CONFIDENTIAL DOCUMENT THAT HAS BEEN REDACTED

PSEG Long Island 2021 Emergency Restoration Plan

REVISION HISTORY				
Controlled electronic copies of all revisions will be retained with the PSEG Long Island Operations Manual				
Is LIPA Approver sign-off required for this document? ☐ YES			☒ NO	
Version	**Description of Change**	**PSEG LI Approver and Title**	**LIPA Approver and Title**	**Revision Date**
Original	2015 ERP Filing to DPS	Lou Debrino, Manager, Emergency Planning	----------	12/15/14
Rev. 0.1	DPS Comments	Lou Debrino, Manager, Emergency Planning	----------	4/17/15
Rev. 1	2016 ERP Filing to DPS	Lou Debrino, Manager, Emergency Planning	----------	12/15/15
Rev. 1.1	DPS Comments	Lou Debrino, Manager, Emergency Planning	----------	4/22/16
Rev. 2	2017 ERP Filing to DPS	Lou Debrino, Manager, Emergency Planning	----------	12/15/16
Rev. 3	2018 ERP Filing to DPS	Lou Debrino, Manager, Emergency Planning	----------	12/15/17
Rev. 4	2019 ERP Filing to DPS	Lou Debrino, Manager, Emergency Planning	----------	12/15/18
Rev. 4.1	DPS Comments	Lou Debrino, Manager, Emergency Planning	----------	5/20/19
Rev. 4.2	DPS Comments	Larry Torres, Manager, Delivery Operations Support	----------	8/28/19
Rev. 5	2020 ERP Filing to DPS	Larry Torres, Manager, Delivery Operations Support	----------	12/13/19

.

PSEG LONG ISLAND	LIPA Long Island Power Authority
Approved by Larry Torres **Date 7/2/21**	**Approved by** _____ **Date** _____

REVISION HISTORY				
Controlled electronic copies of all revisions will be retained with the PSEG Long Island Operations Manual				
Is LIPA Approver sign-off required for this document? ☐ YES			☒ NO	
Version	**Description of Change**	**PSEG LI Approver and Title**	**LIPA Approver and Title**	**Revision Date**
Rev. 5.1	DPS Comments	Larry Torres, Manager, Delivery Operations Support	----------	3/4/20
Rev. 5.2	DPS Comments	Larry Torres, Manager, Delivery Operations Support	----------	5/8/20
Rev. 6	2021 ERP Filing to DPS	Larry Torres, Manager, Delivery Operations Support	----------	12/15/20
Rev. 6.1	DPS Comments	Larry Torres, Manager, Delivery Operations Support	----------	5/26/21
Rev. 6.2	Duplicate Chapter 19 Corrected With DPS Scorecard Protocols & Updated Table of Contents	Larry Torres, Manager, Delivery Operations Support	----------	7/2/21
.				

PSEG LONG ISLAND	LIPA Long Island Power Authority
Approved by Larry Torres **Date 7/2/21**	**Approved by** _____ **Date** _____

Table of Contents

1. INTRODUCTION

It is essential that there be a continual effort to harden the company's infrastructure and improve the resiliency of the electric system on Long Island and on the Rockaway Peninsula to anticipate, prevent, and withstand interruptions to our customers' electric service. The PSEG Long Island Emergency Restoration Plan (ERP) is designed to mitigate consequences when, in spite of such vigilance, electric service interruptions do occur during large-scale storm events and other system emergencies. The intent of this ERP is to ensure an efficient and well-coordinated restoration effort, with a commitment to continuously improving electric utility response to storms and storm-like emergencies.

This plan provides an overview of the organization, policies, and approaches utilized to prepare for and restore service to our customers following interruptions caused by severe storms or other catastrophic events. It outlines the scope of operations, logistics, and communications activities. It also details the strategies, processes, and assignments necessary for an efficient, well-coordinated storm restoration effort.

The plan is scalable and maintains the flexibility to provide for readiness and action as applied to events of moderate, significant, or severe scope and varied weather conditions. It details the organizational structure, responsibilities, and processes to restore electric service to our customers in a safe, expedient, and efficient manner, following interruptions caused by severe storms and other catastrophic events.

It is imperative that our customers, regulators, state, county, and municipal agencies, emergency service organizations, and the media be kept fully informed as to the severity and impact of each event, as well as the company's planned response, progress, and estimated time of restoration (ETR). The plan has application to virtually all electric emergencies and is executed in accordance with the particular event. It complies with all the rules and regulations of the Public Service Commission (PSC) at 16 New York Codes, Rules, and Regulation (NYCRR) Part 105 – Electric Utility Emergency Plans, as shown in Appendix A.

1.1 Program Review and Plan Responsibilities

PSEG Long Island is committed to continuous improvement and thus its ERP is a living document, routinely incorporating changes and lessons learned to the betterment of the overall response. Accordingly, efforts are undertaken throughout the year to ensure that the ERP is updated and modified in a timely basis, and that any changes are appropriately communicated to all affected parties.

This notwithstanding, prior to December 15th of each year, PSEG Long Island reviews all relevant guidelines, protocols, and checklists relating to emergency restoration and revises them, as necessary, to comply with 16 NYCRR Part 105 on Electric Utility Emergency Plans and the New York State (NYS) Public Service Law (PSL).

Of particular note, all responsible organizations and individuals with restoration responsibilities review, revise, and/or update their key contact lists at least semi-annually. Moreover, at least semi-annually, all responsible organizations with restoration responsibilities issue updated lists of known changes to its employees that have plan implementation responsibilities. Owners of these lists are encouraged to maintain a printed back-up copy as well as an offline copy in case they are unable to access the data online. These lists include, but are not limited to:

- All PSEG Long Island emergency restoration personnel
- Key contacts from Public Service Electric & Gas (PSE&G) New Jersey
- Critical Facilities accounts
- Life Support Equipment (LSE) customers
- Special needs and medical emergency customers
- State, county, and local elected/municipal officials
- Law enforcement and other key emergency response organizations
- Human service agencies
- Medical facilities (i.e., hospitals, nursing homes, etc.)
- Utility counterparts including the Cable Television Company (CaTVCo), Telephone Company (TelCo), and Gas Company (GasCo)
- Mutual assistance agreements, contractors, and supporting companies
- Managers and operators of lodging facilities, restaurants, and other support facilities
- Staging sites
- Key materials vendors and suppliers
- Print and broadcast media contacts

All updates and changes to the above referenced lists are tracked and incorporated within PSEG Long Island's ERP filing each year.

1.2 Purpose, Policies, and Objectives

This ERP was developed with input from all groups having direct responsibilities within the organization during an emergency response event. This includes input from PSEG Long Island employees, lessons learned from past storm events, best practices from PSE&G and other electric utilities/industry associations, as well as feedback from the NYS Department of Public Service (DPS) and other key stakeholder groups.

The ERP and associated procedures are appropriately activated in response to three scenarios:

- Mobilization to prepare for a major storm when a weather advisory has been issued by the National Weather Service (NWS), indicating that a major storm may impact Long Island and the Rockaways' Service Territory, within the next three to five days. Other credible weather prediction services may also project major storm events for the service territory.
- Mobilization due to a small storm that grows in intensity, or a forecasted small storm, which results in a more severe outcome than originally predicted
- Mobilization to emergency events, due to other causes where widespread outages have occurred

The ERP is enacted, either partially or in totality, whenever a large-scale interruption of electric service occurs, or is anticipated, as it provides the framework for establishing uniform readiness and guidelines for prompt, standardized action. It establishes a structure for determining an event's severity (classification) and defines the appropriate measures to be implemented in response to the projected event.

In the event of an interruption of electric service, PSEG Long Island's crews work around the clock to restore power to customers. The primary focus is the health and safety of employees, contractors, and the public. Crews work to restore power to the largest numbers of customers first, taking into account "critical facility'' customers, such as hospitals, police stations, fire stations, water/sewer facilities, communications facilities (Television/Radio/Telephone), and other public safety venues. At the same time, PSEG Long Island restores power to homes and businesses, beginning with substation and transmission facilities, and then moves to three-phase main line and eventually to local neighborhoods, systematically addressing the circuits serving the largest number of customers first.

PSEG Long Island treats communications as a key element in the overall restoration effort, striving to provide timely and accurate information to its customers and stakeholders prior to, during, and following the impact of an event. Among other mediums, the Company utilizes localized conference calls with elected officials and municipalities, executive level outreach, press conferences and media briefings, as well as other traditional and social media channels to deliver effective communications.

1.3 Structure of Plan

The ERP is presented as a top down, blueprint of operations that incorporates an all-hazard approach which details key strategies and guidelines that are used by PSEG Long Island during all phases of an emergency. It is structured to follow the chronological order of preparing for, and responding to, an emergency, focusing on the efforts performed by the primary functional areas, including Operations, Logistics, and Communications.

The ERP is supported by internal, proprietary documents, including our Emergency Response Implementation Procedures (ERIPs), which provide the tactical details (i.e., procedures and plans) associated with the storm response. These ERIPs offer activity and role specific details to be followed in the event of large-scale electric service interruptions (see Appendix B for a listing of associated ERIPs).

Restoration checklists have also been created for key positions in the restoration process. These checklists detail high-level action items performed pre-impact, and include approximate time frames for completion. The checklists provide consistency from event-to-event and work in conjunction with PSEG Long Island's ERP and ERIP documents. A full listing of restoration checklists can be found in Appendix C.

The aforementioned procedures are developed with input from all groups having direct responsibilities for implementation. They provide the framework for establishing uniform readiness and guidelines for prompt, standardized action. They offer detailed procedures to be utilized with respect to the mobilization of mutual assistance and instructions for communication and logistical support, to be followed throughout Long Island and Rockaways' Service Territory whenever large-scale interruptions of electric service occur.

To be effective, it is vital that all elements of the ERP and supporting internal ERIPs and attachments continue to be thoroughly reviewed and updated by participating employees/organizations through collaboration, training, regularly scheduled review sessions, and scenario-based drills and exercises.

1.3.1 Layout

The ERP is organized in a chronological perspective, starting with pertinent company and service territory information. The plan then includes all restoration organizational charts and descriptions of key roles and responsibilities. Next, the plan focuses on PSEG Long Island's pre-storm initiatives and key guidelines/systems that are utilized during an emergency. The ERP then describes the protocols of our major functional areas during activation. All emergency actions and responsibilities have been coordinated under Incident Command System (ICS) units for organizational and accountability purposes. The breakdown is as follows:

1) Information Technology (IT)
2) Safety, Health and Environmental (SHE)
3) Legal
4) Liaison
5) Communications
6) Operations
7) Planning
8) Logistics
9) Finance

Finally, the ERP details post-event performance review initiatives, and includes all relevant appendices, needed to support our emergency response efforts. Among other pertinent information, the appendices include a full listing of our formal storm response procedures (ERIPs) and checklist documents, critical customer and facility listings, key contacts, and emergency agreements.

1.3.2 Incident Command System (ICS)

PSEG Long Island continues to utilize, refine, and implement components of the Federal Emergency Management Agency's (FEMA) National Incident Management System (NIMS) in its storm response process. NIMS provides a guideline for all levels of government, including the private sector, to work together to prevent, protect, mitigate, respond, and recover from emergencies and/or incidents. NIMS provides a comprehensive approach when coordinating incidents and defines key operational systems including ICS, Emergency Operations Center (EOC) structures and coordination between agencies and organizations.

ICS has been successfully utilized, for more than 40 years, in both emergency and non-emergency applications. All levels of government are encouraged to incorporate differing levels of ICS. Private sector organizations, including many electric utilities, now regularly use ICS for management of events. ICS provides a common platform to enhance coordination with local governments and incident response agencies. Additionally, the use of ICS facilitates the meeting of basic goals of clear communication, accountability, and the efficient use of resources common to incidents, such as electric power restoration and emergency management.

PSEG Long Island continues to incorporate ICS training among its employees in accordance with ICS competencies and goals. ICS training is encouraged among employees to further their incident knowledge, skills, and capabilities when coordinating with external agencies. PSEG Long Island's Emergency Preparedness (EP) Organization reviews and determines relevant training for restoration personnel (i.e., EOC training for liaisons, ICS training for management, etc.). Senior Leadership and key personnel are also encouraged to participate in more advanced and/or position specific training (i.e., ICS for executives, Logistics Section Chief training, etc.), when appropriate. As PSEG Long Island refines its use of ICS for incident response, the ERP is updated to accurately reflect roles, responsibilities, and any changes to organizational structure or processes that become necessary.

1.3.3 Emergency Management Phases

PSEG Long Island's ERP also incorporates the Emergency Management Cycle into its current methodology, structure, and planning initiatives. The Emergency Management Cycle is broken down into four revolving phases: Mitigation, Preparedness, Response, and Recovery (see Figure 1.1).

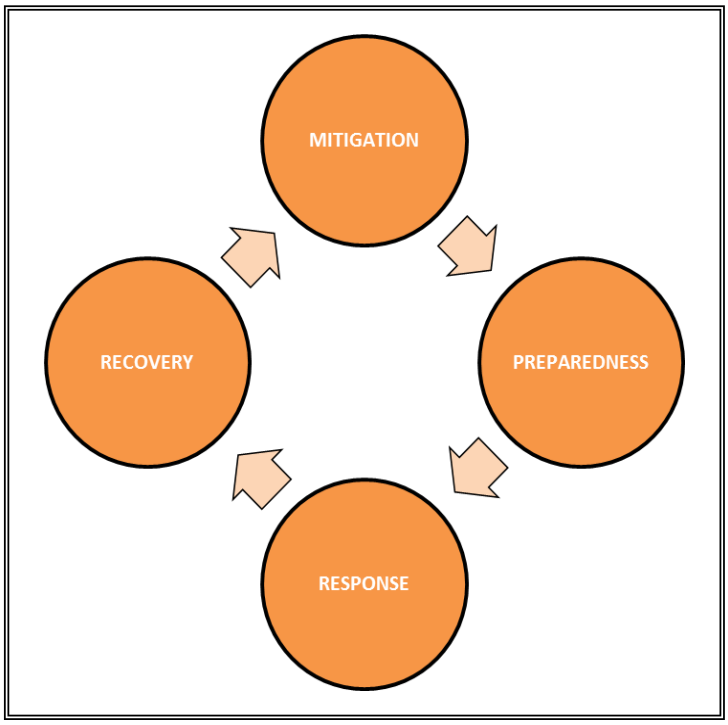


Figure 1.1 – Emergency Management Cycle

The following briefly describes the phases within the Emergency Management Cycle:

1) Mitigation – This phase includes actions taken to prevent or reduce the cause, impact, and consequences of disasters.
2) Preparedness – This phase includes planning, training, and educational activities in preparation for anticipated events.
3) Response – This phase includes the operational activities performed, post-impact, due to the event.
4) Recovery – This phase includes the efforts taken to return operations to normal conditions.

By effectively aligning its emergency response activities with this cycle, PSEG Long Island ensures that its plans, processes, procedures, and personnel are well positioned to provide a safe and efficient response. This includes restoration of electric power, as well as timely and accurate communications to customers and other key stakeholder groups. Key aspects of the cycle include:

- Conducting appropriate and effective risk assessments across the organization (including operations, logistics, and communications functions)
- Developing appropriate prevention or risk mitigation strategies
- Developing comprehensive emergency preparedness processes, plans, and procedures
- Providing appropriate training, drills, and exercises to ensure readiness of the workforce
- Executing the ERP with appropriate resources to address the given emergency
- Communicating in a timely and accurate manner with customers and other key stakeholders across a wide variety of communications' mediums
- Recovering from events in an expeditious manner
- Openly embracing continuous improvement, utilizing a thorough and comprehensive After-Action Review (AAR) process

Incorporating the Emergency Management Cycle into PSEG Long Island's ERP encourages preparation to occur at all phases of an emergency. The cycle highlights the interrelationships that occur between phases, and their reliance on one another. Therefore, efforts conducted at one phase will have an impact on another segment at a later stage.

PSEG Long Island's ERP is a continuously evolving document with planning occurring at all phases of the Emergency Management Cycle. While preparatory and planning efforts are "stepped up" in preparation for approaching storms, the planning, education, and training process is continuous and takes place throughout the year.

1.4 Service Territory

1.4.1 Background

Long Island is the largest island adjoining the continental United States, extending approximately 118 miles east-northeast from the mouth of the Hudson River. It is separated from the mainland on the north by the Long Island Sound, and bounded by the Atlantic Ocean to the south and east. Twenty miles at its widest point, Long Island is composed of low plateaus on the north, longitudinal ridges of glacial moraine through the central parts of the island, and gently sloping plains to the south.

The East End of the island is made up of two peninsular forks. The North Fork, terminating at Orient Point, is approximately 28 miles long. Plum Island and Fishers Island lie northeast of Orient Point. The South Fork, terminating at Montauk Point, is about 44 miles in length. Peconic and Gardiners Bays separate the two forks. Shelter Island lies between Peconic Bay and Gardiners Bay. Gardiners Island is located in Gardiners Bay.

Totaling 1,377 square miles of land area, Long Island is divided into four counties: Kings (Brooklyn), Queens, Nassau, and Suffolk. Suffolk is the easternmost county and by far the largest of the four, covering an expanse of 911 square miles. Moving westward from Suffolk County is Nassau County with 287 square miles. Next is Queens County with 109 square miles, followed by Kings County, the westernmost county, with 70 square miles. Kings and Queens Counties are synonymous with the Boroughs of Brooklyn and Queens, which are within the jurisdiction of New York City.

The topography of the region is very unique and varies throughout the service territory. Long Island includes large residential communities, rural areas, and beachfront properties. Long Island is also heavily treed, with a large amount of rear property facilities supporting electric service (i.e., poles and wires run through customer backyards). PSEG Long Island aims to tailor its restoration actions based on the territory's overall layout and unique challenges.

1.4.2 System

PSEG Long Island provides electric service to more than 1.1 million customers within Long Island and the Rockaways' Service Territory, which consists of Nassau County, Suffolk County, and the Fifth Ward of Queens County (Rockaway Peninsula). There are also three municipally owned utilities, within the service territory, whose customers are not directly served by PSEG Long Island. These municipalities include Freeport, Rockville Centre, and Greenport. For operational purposes, the Long Island and Rockaways' Service Territory is divided into two branches (West and East) and four divisions (Queens/Nassau, Central, Western Suffolk, and Eastern Suffolk). Divisions are then divided into sixteen consoles, which span the entire service territory. Each branch, division, and console encompasses a number of municipalities, villages, and/or towns (see Figure 1.2).

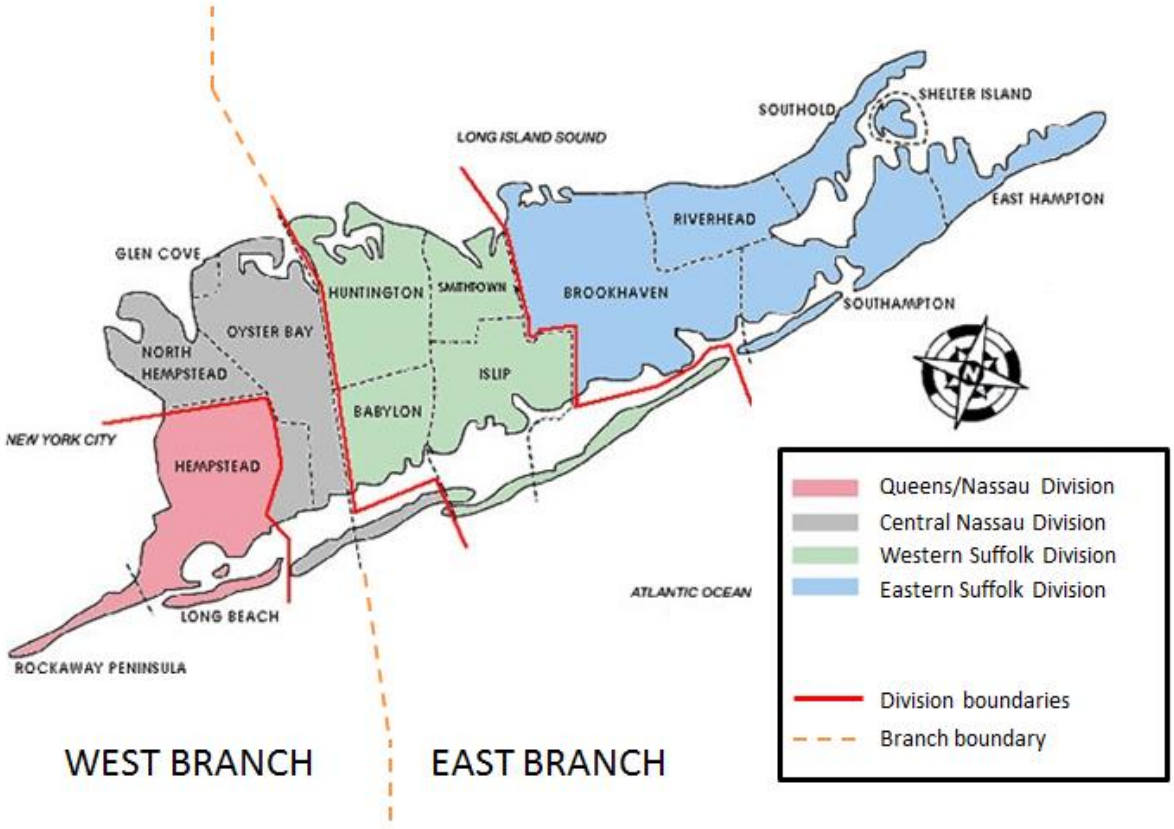


Figure 1.2 – Long Island and the Rockaways' Service Territory

1.4.3 Operating Divisions

The Transmission & Distribution (T&D) system on Long Island is comprised of two branches broken into four divisions. Each divisional area, along with its operational headquarters and unique challenges to restoring power, are described below.

1) West Branch
   a. Queens/Nassau Division – Hicksville
      - High population density and significant underground construction
   b. Central Division – Hicksville
      - Heavy tree conditions and rear property construction
2) East Branch
   a. Western Suffolk Division – Brentwood
      - Barrier beach and diverse geographic make-up
   b. Eastern Suffolk Division – Riverhead
      - Large geographic area and isolated forks with limited major thoroughfares for ingress and egress

In the event of a system emergency, PSEG Long Island works closely with local government officials and emergency response personnel to coordinate electric restoration efforts across these divisions.

1.4.4 Console Areas

During an emergency, PSEG Long Island further segregates the divisions into console areas. This is done to facilitate better control of the workforce and enhanced coordination of restoration efforts. Consoles are broken down into color codes, as depicted in Figure 1.3 below.

DIVISION	COLOR CONSOLES				
	Red	Blue	Green	Yellow	Grey
Queens/Nassau	✓	✓	✓		
Central Nassau	✓	✓	✓	✓	✓
Western Suffolk	✓	✓	✓	✓	
Eastern Suffolk	✓	✓	✓	✓	

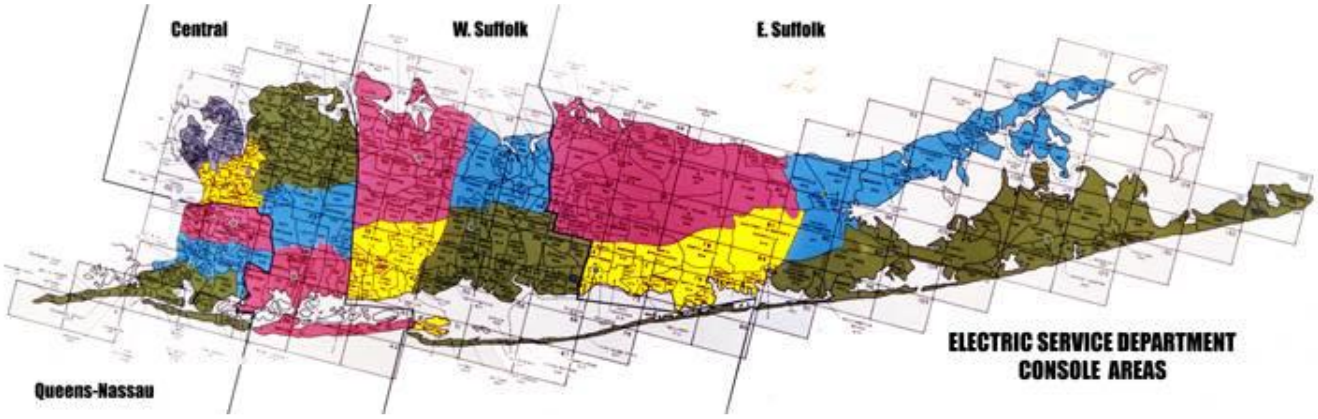


Figure 1.3 – PSEG Long Island Division Console Areas

2. PERSONNEL RESPONSIBILITIES

This section outlines the key functions of the various components and positions of the Storm Restoration organizational structure. An orderly and consistent flow of information between Operations, Communications, Logistics, and associated support organizations is necessary in times of storm emergencies. Organizational charts indicating lines of authority and the interrelation between organizational groups are included.

2.1 Senior Leadership at PSEG Long Island and PSE&G New Jersey

Prior to, and during major storm events, senior leadership, including Vice Presidents and above, at PSEG Long Island and PSE&G New Jersey maintain on-going and open dialog to discuss and share intelligence regarding an impending weather event. This proactive dialogue helps to ensure the most complete and timely "situational awareness" between leadership teams, and provides a platform to facilitate discussions regarding the potential sharing of personnel resources and other support functions between entities. This coordinated approach is also important to the overall restoration response from a communications perspective, as it provides the mechanism for consistent messaging to employees, customers, and other external stakeholders.

With the threat of a major storm or other system emergency, PSEG Long Island's leadership team will convene an incident management team with representation from all applicable functional sections (i.e., Operations, Planning, Communications, Logistics, etc.) to discuss and strategize a response to the anticipated event. Decisions made by the senior leadership team are then openly shared and communicated across the broader response organization to ensure visibility to the storm event and anticipated action plan. This also helps to set expectations regarding the response among those involved with the restoration effort. As delineated in the following sections, senior leadership from PSEG Long Island assumes leadership positions within the ICS for a major event.

A Crisis Management Team made up of PSEG Long Island executives will be established and available to support storm response for incidents that rise to the level of crisis, by providing oversight, strategic direction and a means to effectively and efficiently respond to the incident.

2.2 Emergency Restoration Organizational Charts

Figure 2.1 provides an overview of PSEG Long Island's Emergency Restoration Organization Command and General Staff structure which is utilized during restoration activities. This structure includes tactical functions such as Safety, Legal, Liaison, and Communications, as well as operational functions such as Operations, Planning, Logistics, and Finance. Please refer to Section 2.3 for a list of roles and responsibilities.

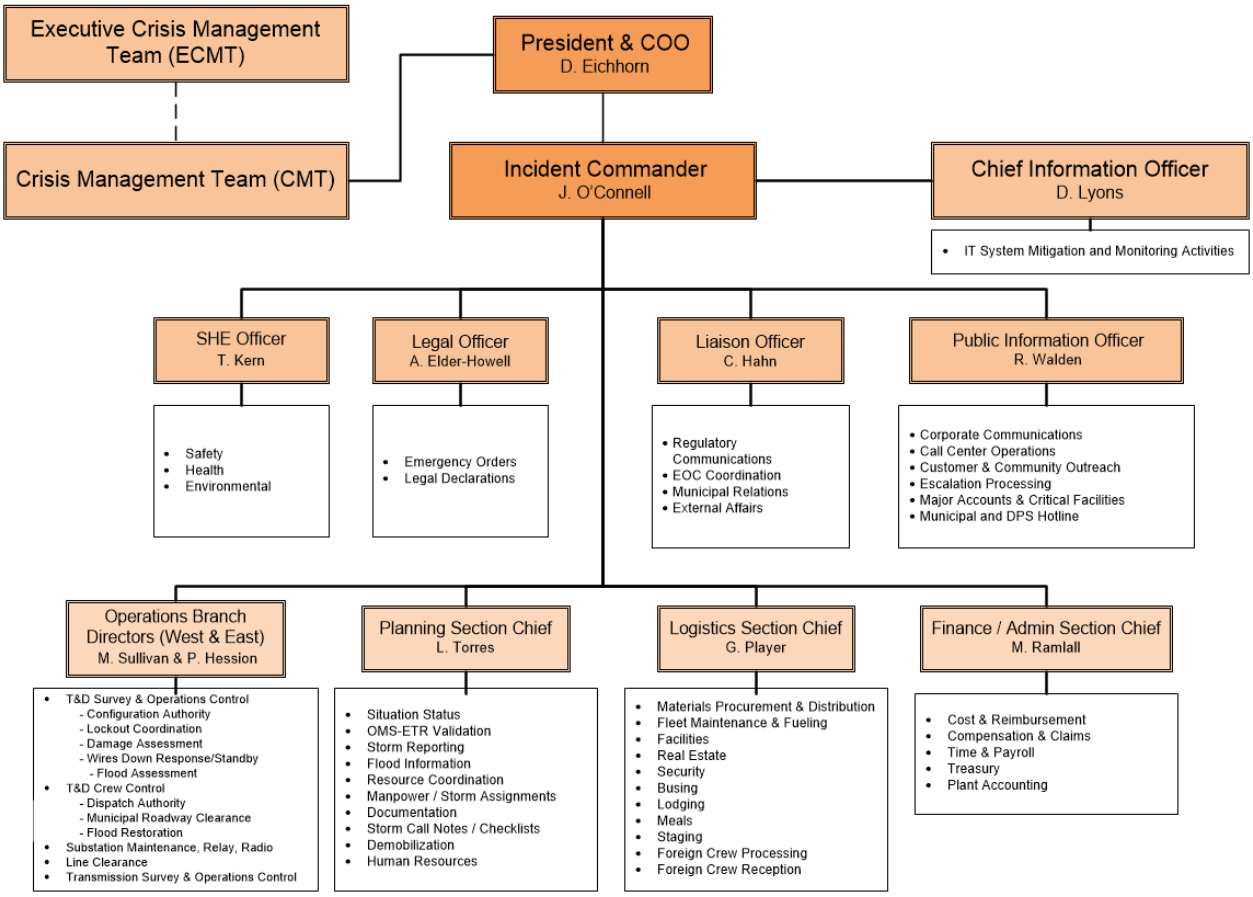


Figure 2.1 – Command and General Staff Organizational Chart

Figure 2.2 further details PSEG Long Island's Safety, Health, and Environmental (SHE) organizational structure during restoration, and includes tactical functions of safety, health, and environmental functional areas.

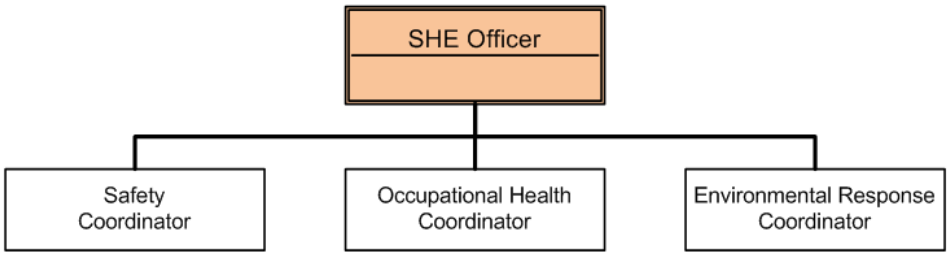


Figure 2.2 – SHE Officer Organizational Chart

Figure 2.3 further details PSEG Long Island's Legal organizational structure during restoration.

Figure 2.3 – Legal Officer Organizational Chart

Figure 2.4 further details PSEG Long Island's Liaison organizational structure during restoration, and includes all tactical functions of external affairs, governmental relations, emergency management, and supporting functional areas.

