings.

PSE will stand up a PSE incident command post (ICP). The size and location of the ICP will be determined by the scope of the incident. If possible, the PSE ICP will be located near the Fire/Public ICP.

The primary objective of the Fire liaison is to ensure the safety of all first responders as well as ensuring coordination of response efforts.

In addition to the FD Liaison, a PIO and a Safety Officer may also be appointed.

6.9 Incident Investigation

In most incidents, a Site Investigation Lead will be appointed. The investigation lead will work with Fire investigation personnel and will also enlist the support of a contracted third-party field investigator.

6.10 Demobilization of the Gas ICP

The decision to demobilize the ICP for gas events, is made by the Incident Commander.

Demobilization may occur all at once or through a systematic release of personnel no longer needed for the response activity. Once all response personnel have been released, there may be a change of IC authority to an Investigation Lead if additional investigation activity is needed.

The IC will follow standard procedures for notifying Gas Operations and other Gas Leadership that response has concluded.

When closing the ICP, the following items must be done:

- Ensure all required documentation is collected and submitted per standard procedures.
- Ensure all company material is removed from the site including caution tape, PSE barricades, etc.
- Communicate the closing of activity to Gas Dispatch.
- Ensure all on-scene responders check-out.