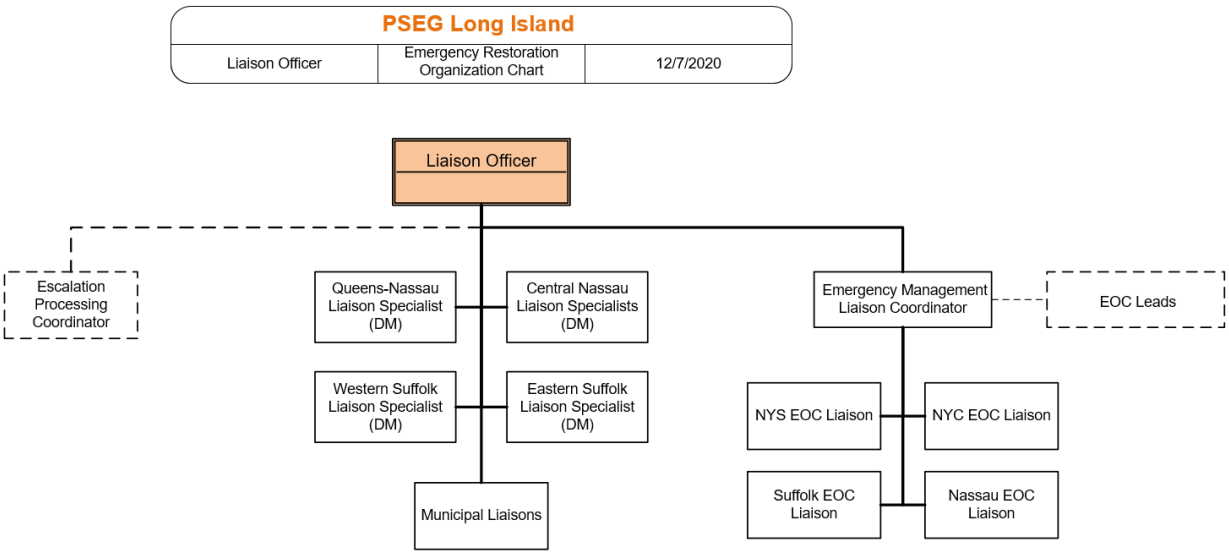


Figure 2.4 – Liaison Officer Organizational Chart

Figure 2.5 further details PSEG Long Island's Public Information (Communications) organizational structure during restoration, and includes all tactical functions of customer contact, major accounts, corporate communications, social media coordination, and supporting functional areas.

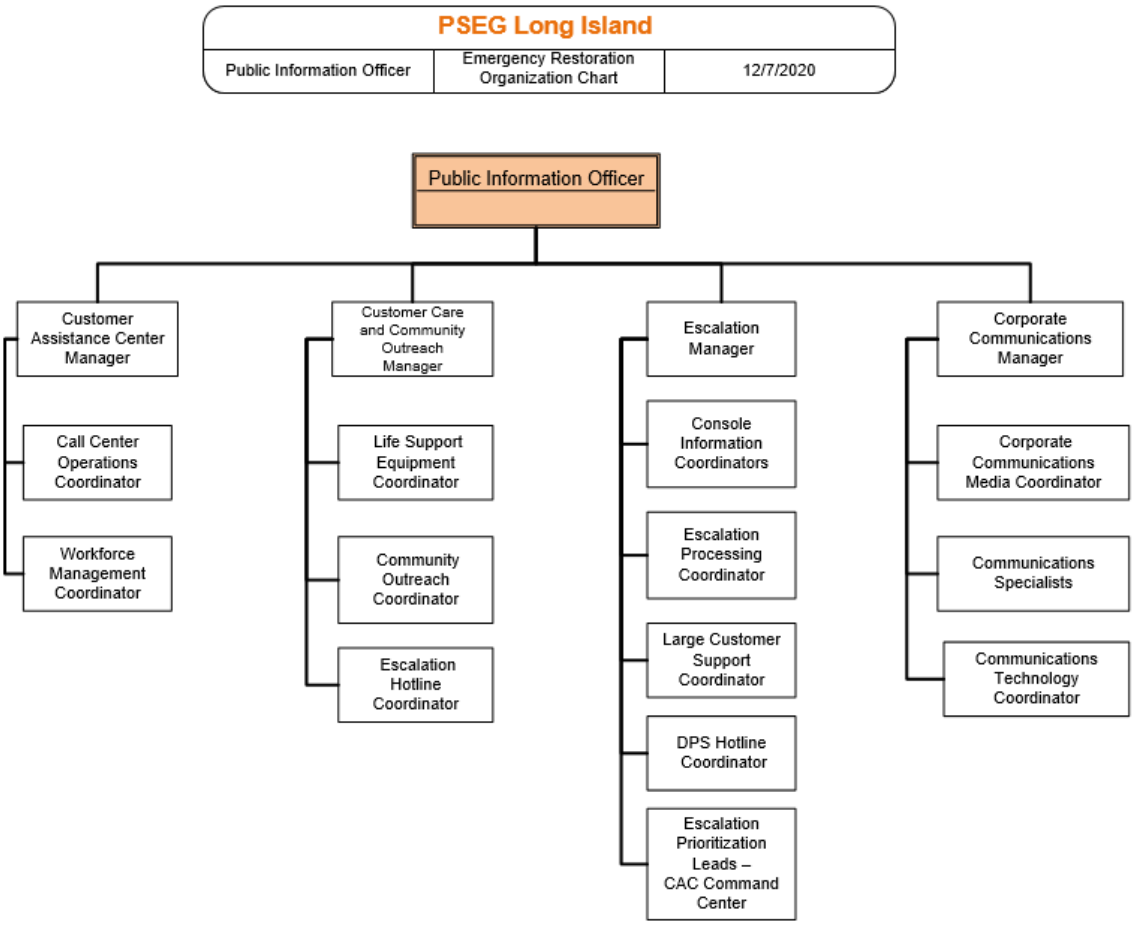


Figure 2.5 – Public Information Officer (PIO) Organizational Chart

Figures 2.6.1 and 2.6.2 further detail PSEG Long Island's Operations organizational structure during restoration, and includes all operational functions of damage assessment, survey operations, crew control, field resource deployments, and supporting functional areas.

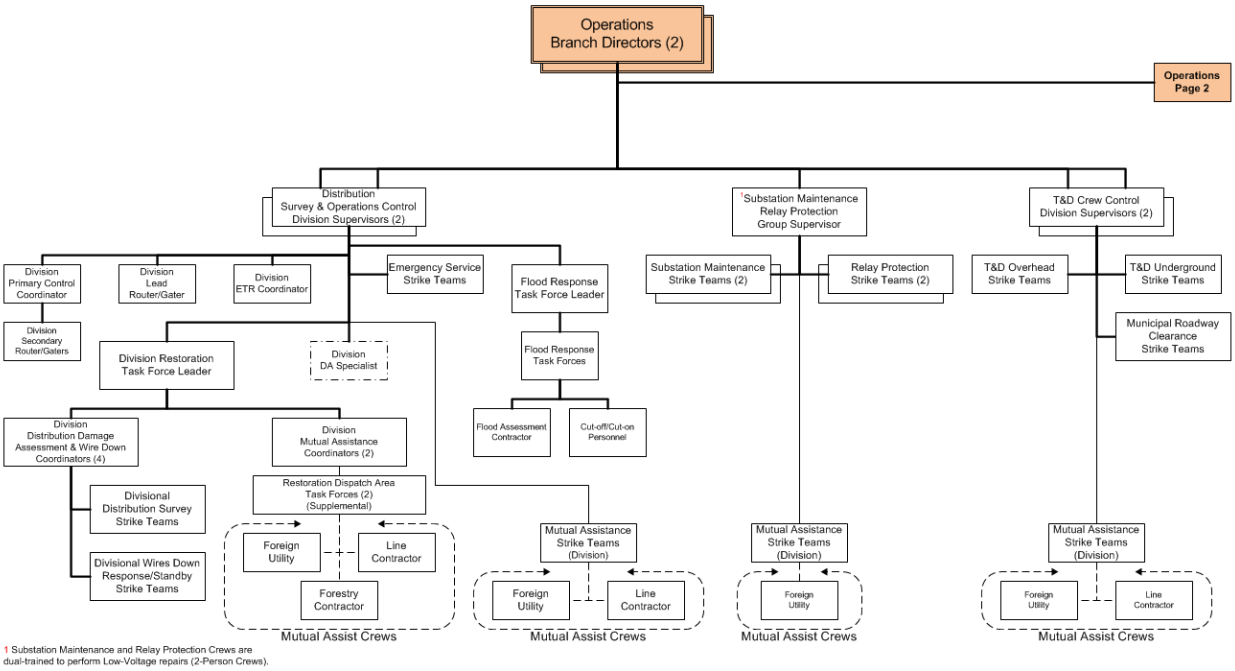


Figure 2.6.1 – Operations Organizational Chart (Page 1)

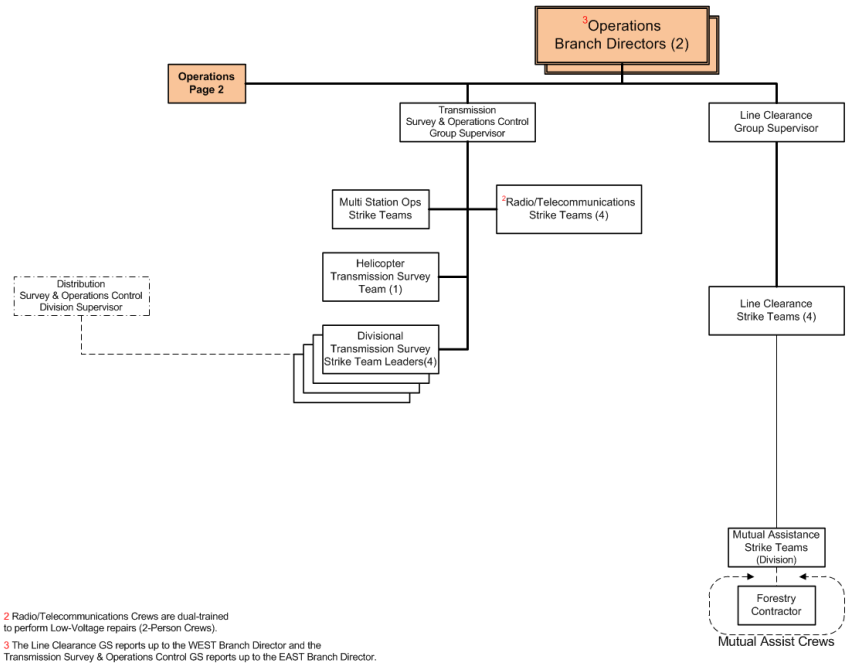


Figure 2.6.2 – Operations Organizational Chart (Page 2)

Figure 2.7 further details PSEG Long Island's Planning organizational structure during restoration, and includes all operational functions of situational awareness, resource coordination, documentation, and supporting functional areas.

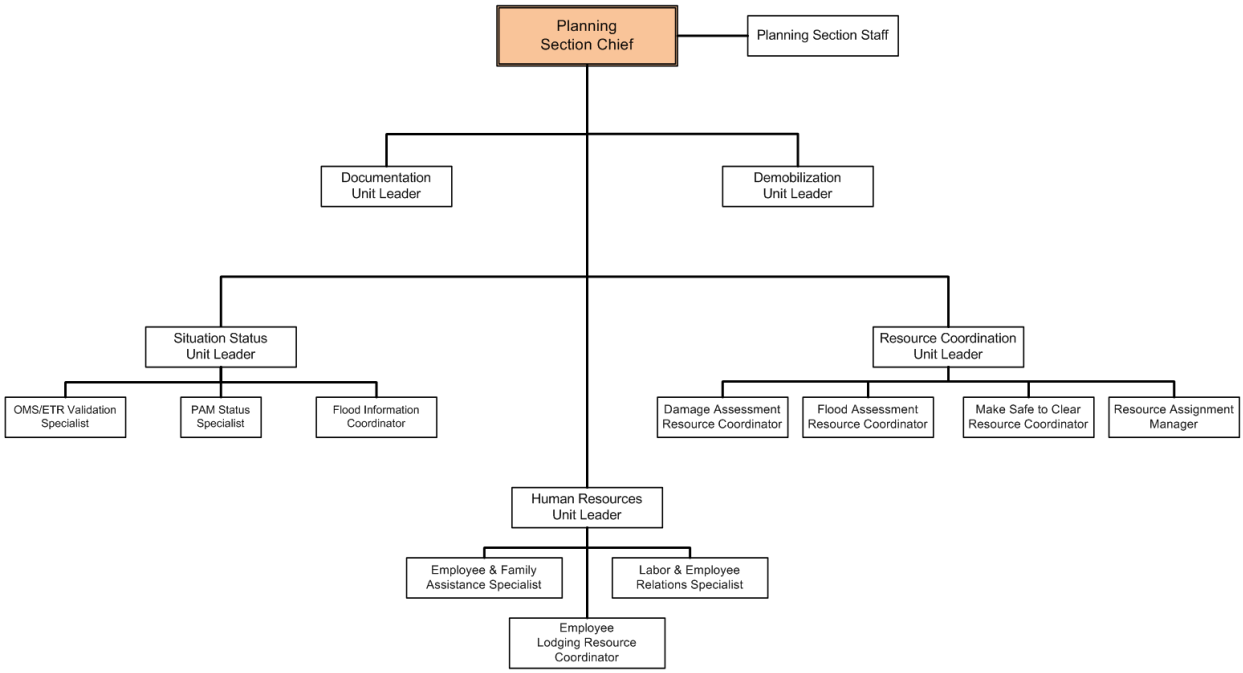


Figure 2.7 – Planning Organizational Chart

Figure 2.8 further details PSEG Long Island's Logistics organizational structure during restoration, and includes all operational functions of support, staging, and service operations.

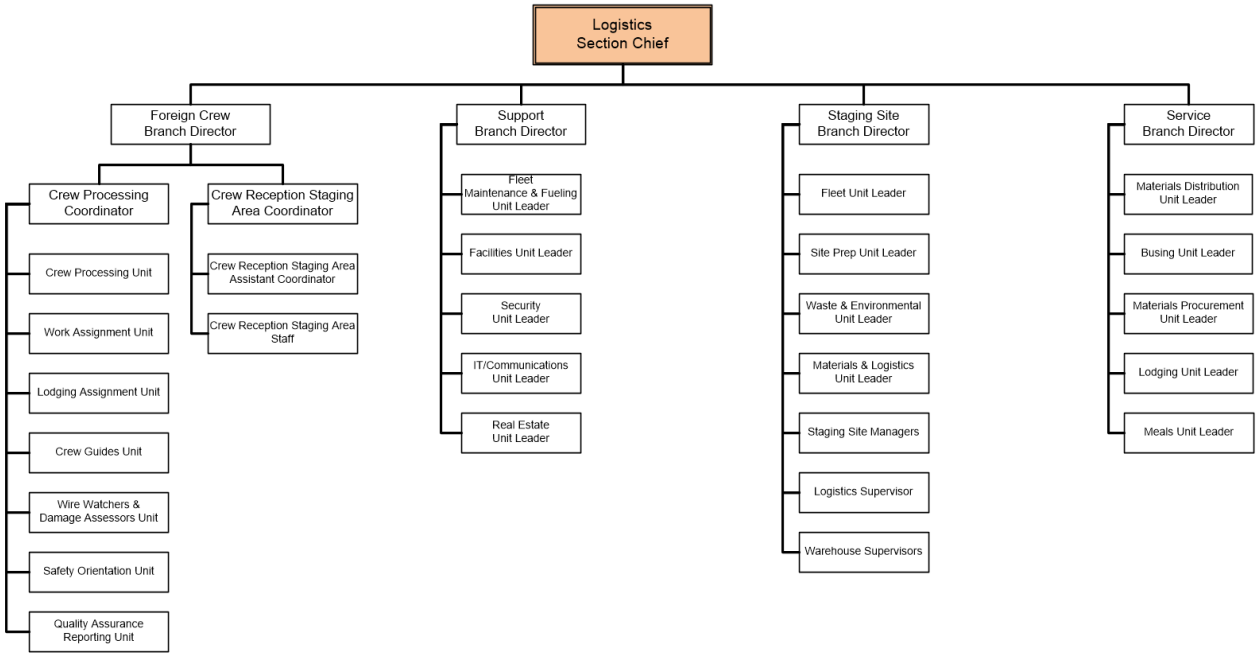


Figure 2.8 – Logistics Organizational Chart

Figure 2.9 further details PSEG Long Island's Finance/Administration organizational structure during restoration, and includes all operational functions of time/cost reporting, reimbursements, contracts, claims, and supporting functional areas.

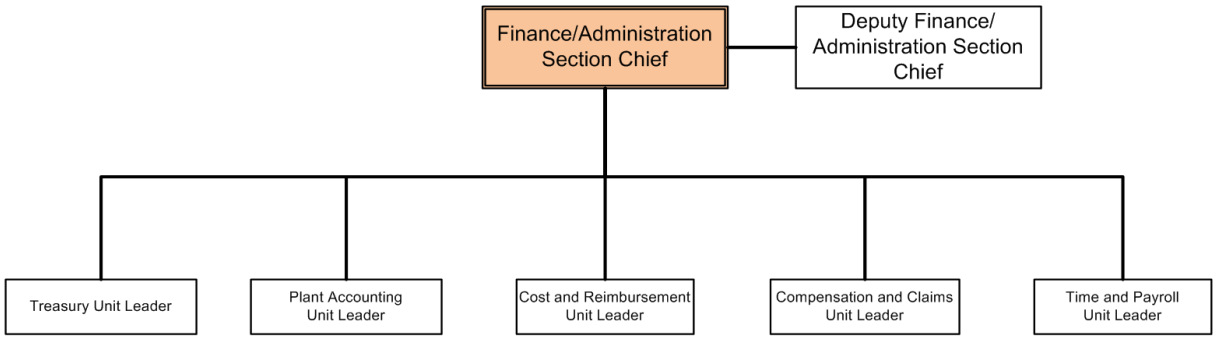


Figure 2.9 – Finance/Administration Organizational Chart

Figure 2.10 further details PSEG Long Island's Information Technology (IT) organizational structure during restoration events, and includes all operational functions of IT monitoring, mitigation and response activities associated with IT systems, applications, hardware and other supporting infrastructure.

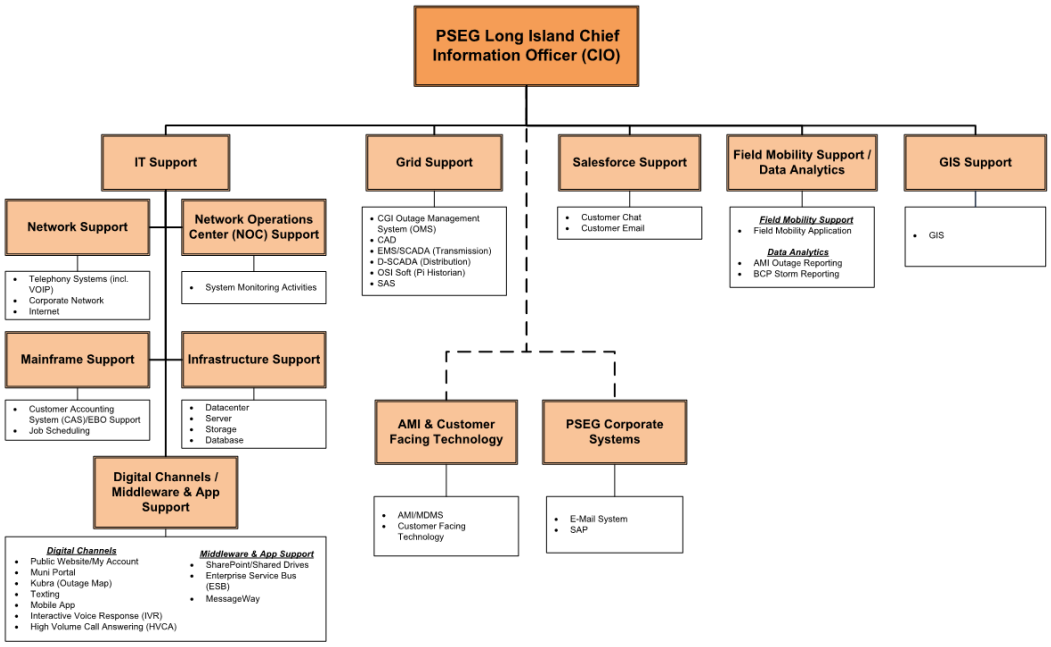


Figure 2.10 – Information Technology Organizational Chart

2.3 Roles and Responsibilities

Figure 2.10 details the key leadership roles during restoration operations and delineates significant corresponding function(s) that are coordinated in the respective areas. Additional functions can be found within internal role and responsibility documents and restoration checklists.

ROLE	CATEGORY	FUNCTION(S)
President and Chief Operating Officer (COO)	Command	– Oversees PSEG Long Island restoration response – Provides policy guidance and strategic direction – Communicates with key elected officials, business leaders, and PSEG Long Island and PSE&G New Jersey senior leadership
Incident Commander	Command	– Oversees and assesses the overall event and response – Establishes immediate priorities and sets operational period incident objectives and strategies – Mobilizes an appropriate response organization – Coordinates with key staff and officials – Approves requests for resources and release of resources
Legal Officer	Command	– Oversees the Legal Organization – Ensures all plans, procedures, policies, and directives are consistent with federal, state, and local law – Ensures all incident records and documentation are accurate and maintained, in accordance with all applicable laws and regulations – Interprets the 16 NYCRR Rules and Regulations of the PSC
Safety, Health, and Environmental (SHE) Officer	Command	– Oversees the SHE Organization – Develops recommended measures to assure personnel safety – Oversees tracking and reporting of accidents and/or injuries – Socializes hazardous or unsafe conditions – Oversees incident Environmental and Medical Plans
Liaison Officer	Command	– Coordinates with assisting agencies, cooperating agencies, and Agency Representatives during a restoration event – Communicates the status of PSEG Long Island's storm preparation and/or emergency response efforts with external government, public service, and public safety officials – Oversees Liaison organization coordination with State, County, Town, City, and Village EOCs

ROLE	CATEGORY	FUNCTION(S)
Public Information Officer (PIO)	Command	– Leads the Communications Organization to assess, respond to, and communicate during restoration events – Oversees communications plans and protocols
Chief Information Officer (CIO)	Command	– Leads the IT organization in efforts to mitigate, monitor and respond to IT related plans and activities – Oversees the functionality and performance of mission critical systems and applications
Operations Branch Directors (West & East)	General	– Oversees the management of all operations directly related to the primary mission of restoring electric service during an incident – Determines the overall need for resources – Directs operational plans and initiatives – Develops tactical objectives and conducts tactical operations to carry out the plan – Oversees operations of all tactical resources including, Transmission and Distribution Survey & Operations Control, T&D Crew Control, Substation Maintenance/Relay Protection, and Line Clearance
Planning Section Chief	General	– Oversees the Planning Section, including the collection, evaluation, and dissemination of information surrounding the incident – Coordinates supplemental manpower requests and needs – Oversees resource assignments, notifications and activations – Oversees documentation, reporting and situation status report dissemination (including DPS reporting)
Logistics Section Chief	General	– Oversees the Logistics Section including the Foreign Crew, Support, Service, and Staging branches – Coordinates strategic logistical goals and initiatives with Incident Commander and Senior Leadership – Oversees logistics units including the Support, Service, and Staging branches – Oversees services, materials, and/or facilities in support of an incident – Oversees the pre-activation and demobilization resource and support plans
Finance/Administration Section Chief	General	– Manages the Finance Section unit, which has oversight of all financial, administrative, and cost analysis aspects of an incident – Provides oversight to reimbursement process
Escalation Manager	Communications	– Oversees the tracking, reporting, and processing of critical facility and crucial infrastructure outage and/or emergency escalations – Oversees the coordination of escalation processing between Communications and Operations – Oversees Department of Public Service (DPS) Hotline – Oversees DPS requests and escalation response plans

ROLE	CATEGORY	FUNCTION(S)
Corporate Communications Manager	Communications	– Oversees communications messaging to be shared with PSEG LI employees, general public and media – Oversees the development of the message and materials including; key talking points, external press releases and key company plans – Oversees PSEG Long Island's Website and social media operations and postings
Customer Care and Community Outreach Manager	Communications	– Ensures effective communication with LSE customers – Maintains 24x7 coverage for the Municipal hotline and back up coverage for the Critical Facility/ Escalation Hotline – Plans for the needs of affected communities including oversight of Community Outreach centers and/or water/ice distribution
Large Customer Support Coordinator	Communications	– Oversees the Account Management Team in preparation of communications to Large Commercial Customers, Major Accounts customers, and Critical Facilities across all business segments – Oversees Critical Facility/Escalation Hotline – Oversees ongoing coordination and communication between the Account Management Team, Escalation Team, and Operations during restoration
Life Support Equipment (LSE) Coordinator	Communications	– Oversees initial preparation communications to all registered LSE customers – Oversees continuous contact efforts to all LSE customers without power during an event – Coordinates well visits to LSE customers not reached by phone through EOC liaisons and/or internal outreach liaisons and subsequent status reporting
Customer Assistance Center (CAC) Manager	Communications	– Ensures the efficient operation of Contact Center operations during emergency conditions through staffing and technology resources – Oversees the CAC Command Center and its daily coordination with the Escalation Team – Actively manages the Outage Map, Outbound Restoration calls, Interactive Voice Response (IVR), and High Volume Call Application (HVCA) systems and their associated messaging
Transmission Survey & Operations Control Group Supervisor	Operations	– Oversees the operations of the Transmission Survey & Operations Control Group – Implements the operational action items appropriate to the Transmission Survey & Operations Control Group, under the direction of the Operations Branch Director - East

ROLE	CATEGORY	FUNCTION(S)
Distribution Survey & Operations Control Division Supervisors	Operations	– Oversees the geographic operations of 1 of 4 Distribution Survey & Operations Control Divisions – Implements the operational action items appropriate to 1 of 4 Distribution Survey & Operations Control Divisions, under the direction of one of the Operations Branch Directors
T&D Crew Control Division Supervisors	Operations	– Oversees the geographic operations of 1 of 4 T&D Crew Control Divisions – Implements the operational action items appropriate to 1 of 4 T&D Crew Control Divisions, under the direction of one of the Operations Branch Directors
Substation Maintenance – Relay Protection Group Supervisor	Operations	– Oversees the geographic operations of 1 of 2 Substation Maintenance – Relay Protection Groups – Implements the operational action items appropriate to 1 of 2 Substation Maintenance – Relay Protection Groups, under the direction of one of the Operations Branch Directors
Line Clearance Group Supervisor	Operations	– Oversees the operations of the Line Clearance Group – Implements the operational action items appropriate to the Line Clearance Group, under the direction of the Operations Branch Director – West
Situation Status Unit Leader	Planning	– Oversees the preparation, posting, and dissemination of all incident data including briefs, notifications, and status reports – Coordinates the collection and distribution of operational data in support of reporting protocols and requirements
Human Resources Unit Leader	Planning	– Oversees resource support initiatives relative to labor relations, family assistance, and employee lodging – Coordinates with union and company leadership
Documentation Unit Leader	Planning	– Coordinates storm notes collection and documentation plans – Coordinates collection, dissemination, and retention of pre-event checklists
Resource Coordination Unit Leader	Planning	– Oversees the maintenance and coordination of incident resources and restoration assignments – Oversees storm notifications and activations – Maintains the assignment and status of all assigned restoration personnel – Coordinates supplemental resource needs and/or requests including utility partners and task force personnel – Approves movement or reassignment during storm

ROLE	CATEGORY	FUNCTION(S)
Demobilization Unit Leader	Planning	– Oversees the demobilization plan – Reviews resource records and coordinates the size and extent of the demobilization effort
Foreign Crew Branch Director	Logistics	– Oversees the FCP Team and associated support preparations for Foreign Utility crews, tree crews, and support personnel – Oversees the processing, management, and documentation of supporting personnel – Oversees the FCP Reception Staging site and associated site actions
Support Branch Director	Logistics	– Directs the activities of the support branch units including Fleet Maintenance & Fueling, Facilities, Real Estate, Information Technology (IT)/Communications, and Security in support of restoration operations
Service Branch Director	Logistics	– Directs the activities of the service branch units including Materials Procurement & Distribution, Busing, Lodging, and Meals in support of restoration operations
Staging Site Branch Director	Logistics	– Oversees the management and coordination at all staging sites, base camps and laydown yards – Oversees staging site plans and setup – Coordinates staging site needs and equipment requests
Fleet Maintenance & Fueling Unit Leader	Logistics	– Oversees fleet operations including vehicle/truck needs, repairs, and maintenance – Oversees fueling operations including stationary and mobile tanker plans – Oversees transportation plans and equipment requests
Facilities Unit Leader	Logistics	– Oversees the management and maintenance of all company facilities, operating yards, and associated support location during restoration events – Oversee facility operations, repairs, construction, and supporting requests
Real Estate Unit Leader	Logistics	– Oversees and manages company-wide real estate needs and requests – Coordinates with landowners of planned and potential site location on usage during events
Information Technology (IT) / Communications Unit Leader	Logistics	– Oversees the management of company-wide voice and data system operations – Oversees the operational readiness and day-to-day management of computer systems, applications, and software – Oversees the setup and maintenance of all company locations and support sites in support of IT/Communications needs

ROLE	CATEGORY	FUNCTION(S)
Security Unit Leader	Logistics	– Oversees the development and implantation of company-wide security plans and protocols – Oversees actions taken to protect employees, support personnel, assets, and operating locations
Materials Procurement Unit Leader	Logistics	– Oversees the procurement plans and protocols in support of material, equipment, and resource needs – Oversees agreements, contracts and planned services to be utilized during restoration operations
Materials Distribution Unit Leader	Logistics	– Oversees the receipt, preparation, and distribution of restoration materials, supplies, and equipment – Oversees the material storm room and mobile storm room plans and procedures
Lodging Unit Leader	Logistics	– Oversees the process for securing sleeping arrangements for employees, foreign utility crews, and supporting personnel during restoration events – Oversees procurement and reservation plans – Oversees the allocation and lodging distribution plans – Reviews alternative housing options and plans, as necessary
Meals Unit Leader	Logistics	– Reviews and confirms food service arrangements with vendors in lieu of activation – Identifies and coordinates a feeding plan for each facility and/or situation – Reviews and coordinates food service operations at all company and secondary work locations for PSEG Long Island employees, Foreign Crews, and support personnel
Busing Unit Leader	Logistics	– Oversees the shuttling needs of the restoration event – Oversees shuttling operations for foreign utility crews and employees between housing locations, staging sites, and work locations
Cost & Reimbursement Unit Leader	Finance	– Oversees the preparation of daily cost analysis and estimates for restoration expenditures – Oversees the cost reconciliation and substantiation process for incident invoices and expenses – Oversees the preparation and submission of reimbursement package, as applicable
Claims & Compensation Unit Leader	Finance	– Oversees financial concerns resulting from property damage, injuries, or fatalities associated with restoration efforts – Reviews all logs, forms, and other pertinent documentation for post-incident processing

ROLE	CATEGORY	FUNCTION(S)
Time & Payroll Unit Leader	Finance	– Ensures proper daily recording of personnel time – Ensures payroll is issued according to company policies
Treasury Unit Leader	Finance	– Ensures adequate cash supply for primary business operations – Ensures maintenance of corporate financial goals
Plant Accounting Unit Leader	Finance	– Ensures accuracy of financial reporting of company assets – Ensures plant assets are properly quantified, capitalized, and recorded for cost and depreciation

Figure 2.11 – ICS Restoration Roles and Responsibilities

2.4 Supplemental ERP Contact Sheet

PSEG Long Island's Staff Engineer in Emergency Planning maintains a supplemental contact sheet for all roles detailed within the ICS Restoration Roles and Responsibilities in Figure 2.10. PSEG Long Island Emergency Planning continues to update the list semi-annually, or when required, due to personnel changes and/or updates. The full supplemental contact sheet can be found within Appendix M.

3. MITIGATION ACTIVITIES

3.1 Overview

PSEG Long Island understands the importance of pre-planning, and its correlation to a timely and effective restoration response. Accordingly, PSEG Long Island undertakes a variety of initiatives to prepare its employees, infrastructure, emergency response partners, and the communities it serves. These initiatives include community awareness programs, employee training, exercises, and storm hardening projects. These pre-storm actions ultimately help to equip PSEG Long Island to respond to outages more effectively, while ensuring that customers, employees, and key stakeholder groups are better informed and prepared when disasters occur.

3.2 Community Outreach

3.2.1 General Public

An important aspect of PSEG Long Island's storm preparation initiatives is its focus on educating the community it serves on the importance of preparedness and safety. Education of the public is vital to an efficient and safe restoration effort, and PSEG Long Island takes many paths to inform its customers of what to expect before, during, and after large-scale storm events and what they can do to prepare.

Information is shared with the public through numerous channels, such as PSEG Long Island's Storm Center website, videos, mailings, social media, and its participation in community seminars, briefings, and exercises. PSEG Long Island understands that customer education is a year round process, and does not relegate such important activities to just a few days preceding or during a storm event. Information disseminated to the public addresses a variety of topics including:

- Preparing your home and family
- Preparing your business
- Storm safety and preparedness
- Outage reporting
- Current power outages
- Important PSEG Long Island contact information
- Generator safety
- Social media information
- Frequently Asked Questions (FAQs)

- Customer safety precautions around down wires

PSEG Long Island also maintains a comprehensive ”Outages” website section that provides additional information on the topics detailed above, along with educational videos (see Appendix O). The following videos focus on storm safety and preparedness:

- Our Storm Restoration Process
- Evacuating
- Prepare Your Home and Family
- Stay In Touch With PSEG Long Island
- Indoor Electric Safety
- Generator Safety
- Hazards & Safety
- Trees and the Electric Grid

3.2.2 First Response and Governmental Organizations

PSEG Long Island engages many first response organizations on preparedness and planning initiatives, including government officials, state/county/city/local emergency management organizations, police and fire organizations, partner utilities (i.e., gas, telecommunications, and cable) and local municipalities. PSEG Long Island aims to further develop these relationships through information sharing and collaboration throughout the year, for the benefit of response and recovery efforts during emergency outage scenarios.

PSEG Long Island actively participates in various County, City, Town, and Village sponsored events, workshops, exercises, and seminars throughout the year on the topics surrounding emergency planning, hurricane preparedness, and restoration operations. PSEG Long Island also provides presentations, and participates in exercises and drills with the first responder community. Members of PSEG Long Island’s staff also participate in many Federal, State, and Local training programs centered on emergency planning and response protocols (i.e., ICS, NIMS, Homeland Security Exercise and Evaluation Program (HSEEP), etc.) throughout the year. These collaborative initiatives expand upon planning efforts and further promote information sharing between participating organizations.

PSEG Long Island openly welcomes these same entities to participate in its annual tabletop exercise and other relevant events. The companywide exercise centers on planning and response activities during a large-scale restoration event, and promotes open communication and collaboration between entities. This alignment helps to ensure a clear and coordinated response when an emergency occurs, and promotes dialog and continuous improvement between organizations.

PSEG Long Island routinely seeks the input of our first response organizations when instituting new emergency planning procedures, and aims to coordinate its planning initiatives with such agencies for the benefit of all customers and municipalities served. PSEG Long Island invites first response organizations to review and discuss its annually updated ERP and corresponding planning initiatives.

PSEG Long Island also strives to coordinate with our governmental and emergency first response organizations during emergency preparations. PSEG Long Island hosts pre-storm calls and/or meetings to discuss operational strategies, timelines, activation schedules, and anticipated activities. Further coordination between entities is accomplished through the deployment of PSEG Long Island Municipal and EOC Liaisons. These liaisons often work directly within a town, city or county's command site, and assist with information sharing, executing escalation protocols, and facilitating overall coordination between entities. EOC Liaisons are activated and scheduled by the Emergency Management Liaison Coordinator, with EP Staff serving as a support/secondary point of contact for the state, county, and NYC EOC. Municipal Liaisons are activated and scheduled by support staff in the Liaison Organization and coordinate all requests, escalations, and daily activities with the District Managers as the secondary point of contact. For more information, please see Chapter 11, "Liaison Protocols."

Coordination between PSEG Long Island and its municipal, government, and emergency management partners is paramount to an efficient response, with many efforts undertaken to support, grow, and continuously advance these partnerships.

3.2.3 Safety Partnerships

PSEG Long Island's top priority is always the safety of its customers and personnel. Along with PSEG Long Island's own resources and preparation tips, customers can also take advantage of several resources available through its partnerships.

BereadyLI.org is a collaboration between The United Way of Long Island, 2-1-1 Long Island, and PSEG Long Island. Aimed at helping Long Island residents prepare for disasters, bereadyLI.org is an interactive, comprehensive, and easy-to-use website, compiling critical information applicable to children, the elderly, those with special needs, and even pets, in an effort to simplify the process of being prepped before disaster strikes. By working with experts in the field, the site compiles the most relevant and crucial information for residents to prepare for whatever Mother Nature brings our way.

To help parents teach children to prepare for emergency events, the PSEG Foundation partnered with Sesame Workshop to develop the 'Let's Get Ready' and 'Here for Each Other' programs. These programs help adults explain to young children various ways they can be physically and emotionally prepared for an emergency, and help adults and children cope with disasters.

For school age children, "Safety Town" presentations are delivered at schools, civic groups, and community events through our Community Partners Program. A live demonstration of the power of electricity, through use of an electrified model of a neighborhood, focuses on the dangers of coming in contact with, or in proximity to, live wires.

3.3 Storm Hardening Efforts

PSEG Long Island has taken many steps to harden the Long Island electrical system to withstand the effects of major storms. PSEG Long Island aims to harden its system to address major storms, hurricanes, flooding, high winds, and ice.

Hurricane Irene and Superstorm Sandy emphasized the need for extensive planning and engineering to help make the energy grid serving our customers across Long Island and in the Rockaways more reliable and more resilient. The Long Island Power Authority (LIPA) has also received significant grant funding from FEMA to address hardening and resiliency. The grants supported several projects led by PSEG Long Island and include enhancements in the following areas:

- Infrastructure investments and upgrades to vulnerable substations and electric lines
  - Completed 2 designated transmission lines to strengthen and minimize interruptions
  - In addition to the three (3) mobile substations and two (2) mobile switchgears purchased in 2013/2014, two (2) additional mobile substations have been purchased for delivery by Spring 2021.
  - Storm hardening projects (elevating foundations, repairing/replacing critical equipment, installing flood sensors and flood prevention barriers, etc.) have been implemented at ten substations.
  - [redacted]
- Work has been completed on all ten of the substations Improving reliability and isolating /minimizing the number of customers affected by an outage through installation of additional switches
  - Adding switches on a circuit will minimize customer outages via isolating fault to a smaller portion of geographical circuit
    - Circuit Improvement Program - 144 new switches installed and placed in-service – Implementation of the new design criteria of 500 customers per switch
    - [redacted] – 22 new switches installed and placed in-service – Replacement of old unreliable switches with new G&W Vipers
    - Conversion and Reinforcement Program – 10 new switches installed and placed in-service – Deployment of new switches for new substation circuits

- Enhancing circuit and inspection program
  - Under the FEMA grant, PSEG Long Island in Q2 2020 reached its contractual milestone of installing 1025 miles of new hardened mainline distribution. With hazard mitigation/strengthening measures being performed on 319 mainline circuits, across the service territory from the Rockaways to the South and North forks of Long Island. A combination of overhead and underground mitigation measures were employed to achieve the grant goal.
  - Construction of six (6) new transmission crossings, which were weakened during Super Storm Sandy, were completed and placed into service in early 2020, to further strengthen the system.
  - The FEMA project has completed installation of 894 supervisory switches with 689 commissioned. The balance of 205 is planned to be commissioned by Q2/Q3 2021, as up to 19 Distribution Automation (DA) substation communications repeaters are installed and become operational through Q2 2021. These additional switches are intended to minimize customer outages by isolating circuits with faults more quickly, into smaller segments, effecting less of the entire circuit and reducing the number of customers affected by an outage.
  - As the FEMA mainline distribution mitigation program began to wind down in mid-2020, a new non-FEMA PSEG program called “Power On” started construction in Q2 2020, to continue additional overhead mainline hardening to mitigate the impact of storms on PSEG Long Island customers. Power On has completed 10 circuits comprised of over 55 miles of overhead distribution hardening through mid-November 2020.
  - Circuit improvements have included the continued installation of stronger poles set deeper with added backfill to withstand winds up to 135 mph, replacement with stronger/thicker wire on a more narrow cross arm design to be more resilient, tree trimming to reduce the risk of damage to equipment and wires and the installation of supervisory switches to segment circuits into smaller groups to help reduce the number of customers affected by an outage.

- More aggressive tree trimming/vegetation management program (industry best practices)
  - The utility uses historical data to forecast and prioritize areas which may be impacted by vegetation outages the most, and examines tree-trim cycles to determine where growth may be significant and require additional trimming before an outage occurs
  - Crews have created greater clearance around trees and distribution power lines, pruning to 12 feet above, 8 feet to the side, and 10 feet below high voltage lines
  - Annual aerial inspections of the transmission system also help detect equipment issues and vegetation encroachment
  - The Vine Mitigation Program helps alleviate additional outages by proactively clearing areas where vines are interfering with our electric lines and equipment before they cause any damage to the system

- Through the expanded Hazardous Tree Removal Program, Certified Foresters identify unhealthy, dead, or damaged trees in the area of our electric lines that will likely cause an emergency outage in the future. These trees are then removed or cutback to avoid the possibility of downed lines during storms.

PSEG Long Island also continues to perform work through a large number of reliability programs, including circuit improvement programs where poles, cables, and lines are inspected, designed, and rebuilt for improved performance. Additional programs for customers with multiple outages have been enhanced.

Since the time that PSEG Long Island has undertaken its role as Long Island's electrical service provider, this activity has continued with renewed emphasis. From the more aggressive vegetation management program, to upgrades and storm hardening of vulnerable substations, transmission and distribution lines, and an enhanced circuit and equipment inspection program, PSEG Long Island has made, and continues to make, extensive capital improvements to ensure safe and reliable service for customers across Long Island and in the Rockaways.

4. WEATHER ASSESSMENT AND DAMAGE PREDICTIONS

A successful response to any storm emergency is often predicated on a comprehensive anticipation and early warning system. An early appraisal, based on known conditions and prior storm experience, becomes a critical component to plan and execute an effective restoration effort. Each storm presents varying types and degrees of intensity and produces differing results, which vary considerably in severity and extent. For example, a slow moving ice storm results in a substantially different outcome and restoration challenges, as compared to a hurricane or tropical storm. Accordingly, a detailed storm anticipation system must be utilized for restoration efforts to have the greatest impact.

An effective anticipation system provides vital information, such as the predicted size, scope, and arrival time of a potential storm or weather system. This information proves to be very valuable when pre-planning resources and manpower. PSEG Long Island employs various tools and analyses, in conjunction with active weather monitoring, to position itself to be best prepared for impending storm events and the ensuing response. This awareness and planning allows for appropriate decision making to occur, in terms of readying the system and ensuring adequate resources are targeted and mobilized to efficiently respond to the damage ultimately sustained.

Keeping employees and customers informed is also at the forefront of PSEG Long Island's storm anticipation protocols. The more information known ahead of a storm's onset allows PSEG Long Island to disseminate its plans and intentions to all parties accordingly. This early warning helps the Company and its employees to better prepare for the impending storm and planned restoration activities. Most importantly, it helps to set expectations with customers and other key stakeholders so that they, too, can be best prepared for the impending storm.

Storm anticipation is also vital to PSEG Long Island's pre-planning efforts surrounding the potential need for additional resources during restoration efforts. Most large-scale outage events, with potential for a long duration, require assistance from other utility partners and contractors. An event's predicted severity allows key operational decisions to be made ahead of time, and through educated early anticipation and decision-making, leaves the company better positioned to recover and manage its restoration effort.

4.1 Preparatory Responsibility

It is the responsibility of PSEG Long Island's Incident Commander and key operational personnel to closely monitor all forecasted storms and to evaluate their anticipated size, scale, and complexity. The importance of evaluation cannot be overstated and must be made at the earliest possible time with the most current information available. The Incident Commander, Restoration Officers, and Section Chiefs have the responsibility to activate emergency procedures within the affected division, commensurate with the projected size, scale, and complexity of the emergency.

4.2 Weather Monitoring Approach

PSEG Long Island obtains weather information and alerts from a variety of sources and disseminates the information to the appropriate personnel, based on its potential to affect the electric T&D system on Long Island. Forecasts of inclement weather may cause PSEG Long Island to take preparatory actions, including the possible alert or mobilization of various components of the storm restoration organization, securitization of additional resources, and other related preparatory activities. An effective weather monitoring approach assists in both short and long term planning, with regard to overall restoration efforts.

Weather data and forecasts are received and reviewed by the T&D Electric Operations and Emergency Preparedness departments on a daily basis. Reports and advisories are regularly received from the National Weather Service (NWS) and Data Transmission Network's (DTN's) Meteorological Service. The NWS provides weather reports from its New York office at varying intervals throughout the day, based on the severity of the storm. DTN provides weather forecasts specific to PSEG Long Island's service territory three times daily, as well as on-demand consulting services provided by a dedicated team of available meteorologists. Copies of the reports are made immediately available to the appropriate departments and key personnel are notified accordingly. This information helps PSEG Long Island make better decisions about staffing and requesting mutual aid resources.

Key personnel and field locations across the service territory are provided with access to WeatherSentry Online, provided by DTN, for monitoring and receiving automated weather alerts for their respective service areas. Weather summary briefings are provided on daily operations calls and on conference calls conducted prior to, and during, an event.

Weather information and advisories are also obtained from the following services on a daily basis:

- Subscription Services
  - DTN (internet, e-mail/text notifications, and verbal discussion with a meteorologist)
    - www.dtn.com
- Non-subscription services
  - National Weather Services (Internet)
    - www.weather.gov
    - www.noaa.gov
  - The Weather Channel (Television (TV) and Internet)
    - www.weather.com
  - Weather Underground (Internet)
    - www.wunderground.com
  - AccuWeather (Internet)
    - www.accuweather.com

PSEG Long Island also utilizes the Sperry-Piltz Ice Accumulation (SPIA) chart when planning for the potential impact of a winter weather event. The SPIA chart provides valuable information regarding the potential impact (or non-impact) of forecasted ice accumulations on overhead utility infrastructure. A copy of the SPIA chart is provided in Figure 4.1. This chart addresses sleet, freezing rain, and ice events for Overhead Utility Operations. The SPIA chart is used in conjunction with the Saffir-Simpson Scale, (see Figure 4.2) which measures the impact of tropical force and hurricane winds. Both weather charts provide valuable information to PSEG Long Island personnel when conducting preparations for anticipated weather related incidents.

The Sperry-Piltz Ice Accumulation Index, or "SPIA Index" – Copyright, February, 2009

ICE DAMAGE INDEX	* AVERAGE NWS ICE AMOUNT (in inches) *Revised-October, 2011	WIND (mph)	DAMAGE AND IMPACT DESCRIPTIONS
0	< 0.25	< 15	Minimal risk of damage to exposed utility systems; no alerts or advisories needed for crews, few outages.
1	0.10 – 0.25	15 - 25	Some isolated or localized utility interruptions are possible, typically lasting only a few hours. Roads and bridges may become slick and hazardous.
	0.25 – 0.50	> 15	
2	0.10 – 0.25	25 - 35	Scattered utility interruptions expected, typically lasting 12 to 24 hours. Roads and travel conditions may be extremely hazardous due to ice accumulation.
	0.25 – 0.50	15 - 25	
	0.50 – 0.75	< 15	
3	0.10 – 0.25	> = 35	Numerous utility interruptions with some damage to main feeder lines and equipment expected. Tree limb damage is excessive. Outages lasting 1 – 5 days.
	0.25 – 0.50	25 - 35	
	0.50 – 0.75	15 - 25	
	0.75 – 1.00	< 15	
4	0.25 – 0.50	> = 35	Prolonged & widespread utility interruptions with extensive damage to main distribution feeder lines & some high voltage transmission lines/structures. Outages lasting 5 – 10 days.
	0.50 – 0.75	25 - 35	
	0.75 – 1.00	15 - 25	
	1.00 – 1.50	< 15	
5	0.50 – 0.75	> = 35	Catastrophic damage to entire exposed utility systems, including both distribution and transmission networks. Outages could last several weeks in some areas. Shelters needed.
	0.75 – 1.00	> = 25	
	1.00 – 1.50	> = 15	
	> 1.50	Any	

(Categories of damage are based upon combinations of precipitation totals, temperatures and wind speeds/directions.)

Figure 4.1 – SPIA Chart

SAFFIR-SIMPSON HURRICANE WIND SCALE				
CAT	Wind Speed		Old SS Scale	
	mph	kt	mb	surge
TD	0-38	0-33		
TS	39-73	34-64		
1	74-95	65-83	980-994	4-5'
2	96-110	84-95	965-979	6-8'
3	111-129	96-112	945-964	9-12'
4	130-156	113-136	920-944	13-18'
5	>157	>137	<920	>18'

Figure 4.2 – Saffir-Simpson Scale

In addition, when tropical systems are approaching, hurricane-tracking weather maps from the NWS and its Hurricane Center are received and reviewed by the Electric System Operations Department. These maps assist in the decision-making process, relative to restoration preparedness and response efforts (see Figure 4.3).

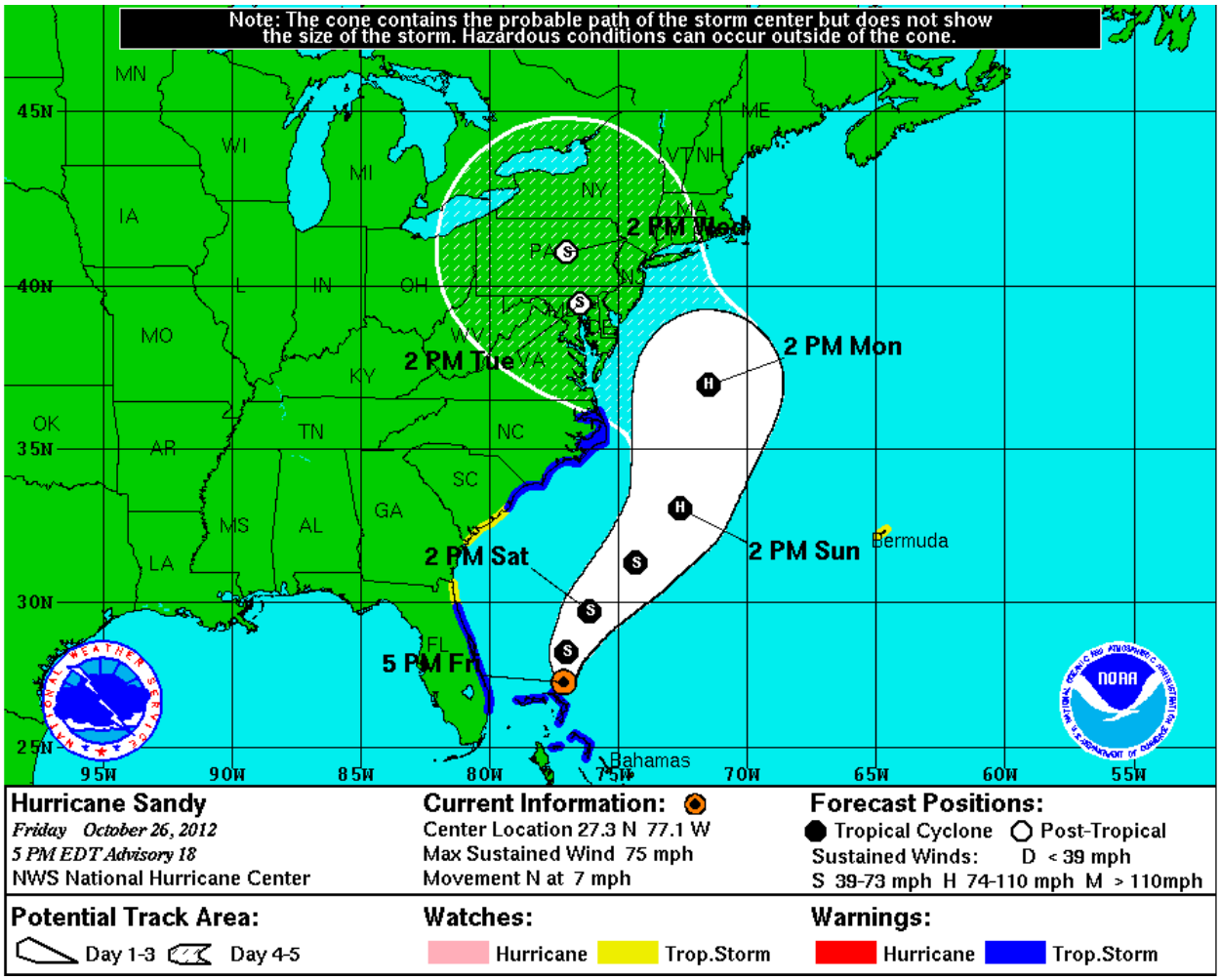


Figure 4.3 – Sample Hurricane Tracking Map

4.3 Storm Descriptions

The application of weather monitoring tools and analyses is vital when planning an effective restoration response. The various types of storms experienced in PSEG Long Island's service area provide many challenges when preparing for such events. Each type of storm or weather condition varies and requires differing levels of preparation and response.

Given its geography, topography, and location, Long Island is susceptible to a variety of storms and weather conditions that can yield damage to its electrical facilities and result in outages to its customers. The list of potential weather hazards and their effect on the electrical system are outlined in the following sections.

4.3.1 Thunderstorms/Lightning

Thunderstorms with considerable cloud-to-ground lightning, can have an impact on PSEG Long Island's primary, transmission, and sub-transmission facilities. However, severe widespread thunderstorms may be accompanied by severe winds and will have a larger effect on secondary facilities and individual house services.

4.3.2 Tropical Storms and Hurricanes

Both tropical storms and hurricanes can have a lasting and devastating effect on the electrical system as a whole. The severity of the damage will vary depending on the size, scope, approach and length of the storm. To start, heavy rain will affect sub-transmission facilities and individual house services. Heavy winds can have a large influence on transmission and individual house services as well, due to the possibility of widespread wire down conditions and pole damage.

Storms with severe wind conditions also have the potential to cause large-scale outages, from both a system and individual service level. Tropical storms and hurricanes often require an appropriate mobilization of field resources, in advance of the storm's arrival, due to its large impact. Storm severity may also require the application of the "cut clear" phase, and include the coordination of significant tree removal and "Make-Safe" efforts before effective restoration operations can begin.

4.3.3 Winter Storms

4.3.3.1 Nor'easters

Nor'easters can bring heavy rains, strong winds, and blizzard-like conditions that often create considerable damage to the T&D Electric system. Damage is often widespread affecting all parts of the electrical system. Nor'easters often bring significant downed wires and pole damage, resulting from falling trees and strong winds.

4.3.3.2 Major Sleet, Ice, or Wet Snow Storms

These storms have the ability to build up slowly, with damage continuing over a period of several days. The area affected is often localized in ice storms, and widespread in wet snowstorms. Because of their slow prolonged buildup, damage assessments are often difficult to anticipate. The important aspect of these storms is that the majority of damage usually occurs at the individual house level. Therefore, maximum mobilization of house service restoration crews and tree crews are instituted as soon as possible.

For snow events, the Snow to Liquid Ratio (SLR) compares the amount of liquid precipitation with the number of inches of snow, and is one way of describing what makes light, fluffy snow different from heavy, wet snow. The temperature can have a huge impact on the amount of snow, as well as how much it weighs. Therefore, the SLR can have a direct effect on the damage sustained, with lighter, drier snow typically causing little to no impacts to the electric system.

The "average" SLR is 10:1. In colder weather, snow has more airspace, resulting in more inches of snow (>10:1), but lighter in weight. Wet snow that falls at the freezing mark is usually heavy (<8:1), but may not accumulate that much. However, significant variations in SLR can occur even within a single storm system.

For these types of storms, as well as nor'easters, tree/leaf coverage may play a critical role in its effect on the electrical system due to the propensity of damaged trees and branches resulting in wires down.

4.3.4 Heat Storms

While the result of a heat wave may vary greatly from a winter storm or hurricane, its effect can be just as damaging. Heat waves can put an undue burden on the electrical system due to the increased usage by commercial and individual users. Heat waves can also damage T&D equipment (i.e., wires, transformers, and fuses) through overheating caused by increased output levels. Heat waves can have a lasting effect on service and can potentially lead to wide spread outages in extreme circumstances.

4.3.5 Flooding

Flooding is a serious threat facing electrical utility providers, including PSEG Long Island. The severity is further heightened when the service territory is a highly populated island with many coastal communities, as is Long Island. This threat requires increased planning for the prevention of a large-scale outage and a quick response when such conditions are experienced.

Flooding can have a dramatic effect on PSEG Long Island's electrical system depending on the size, proximity, and timing of impact. Flooding can greatly damage electrical distribution facilities and leave the surrounding territory with large-scale outages. Additionally, flooding can cause damage to sub-transmission facilities, transformers, wiring, and other vital support equipment and locations. Large-scale flooding can also have an effect on customer-owned equipment, which adds complexities to safe re-energization protocols undertaken after severe flooding.

Resource mobilization and travel difficulties may also arise during restoration efforts, due to flooding and its devastating effects. Please see Section 15.5 for more information regarding specific flooding guidelines and protocols taken by PSEG Long Island during restoration activations.

4.4 Damage Predictions

The ability to accurately predict damage associated with an impending storm and/or weather event is essential in preparing for, and executing, a successful restoration effort. PSEG Long Island employs various tools and draws upon its institutional knowledge and experience from past events to develop preliminary damage estimates. Weather conditions, as well as its projected intensity and impact, are closely monitored and adjusted to provide an estimate for damage potential.

Forecasting, in conjunction with data from past events, assists in the preparation of damage predictions. While the accuracy of damage predictions cannot be guaranteed, its significance is vital to PSEG Long Island's restoration efforts. Damage predictions set the operational tone of actions to be taken post-impact, and have wide-ranging implications.

Damage predictions are utilized when developing global and regional ETRs. These predictions assist with identifying the time needed to assess and repair a specific outage and, ultimately, become the expected time of restoration to our customers. Damage predictions are used when estimating potential manpower needs during an anticipated outage. This is of great significance when the need for Foreign Crews is anticipated, as it is often necessary to mobilize support resources from areas that require significant travel to arrive on Long Island.

Finally, damage predictions help to define the logistical needs of a potential storm, assisting with the identification of possible material and facility needs in order to properly stock, stage, and deploy adequate resources

PSEG Long Island is currently three years into the implementation of a four-year project with DTN to deliver a weather-based damage prediction solution that forecasts the occurrence and extent of damage from storms impacting our electric transmission & distribution system. This damage and outage incident prediction system uses a sophisticated, machine learning-based approach to provide a set of quantitative predictions that support a more prepared response to service interruptions. Based on historical weather data and outages, along with PSEG Long Island asset data, including geographical location of the corresponding assets within PSEG Long Island's service territory, this tool will serve as an additional means to forecast severity, level of damage, and expected geography to be impacted. This tool, which is currently utilized and continuously refined, will assist in improving our overall outage preparation and response strategy.

5. EMERGENCY CLASSIFICATIONS AND ACTIVATIONS

5.1 Storm Assessment

The Incident Commander, in conjunction with the PSEG Long Island Restoration Officers and Section Chiefs (i.e., Legal Officer, PIO, Logistics Section Chief, etc.), participate on strategy and anticipation calls to discuss the impending storm event and review potential pre-storm initiatives and strategic goals. These PSEG Long Island senior leaders assess a combination of factors to determine the level of activation, including but not limited to:

- Forecast analytics, historical data, and predictive/statistical modeling
- Weather conditions and projections (i.e., projected wind speed, time of year, precipitation characteristics, etc.)
- Predicted corresponding impact (i.e., system damage, restoration duration, outages, etc.)
- Other internal and external factors (i.e., staffing, manpower availability, customer expectations, etc.)

5.2 Storm Level Classifications

PSEG Long Island operates under an internal emergency classification and storm level matrix that is utilized in anticipation of storm conditions and/or a system emergency. These descriptions work in unison and assist in the preparation and response efforts conducted by the Company, system wide. The classification of an emergency is dependent upon the severity and affected geography of the emergency. The system is sufficiently versatile, so that a smooth transition may be made from one condition to another, as changing weather conditions warrant and the storm response plan is executed. Figure 5.1 provides a high-level overview of the categories for the planned anticipation of emergencies based on their severity.

STORM LEVEL	CLASSIFICATION	DESCRIPTION
I	White	Normal Operations and/or Minor Storm Events
II	Blue	Extensive Localized Damage and/or Moderate System Wide Damage
III	Red	Major Storm Events and/or System Disaster

Figure 5.1 – Classification and Description of Different Storm Levels

5.2.1 Condition I "White"

Under Condition I "White," the severity of the resulting damage is moderate, consisting mainly of localized or limited system damage. This includes normal "blue sky" operations and minor storm events. Expectations are such that complete restoration of system circuits and station interruptions can be accomplished, utilizing existing divisional manpower, within an eight-hour period. The Distribution Operations Department is able to coordinate repairs to the T&D Electric systems with minor additional assistance from the division's internal Overhead/Underground (OH/UG) Lines Department. Events in this classification typically possess any of the following characteristics: gusty winds, heat, rain, freezing rain, snow, and/or lightning.

5.2.2 Condition II "Blue"

Under Condition II "Blue," the severity of the resulting damage is more significant than Condition I "White," consisting mainly of extensive localized damage or moderate system damage across the service territory. Expectation is such that complete restoration of system circuit and station interruptions can be accomplished, using available company resources, within a 48-hour period. When storm damage makes it necessary for the Distribution Operations Department to request substantial assistance from other organizations within the Company, the state of readiness is shifted from Condition I "White" to Condition II "Blue." Events in this classification often possess any of the following characteristics: high winds over a prolonged period, heavy rain, freezing rain, sleet, wet snow, ice, higher heat conditions, and/or significant lightning.

This escalation ordinarily occurs on a divisional basis as soon as the assistance of more than five OH/UG Line Crews is required in any one division. Other elements of the restoration organization may be activated in accordance with need (i.e., damage assessors, communications, etc.). The EP Department and/or the Planning Section may coordinate and assist with the conditional shift in Operations and the associated activities to follow.

Within Condition II "Blue," T&D Electric Operations may require additional help from other internal organizations in support of restoration efforts. Supporting organizations and their responsibilities may consist of the following:

- Line Crews

  The OH/UG Lines Division(s) mobilize their own dispatching group(s) and distribute job assignments to Line Crews. OH/UG Lines may also mobilize their own "makeup" crew organization, which is staffed from their underground splicing group. Additionally, internal local company contractor high voltage personnel may be mobilized.

- Two-Man Makeup Crews

  Personnel from Substation, Protection and Telecom groups are utilized for Two-Man Makeup Crews and make low voltage repairs, such as house services and transformer secondary connections. Many can also perform high voltage switching at ground-operated switches, and some can re-fuse primary cutouts. Qualified Meter and Test Personnel are also utilized to supplement Two-Man Makeup Crew manpower.

- Survey/Wire Down

  A survey/wire down operation may be implemented in Condition II "Blue" where qualified PSEG Long Island personnel are dispatched to confirm wire down reports generated from customer or police and fire department. Survey/wire down personnel are supported by Distribution Engineering, along with their own survey dispatch organization.

- Multi Station Operators

  If weather conditions continue to deteriorate, the Transmission Operations Department may elect to staff certain substations with Substation Operators (Multi Station Operators) to assist in gathering information and substation operation.

5.2.3 Condition III "Red"

Under Condition III "Red," the severity of the resulting damage is severe and/or widespread, consisting mainly of extensive localized damage or acute system damage throughout the entire service territory. Expectations are such that complete restoration cannot be accomplished in a 48-hour period utilizing only company resources, and therefore, assistance from other utilities, contractors, etc. is required. Events in this classification include severe storms, such as tropical storms, hurricanes, nor'easters, prolonged high wind events, heavy icing, accumulation of heavy or wet snow, severe lightning, flooding, extreme heat, and straight-line wind events. Also included are other conditions that produce widespread outages, high customer call volumes, extensive system damage, and a large number of circuit lockouts.

When any or all of the following actions are taken, Condition III "Red" is in effect:

- Foreign Crews are called in to augment the PSEG Long Island repair force
- One or more Remote Dispatch Areas are mobilized to perform local damage assessments and repair
- One or more Remote Dispatch Areas are placed under 'Local Operation Control' to direct the repair operations on distribution feeders delegated to that dispatch area

For more information regarding operational plans during Condition III "Red," please see Chapter 13, "Operations Protocols."

5.2.4 Storm Severity Matrix

PSEG Long Island's Storm Severity Matrix is a reference guide used for restoration planning and response operations. The Storm Severity Matrix, as depicted in Figure 5.2, incorporates PSEG Long Island's three storm levels and the anticipated result for each condition. The matrix also includes a subset of key restoration functions and/or processes utilized by PSEG Long Island as part of its operational plan. The matrix serves as a *guide* in preparing, assessing, monitoring, and executing a response plan and can be adjusted based on other internal and external factors.

The PSEG Long Island Incident Commander, Restoration Officers, and Section Chiefs will utilize the Storm Severity Matrix when monitoring and preparing for a forecasted event. The following items being assessed include, but are not limited to:

- Storm damage (actual vs predicted)
- Restoration progress and operational results
- System operations (i.e., relative to normal Condition I – "White" operations)

Given the analysis of the criteria listed above, and in conjunction with Section 5.1, the level of storm classification may change and restoration efforts may be modified, resulting in either a scale-down or ramp-up of services.

STORM LEVEL EMERGENCY CLASSIFICATION		CONDITION I – "WHITE"	CONDITION II – "BLUE"	CONDITION III – "RED"
WEATHER	Weather Conditions	Normal Weather Minor/Moderate Lightning Light/Moderate Snow Light/Moderate Winds	Tropical Storm, Nor'easter Severe Lightning Heavy Snow >6" with SLR <8:1; Ice Accretion >3/8"	Cat 1-3 Hurricane, Tropical Storm, Nor'easter, Major Ice Storm, Heavy Snow >6" with SLR <5:1; Ice Accretion >1"
	Sustained Wind Speeds (months)	<30 MPH (4/1 – 10/31) <45 MPH (11/1 – 3/31)	30 – 65 MPH (4/1 – 10/31) 45 – 75 MPH (11/1 – 3/31)	>65 MPH (4/1 – 10/31) >75 MPH (11/1 – 3/31)
OUTAGES	Expected Customers Interrupted	<5,000	5,000 – 115,000	>115,000
	Expected Damage	Minimal to Minor	Moderate; Isolated	Severe; Widespread
	Expected Restoration Duration	N/A	1 – 3 Days	4+ Days
	Outage Management System (OMS) Incidents *	Up to 75 per Division	75 – 475 per Division	>475 per Division
MANPOWER	Manpower	Division handles storm with normal staffing	Division handles storm with additional internal staffing; Construction and Survey consoles activated; Potential increased use of local contractors or Mutual Assistance	Full activation of Restoration Organization; Mutual Assistance mobilized and/or activated; North Atlantic Mutual Assistance Group (NAMAG) or National Response Event (NRE) engaged
	Line FTEs beyond PSEG Long Island	None	Up to 75 per Division	75 – 500 per Division
	Mutual Assistance Commitment	None	1 Day Prior	2 – 4 Days Prior
	Damage Assessment (System Wide)	None	Transmission: 2 to 40 FTEs Distribution: 2 to 120 FTEs	Transmission: 40+ FTEs Distribution: 120+ FTEs (Supplemented with Mutual Assistance and Contractors)
	Wire Watch (System Wide)	None	1 to 20 FTEs	20+ FTEs (Supplemented with Contractors)
Restoration Procedures		Normal Cut/Clear	Cut/Clear Dispatch Authority	Cut/Clear Dispatch Authority Local Control Make Safe to Clear
Emergency Preparedness (EP) Team		No	Partial Activation	Full Activation of Planning Section
Estimated Times of Restoration (ETR)		Default	Default with Weather Multiplier	Assessing Conditions (Null ETR), Progression to DPS Guidelines (Global, Regional, Local), Weather Multipliers
Foreign Crew Processing (FCP)		Normal	Partial Activation	Full activation
Logistics & Materials Operations		Normal	Storerooms Open 24x7	Full activation of Logistics Support Center (LSC)
Fleet Operations		Normal	Garages Open 24x7	Full activation of Logistics Support Center (LSC)
Corporate Communications		Normal	Monitoring – Partial activation	Full activation of Corporate Communications Center
Customer Operations		Normal	Monitoring – Partial activation	Full activation
County, State, Municipality Staffing		Normal	Soft Activation (as required)	Full activation
Utility Coordination (i.e., TelCo, GasCo)		Normal	Normal	As required, by operational need

*OMS Incidents include both outage and non-outage jobs

Figure 5.2 – Storm Severity Matrix

5.3 Storm Activation and Notification

When notified that the PSEG Long Island Incident Commander is implementing preparatory measures for a potential large-scale storm, the Restoration Officers and Section Chiefs will discuss and determine the level of activation that they deem necessary for an efficient and effective operation (i.e., partial vs full activation, Condition II – "Blue" vs Condition III – "Red", etc.). Upon notification from the PSEG Long Island Incident Commander, Restoration Officers and Section Chiefs will notify and staff their respective storm organizations, as appropriate. The Resource Coordination Unit within the Planning Section may also assist with notifying selected personnel of activation plans during a restoration event when requested.

6. PRIORITY MATRIX GUIDELINES

PSEG Long Island understands the challenges and potential disruption to its customers' lives that result from electrical outages, and strives to restore power to all customers in the quickest and safest manner possible. In support of this goal, PSEG Long Island utilizes a priority matrix system, during both normal and emergency operations, which provides for an efficient approach to restore electrical outages. All outages are prioritized using a variety of factors including, but not limited to, customer type (i.e., criticality of facility), number of customers affected, and outages involving emergency or safety conditions.

6.1 Normal Conditions

During normal working conditions, all outage work incidents are first analyzed by the grouping algorithms of the OMS and then reviewed by dispatch personnel. A determination is then made, as to the job priority for restoring electrical service on the distribution system. Work is then assigned in accordance with the following set of general priorities:

1) Eliminating unsafe conditions
2) Restoring distribution system lockouts
3) Proceeding so that each hour of work will return the maximum number of customers to service

Furthermore, pending jobs are then assigned priority classifications, as listed in Figure 6.1. These classifications are designed to aid in achieving dispatch and restoration goals. Assigning jobs using the Outage Priority Matrix maximizes the restoration effectiveness, while ensuring that restoration time is minimized. Utilizing this Outage Priority Matrix, PSEG Long Island strives to restore the largest number of affected customers in the most timely and efficient manner.

CODE	DESCRIPTION	EXPLANATION	NORMAL ASSIGNMENT
TLO	Transmission Lockout	Any fault on a locked out transmission circuit	Overhead Line Crews
LO ASU	Distribution Lockout (LO) or Automatic Sectionalizing Unit (ASU) Lockout	First fault on switchable 3-Phase primary main line locked out feeder (protected by the substation breaker or an ASU)	Electric Service Personnel or Overhead Line Crews
AAA	Main Line Primary Down With Outage	Any 3-Phase switchable primary main line which is unfused (protected by the substation breaker or Automatic Circuit Reclosers (ACR))	Overhead Line Crews, Foreign Utility Crews, or Contractor Primary Crews
AA	Branch Line Primary Down With Outage Primary Transformer Tap	Any fused circuit tap or extension (1-Phase, 2-Phase, 3-Phase, switchable) or a field determination is made that the primary transformer tap is off.	Overhead Line Crews, Foreign Utility Crews, or Contractor Primary Crews
B	Line Fuse Blown or Check Line Fuse or Fuses Opened / Pending Survey Required	Used when outage pattern shows customers affected downstream side of fuse and not confined to a single secondary bus system with no reported wire down.	Electric Service Personnel, Overhead Line Crews, Foreign Utility Crews, or Contractor Primary Crews (some Two-Man Makeup Crews can refuse cutouts)
A	Secondary Down With Outage	Used when outage confined around secondary bus with a report of wire down (Note: If no outage, job is assigned a Follow Up No Outage priority)	Overhead Line Crews, Foreign Utility Crews, Contractor Primary Crews or Two-Person Makeup Crews
C	Check Transformer or Reset Transformer or Replace Transformer	Used when multiple customers affected and confined to the same secondary bus with no reported wire down.	Electric Service Personnel, Overhead Line Crews, Foreign Utility Crews, Contractor Primary Crews, or Two-Person Makeup Crews
S S-WDPB	Single Single – Wire Down Pole-Building	Any individual customer affected and not associated with another customer or interruption.	Electric Service Personnel, Overhead Line Crews, Foreign Utility Crews, Contractor Primary Crews, or Two-Person Makeup Crews

Figure 6.1 – Outage Priority Matrix

PSEG Long Island also places additional emphasis on critical facilities and other vital public health and safety locations. Critical facility customers, first responder organizations, and other vital sites, such as airports, hospitals, and water treatment plants are assigned the highest level of importance. As shown in Figure 6.2, PSEG Long Island adheres to the following Critical Facility Levels, in accordance with NYS DPS guidelines when executing restoration operations.

Critical Facility Levels

Critical Facility Level 1 - These facilities provide services critical to public health and safety:

- Hospitals and Emergency Medical Facilities
- Emergency Shelters and Cooling Centers
- Fire, Police, Paramedics, and Rescue Facilities
- Emergency Management Offices
- Water pumping stations and Wastewater treatment plants
- Critical Utility and Communications Facilities, including 911 Centers (PSAPs)
- Fuel Transfer and Fuel Loading Facilities (ports)
- Mass Transit (tunnels, electric drawbridges, ferry terminals, major rail facilities/rectifier stations)
- Airports
- Military Bases
- Critical Flood Control Structures

Critical Facility Level 2 - These facilities provide significant public services and may include some of the same type of facilities described in Level 1 depending on the event type, but are considered to some extent less critical by government agencies:

- Nursing Homes and Dialysis Centers
- Facilities to support other critical government functions
- Prisons and Correctional Facilities
- Communications (radio, TV, etc.)

Critical Facility Level 3 - These facilities provide some public services and may include some of the same type of facilities described in Level 2 depending on the event type, but are considered to some extent less critical by government agencies.

- Event Specific Concerns
- High-Rise Residential Buildings
- Customers providing key products and services (food warehouse)
- Managed Accounts, Large Employers, and Other Key Customers
- Other Government Buildings, Schools, and Colleges
- Residential developments with large elderly populations or other similarly vulnerable establishments, when requested by County OEM to be considered as a critical facility (for more information, see Section 14.6.2)

Figure 6.2 – Critical Facility Levels

6.2 Storm Conditions

Outage Priority Matrix and Critical Facility Level protocols are consistent in both normal and storm condition operations. If the storm damage is so severe that all available construction forces cannot cover the entire volume of the T&D system damage locations, PSEG Long Island's restoration efforts will focus on the major prioritization objectives listed below:

1) Responding with appropriate resources to address emergency/life threatening conditions
2) Clearing downed wires to facilitate prompt clearing of public hazards and opening critical transportation corridors
    a) This coordination also pertains to the removal of electric hazards from Long Island Rail Road (LIRR) transportation "Right-of-Ways"
3) Coordinating with municipalities to open critical roadways by clearing and/or de-energizing electric hazards (Make Safe To Clear (MSTC)) that prevent the removal of downed and/or damaged trees with a priority for fully blocked roadways (no ingress or egress) and consideration for the type of roadway such as: state highway, county road, other main roadways, secondary and tertiary roadways, etc.
4) Restoring PSEG Long Island Transmission Lines and Substation Facilities
    a) Emphasis is placed on restoration of service to PSEG Long Island Transmission Lines feeding substations experiencing a "loss of supply"
5) Restoring distribution feeder breaker lockouts to restore large numbers of customers
6) Restoring Critical Infrastructure/Facilities
    a) Service is restored to critical service locations and facilities as quickly as possible. These circuits and locations are placed at the top of the restoration priority.
7) Communicating with Customers and Key Stakeholders
    a) It is vital that early and accurate communication of system conditions be made known, and that continuous updating occurs as storm restoration activities continue. It is essential that customers be kept informed of the status of restoration (i.e., "Assessing conditions", global, regional, and localized ETRs).
8) Minimum Restoration Time
    a) Plans have been formulated to complete restoration efforts on all interrupted customers, following a severe storm, as quickly as possible. Restoration efforts will be prioritized in the following manner:
        i) Larger area outages
        ii) Smaller area outages
        iii) Individual house services

For more information on outage and non-outage wire down, damage assessment, and MSTC prioritization, please refer to Chapter 15.

7. OUTAGE MANAGEMENT SYSTEM (OMS)

PSEG Long Island's OMS is a vendor-provided solution that is hosted in the PSEG Long Island Corporate Data Center. The system consists of OMS applications, mobile applications, Geographic Information System (GIS) integration, Enterprise Reporting, and Business Intelligence (BI) and interfaces to external systems.

The OMS is intended to help meet the ever-increasing expectations of customers, external stakeholders, and regulators by significantly improving PSEG Long Island's ability to identify and manage outage conditions, as well as maximizing the effectiveness of repair crews. This system also significantly improves the outage and restoration information available to Customer Service Representatives (CSR), system operators, customers, municipal and elected officials, and other key stakeholders. In addition, the following benefits continue to be realized as a result of the CGI OMS at PSEG Long Island:

OMS Benefits:

- Accurate and timely ETRs
- Efficiency and expediency when deploying utility crews and resources
- Situational awareness and timely status updates
- Accuracy in the identification of outage locations through a "Connected Model" analysis system
- Coordinated information flow between customers and dispatch personnel and/or restoration crews
- Prioritization of outages and response times
- Decision-making through additional informational tools

OMS Capabilities:

- Connectivity-based outage prediction and management
- Fully integrated platform for all job types, crew types, and referral work
- Ability for sorting, filtering, and viewing work
- Ability for users to create their own custom views
- Integrated graphical display and management of jobs and crews
- SAS Visual Analytics (VA) reporting tool allows for user-generated self-service ad-hoc reporting and data analysis

7.1 Outage Management System (OMS) Tools

CGI's OMS, operational at PSEG Long Island, is a Commercial Off The Shelf (COTS) software solution. PragmaLINE OMS is used by utilities ranging in size from 68,000 to 4.6 million customers. CGI's outage management product has proven scalable for electric, gas, and water utility providers.

The CGI Outage Management Solution (CGI OMS System and PSE&G Storm Management Process) has a useful record of success for PSEG Long Island and includes:

- Storm restoration process changes
- Accurate outage detection
- Integrated data analysis and reporting
- Improved crew management
- Work order updates
- Outage communications

Figure 7.1 details the OMS flow chart and how it interrelates with its operational system tools and features. It also specifies the informational flow and its corresponding inputs, outputs, and operators.

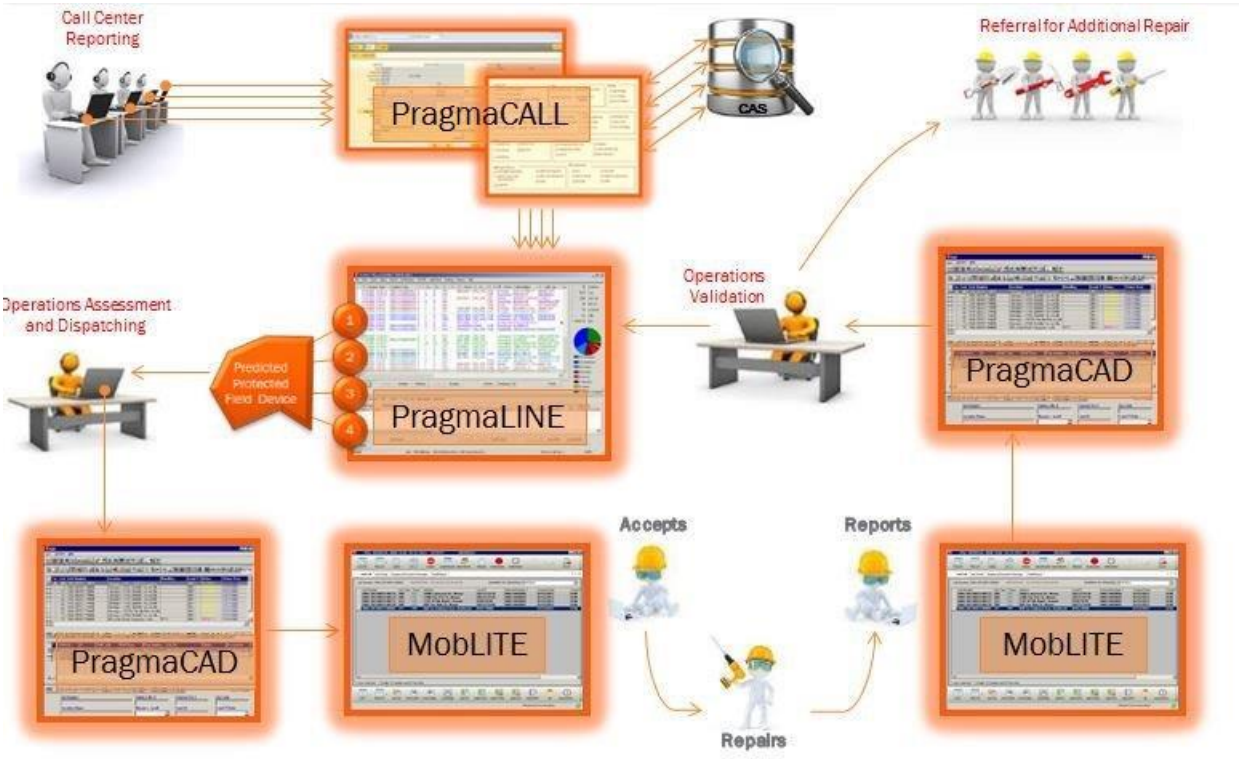


Figure 7.1 – OMS Flow Chart

7.1.1 PragmaLINE

PragmaLINE manages the entire outage restoration lifecycle, from initial detection to full restoration, including the following:

1) Incident Management

This module provides intelligent analysis of call and incident information received from customer information and IVR systems, as well as telemetry data from other sources. Integration of Automated Meter Infrastructure (AMI) outage detection and power restoration from AMI meters to the OMS is planned for rollout in 2021. This includes Supervisory Control and Data Acquisition (SCADA) from substation distribution feeder breakers and Distribution Automation Supervisory Switches, such as ASUs and ACRs. Figure 7.2 shows the main Incident Manager Job List.

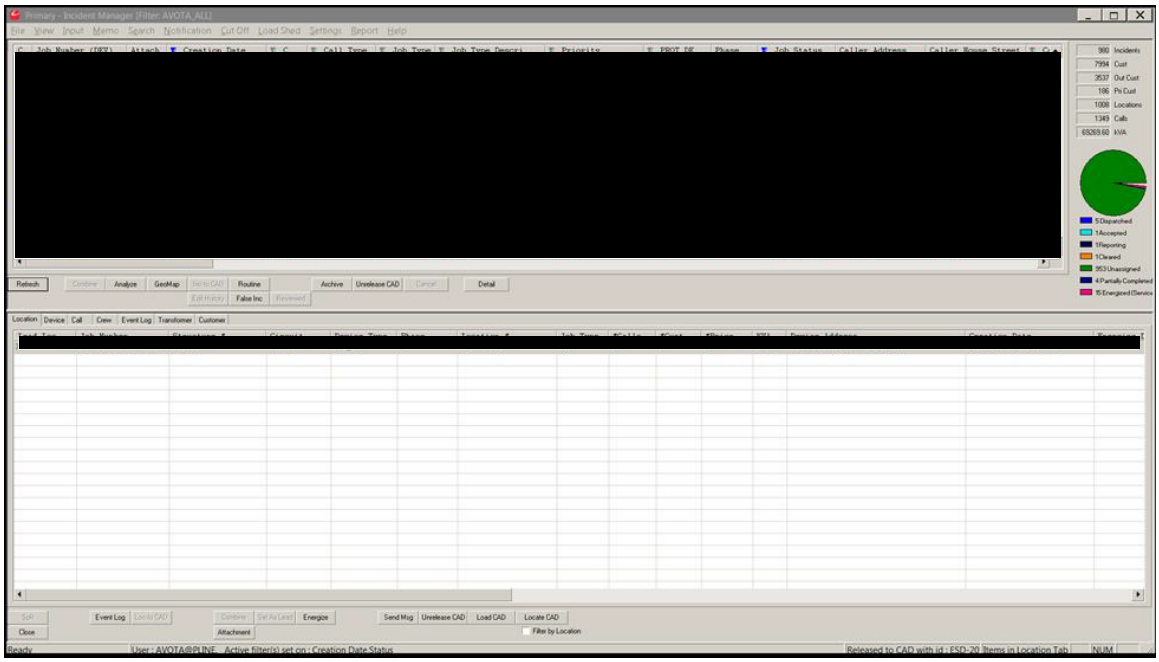


Figure 7.2 – PragmaLINE Incident Manager Job List

2) Storm Assessment Module

This module displays a summarized state of affairs for storm outages and damage to help prioritize repairs (see Figure 7.3).

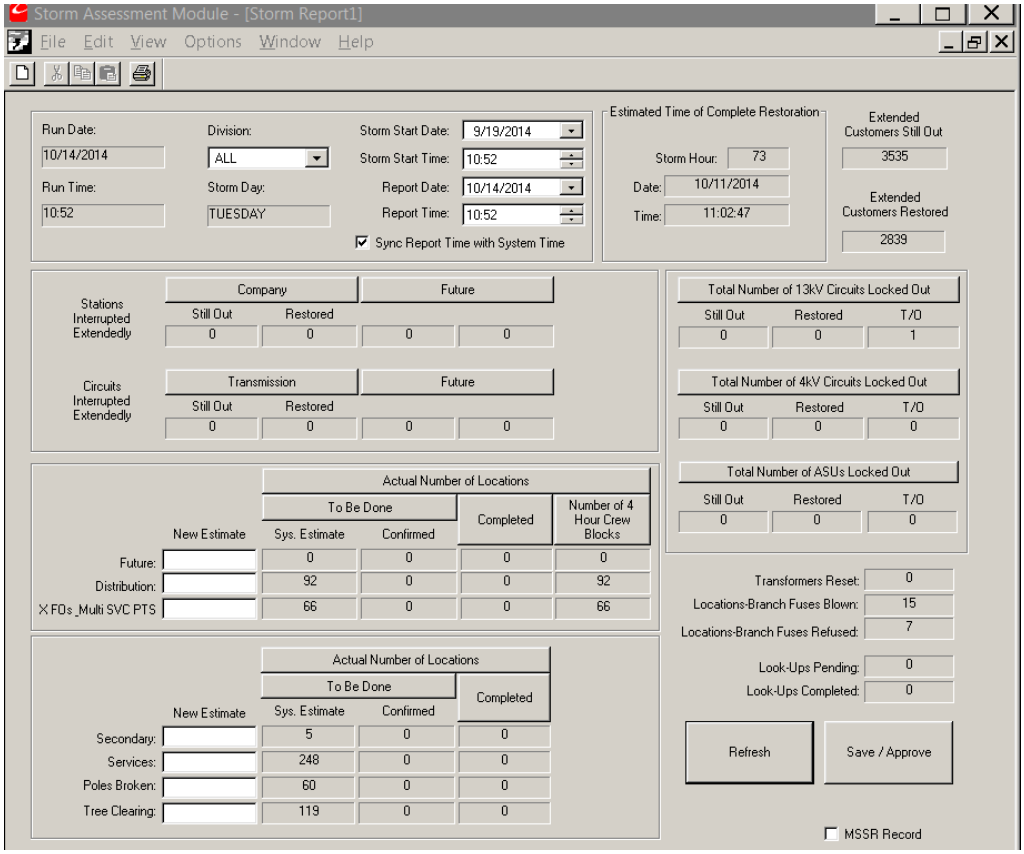


Figure 7.3 – Storm Assessment Module's User Interface

3) Event Replay

This module simulates large-scale outage events and re-creates past outage conditions from archived data for operator training, performance testing, and post-event analysis. Simulated storm events may be created ad hoc, or based on an interactive query and selection of past high-volume call and outage events (see Figure 7.4).

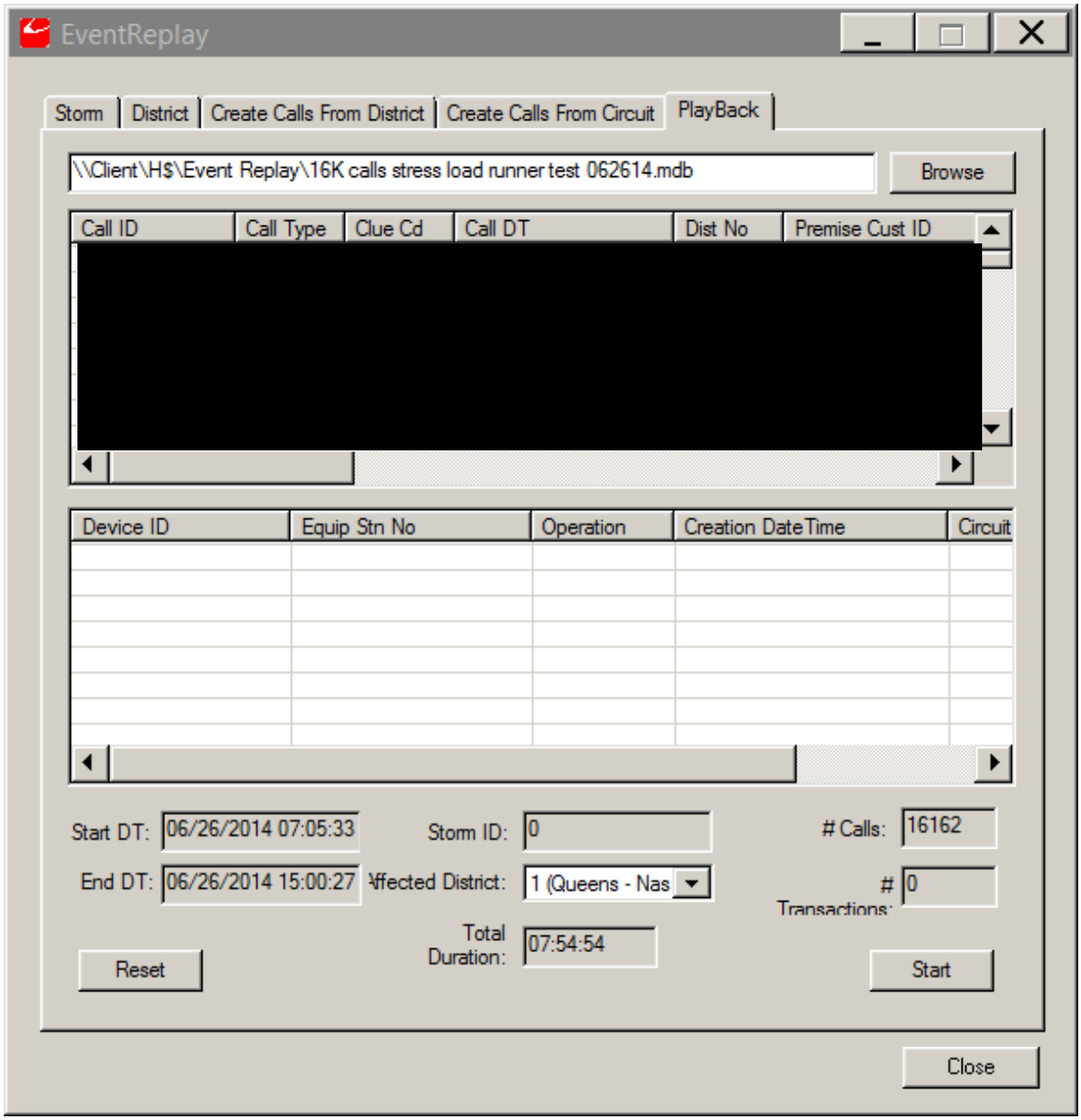


Figure 7.4 – Event Replay Module's User Interface

7.1.2 PragmaCAD

1) Centralized Dispatch

This module manages all types of fieldwork, from routine to complex, including trouble/outage, service, maintenance, repair, inspection, vegetation management, and construction. PragmaCAD provides a graphical toolset that includes interactive views of the work order process, as well as centralized, real-time monitoring of mobile field personnel (see Figures 7.5 and 7.6).

2) Field Communication

This module streamlines fieldwork order management by providing field resources with remote access to critical information. Field personnel can receive, accept, update, and complete work orders, while maintaining process and data consistency during the work order lifecycle.

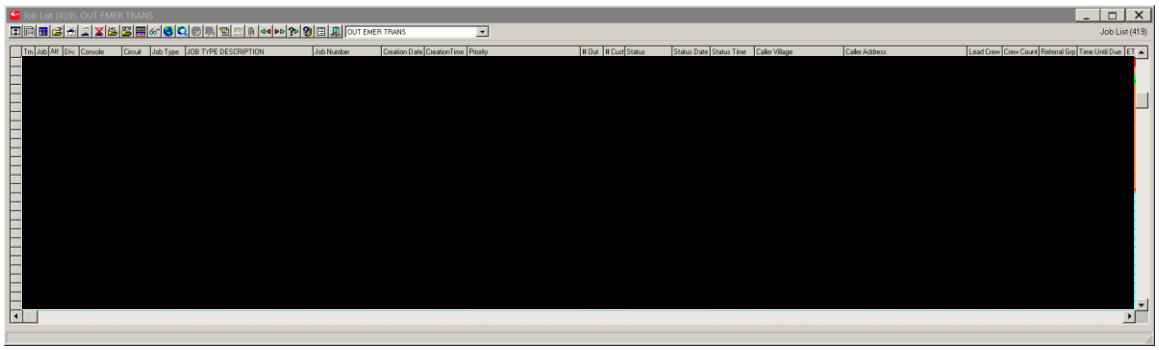


Figure 7.5 – PragmaCAD Job List

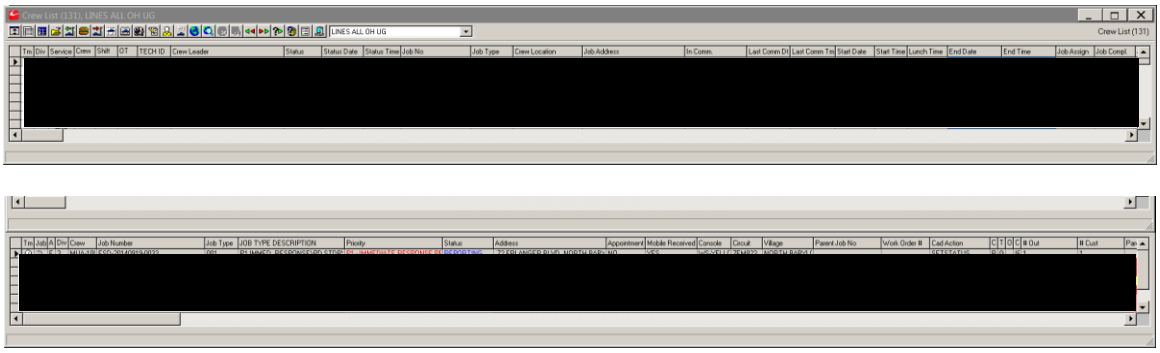


Figure 7.6 – PragmaCAD Crew and Assignment Lists

7.1.3 PragmaCALL

Web-based call taking is utilized by CSRs accessing the system via an intranet web browser. CSRs and other employees can submit customer outage and service calls, inquire about status for existing calls (ETRs, power restored, etc.), and search incidents with a 'view-only' version of the PragmaLINE Incident Manager (see Figure 7.7).

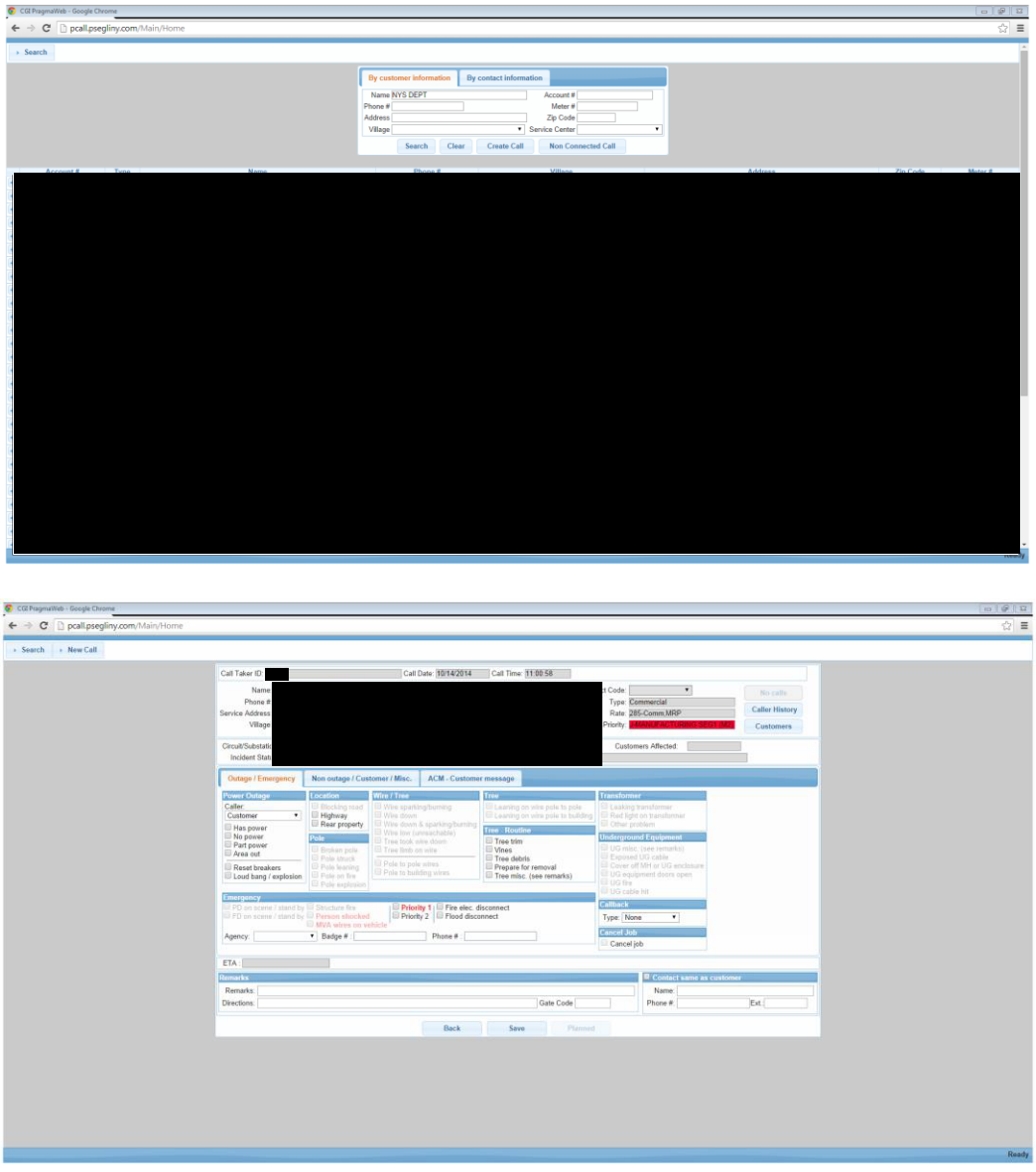


Figure 7.7 – PragmaCall Call Taking Module (Top: Search Screen; Bottom: Call Taking Screen)

7.1.4 PragmaGEO Map Views

1) Geospatial Displays

This module provides digital representations of real-world network conditions to help identify and quickly respond to outages. Distribution network connectivity is displayed on a geographically-referenced land base, which is enhanced by GIS information supplied by PSEG Long Island. Map icons display customer calls, jobs, and crews in a geo-referenced context (see Figure 7.8).

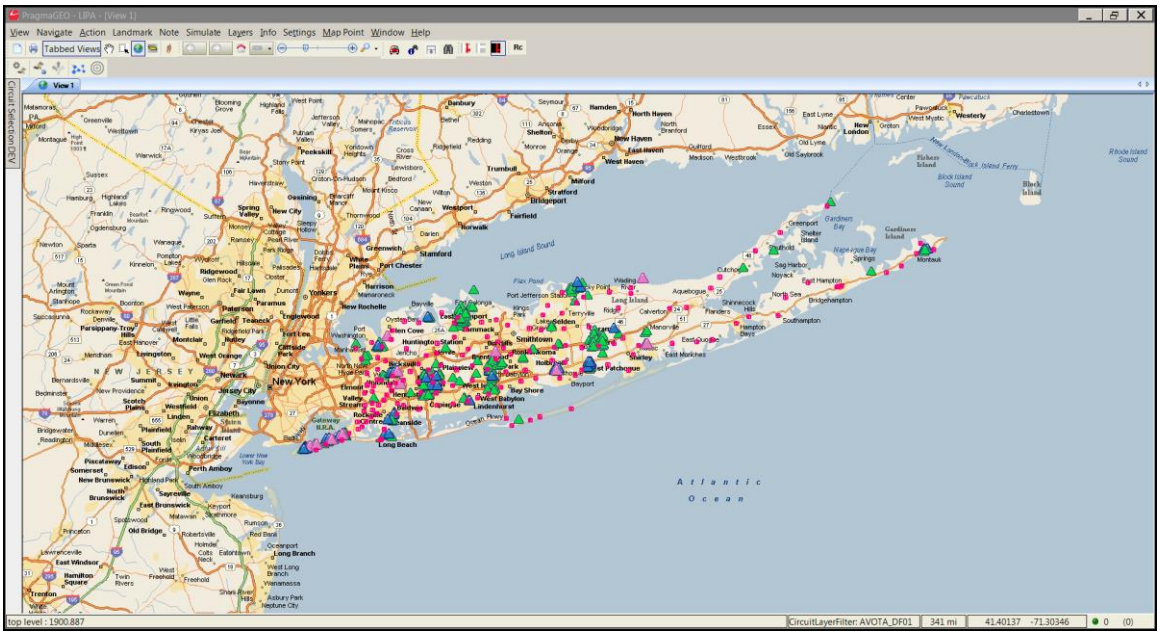


Figure 7.8 – PragmaGEO Map View Long Island Overview with Outage Markers

7.1.5 MOBLITE

The PragmaCAD Mobile Data Terminals (MDTs) are currently deployed in the Electric Service Department's Emergency Service personnel single bucket trucks. There are approximately 120 vehicles equipped with MDTs, running the MOBLITE software application. MOBLITE is used by the emergency service personnel, who are the first responders to outages and emergency calls, such as wire down calls on normal days and during storm conditions.

PSEG Long Island's Meter Services Department also utilizes approximately 150 MDT equipped vehicles. Meter Services uses the terminals for daily normal operations and can utilize them during restoration events for roles that can include: transmission inspections, system surveys, and flood response. The MDTs have access to many of the same OMS tools available to office personnel, such as the GIS Viewer and PragmaCALL (see Figure 7.9).

An additional 320 users from the OH/UG Lines and SPT departments utilize MDTs for outage restoration work.

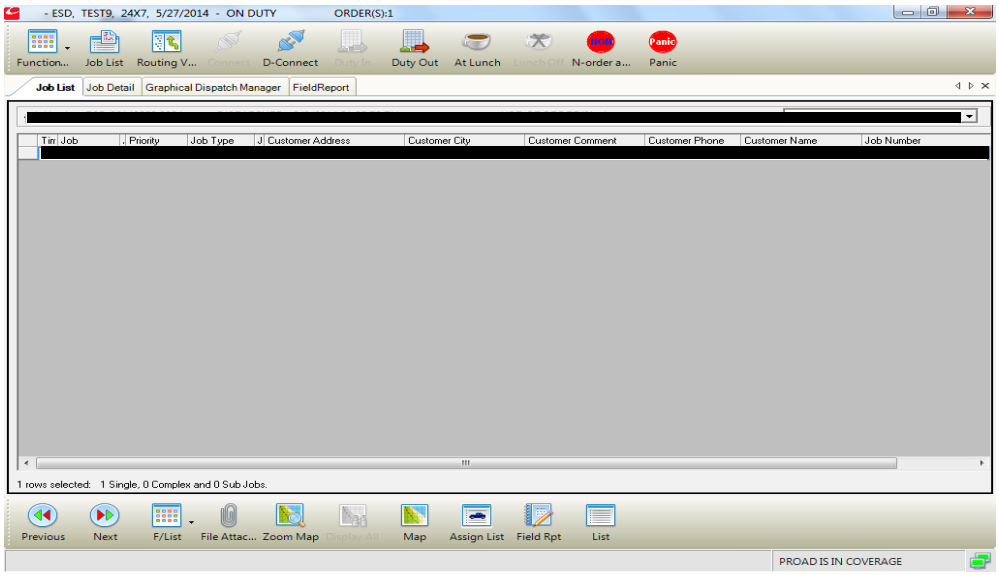


Figure 7.9 – MOBLITE Mobile Data Terminal Job List

7.2 Other OMS Related Applications

In addition to the CGI suite of OMS applications, OMS is supported by additional ancillary applications that aid in the day-to-day and storm operations. These include ESRI GIS Viewer application and SAS VA Reporting and BI tools. In Q3 2018, PSEG Long Island launched its internally developed mobile application referred to as Field Mobility. In 2021, a new interface will be established to allow power outage notification and restoration messages from AMI meters to be integrated directly into the OMS. Initially, this capability will be launched with about 2/3 of the meters in the service territory having been converted to AMI capability. Full AMI meter saturation is planned for completion by 2022.

7.2.1 Geographic Information System (GIS) Viewer

The electric network model used in the OMS is sourced from GIS data from the PSEG Long Island GIS. This electric network model and GIS land base are available to all users, via an Intranet-based web browser that supports various base maps, land base, and electric layers.

The GIS Viewer supports the following electric network model layers:

- Transmission
- Primary
- Secondary
- Underground

The GIS Map Viewer (see Figure 7.10) supports the following land base layers:

- Grid (an overview layer of the company's legacy grid coordinate system)
- Village (an overview layer showing the geographic boundaries of the individual villages)
- Division (an overview layer showing the geographic boundaries of the four service divisions)
- Parcel (an overview layer showing the geographic boundaries of a section or area of land)
- PSEG Long Island land base (static layer with equipment (i.e., poles))

The GIS Viewer supports the following base maps:

- Streets
- Imagery (aerial photos)
- Gray canvas (map with light gray background color for increased contrast for viewing overlays)

The GIS Viewer supports the following Field Mobility mobile app layers for:

- CAD Jobs layer
- Damage/Repair Forms Layer

The GIS Viewer supports various tools to search for locations by street address, equipment by grid number or latitude/longitude coordinates, device name/number, and equipment type. The GIS Viewer also supports a "Find My Location" function that can show the user's location based on Global Positioning System (GPS) or geo-location data, and can zoom into the user's current location on the map. A related records view allows a user to see information about the customer(s) attached to various service points on the network.

The GIS Viewer is designed to easily integrate a piece of equipment on the electric network model and present key data about that asset in an information box. The geographic location and other asset related data, presented in those information boxes, is readily transferrable to OMS Field Reports, via standard Windows' Operating System "Cut/Paste" operations.

The GIS Viewer has support tools that allow a user to annotate on a map, and produce a map of the area. This map indicates damaged assets that are in need of repair, in order to restore electric service or make other repairs to the electric network. These maps can be printed to Portable Document Format (PDF) and attached as electronic files, that can be forwarded with the OMS job order to MDT-equipped mobile users. The maps can also be accessed, as attachments, by other Storm Crew Dispatchers that may be dispatching non-mobile repair crews. The GIS Viewer maps can also be sent to printers for a printed hardcopy output. These internal maps are ultimately used for dispatching crews, work planning, and managing outages overall.

Assigned CAD jobs and the form-related damage assessment and asset replacement data, collected via the Field Mobility mobile application, are also displayed on the internal MapViewer application. These layers provide access to the back office OMS/CAD dispatchers to view job assignments and data collected from the mobile application users.

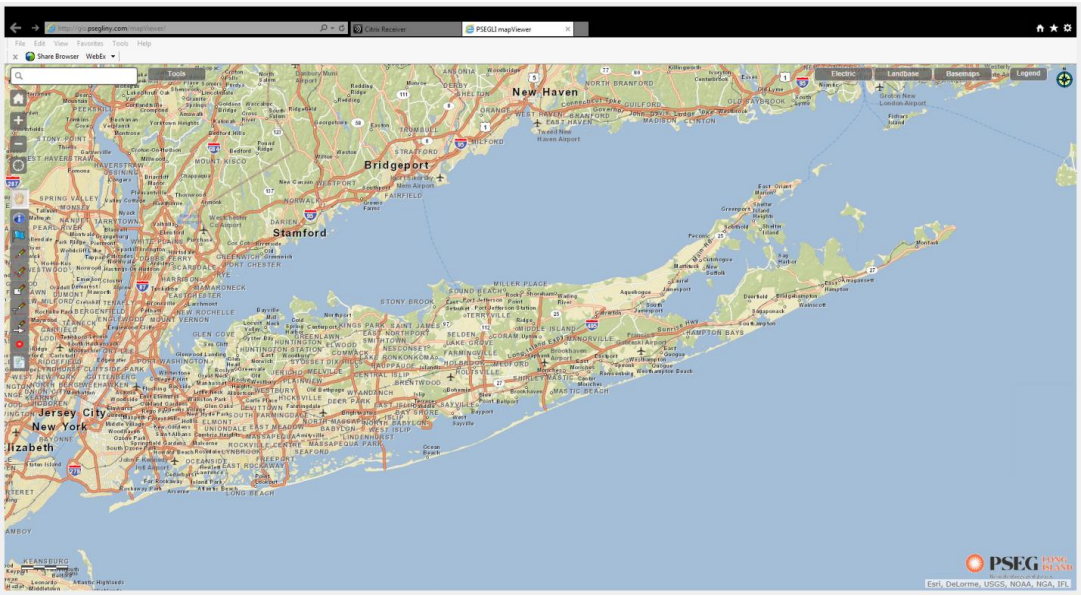


Figure 7.10 – GIS Map Viewer

7.2.2 SAS Visual Analytics (VA)

Reporting and Business Intelligence (BI) for the OMS is provided by the SAS VA suite of products. The SAS reports are available to all OMS users and other key stakeholders throughout PSEG Long Island. They can be accessed via an intranet web browser and are available to authorized users. Most OMS users and company employees can access 'view-only' versions of the OMS reports (see Figure 7.11).

Figure 7.11 – SAS OMS Reports Landing Page

SAS Stored Process Web Server supports near real-time reports. These reports are usually of a fixed format, and allow the user to select from a few preset input parameters, such as Date Range, Division, Job Types, etc. (see Figure 7.12).

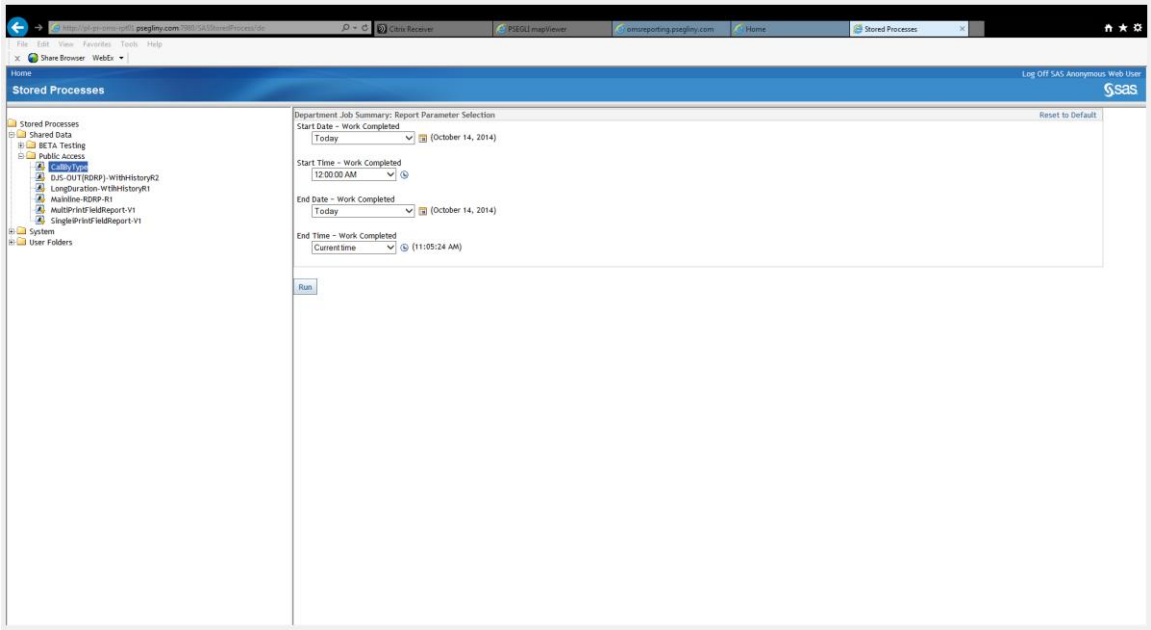


Figure 7.12 – SAS Stored Processes OMS Reporting Screen

SAS VA OMS Reporting Hub (see Figure 7.13) uses fifteen-minute delayed data, and allows for a more interactive user experience. The user can make multiple selections, drill down from a high-level geographical based hierarchy, and add or remove report criteria, as they navigate.

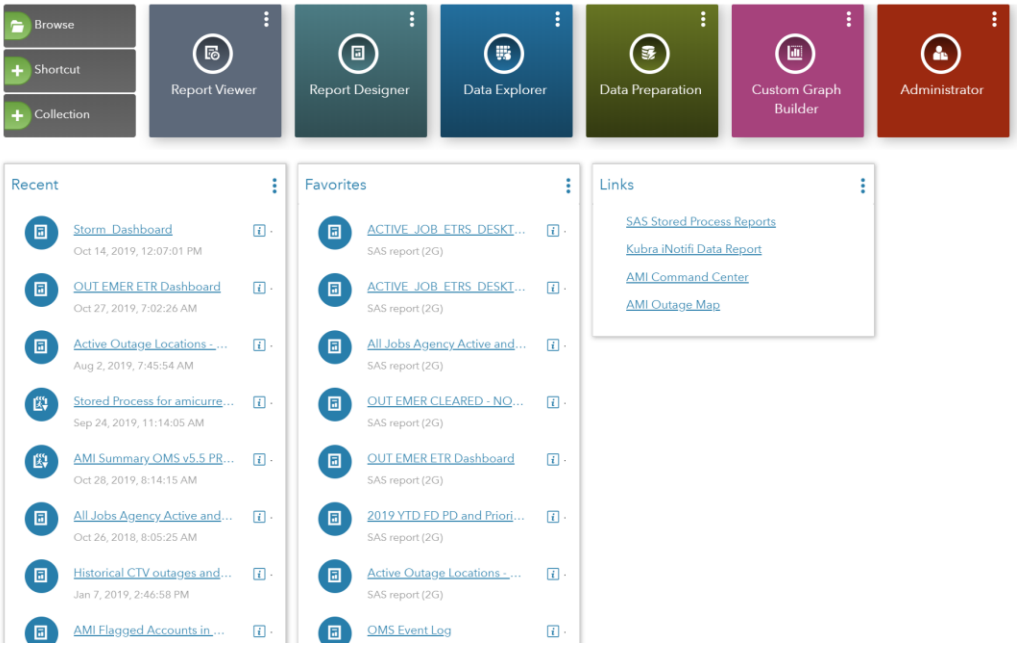


Figure 7.13 – SAS VA OMS Reporting Hub

7.2.2.1 Key Reports to Support Outage Management

Some of the key reports available from the SAS Stored Process Web Server are:

- Field report generation (printing of completion records and field damage reports)
- Outage Job Priority Matrix and Listings (summary of outages by outage priority/customers out)
- Long Duration Outage Report (over 3 hours)
- Customer Calls by type (summary of calls for outages, non-outages, emergencies, tree trim, etc.)

Some of the key reports available from the SAS VA Hub Reporting Tool are:

- Storm Dashboard Reports (Outage, Emergency, ETRs)
- County/Town/Village Outage Report (summary of outages and ETRs by geographic area)
- Key Customer Outage (report of outages affecting Critical Facility and Major Account customers, as well as LSE customers) (See Figure 7.14)
- Division Outage Summary (summary of outages by priority/customers out)
- All Jobs Agency (user selectable drill down by job type, job status, and geographic area)
- Call Back List (a listing of single outage calls to use to manually call back for power on checks)
- Reliability Reports (Standard Reliability indices reports)
    - Customer Average Interruption Duration Index (CAIDI)
    - System Average Interruption Frequency Index (SAIFI)
    - System Average Interruption Duration Index (SAIDI)
- Status of Electric Reliability (summary of Reliability Reports)
- Part Light Call Back Listing (listing of customers that experienced part power for survey follow-up)

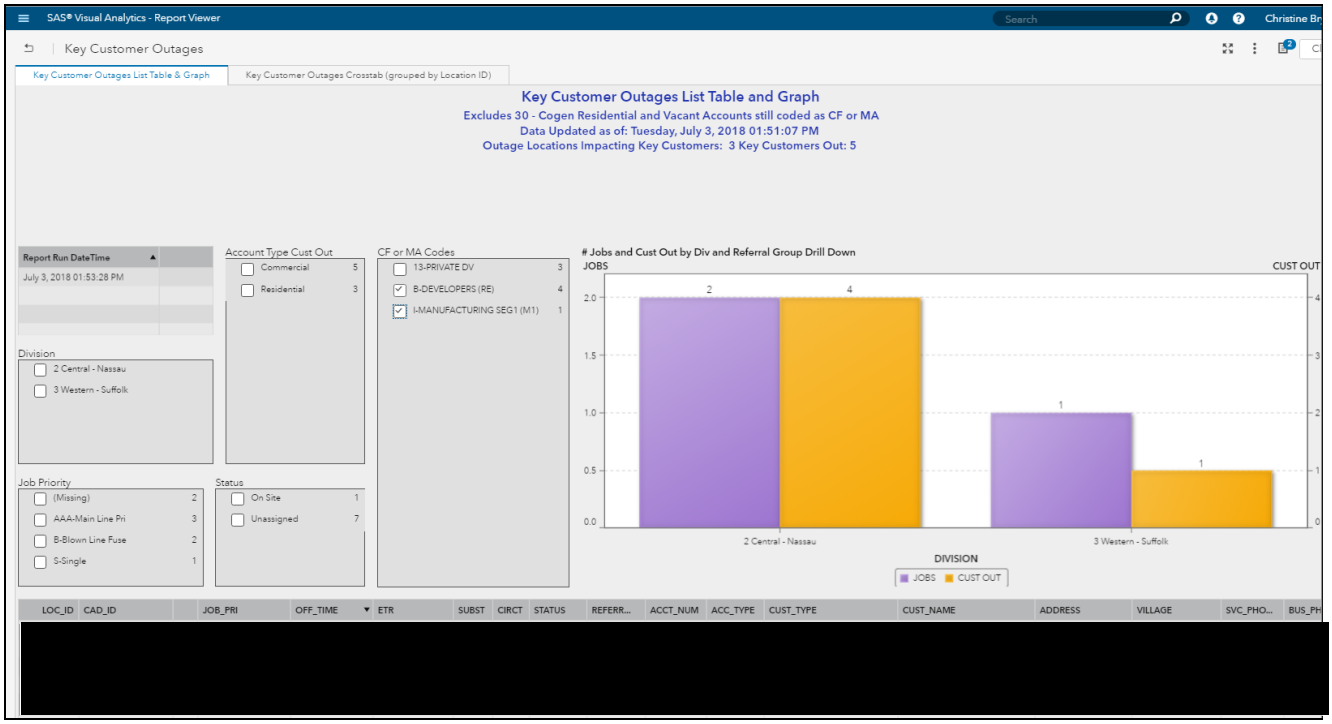


Figure 7.14 – SAS Key Customer Outages Report

7.2.3 Field Mobility Mobile Application

In September 2018, PSEG Long Island launched its Field Mobility mobile application. This application is designed to augment the storm restoration process by providing a mobile application that can be used by Foreign Utility and Contractor crew resources that traditionally worked with manual paper and telephone based processes when responding to requests for storm restoration mutual assistance. Additionally, Company employees that traditionally do not have a mobile data terminal assigned to them in their day-to-day job roles can use the mobile application when performing their storm restoration assignments.

The application is intended to be utilized in both a "Bring Your Own Device" (BYOD) setting or via a Corporate Mobile Device Management (MDM). In BYOD, employees or Contractors will use personally provided cell phones or tablets. In an MDM deployment, Company and outside Contractor and/or Foreign Crew resources will be asked to utilize their Company provided and MDM managed cell phones or tablet computers to receive assignments and complete forms related to storm damage assessment and outage and emergency repair work/asset replacements.

The application is currently available for Apple iOS and Google Android operating systems and can be found in the respective App Stores (see Figure 7.15). A search term of "PSEGLI Field Mobility" returns a match in either App Store.

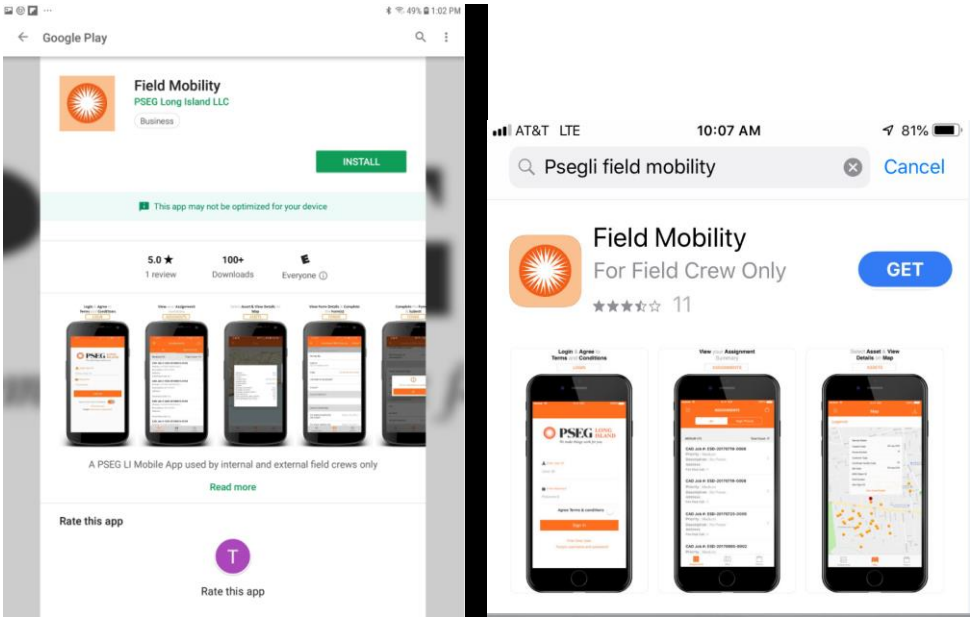


Figure 7.15 – Apple iOS App Store (left) and Google Android App Store (right)

A detailed description of the application as presented in the App Stores is shown below.

"Field Mobility mobile application is for field crews only including both PSEG Long Island internal and external damage assessment and repair crews. In the event of significant storms or other natural disasters, the user population includes emergency support teams from across the United States and Canada. This application helps crew members to capture the required assignment data on a smart phone or tablet and send it to the PSEG Long Island business team using the cloud solution.

The key features in this application are:

- Receiving job assignments
- Driving directions to assignments
- Displaying jobs and asset information on a map
- Capturing photos and GPS location along with form data
- Offline capabilities

This application can be accessed only by using secure authentication. Users can view job assignments and update damage assessment and repair forms in the mobile app. The application helps to reduce business manual processes and paperwork and improves the accuracy of data captured and shared with the PSEG Long Island business team."

7.3 External System Interfaces

7.3.1 Customer Accounting System (CAS)

The OMS interfaces to the PSEG Long Island CAS to receive data on customer account information for use by the OMS. This data includes basic customer information, location information, and electric account specific information, such as:

- Account number
- Rate code
- Classification of customer (residential, commercial, and other)
- Priority customer classification (Critical Facility, Major Account, Co-Gen)
- AMI Meter Flag – indicating whether or not the customer's meter has been AMI enabled

The OMS was bulk-loaded with all customer account data upon initial deployment, and a daily interface maintains nightly updates of the delta changes in account information as customers move in/move out.

In addition to the nightly batch load, there is a near real-time interface that reflects status changes for customers that may have been cut-off for non-payment during the workday.

7.3.2 Geographic Information System (GIS)

The distribution circuit data used by OMS is received via an interface to the ESRI GIS. All distribution feeders were initially extracted from GIS and loaded into OMS. As feeders change with circuit reconfigurations and/or additions or deletions of customer load, the feeders that change on any given week are extracted and reprocessed back to the OMS to reflect the updates in OMS.

The GIS to OMS interface supports the ability to extract a feeder "on demand," known as an immediate update. This allows critical updates to be made in a timely manner.

On a monthly basis, all feeders are extracted and processed to OMS, whether or not they have had any major reconfigurations. This allows background asset data changes, such as transformer sizes, fuse sizes, and/or wire sizes that may have to be updated. It also keeps the customer account changes synchronized between the GIS, CAS, and OMS.

7.3.3 Employee Personnel

All PSEG Long Island employees are included in the OMS system for the purpose of being able to be assigned to a repair or survey crew. Basic employee data, such as name, job title, work location, phone number, etc., are available in the OMS Crew Management function.

Employee personnel data was initially bulk-loaded into OMS, via an SAP upload. The SAP system utilized is the database of record for all employee personnel data. Periodic updates are conducted, as needed, to reconcile employee data and to ensure all PSEG Long Island personnel are properly represented in OMS for the purposes of Crew Management, if necessary.

The OMS also supports crew data for certain on-island Contractor Crews that regularly work for PSEG Long Island on a day-to-day basis and during storms.

For major storms, the system is equipped to handle Foreign Mutual Aid Crews, via the Crew Management function as well. The information is currently manually uploaded based upon the planned restoration activation.

7.3.4 Interactive Voice Response (IVR), Web, Text, Customer Mobile Application

The OMS is interfaced to the Customer Relations IVR systems and enables customers to report power outages, via an IVR. Basic, no light calls can be received by the IVR and passed to the OMS, via the interface. All wire down report callers are transferred to a live CSR, to report their problem directly with a representative to ensure all pertinent information is captured.

The OMS is interfaced to the PSEG Long Island web site, where a customer is able to report a power outage, via a web page form, if they have signed up for an online account. Status updates on the outage reported are returned to the customer via e-mail notifications. A customer facing mobile application is now available.

The OMS is interfaced to the Kubra (formerly iFactor) - iNotifi system. Customers that register for this service can report power outages and receive status updates, via text messages, on their mobile devices. iNotifi has added support for proactive outage notifications as of Q4 2017. An “outage detected” notification is sent to all customers that are affected by a sustained power outage, even if they have not yet called to report it. Additional communications are provided to the customers on change of ETR or addition of cause code data. “Power on” verification calls are made to those users that reported the outage. Depending on forecasted severity of the event, the OMS proactive communication features may be turned off and other targeted communications channels would be available during storm events.

7.3.5 Supervisory Control And Data Acquisition (SCADA)

PSEG Long Island has near 100 percent SCADA coverage for its distribution feeder breakers. In addition, an extensive network of automated distribution remote supervisory controlled switches on the distribution circuits exists. These SCADA breakers and switches report their status, via various wired and wireless communications links from the field, back to the SCADA head-end devices. The breaker and switch positions are stored in near real-time to the Process Intelligence (PI) Historian system. OMS is interfaced to the PI Historian system, and any changes in the state of the SCADA devices are immediately conveyed to the OMS, by way of the SCADA PI Historian interface, via the Enterprise Service Bus (ESB).

This interface allows the OMS to become aware of large area outages affecting hundreds to thousands of customers within one minute of the SCADA devices operating. This allows the OMS to group subsequent outage calls behind these SCADA devices, and helps the outage call grouping algorithms of the OMS perform more efficiently.

7.3.6 Outage Historian (OH)

All current and completed job data, from the OMS, is stored in a corporate database referred to as OH. The OMS publishes outage data across the ESB into OH whenever a significant change in status or core information has occurred. These messages are a complete and time stamped snapshot of the information for each outage job. For example, it includes a list of service points (customer accounts) affected, the ETR for the outage, cause code (when provided by the Crew), and the status of the job (pending, dispatched, crew en route, crew onsite, and/or restored (energized)).

These messages sent to OH are then available to be retrieved by the OMS reports, Kubra outage map on the PSEG Long Island Storm Center website, IVR systems, iNotifi and customer representatives that are handling calls from customers.

7.3.7 AMI Interface (Planned for 2021 Timeframe)

AMI equipped meters support a last gasp power outage detected function. When an AMI meter loses power, it will transmit the Power Outage Notification (PON) message back to the AMI headend. The Meter Data Management (MDM) component processes these messages from the meters and, via the ESB, feeds the outage detected data to OMS for use in its outage analysis grouping algorithms. This message is treated in the same manner as a customer reported no power report. Upon return of power, the meter transmits a Power Restored Notification (PRN) message, which is also forwarded to the OMS via the interface. These power restored messages help the OMS to know which outages have been restored and at what time they were restored. A meter ping capability is also available from the OMS to allow an Operator/Dispatcher using OMS Incident Manager to send a ping request to an AMI meter. Manually pinging meters from the OMS after a known outage has been reported as restored helps the OMS Operators to confirm full power restoration in an area or more readily detect an embedded outage when a storm condition may have resulted in multiple damage locations in an area. Until this interface is established, current process uses the standalone AMI system to manually ping meters from OMS that need to be confirmed for single outages or confirm area restorations.

7.3.8 Kubra Outage Map

The PSEG Long Island website utilizes an industry standard outage map on its Storm Center page (see Figure 7.16). This outage map is provided by a third party, Kubra. The outage data from the OMS that is stored in the OH database is regularly queried to provide fifteen-minute updates to PSEG Long Island customers.

The outage map indicates an icon on the map in the general area of the outage. The size and color of the icon indicates the number of customers affected by the outage. Hovering over or clicking on the icon provides the customer with the ETR for the outage, as well as the crew status (pending, dispatched, enroute, onsite, etc.) and outage cause. A hardhat icon is used to indicate jobs that have crews assigned to them. A weather radar layer view option is also available on the public outage map. The user of the map has the option to turn on/off the weather radar layer and play back the radar view in a loop as well.

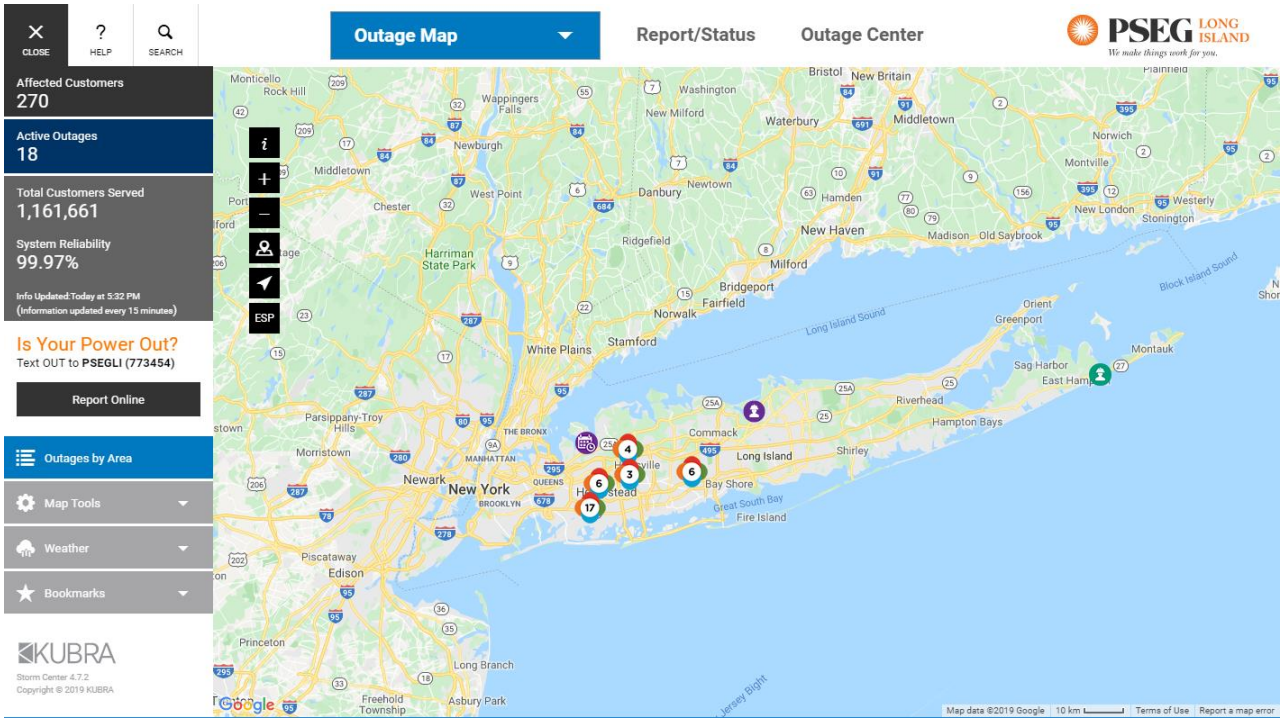


Figure 7.16 – PSEG Long Island Storm Center Outage Map

The outage map also has tabular summaries of outages by County, Township, and Village (see Figure 7.17). During larger storm events with widespread outages, the outage map can be changed, by an administrator, to report at the aggregated level for villages, instead of reporting at the individual outage locations. This helps with providing Assessing Conditions (Null ETR), Global, Regional/County, and Local/Municipal ETRs, in accordance with ETR protocol dictated by the NYS DPS.

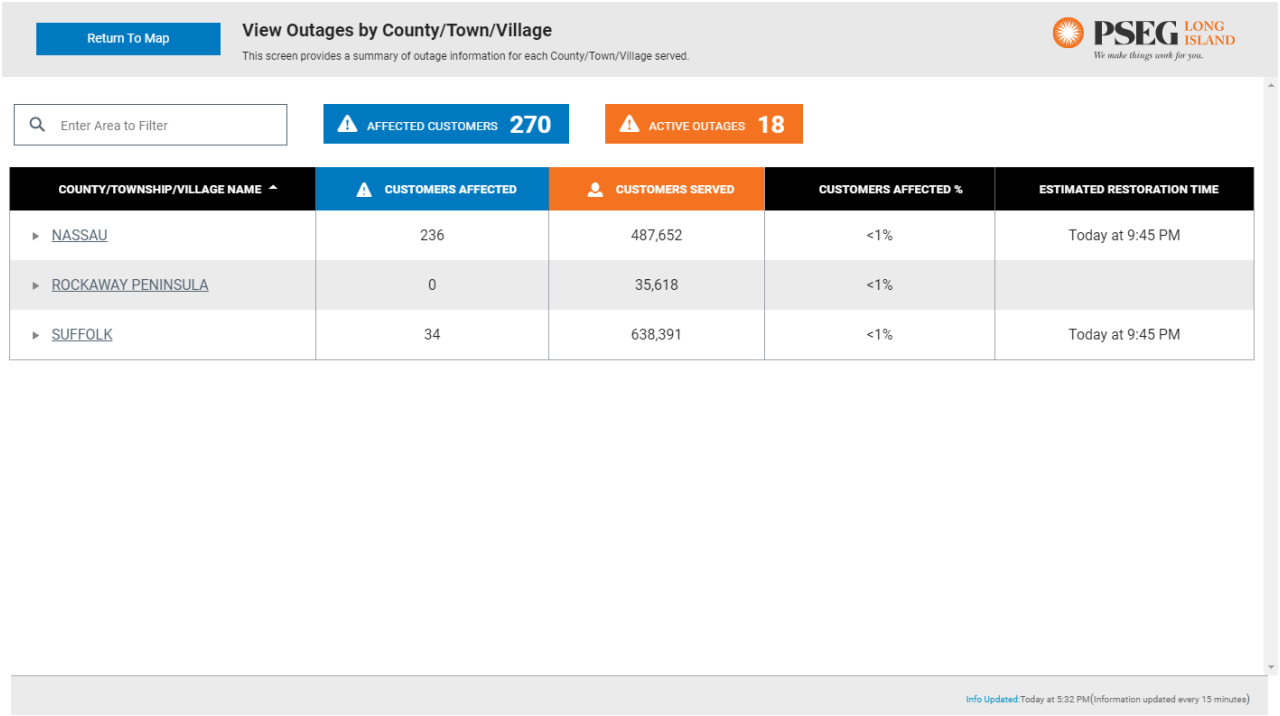


Figure 7.17 – PSEG Long Island Storm Center Outage Map Tabular View

The outage map also has a message board function, which can be initiated by an administrator, that allows a custom message to be displayed along the top of the outage map. This can be used to display any additional information to the customers viewing the outage map on the website.

In a large-scale storm restoration event, the banner message inserted on the top of the map can be used to provide important messages, links, and ETRs, via this web page outage map.

At the initial onset of an event, such as a hurricane or ice storm, this banner message may initially display the global ETR for a storm of the anticipated magnitude, based on historical events. For example, the message may warn that customers should expect to be out for "up to 10 days," if a major hurricane is approaching. In the initial stage of the storm, the banner may indicate PSEG Long Island is in the damage assessment phase (Null ETR). Once the storm passes and initial assessment is completed, a global ETR is routinely provided.

As the storm progresses, the table shown within Figure 7.17 is updated to provide the Regional/County ETR (ETRs for Nassau, Suffolk, and/or Rockaway Peninsula).

As the storm restoration progresses into the second/third day, the local/municipal ETRs would begin to be provided on the Village view drill down of the table shown within Figure 7.17.

7.3.9 External Interface to New York State Department of Public Service Electric Utility's Emergency Outage Reporting System (EORS) Data

The OMS SAS reporting system provides ½-hour updates, via File Transfer Protocol (FTP) to the NYS DPS EORS Mapping system. This data consists of outage data for the 351 geographic village polygons used in the PSEG Long Island GIS and OMS. These records include: a NYS DPS specific geocode referencing the village, the number of customers served in that geographic area, the number of customers affected, and the date and time of the latest estimated restoration for outages in that village.

A sample file format is as follows:

GEOCODE, CUST SERVED, CUST AFFECTED, ETR DATE, ETR TIME

04913.0, 3703, 0, 0, 0

05034.0, 2790, 0, 0, 0

05617.0, 2493, 7, 102315, 1515

05672.0, 319, 0, 0, 0

05738.0, 6235, 1, 102315, 1340

PSEG Long Island is working with the DPS and currently testing a new API for transfer of outage data to the NYS DPS for their proposed Utility Events Dashboard which includes additional data fields and is expected to go live by in Q1 2021.

7.3.10 External Interface – Municipal Portal

The Municipal Portal is a geographical based map portal that provides government and municipal officials with another tool to view outage and emergency jobs similar to the Kubra Outage Map (see Section 7.3.8 above). In addition to viewing data concerning outage and emergency jobs, the Portal also allows registered users to submit reports about wires and/or poles that are down and are blocking roadways. These are referred to as "make safe to clear" (MSTC) jobs and require expedited utility crew response in order to work jointly with Municipal Highway Departments. Registered users can also report outages related to critical facilities in their jurisdiction and provide input on the prioritization of repair of these facilities. For both critical facility outages and MSTC requests, the Municipal Portal allows users to sign up for status notifications related to specific jobs in their areas. Sample Municipal Portal screenshots are shown in Figure 7.18 through Figure 7.22.

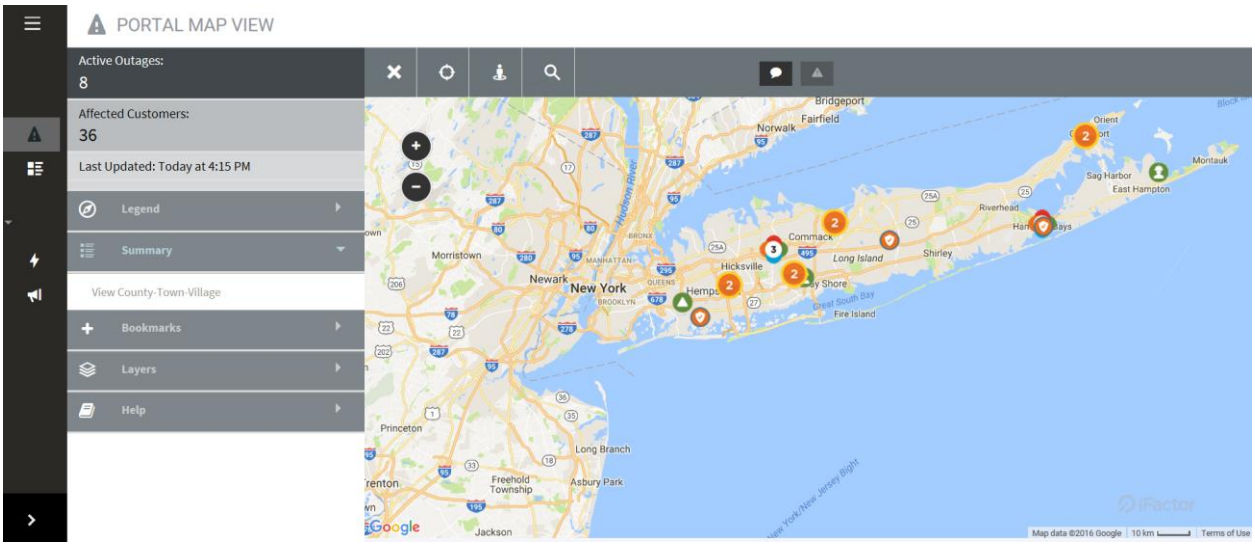


Figure 7.18 – Municipal Portal Map View

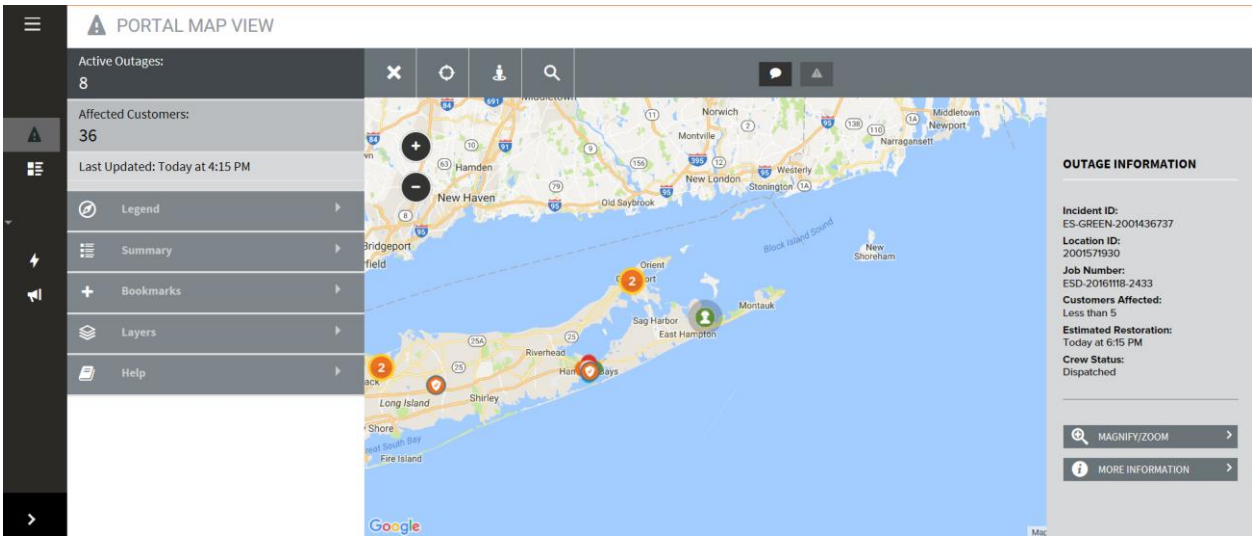


Figure 7.19 – Municipal Portal Map View Showing Outage Job Details

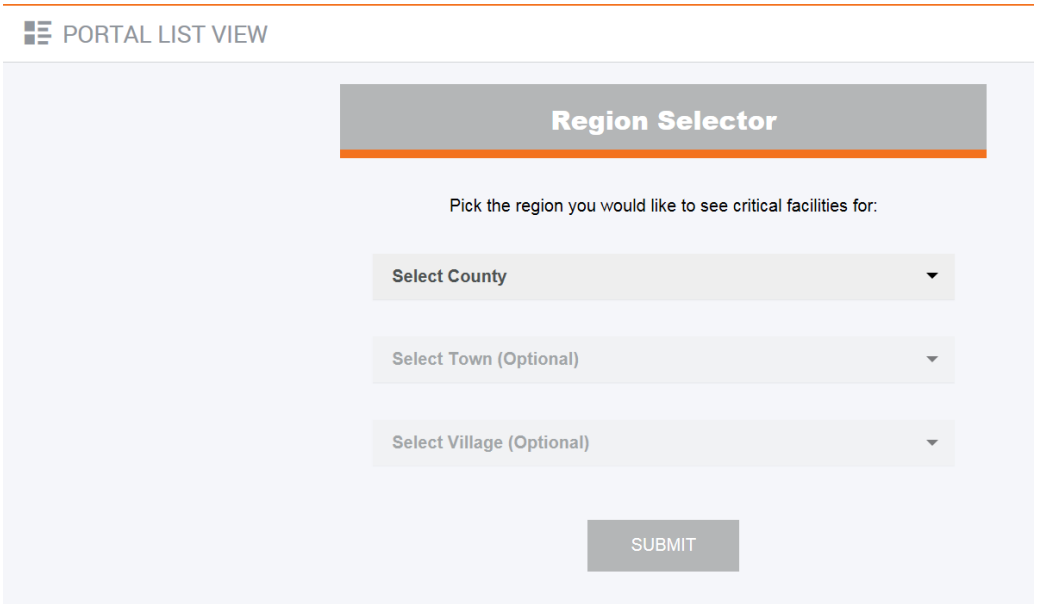


Figure 7.20 – Municipal Portal Region Selector for Critical Facility Listing

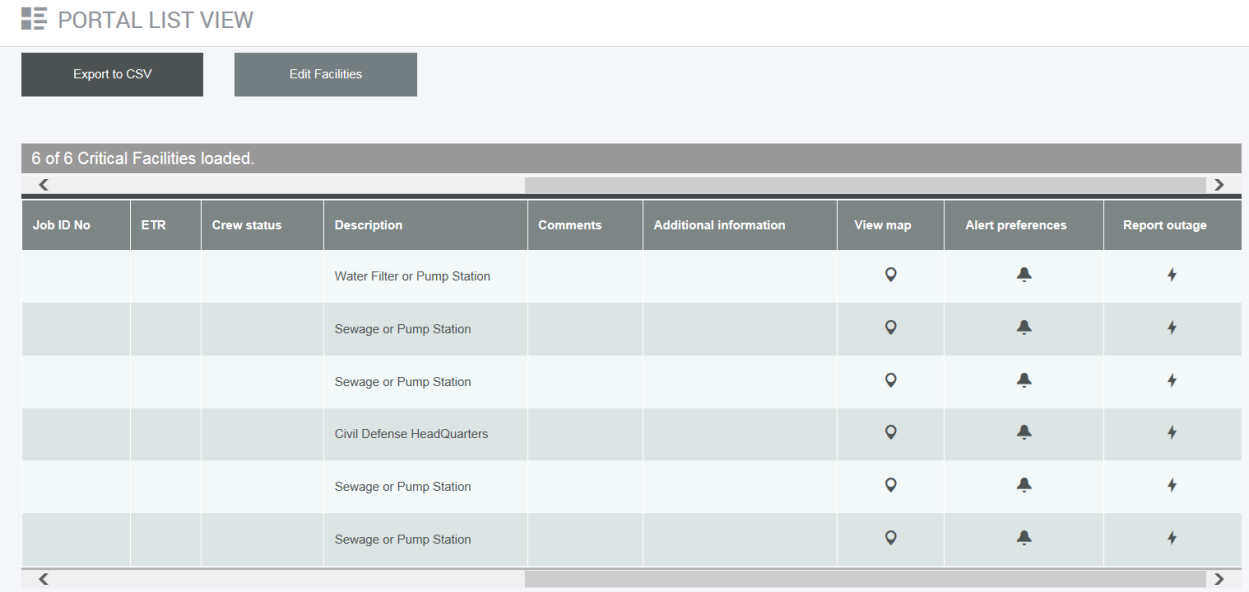


Figure 7.21 – Municipal Portal Critical Facility Listing Showing Links to View Map,

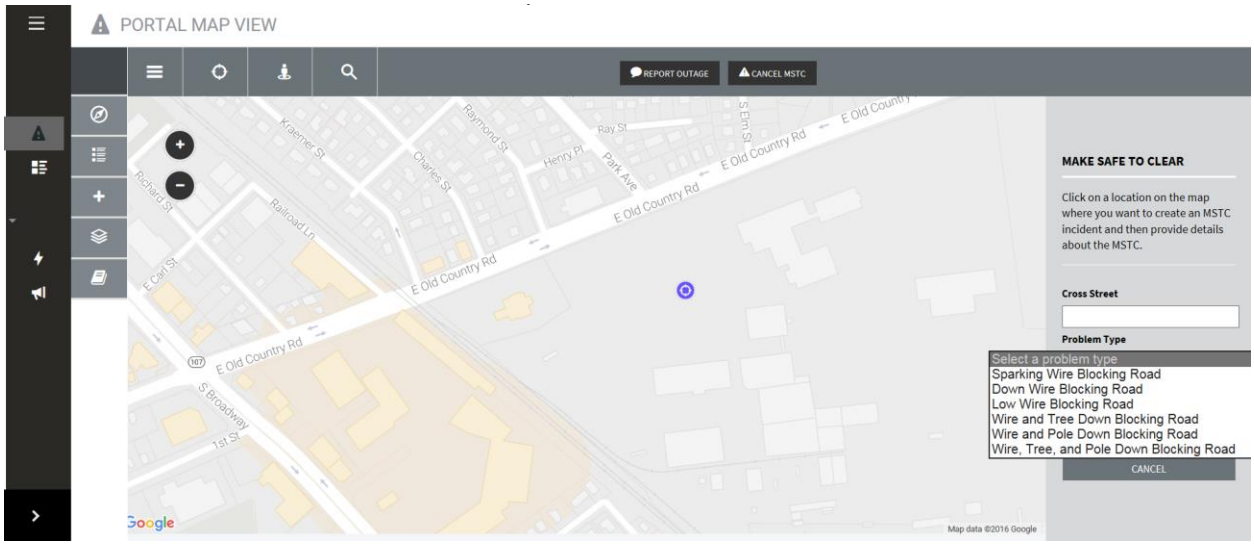


Figure 7.22 – Municipal Portal User Interface to Report of Make Safe To Clear Blocked Road Location

For details on OMS monitoring protocols and stress test plans, please see Section 10 - Information Technology Protocols.

For details on restoration contingency plans due to an OMS failure and/or performance issue, please see Section Restoration Contingency Plan Protocols.

8. ESTIMATED TIME OF RESTORATION (ETR) GUIDELINES

8.1 Overview

Providing accurate and timely ETRs is a top priority of PSEG Long Island's overall restoration process. An ETR provides an estimate of when service will be restored to a customer, location, area, and/or work assignment. They help to provide an approximation of restoration time, based on the conditions assessed on site, along with supporting historical data. ETR calculations are ultimately constructed based on average restoration clear times (time to restore power for a specific equipment type), damage assessments, weather and field conditions, and manpower and equipment availability. ETRs assist utility providers when taking preparatory steps during restoration operations, by serving as a predictor of outage lengths, which assist with determining the operational resources and actions required to deliver restoration in a targeted time frame.

Naturally, the timing, magnitude, and impact of an event will factor into ETR times, but establishing a baseline of projections assists when determining operational goals and timelines. PSEG Long Island also aims to better serve its customers, municipal officials, and emergency support organizations, through a coordinated and focused ETR administration and the communication of accurate and timely information. Outage data and ETRs are vital to external groups, and are often the basis for personnel planning and early preparedness efforts.

ETR information is readily available to our customers, stakeholders, and associated employees. Depending on the mechanism used for entering the outage condition, ETRs are disseminated in a variety of ways, including phone, email, and text notifications. ETR information can also be obtained through PSEG Long Island's outage website/mobile application or by speaking to a representative in our customer contact centers, which remain open 24 hours a day, 365 days a year. See Section 9 "Restoration Contingency Plan" for providing ETRs when technology issues arise.

PSEG Long Island continuously examines ETR accuracy in order to provide a high standard of customer satisfaction. ETRs for every incident in OMS are compiled and shared internally with all four divisions of Electric Service on a daily, weekly and monthly basis for review and analysis. In automated reporting, ETR "failures," per PSEG Long Island metrics, reflect all manual efforts made throughout the job, allowing direct employee training to be administered to employees the following day. Additionally, reporting allows for common trends to be studied so that improvements can be made in processes and applications that affect ETR accuracy.

8.2 ETR Classifications and Inputs

8.2.1 ETR Classifications

ETRs are segregated into three types: Global, Regional, and Local. These classification levels allow PSEG Long Island to provide its customers with more accurate restoration estimates, based on the storm conditions and the corresponding restoration efforts. The classifications are naturally interconnected, and follow a top-down input methodology based on anticipated operational actions, results, and damage assessments. The ETR information will ultimately become more precise as additional data and information is obtained, on a local level, and as restoration efforts progress.

- Global ETRs – Information is determined at a system-wide level
- Regional ETRs – Information is determined at a divisional level in OMS; ETR information is also provided on a county basis via the Outage Map
    - NOTE: Due to jurisdictional boundaries and our divisional footprint, there might be some differences between ETR information between divisional and county levels
- Local ETRs – Information is determined at municipal, town, and/or an individual job basis

Currently, banners on the outage map can include information that clarifies definitions applicable to ETRs, any known deficiencies or issues related to ETRs, when updated information can be expected, and other pertinent storm information (see Section 7.4). The PSEG Long Island outage website display includes Global, Regional, or Local ETRs and descriptors to further assist customers' understanding of these ETRs (i.e., system/island-wide, county/area-wide, etc.).

Figure 8.1 provides a high-level overview of the typical ETR process during restoration efforts, and includes a summary of targeted efforts and information availability during various stages of restoration.

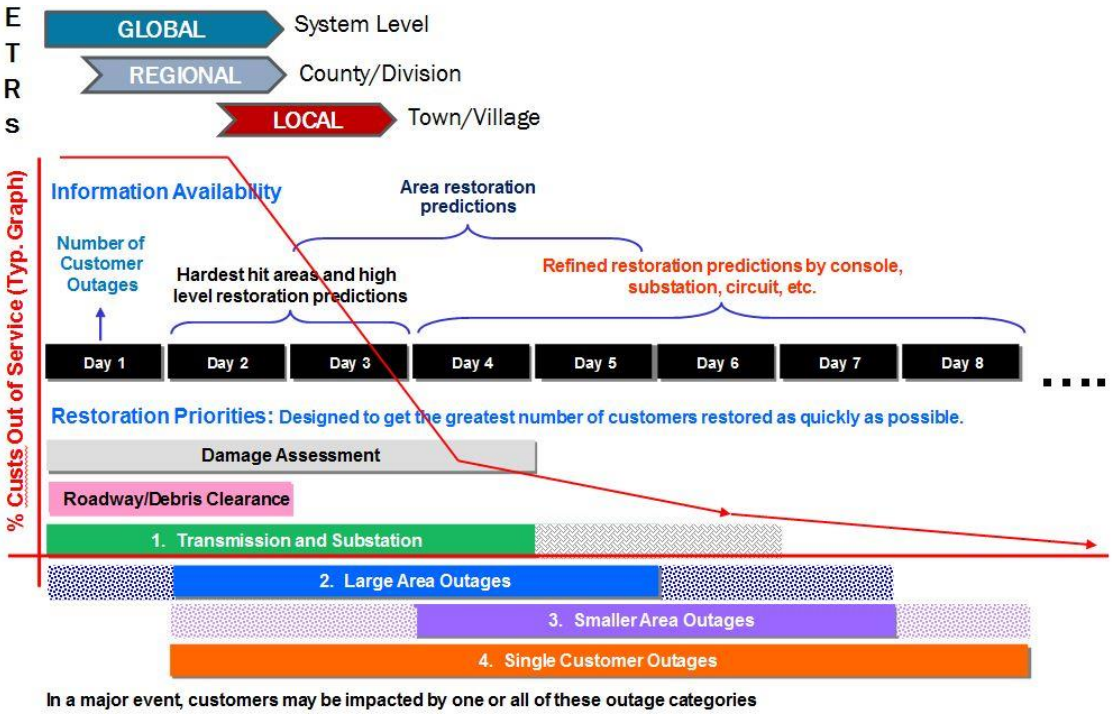


Figure 8.1 – Restoration Priorities, ETRs, and Predictions for Major Events

8.2.2 ETR Inputs

Data used to calculate and populate ETRs are derived from a variety of sources. Initially, ETR estimates are based on past storm history and operational experience, while considering the projected path, severity, and impact of the potential storm. These high level global estimates, often provided prior to or shortly after a storm passes, help to set customer expectations regarding the predicted outage duration at a system level. In any large-scale outage, three vital pieces of information must be gathered for ETR purposes:

- Number of electric customers out of service
- Amount and type of damage to the T&D Electric system
- Manpower availability (number of resources and timing of availability)

Once this information has been collected, restoration plans can be executed more efficiently and ETRs can begin to be computed and disseminated accordingly. PSEG Long Island utilizes multiple forecasting and modeling practices to better determine ETRs on all outages.

The ETR Strategy Team consists of both East and West Operations Branch Directors, Planning Section Chief, and four Division Managers in Electric Service, who maintain constant communication with the Escalation Manager in Customer Service. This team will look at all available data in Condition II and III storms, develop an ETR strategy, and provide it to all organizations in T&D Operations, Customer Service, and Corporate Communications. In addition, a new role of ETR Manager is being established to oversee ETR strategy throughout the event. The Manager will consult with the Strategy Team and Escalation Manager and provide guidance on ETR management, with their sole focus on monitoring ETRs and assuring the appropriate strategy is being implemented throughout the event. Personnel will be selected and trained in 2021. Please refer to Section 8.5, “ETR Procedure.”

While projecting ETRs is ultimately based on the analysis of pending outages and the manpower available for restoration, many other informational sources are taken into consideration when calculating ETRs including:

- Outage Information
  - Damage assessments
  - Circuit lockout totals
  - Substation(s) status
  - Average trouble clear times
  - Number of trouble reports
  - Trouble reporting times (pre, mid, and post storm)
  - Historical data and trends
  - Work conditions
- Storm Data
  - Storm type (hurricane, nor’easter, etc.)
  - Storm category
  - Storm path
  - Duration of event
  - Associated weather
  - Severity of damage
  - Types of damage experienced
  - Future weather patterns

- Resources
  - Crewing
  - Manpower availability
  - Average crew and manpower clear times
  - Travel and roadway conditions
  - Resource and asset availability

8.3 ETR Strategies

Providing accurate ETRs is a key component of the overall restoration process. The ability to provide such an estimate is a deliberate process, which begins with a high level system-wide (global) estimate, that is progressively refined throughout the restoration process.

At minimum, and consistent with NYS DPS ETR protocols, PSEG Long Island utilizes the most up-to-date information available to provide accurate global, regional, and local ETRs. The goal is to align them with the NYS DPS ETR protocols and ETR accuracy expectations.

Such ETRs are developed on a timely basis and communicated to affected customers and stakeholders, utilizing multiple channels and communications mediums. Outages occur under a variety of circumstances, such as normal day, minor storm, and major storm. Each condition requires a different methodology for creating customer messages and ETRs. During blue-sky days, ETRs are automatically generated based on historic restoration times aligned with the predicted device causing the outage. In some cases, it may not be possible to provide an accurate estimate until a good cross-section of damage conditions are assessed and analyzed by field survey teams. At any time, the automated ETR can be superseded to allow for manual adjustments to the ETR reflecting the application of storm factors, global or regional ETRs, alignment with the ETR work plan predictions, or actual feedback from the field.

Customer messaging is an important function pertaining to ETRs. A typical customer message is comprised of three parts: size of the area affected by the outage, dispatch status, and an ETR (if one exists).

Customer messages are communicated via Nuance IVR, Twenty-First Century IVR (via call back), CSR, text messaging and e-mail via Kubra iNotifi, PSEG Long Island's website/mobile application MyPower Map and Municipal Portal, various paths of social media, media outlets, and press briefings. In addition, manual/automated outbound messaging may also be utilized.

PSEG Long Island's website outage section is another major source of ETR related information for customers and is updated within one hour of a press release with new information. The website presents outage data in the form of a map of the service territory, with icons displaying the number of outage jobs, counts of customers out of service, and the ETR, if available. Information on the outage map is refreshed every fifteen minutes with a timestamp displaying the date and time of the most recent update.

Please refer to Chapter 12, "Communication Protocols" for more information regarding coordination of ETR communication and all pertinent customer information.

8.4 ETR Conditional Strategies

PSEG Long Island employs a variety of strategies pertaining to ETR administration, depending on the overall severity and impact of the storm. Conditional ETR strategies for PSEG Long Island align with our emergency classifications as described in Chapter 5 of this ERP. Each conditional strategy utilizes different methods of ETR management, with the overall goal of more accurate ETRs and a better informed customer base.

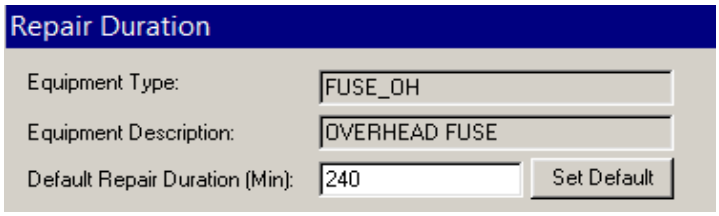
8.4.1 Condition I "White" ETR Strategies

These strategies align with everyday practices and procedures employed by PSEG Long Island on a normal condition "White" day. ETR strategy is managed within the division by the Division Operating Team (Division Manager, Operations Supervisor and Control Room Distribution System Operator). These protocols include:

1) Outage Management System (OMS)

   ETRs are populated when the outage report is entered based on average repair durations by equipment type and historical data.

   As Figure 8.2 shows, repair durations and ETRs will differ between equipment types, such as overhead fuses (4 hour baseline default) and mainline circuit breaker level outages (2 hour baseline default).



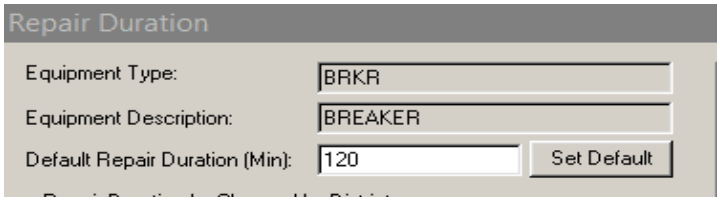


Figure 8.2 – OMS Sample Repair Durations by Equipment Type for ETR Calculations

2) Dispatch Representatives

ETRs are modified by dispatch personnel for non-mobile users and when field crews request ETR updates on their behalf. As Figure 8.3 shows, dispatch representatives can manually update ETRs when necessary. They will reach out to field personnel for current repair status when ETRs need to be updated.

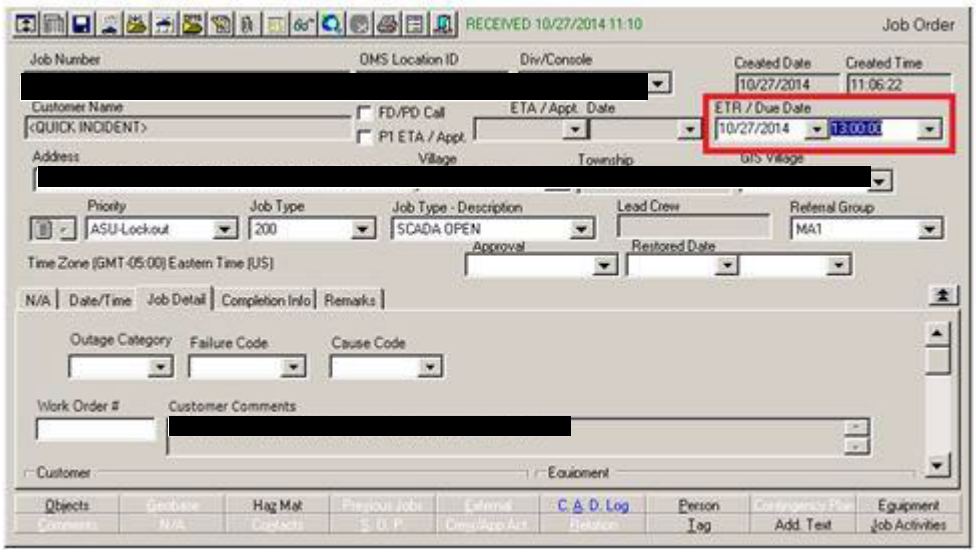


Figure 8.3 – OMS PragmaCAD Job Order Detail Screen

3) On-Site Technician

ETRs can be refined and updated by field personnel, upon arrival on the jobsite, to provide more accurate estimates based on the conditions observed. On-site conditions and the work to be performed may alter the ETR and can be entered via mobile laptops, as seen in Figure 8.4.

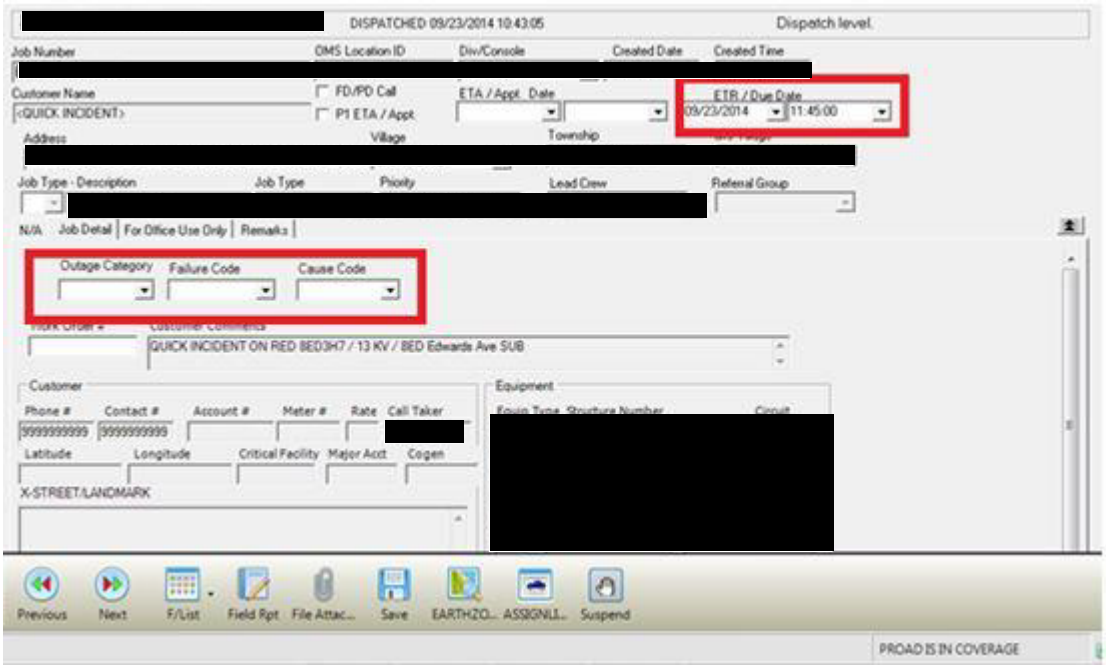


Figure 8.4 – Mobile User Job Order Detail for Updating ETR and Outage Cause (if known)

8.4.2 Condition II "Blue" ETR Strategies

These strategies employ the same tactics as Condition I "White," but include additional actions due to the higher level of outages experienced under Condition II "Blue" scenarios. The ETR Manager and ETR Strategy Team are activated during Condition II "Blue" and will utilize the processes below while establishing an overall ETR strategy.

1) Damage Assessments

During a Condition II "Blue" outage, damage assessments will begin immediately, once conditions are safe. This on-site information collected will ultimately provide our Operations management and Dispatch personnel a better understanding of the conditions on the ground, and will serve as the basis for ETR modifications, based on outage and manpower levels. Damage assessments play a key role in projected restoration times and the issuance of more accurate ETRs.

2) Outage Management System (OMS) – Weather Multipliers

OMS supports the concept of a Weather Multiplier within its dispatching and ETR protocols. The Weather Multiplier function allows PSEG Long Island to adjust the original ETR calculations, based on the weather projected/experienced and crew availability. For example, lightning, rain, and winds will slow down restoration efforts, due to the safety concerns of our field personnel. A sudden influx of outage jobs may also delay restoration efforts, given the immediate demand for a given set of restoration resources (i.e., repair crews).

In turn, a Weather Multiplier may be initially utilized on all jobs while the weather conditions persist, as seen in Figure 8.5. Ultimately, the Weather Multiplier will extend all specified computer-generated ETRs (by specified Call Type configurable by OMS Administrator – Default is Outage and Emergency), based on the anticipated/experienced conditions and can be further adjusted, up or down, if conditions dictate. The Weather Multiplier can be applied at the Global or Regional level, which assists PSEG Long Island with issuing more accurate ETRs. Multipliers may be applied from 1.5x up to 12x dependent on severity of storm.

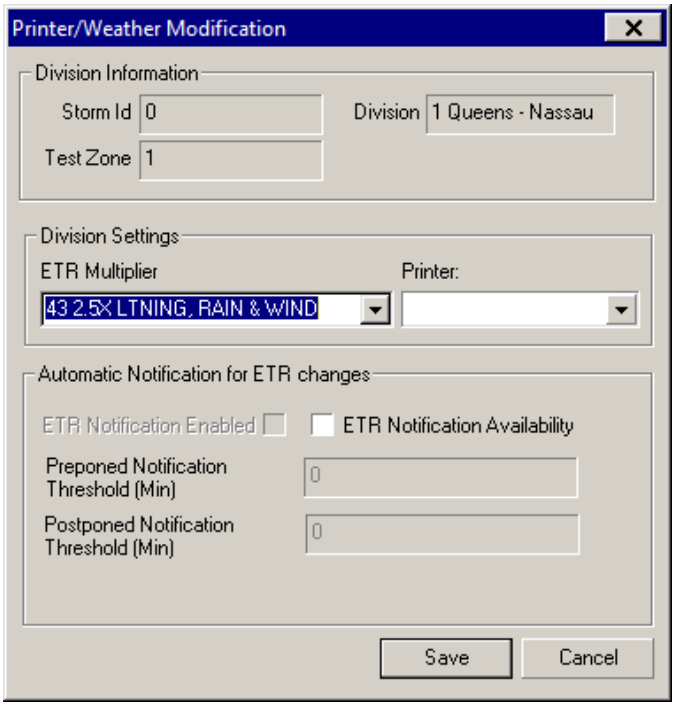


Figure 8.5 – OMS Weather Multiplier for 2.5X Factor for Rain, Wind, Lightning

3) Console and Division Management Interaction

The Division Manager/Operations Supervisor and OH/UG Lines Division Manager will make recommendations based on the conditions seen within their consoles and/or divisions to the ETR Strategy Team. Based on further damage assessments, the anticipated work plans, and manpower levels available, the Operations Supervisor or DSO will adjust automated ETRs via weather multipliers, as discussed above.

8.4.3 Condition III "Red" ETR Strategies

These strategies employ the same tactics as Condition II "Blue," but include additional actions due to the severe level of outages experienced in Condition III "Red" scenarios. The ETR Manager and ETR Strategy Team will utilize the processes below while establishing an overall ETR strategy, as well as Global, Regional, and work-plan ETRs.

1) Crewing and Manpower

Availability of crews and equipment and the timing of their arrival play a significant role in outage management and corresponding ETRs. Adding additional resources dramatically assists with reducing the more significant workload, and forms the basis for more accurate, consistent, and timely ETRs.

2) Damage Assessments

Damage assessments play a pivotal role in ETR accuracy and associated company work plans. Damage assessments will increase exponentially, as conditions worsen during outage scenarios. A top-down approach will ultimately ensue, and will form the basis for ETR administration going forward.

Survey teams are utilized and deployed during Condition III "Red" outages. These teams assess damage with the goal of providing valuable information to expedite the anticipated work-plans and provide for more accurate ETR administration.

3) Division ETR Coordinator/Primary Control Coordinator

Division ETR Coordinator and Primary Control Coordinator play a vital role during large-scale restoration efforts. These coordinators act as intermediaries between the ETR Strategy Team, Console Information Coordinators (CICs) and the Remote Dispatch Center personnel. Working under the direction of the Division Manager and Operations Supervisor, the ETR Coordinator will assist with the execution of more refined ETRs. The ETR Coordinator will monitor incidents across all dispatch areas in their respective division to ensure the work plan is being maintained. The Division Primary Control Coordinator and the Mutual Assistance Coordinator will work in conjunction with above mentioned personnel, to prepare work packages and assign work for Remote Dispatch Areas and

OH/UG Lines Consoles, while coordinating escalated priority work into the daily schedule.

OMS – ETR Override (Storm ETR)

OMS allows for Dispatch Management personnel to override the ETRs generated by the system based on the segregation of hardest hit areas, as seen in Figure 8.6.

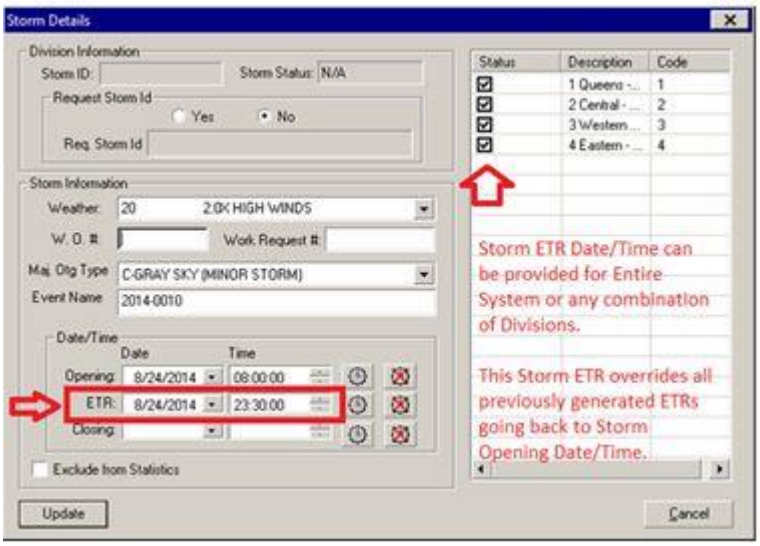
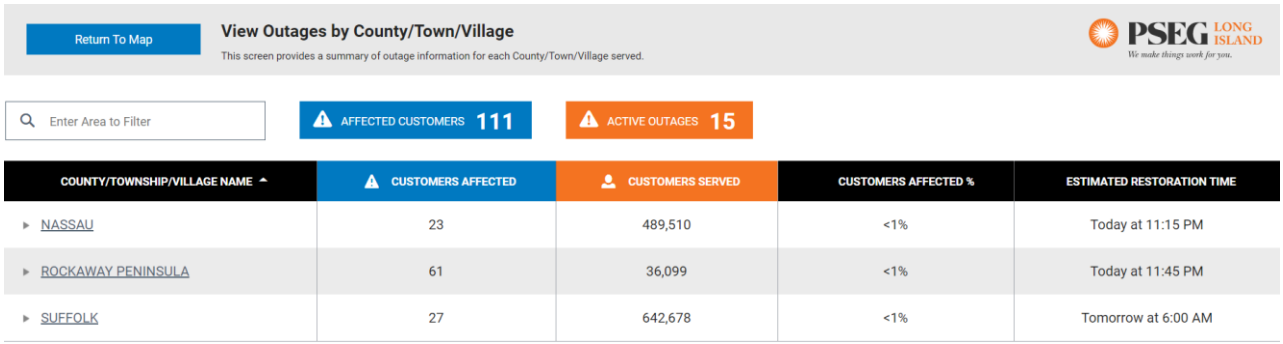


Figure 8.6 – OMS Storm ETR Dialog

4) Company Website/Kubra (Outage Section – Outage Map)

Due to the size of the storm and the corresponding outages, PSEG Long Island's Command Staff may elect to disable automatic ETR updates during the initial days of a Condition III "Red" outage. ETR and outage information is then entered manually, based on anticipated work plans and restoration goals. ETR updates are then inputted for larger geographic areas, such as townships, consoles, or municipalities, based on planned restoration activities. This alignment between ETRs and work plans allows PSEG Long Island to produce more accurate ETRs, as restoration is completed from locality to locality.

Figures 8.7 and 8.8 show examples of modifications made to the Kubra Outage Map due to a large-scale outage.



COUNTY/TOWNSHIP/VILLAGE NAME	CUSTOMERS AFFECTED	CUSTOMERS SERVED	CUSTOMERS AFFECTED %	ESTIMATED RESTORATION TIME
NASSAU	23	489,510	<1%	Today at 11:15 PM
ROCKAWAY PENINSULA	61	36,099	<1%	Today at 11:45 PM
SUFFOLK	27	642,678	<1%	Tomorrow at 6:00 AM

Figure 8.7 – Kubra Map List View with Customer Outages

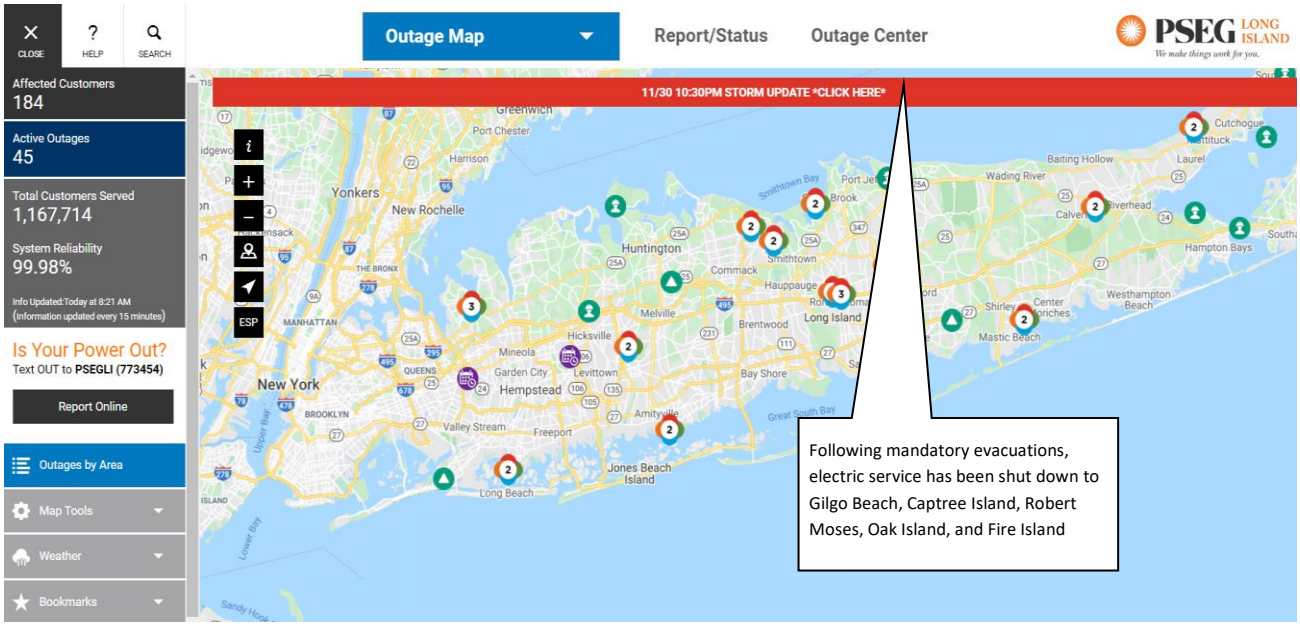


Figure 8.8 – Kubra Map with Storm or System Notifications

5) Load AMI and Lock Out Reporting

Load (Long Island Control Area Report), AMI Data and Lock Out reports are also reviewed and analyzed by Operations Management personnel during large-scale outage events. These reports provide vital information on current work load conditions and serve as the basis for future restoration work plans. ETR Strategy Team may make ETR adjustments, based on the overall damage conditions experienced and anticipated work plans. ETR adjustments will be refined as conditions are assessed and additional information becomes available. Load and Lock Out reports assist with operational efficiency and, ultimately, the determination of corresponding ETRs.

8.5 ETR Procedure

8.5.1 Condition II Storms

8.5.1.1 Procedure

1) The ETR Strategy Team (East and West Operations Branch Directors, Planning Section Chief and the four Division Managers) will review weather predictions and storm outage modeling to establish an ETR strategy ahead of a forecasted storm.
2) The ETR Manager will oversee ETR strategy throughout the event. They will consult with the Strategy Team and provide guidance on ETR management, with their sole focus on monitoring ETRs and assuring the ETR strategy is being implemented.
3) Utilizing a weather multiplier, each Division Operating Team will adjust their multiplier based on the level of outage activity experienced, the incoming rate of outages and timing of crews available for repairs. The weather multiplier can be adjusted from 1.5x to 12x, if required.
4) Weather multipliers will be adjusted downward until 90% restoration is approached and Blue Sky Day ETR factors are used.
5) When crews arrive at the outage location, if the work cannot be completed before the published ETR, the crew adjusts the ETR on their mobile computer or informs their dispatcher to modify the ETR.
6) It is understood that the line crews have the primary responsibility for contacting the dispatcher when an ETR time is not achievable. However, at times, line crews may become highly involved in the restoration work and lose track of the time remaining until the ETR will expire. Therefore, it is also the responsibility of the Dispatcher to continually monitor ETRs.

   Dispatchers are expected to modify Storm ETR's when:

   a) Assigned outage job ETR is set to expire in less than 1 hour
   b) Field crew, based on field conditions, indicates ETR will need to be pushed out
   c) An outage is unassigned and will not be assigned in the near future
   d) Last resort: The ETR is less than 10 minutes away from expiring and dispatcher cannot get in contact with the field crew or their supervision
7) For Condition II storms, Router/Gaters may be brought in to supplement the model incidents in OMS to provide a clear and accurate view of overall damage, update (if necessary) Incident Manager constantly throughout the storm, and apply ETR strategy.
8) If the ETR Manager and ETR Strategy Team determine that restoration for a weather event is expected to last beyond 24 hours and/or requires the activation of Remote Dispatch Areas and/or the need for mutual assistance, then the ETR strategy for Condition III storms will be applied.

8.5.2 Condition III Storms

8.5.2.1 Procedure

1) The ETR Strategy Team (East and West Operations Branch Directors, Planning Section Chief and the four Division Managers) will review weather predictions and storm outage modeling to establish an ETR strategy ahead of a forecasted storm.
2) The ETR Manager will oversee ETR strategy throughout the event. They will consult with the Strategy Team and provide guidance on ETR management, with their sole focus on monitoring ETRs and assuring the ETR strategy is being implemented.
3) If the ETR Manager and ETR Strategy Team determines that restoration for a weather event is expected to last beyond 24 hours and/or require the activation of Remote Dispatch Areas and/or the need for mutual assistance, then the ETR strategy for Condition III storm will be applied.
4) The ETR Strategy Team will contact the Escalation Manager and Communications Technology Coordinator in order to de-activate Proactive Notifications for individual job level ETRs at the beginning of the storm
    a) De-activating Proactive Notifications will trigger the use of targeted ETR and restoration messaging by text, email and phone to affected customers
    b) Damage assessment messaging may be utilized in order to help set customer expectations
    c) Length of de-activation period will be based on extent of damage
    d) In addition to targeted ETR messaging, customers can still get their projected ETR by other means:
        i) Texting Stat on their account
        ii) Looking at the MyPower outage map as they drill down to the individual outage
        iii) Calling a Customer Service Representative, Escalation Organization Team personnel, or the IVR system and asking for an ETR
        iv) Call Center Representatives and the Escalation Communications Teams are provided with ETR strategies to communicate to customers that we are assessing damage and ETRs may change
5) For storms projected to be longer than three days, the ETR Strategy Team and Escalation Manager may request a systemwide stop to ETR calculation be applied to the OMS by the Communications Technology Coordinator. Initial ETRs will then be replaced with a damage assessment message, and all affected customers will receive Targeted Messaging or Proactive Notifications triggered by their outage
    a) ETRs will not be issued during the initial null period and ETRs will not be available on any customer applications
    b) Length of null period will be based on the extent of damage, time needed for damage assessment, and OMS modeling enabling calculation of a Global ETR
    c) Damage assessment messaging has been developed for automated notifications and outage map display, Custom messaging may be used during the damage assessment period as well.

6) The ETR Strategy Team will provide regional ETRs within 12 hours of the start of restoration for storms expected to last 48 hours or less, and the global ETR and any available regional ETRs within 24 hours for storms expected to last greater than 48 hours

7) For storms expected to last less than three days, a restoration work plan will be established by the ETR Strategy Team and implemented by the Divisions Operating Team until 90% of customers are restored. At this point, weather multiplier ETRs will then be utilized for any new outage calls.

8) For storms expected to last three days or greater, once the initial restoration work plan has been established, the Division Operating Team will update ETRs on outage cases. Each work day by 2200hrs, Division Operating Team and ETR Strategy Team will:

    a) Review which customers will not be restored by the end of day

        i) These customers will be prioritized on the following day work plan.

    b) Establish the next day ETR work plan

        i) This includes customers that will be restored by one or more time periods the next day

9) This process of updating the work plan daily will continue until 90% of restoration is accomplished.

10) ETR strategy will be discussed with the Public Information Officer, Escalation Manager and Corporate Communication Manager in order to ensure all customer facing organizations are aware of the projected restoration strategy

11) Once a work-plan has been developed:

    a) The Division Operating Team will divide all jobs into work-plan ETR buckets based on crews available and customers out

    b) Work plan ETRs may be assigned per day, twice a day, etc. depending on the length of restoration. For example:

        i) Bucket 1 - Monday midnight

        ii) Bucket 2 - Tuesday 8 AM

        iii) Bucket 3 - Tuesday 4 PM

        iv) Bucket 4 - Tuesday midnight

12) Customer ETR lists will be pulled by the Division Operating Team and sent to the Communications Technology Coordinator, Escalation Manager and Corporate Communication Manager. Targeted messaging scripts will be updated with new ETR data, and sent to customers via all platforms as per customer preference

    a) Communications Technology Group will send out targeted texts, emails and place calls

    b) Call Center Representatives will be provided ETR data, which will facilitate accurate communication of restoration information with customers

    c) Major Accounts and External Affairs will also be provided this data in order to communicate with key stakeholders and escalate any potential issues or customer needs

13) Once the strategy has been set in OMS and customers have received messaging, the ETR Strategy Team will request the Communications Technology Coordinator turn proactive communications back on, and ETRs will be communicated through automated notifications for the remainder of the event

    a) Targeted messaging may still be utilized to communicate restoration strategy to all customers in addition to automated ETR updates

14) For Condition III Storms, a broad organization of dispatch areas will be activated and additional layers of ETR oversight will be utilized

    a) Router/Gaters monitor all work in their division, model incidents in OMS to provide a clear and accurate view of overall damage, and apply ETR strategy by routing work to the appropriate areas

    b) Mutual Assistance Coordinator will oversee the Remote Dispatch Area, monitor ETRs and communicate outstanding issues back to the division

    c) Primary Control Coordinator will create work packages and assign all the prioritized daily work to the RDA and OH/UG consoles in accordance with ETR strategy

    d) ETR Coordinators will assist in each division, under guidance of the Division Operating Team, to monitor ETRs and reach out to all relevant organizations if ETRs are approaching expiration

8.6 New York State (NYS) Department of Public Service (DPS) ETR Guidelines

PSEG Long Island works to continuously refine and communicate ETRs, as additional information becomes available throughout the restoration process. At a minimum, ETRs will be provided in accordance with DPS Case 13-E-0140, Estimated Time of Restoration Protocols (see Appendix I).

DPS protocols set expectations of when information will be available and/or provided in response to storms or storm-like electric emergencies when either criteria is met:

- More than 5,000 customers are interrupted for more than thirty minutes, within a division
- More than 20,000 customers are interrupted for more than thirty minutes, companywide
- Global ETRs (when provided) should be applicable to at least 90% of the affected customers in the reported level. Regional or Local ETRs (when provided) should be applicable to at least 95% of the affected customers in the reported level; publication of the Global ETR should cease, once Regional or Local ETRs are provided

Figures 8.9 and 8.10 clarify the necessary actions to be taken by PSEG Long Island within the outage period for the specific event.

ACTIONS REQUIRED BY UTILITY FOR OUTAGE EVENT EXPECTED TO LAST ≤ 48 HOURS
Within the first 6 hours of the restoration period
• Notify DPS Staff that the outage event will last less than 48 hours. The notification to DPS Staff will state what the Company has defined as the start of the restoration period. For outage events expected to last less than 24 hours, notification may be via the Department's information reporting system. • Provide available information to the public. Update customer representative, IVR systems and websites. • In certain situations, such as a nighttime outage event, only limited information may be available within the initial six-hour window. In these situations, the expectation is that the companies will inform DPS Staff of the delay in determining the initial outage duration within six hours and the notification will occur in an expedited manner as information becomes known. Following a nighttime outage event, the determination of whether the restoration period will be less than 48 hours will be communicated to DPS Staff as soon as possible, but no later than noon the following day. Any delay in establishing the initial expectations will not affect the time requirements below.
Within the first 12 hours of the restoration period
• Provide DPS Staff and the public with any available regional/county ETRs and any available local/town or municipal ETRs. Update customer representatives, IVR systems, and websites. • Issue a press release that includes known ETRs for the next upcoming news cycle • Communicate with affected municipal and elected officials. This communication may or may not be by way of a municipal conference call.
Within the first 18 hours of the restoration period
• Provide DPS Staff and the public remaining regional/county ETRs. Update customer representatives, IVR systems, and websites. • Provide DPS Staff and the public with any additional local/town or municipal ETRs. Update customer representatives, IVR systems, and websites.
Within the first 24 hours of the restoration period
• Consider issuing a press release for the next upcoming news cycle based on conditions.
Reporting requirements during the outage event
• Provide restoration information updates four times daily to DPS Staff (7 am, 11 am, 3pm, and 7 pm) if requested by DPS Staff. Updates will continue until otherwise directed by DPS Staff. • Notify DPS Staff when all outage event related interruptions have been restored.

Figure 8.9 – DPS Guidelines for an Outage Event Expected to Last 48 Hours or Less*

ACTIONS REQUIRED BY UTILITY FOR OUTAGE EVENT EXPECTED TO LAST > 48 HOURS
Pre-event whenever sufficient notice of an impending weather event is available
• Make pre-event outbound calls to critical facilities customers, life support equipment customers, and special needs customers. • Complete pre-storm communications with outreach to employees, the news media, social media sites, blast emails and text messages to customers, and advisories to municipal and elected officials. • Conduct pre-event municipal conference calls • Issue public statement and/or press releases
Within the first 6 hours of the restoration period
• Notify DPS Staff that it will be a multi-day outage event lasting more than 48 hours. The notification to DPS Staff will state what the Company has defined as the start of the restoration period. • Provide a public statement and/or press releases indicating the likelihood of extended outages and make this information available via customer representatives, IVR systems, and websites. • In certain situations, such as nighttime outage event, only limited information may be available within the initial six-hour window. In these situations, the expectation is that the companies will inform DPS Staff of the delay in determining the initial outage duration within six hours and the notification will occur in an expedited manner as information becomes known. Following a nighttime outage event, the determination of whether the restoration period will be greater than 48 hours will be communicated to DPS Staff as soon as possible, but no later than noon the following day. Any delay in establishing the initial expectations will not affect the time requirements below.
Within the first 12 hours of the restoration period
• Issue press releases based on the predetermined time periods defined in the emergency plan. • Communicate information such as system damage, outages, restoration status etc. with affected municipal and elected officials as appropriate. • Schedule the first post-storm municipal conference call(s), unless an alternative municipal contact method is more appropriate. The first scheduled municipal conference call does not necessarily have to be held within the first 12 hours but will be held within the first 24 hours. • Notify DPS Staff and the public of what areas sustained the most damage to the electric system and ETRs where known, on a county or regional basis.

Within the first 24 hours of the restoration period
• Complete the first scheduled municipal conference call. • Provide DPS Staff and the public with a global ETR, any available regional/county ETRs, and any available local/town or municipal ETRs. Update customer representatives, IVR systems, and websites. • Identify any heavily damaged areas where large numbers of customers are expected to remain without service for more than four days.
Within the first 48 hours of the restoration period
• Provide DPS Staff and the public remaining regional/county ETRs. Update customer representatives, IVR systems, and websites, eliminate all references to the global ETR. • Provide DPS Staff and the public with any additional local/town or municipal ETRs. Update customer representatives, IVR systems, and websites, eliminate all references to the global ETR.
Within the first 60 hours of the restoration period
• Provide DPS Staff and the public remaining local/town or municipality ETRs. Update customer representatives, IVR systems.
Reporting requirements during the outage event
• Provide restoration information updates four times daily to DPS Staff (7 am, 11 am, 3 pm, and 7 pm), unless directed otherwise. Updates will continue until otherwise directed by DPS Staff. Notify DPS Staff when all outage event related interruptions have been restored.

Figure 8.10 – DPS Guidelines for an Event Expected to Last More Than 48 Hours

9. RESTORATION CONTINGENCY PLAN

9.1 Overview

Monitoring mission critical technology and responding to performance declines or failures in a timely and efficient manner is critical to an effective response. Contingency plans have been created by PSEG Long Island for key storm processes to maintain operations if a critical system failure occurs and/or communications channels are inoperable during restoration events. Contingency plans have been developed for key storm processes for both a full scale and/or a tiered system failure during potential events. Contingency plans include details surrounding activations, roles and responsibilities and coordinating with internal & external stakeholders. In addition to details provided within this section, please see ERIP-GEN-004 - *Contingency Procedures for Critical System Failure* for additional details on contingency procedures.

Developing contingency plans for critical system failures enhances our restoration abilities and plans by focusing on supporting Information Technology (IT) storm systems, leveraging other existing technologies and providing alternative processes if disaster recovery cannot resolve IT system and/or performance issues. Contingency procedures will leverage all existing PSEG Long Island technologies and data sources to continue critical operations such as damage assessment and repair, providing Estimated Times of Restoration (ETRs), responding to customer inquiries and communications with Life Support Equipment (LSE) customers and municipalities.

9.2 Delegation of Authority (DOA) & Activation Guidance

Monitoring mission critical technology and responding to performance declines or failures in a timely and efficient manner is critical to an effective response Directors and managers have the authority to activate contingency procedures when issues are observed with storm system performance or critical systems begin to fail or when actual failure occurs. Other personnel at lower levels in the organization can activate procedures, when deemed appropriate, to properly manage the active event. Authority to activate comes with a requirement to notify appropriate management through Managers and Directors to the appropriate Vice President and Incident Commander, if activated. DOA, activations and associated notifications will align with our ICS structure as detailed below in Section 2 – Personnel Responsibilities. Additional details on notifications and associated communications can be found further down in this section.

9.3 Storm Process Areas & Responsible Parties

When building out contingency plans, PSEG Long Island identified key storm processes and corresponding process owners to facilitate plan development. Storm processes detailed within this document were selected to align with designated areas/speakers who participate and report out on the PSEG Long Island Storm Call during restoration events. Storm processes detailed in this document are existing processes critical to managing an event, with some segmentation and adjustment to facilitate contingency plan development. Building out contingency plans were aligned with ICS plans as detailed in Section 2 to ensure accountability, consistency and alignment of efforts during all events, including contingency plan activations and notifications.

Twenty six (26) storm processes were reviewed by process owners and corresponding contingency plans were created to effectively manage and respond to a critical system failure during restoration events. Storm process owners focused on building out contingency plans for the loss of critical systems (i.e., OMS and/or inbound call communications) as the baseline for plan development.

Storm processes and plans are divided into two (2) groups:

- Group One: Fifteen (15) processes: Significant reliance on OMS for restoration operations
- Group Two: Eleven (11) processes: No/limited reliance on OMS for restoration operations

Contingency plans were separated into two groups based upon the reliance and effect of a critical system (i.e., OMS and Communications channels) failure on restoration operations. Group One processes maintain a larger reliance on OMS to perform restoration activities such as Dispatch & Restoration Strategy and Call Center operations. With that, in-depth plans and procedures have been created for these areas, as detailed in the ERIP-GEN-004. While Group Two has less reliance on OMS to conduct restoration operations, these areas were reviewed for critical system failure and operational readiness. See Figures 9.1 and 9.2 for a list of storm process areas with contingency plans and the corresponding storm role responsible for activating and overseeing associated plans.

Group 1: Significant reliance on OMS		
Process Number	**Storm Process**	**Responsible Party: Storm Role**
1	Situational Awareness – Global ETR / Customers Out/Restored	Planning Section Chief
2	ETR Strategy	Operations Branch Director - East
3	IT System Mitigation & Monitoring Activities	Chief Information Officer
4	Damage Assessment	Operations Branch Director – West
5	AMI & Customer Facing Technology	AMI & Customer Technology Manager
6	Dispatch & Restoration Strategy	Operations Branch Director – West
7	Municipal Coordination	Make Safe to Clear Group Supervisor
8	Vegetation Management	Line Clearance Group Supervisor
9	Call Center Operations	Customer Assistance Center Manager
10	Corporate Comms. & Social Media	Corporate Communications Manager
11	Outage Map Messaging	Escalations Manager
12	Customer Communications	Escalations Manager
13	Escalations	Escalations Manager
14	Community Outreach & LSE/SN Customers	Customer Care & Community Outreach Manager
15	Major Accounts & Critical Facilities	Large Customer Support Coordinator

Figure 9.1 – Group One: Significant Reliance on OMS for Restoration Operations

Group 2: Less reliance on OMS		
Process Number	**Storm Process**	**Responsible Party: Storm Role**
16	Safety, Health and Environmental (SHE)	SHE Officer
17	Transmission System	Transmission Survey & Operations Control Group Supervisor
18	Foreign Crew Management	Foreign Crew Processing Branch Director
19	Engineering	Engineering Director
20	Human Resources & Labor Relations	Human Resources Unit Leader
21	Logistics Section	Logistics Section Chief
22	Security	Security Unit Leader
23	Facilities	Facilities Unit Leader
24	Low Voltage Crew / Pre-Check Dispatch	Metering Director
25	External Affairs	Liaison Officer
26	Finance	Cost & Reimbursement Unit Leader

Figure 9.2 – Group Two: No/Limited **Reliance on OMS for Restoration Operations**

9.4 Contingency Plan Details

Contingency plans include details focused on procedures in the event of a full critical system failure and/or tiered system failure. Contingency plan details include:

- Pre-planning procedures
  - Mitigation & Monitoring
  - Pre-Event Preparations
  - Coordination with internal and external parties
- Actions at the time of the event
  - Procedures for how the storm process will be sustained
  - Alternative work methods
  - Internal & External Outreach and Communication
- Process / Data inputs and outputs
  - Information collection, preparations and dissemination
- Tiered system loss
  - Alternative plans for the loss of one application versus another
- Incremental Resources
  - Additional personnel needed to support contingency plans and procedures

Please see ERIP-GEN-004 - *Contingency Procedures for Critical System Failure* for specific details on contingency plans and procedures for each storm process area. ERIP-GEN-004 also includes contingency plans for additional key system failures including the loss of email, our public website, SCADA, DSCADA and CAS.

9.5 ICS Structure and Reporting Relationships

PSEG Long Island utilizes the Incident Command System (ICS) during all restoration events and/or other system emergencies, including critical system failures. See Section 2- Roles and Responsibilities for PSEG Long Island's ICS structure utilized during restoration events, including contingency plan activations. PSEG Long Island's ICS structure and corresponding reporting relationships will serve as the structure for activations, delegation of authority, notifications and communications surrounding mission critical system performance and/or failure.

PSEG Long Island has expanded its ICS structure for the Information Technology (IT) Organization to provide further visibility into monitoring and oversight responsibilities of mission critical systems. IT's ICS structure now includes a PSEG Long Island Chief Information Officer (CIO) reporting to the PSEG Long Island Incident Commander with supporting IT staff responsible for monitoring critical systems during events. See Section 2 – Roles & Responsibilities for IT's ICS structure and key areas of responsibility during restoration and/or contingency activations. The IT organization will maintain this structure throughout the duration of the event and/or until systems are functioning as normal.

For additional details on IT's role during restoration events and associated response plans, please see *Section 10 – Information Technology Mitigation and Monitoring protocols*.

9.6 Mission Critical Systems and IT Oversight

The table below details PSEG Long Island's Mission Critical System list and associated use and affect if the system/application is not functioning as designed. Additionally, this table details the IT group responsible for monitoring and providing oversight of each mission critical system during contingency events. Contingencies detailed with this table are high level and should not substitute specific contingency plan procedures detailed within ERIP-GEN-004, *Contingency Procedures for Critical System Failure*.

System	Used to	Affect	Contingencies	Oversight Group
CGI Outage Management System (OMS)	Receive, model and track outages	Unable to automatically receive outage notifications, group and model outages and track information and progress of restoration	• Enact contingency plan procedures	OMS Support Team
Telephony Systems (incl. VOIP)	Directly communicate with PSEGLI personnel and external customers	Unable to directly communicate with PSEGLI personnel or external customers	• Enact contingency plan procedures which includes: ○ Cell phone usage (internal) ○ Use 900 MHz Radio system and/or Wireless phones (internal) ○ Utilize ESRI reporting tool for inputting outages (external) ○ Utilize satellite phones for inputting FD/PD conditions (external)	Network Support Team
Enterprise Service Bus (ESB)	Transfer data between systems	Systems unable to communicate with one another	• Enact Communications contingency plan procedures	ESB Support Team
OSI Soft (Pi Historian) critical for v 5.5 OMS	Transfer breaker data to OMS	OMS system modeling will not be updated electronically	• Manually model breaker data in OMS via information from alternative data source (report from D-SCADA)	CNI Support Team

System	Used to	Affect	Contingencies	Oversight Group
OMS D-SCADA (Distribution)	Remotely monitor and operate control ASUs and other supervisory devices	Unable to monitor or control these devices from Division Operations Center	• Enact contingency plan procedures which includes: ○ Circuit patrols to be conducted ○ Verification of ASU/ASUV position ○ Personnel to perform operations manually ○ Communicate with Divisional Dispatch on conditions and actions	CNI Support Team
EMS/SCADA (Transmission)	Monitor and operate substation loads/performance and associated equipment	Loss of substation monitoring and control	• Enact contingency plan procedures which includes: ○ Notification to NYISO and neighboring utilities ○ Internal notifications and ongoing monitoring ○ Manual substation monitoring and control by company personnel	CNI Support Team
AMI/MDMS	Meter reading; Validate meter power status	Inability to read meters via supervisory; Inability to validate customer outages	• Manually send restoration personnel to validate outages	Customer Technology Team
Kubra (Outage Map)	Provide visual outage and ETR information to customers	Customers are unable to view outages/ETRs on the map	• Enact contingency plan procedures which includes: ○ Direct customers to PSEGLINY.com website and or alternative site ○ Provide manually updated information using the Alert Banner at the top of the screen ○ Display system level data via “static” maps (pre-prepared)	Customer Technology Team

System	Used to	Affect	Contingencies	Oversight Group
GIS	Provides system for viewing, capturing and analyzing geographic & asset data	Unable to view asset data and mapping functionality	• Creation and distribution of paper circuit maps	GIS Support Team
GIS	Provides system for viewing, capturing and analyzing geographic & asset data	Unable to view asset data and mapping functionality	• Creation and distribution of paper circuit maps	GIS Support Team
SharePoint App / Shared Drives	Post and share information among users	Unable to update documents and/or share/access operational files	• Enact contingency plan procedures which includes: ○ File sharing activities will be performed via iManage system	Application & Infrastructure Support Teams
IVR (Interactive Voice Response)	Used to supplement incoming call center phone calls	Customer will have longer wait times to input outages	• Increase staffing of Call Center representatives • Utilize HVCA process	App Support Team
TFCC HVCA (High Volume Call Answering)	Used to supplement incoming call center phone calls during periods of high activity	Customers will have extended wait times to input outages	• Increase staffing of Call Center representatives	Customer Technology

System	Used to	Affect	Contingencies	Oversight Group
Muni-Portal	Input and view municipally reported road clearing conditions; View critical facility locations and outages	Unable to report road clearing issues and/or view critical facility outages	• Enact contingency plan procedures which includes: ○ Distribute communications to municipalities regarding alternative plans ○ Utilize muni-hotline and/or municipal call log to manually input, track and escalate road clearing issues	Customer Technology
Corporate Network	Access and share PSEGLI information and data; Communicate with internal and external personnel	Unable to access and share information	• Enact contingency plan procedures which includes	Network Support Team
Customer Accounting System (CAS)	Houses customer identifying account information, along with contact, billing and usage data; Perform account verification for customer outage reporting	Customers cannot report outages via digital channels	• Enact contingency plan procedures which includes: ○ Customers would be redirected to other mechanisms for inputting outages	Mainframe Support Team
Email System (Managed by NJ)	Communicate and share information	Unable to send emails and share information among internal and external stakeholders	• Enact contingency plan procedures which includes: ○ Text capabilities will be utilized ○ Group texts to be utilized by leadership Team and individual organizational groups to facilitate discussions and plans	Email Exchange Support Team

System	Used to	Affect	Contingencies	Oversight Group
Public Website / My Account	Provide information to customers; Gateway for customers to input outage reports	Unable to view storm and account information; Cannot input outage reports	• Enact contingency plan procedures which includes: ○ Utilize an alternative website not linked to the PSEG corporate network ○ Distribute messaging directing customers to the alternative site ○ Post updated communications and/or information for customers ○ Utilize ESRI reporting tool procedures for reporting outages	Application Support Team

Figure 9.3 – Mission Critical System List – Contingencies & Oversight

9.7 Decision Making

The monitoring and subsequent steps associated with an observation of a mission critical system issue is vital to an effective, coordinated and agreed upon response plan. Figure 9.3 below details the decision making process and associated steps to be performed by the IT organization when a mission critical system performance or functionality issue occur.

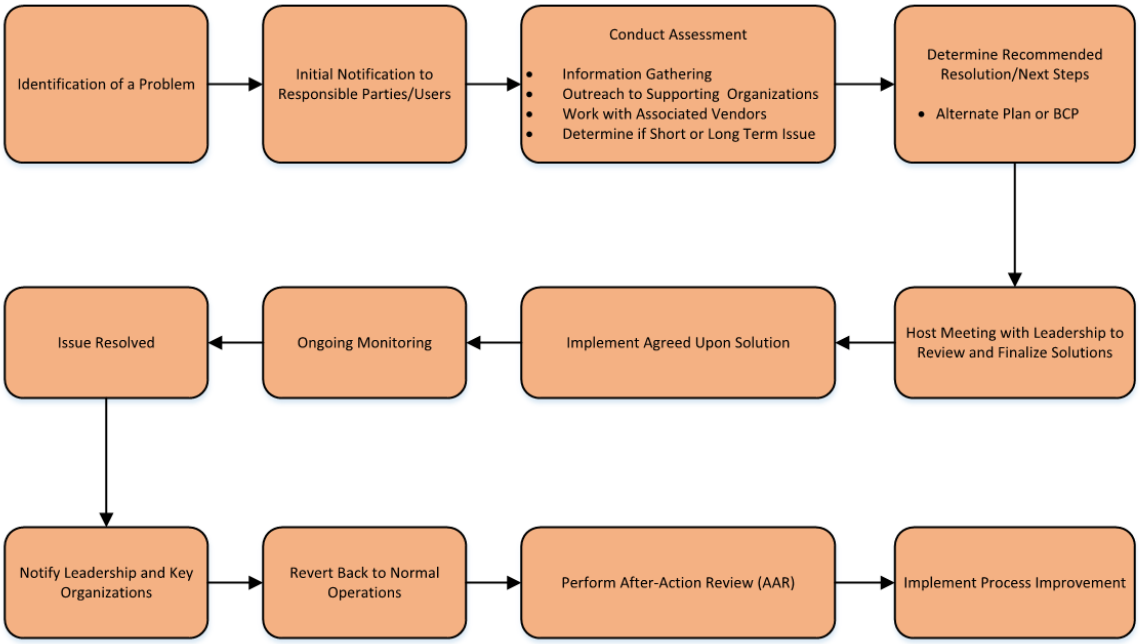


Figure 9.4 – Mission Critical System Oversight and Decision Making

9.8 Notifications and Communications

The IT organization will coordinate with and notify leadership of critical system failures/conditions according to DOA and ICS guidelines detailed above. Notifications will be prompt and immediate to ensure situational awareness among parties. Associated decision making will also adhere to ICS guidelines to ensure an effective, comprehensive and agreed upon response.

When a mission critical system failure or decline in performance is identified, PSEG Long Island will host a forum to discuss the conditions and associated next steps. The forum will include the Incident Commander, Chief Information Officer,

system/application SME and supporting process leads. The group will review critical system conditions, observations and potential solutions to respond to the issue. An agreed upon decision will then be executed, proceeded by appropriate notifications and communications. The Team above would meet as required throughout the duration of the event, until the critical system failure has been resolved.

Additional notifications and/or communications will be issued to internal and external stakeholders to advise of critical system conditions and anticipated next steps, including but not limited to:

- Internal Stakeholders
  - PSEG Long Island Leadership, Managers, Process Leads and supporting personnel
  - Executive Crisis Management Team (ECMT) – when activated
  - Crisis Management Team (CMT) – when activated
- External Stakeholders
  - PSEG Long Island Customers
  - Long Island Power Authority (LIPA)
  - New York State Department of Public Service (NYS DPS)

Information pertaining to critical system failure observations and corresponding next steps will be shared with internal and external stakeholders via email, cell phone communications and/or digital and media channels. Mission Critical System notifications and communications may vary (i.e., frequency of communications and content) based upon the event, criticality of system loss, information availability and affected parties. PSEG Long Island will make every effort to notify and communicate both internally and externally during critical system failure events.

9.9 Contingency Plan Training and Exercises

9.9.1 Training

To further prepare employees for contingency operations, PSEG Long Island will facilitate training for all storm process owners and key personnel supporting contingency plans and procedures. Annual training on contingency plans will include a review of contingency plan areas, key strategies, ICS, delegation of authority, etc. Training will be provided via classroom presentation and/or through PSEG Long Island's Learning Management System (LMS). Training will be managed by Emergency Preparedness and will assigned to process owners and key supporting personnel. Annual training will help to ensure awareness and alignment of procedures

during potential critical system failure events. Training on contingency plans will also be accomplished through the execution of exercises.

9.10 Exercises

9.10.1 Company Level – Functional Exercise

In addition to the annual tabletop exercise hosted at the company level, PSEG Long Island will host an annual functional exercise on contingency procedures with all storm process owners detailed within this section. This functional exercise will utilize our ICS structure and will include the simulation of a scenario and proposed failures (i.e., loss of systems). This exercise will provide a simulated, yet realistic environment to mirror an actual incident if it were to occur. Participants will respond to the scenario and focus on their actions and/or plans that drive activity at the operational level.

9.10.2 Process Level- Tabletop Exercise(s)

Individual contingency plan process owners will host a tabletop exercise with key personnel in their organization to review their area of concentration (i.e., Call Center Operations). Process owners will review their process contingency plans in detail and also review other key items including, but not limited to coordination with other groups, activation protocols, inputs and outputs, etc. Process owners will host their tabletop exercises, annually with their teams and/or other supporting personnel.

For additional details on restoration training and exercises, please see Section 20 – Training, Exercises and After-Action Reviews or Appendix P – Exercise & Training Schedules.

10. INFORMATION TECHNOLOGY PROTOCOLS

10.1 Overview and Plan Methodology

The IT Section plays a key role in the execution of PSEG Long Island's storm restoration goals and strategy efforts. The IT Section is responsible for the management of PSEG Long Island's voice and data systems, mission critical systems, software applications and/or infrastructure. IT is responsible for pre-activation preparations, testing and continuous system monitoring throughout the restoration event. The IT Section is also responsible for ensuring PSEG Long Island work locations and support sites have the equipment and connectivity to support operational plans.

Moreover, the IT/Communications Unit ensures key company software applications (i.e., OMS, SAS, SAP, etc.), websites, programs, and support equipment are in proper working order to meet the demands of the restoration event. An inventory of key IT/Communications hardware and software is reviewed and maintained for operational readiness and availability, as restoration needs require.

10.2 Roles and Responsibilities

The IT section organizes and responds to restoration events in alignment with their ICS structure detailed within Section 2 – Roles and Responsibilities of the Emergency Restoration Plan. The IT Organization is divided up into smaller groups according to system oversight responsibilities. The key roles and areas of responsibility for the IT Organization during restoration events includes the following:

10.2.1 Chief Information Officer

- Oversees all Information Technology areas
- Provides status and communications updates to key internal and external stakeholders
- IT Support
- Provides oversight for operational readiness and day-to-day management of critical sites, infrastructure and applications

10.2.2 Network Support

- Provides level 1, 2 and 3 support for all network equipment and systems
- Includes Telephony, Internet, Corporate and SCADA network support
- Network Operations Center (NOC) Support
- Provides monitoring and alerting for mission critical systems

10.2.3 Mainframe Support

- Provides level 1, 2 and 3 support for all mainframe equipment and systems
- Includes Customer System and job scheduling support
- Infrastructure Support
- Provides level 1, 2 and 3 support for all infrastructure equipment and systems
- Includes datacenter, server, storage and database support

10.2.4 Digital Channels

- Provides level 1, 2 and 3 support for customer channel systems
- Includes Public and My Account Website, Municipal Portal, Outage Map, Texting, Mobile App, Interactive Voice Response and High Call Volume Answering service

10.2.5 Middleware & App Support

- Provides level 1, 2 and 3 support for Middleware and Applications
- Includes SharePoint, Fire Shares/Shared Drives, Enterprise Service Bus and MessageWay
- Grid Support
- Provides level 1, 2 and 3 support for Grid applications and systems
- Includes Outage Management System & Computer Aided Dispatch, Energy Management System, Distribution SCADA, PI Historian and SAS

10.2.6 Salesforce Support

- Provides level 1 and 2 support for Salesforce communications channels
- Includes Customer chat & email

10.2.7 Field Mobility Support

- Provides level 1, 2 and 3 support for Field Mobility systems
- Includes Field Mobility application and associated integrations

10.2.8 Data Analytics

- Provides level 1, 2 and 3 support for Data Analytics systems
- Includes AMI Outage Reporting and BCP Storm Reporting

10.2.9 GIS Support

- Provides level 1, 2 and 3 support for GIS systems
- Includes GIS applications and associated integrations

10.2.10 AMI & Customer Facing Technology

- Provides level 1 and 2 support for AMI and Customer Facing Technologies
- Includes AMI/MDM and Customer Digital Channels

10.2.11 PSEG Corporate Systems

- Provides level 1, 2 and 3 support for Corporate Systems
- Includes E-Mail system and SAP

10.2.12 Logistics Event Support

- The IT Section supports the technology needs of PSEG Long Island employees when activated during restoration events. The IT Section will set up and support work locations and/or supplemental sites with IT equipment and/or resources, as necessary. The IT Section will work closely with the Logistics Section to respond to and support restoration IT needs.

10.3 OMS and Related Critical Systems Monitoring and Mitigation

In anticipation of storm events, PSEG Long Island Information Technology (IT) enacts its pre-storm checklist to ensure personnel availability, system and critical site readiness. A high level summary of these checks included:

- Establishing shift support and coverage for 24x7 infrastructure and application monitoring
- Performing critical system health checks for applications, networks, servers and databases leading up to and during the storm
- Reviewing and suspending all changes not related to storm
- Confirming 3rd party vendor support with proactive communication
- Verifying critical facility and datacenter power and generator status
- Setup of requested critical sites and Remote Dispatch Areas
- Establishing an incident management bridge for the duration of the event

Once all pre-storm checks are completed the IT teams transition to monitoring the critical applications and infrastructure throughout the storm event. Any high priority incidents that are detected or reported are triaged using IT's incident management process. This process includes:

- Ensuring the incident is logged and business impact is assessed appropriately
- Engaging the proper internal teams and vendors to triage and resolve the incident (vendor escalations are made as needed)
- Performing and capturing changes performed for resolution

- Communicating with business users and executive management to ensure proper awareness
- Closing the incident once proper resolution is validated

Given the critical nature of the OMS and the ancillary systems that support and interface to OMS, system monitoring and automatic error alerting is necessary on a day-to-day basis and this monitoring activity becomes even more important during high volume storm events. There are processes and tools in place to perform system monitoring, health checks, and automatic alerts for the OMS and its critical interfaces. As part of storm preparations, once notified, IT activates the enhanced storm monitoring procedure, performs health checks on a checklist of key items, and periodically reports results back to the business. If any of these health checks, or any other issues identified by Operations, IT, EP, etc., determine degraded performance or unavailability of customer facing channels to report power outages, the PSEG Long Island Customer Technology Team will activate alerts on the outage map banner and all other available customer communication channels with alternative methods to report and obtain outage information.

For additional details on IT's plans for monitoring mission critical systems and the associated notifications and communications, please see Section 9 – Restoration Contingency Plan Procedures.

For additional details on OMS protocols during restoration events, please see Section 7 – Outage Management System.

10.4 OMS Stress Testing

PSEG Long Island's Information Technology Team currently conducts performance and stress testing of the OMS and its related critical systems, in the test environment, when there are major changes to application functionality, integration, or underlying infrastructure changes as part of new initiatives such as: introducing Survey Damage Assessment (Field Mobility mobile application), High Availability, Integration with AMI Smart Meters, and new SCADA system.

PSEGLI IT OMS Support Manager with support from various line of business will design, plan, and execute an OMS stress test semi-annually prior to June 1st and December 1st, even if there are no system updates to be performed. The semi-annual basis OMS stress tests will stress the system to ensure that all OMS capabilities will handle an outage impacting 90% or more of customers in the Company's service territories over a 24 hour and a 12 hour duration based on TS Isaias levels which

encompasses a worst case scenario associated with an extraordinary high customer call volume. Components of the test shall simulate multiple scenarios concerning failure of IT systems and attempt to mitigate the system stress using recovery methods that limit the interaction with automated inputs. Within ten days of each test, PSEG LI Emergency Preparedness Manager will file a report with the DPS Director of the Office of Resilience and Emergency Preparedness, or designee that contains the detailed results that support a passing or failing grade. If the stress test fails, PSEG LI Emergency Preparedness Manager will notify the DPS Director of the Office of Resilience and Emergency Preparedness, or designee, within two weeks and produce a plan of action with measures that will be taken until such time as a permanent resolution to the root cause(s) has been implemented. With each test failure, the Companies will provide a rescheduled test date within 30 days from the initial test.

10.5 Critical Call Center Applications

PSEG LI IT Product Manager in conjunction with Call Center Management, will plan and execute a semi-annual capacity test for critical call center and related back-up call center functions including phone line, IVR and HVCA components. Within ten days of each test, the PSEG LI Emergency Preparedness Manager will file a report with the DPS Director of the Office of Resilience and Emergency Preparedness, or designee, that contains the detailed results that support whether the success criteria has been met. If the success criteria is not met, the PSEG LI Emergency Preparedness Manager will notify the DPS Director of the Office of Resilience and Emergency Preparedness, or designee, within ten days and produce a plan of action with measures that will be taken until such time as a permanent resolution to the root cause(s) has been implemented. With each test failure, the Companies will provide a rescheduled test date within 30 days from the initial test. Call Center Director, or designee will also notify the DPS Director of the Office of Resilience and Emergency Preparedness, or designee of any call center impacts during storm events.

11. SAFETY, HEALTH, AND ENVIRONMENTAL (SHE) PROTOCOLS

11.1 Overview

The safety of employees, contractors, emergency responders, and the public is of the upmost importance to PSEG Long Island, each and every day. Large-scale outage events and emergencies, however, even further heighten the company's focus on safety. This is driven by the need to address increased personnel levels supporting restoration efforts in sometimes non-traditional roles, unique and hazardous working conditions, public exposure to hazardous conditions (i.e., downed wires, storm debris, oil spills, etc.), and mutual assistance resources unfamiliar with PSEG Long Island's service territory.

During major events, PSEG Long Island's Compliance Manager – Utility Health and Safety is assigned to serve as the SHE Officer and reports directly to the Incident Commander during emergency activations. The Company's safety response includes a multitude of safety professionals and safety advocates with varying roles. PSEG Long Island's SHE Unit is broken up into the three main areas of concentration:

- Safety
- Health
- Environmental

Each of these segment areas perform vital roles during restoration operations with specific preparatory and response actions. The details below highlight the actions taken by PSEG Long Island SHE personnel during restoration operations.

11.2 Safety

The safety of our employees is of the upmost importance during restoration operations. PSEG Long Island's safety professionals are responsible for assessing, coordinating, and managing the various safety conditions faced by Company employees and support personnel upon activation of restoration operations. PSEG Long Island safety professionals aim to anticipate and identify potential problems, rather than simply react to existing ones. They utilize a variety of tools and initiatives to better prepare all employees and support personnel before, during, and immediately following an emergency activation.

PSEG Long Island's safety response initiatives include, but are not limited to, the following:

- Support and guidance
- Safety briefings and communications (internal)
- Safety communications before, during, and after a storm (external)
- Safety education, training, and exercises
- Personal Protective Equipment (PPE) distribution
- Pre-storm safety planning and equipment staging
- Site safety plan development
- Site surveys and evaluations
- Incident reporting and tracking
- Assessments of hazardous and unsafe conditions
- Monitoring and enforcement
- Investigation and management of accidents
- Support local, state, and federal agencies regarding safety incidents

These important initiatives assist in ensuring safe work practices are conducted at all PSEG Long Island work locations, including operations centers, staging areas, crew housing facilities, fueling locations, and Foreign Crew reception site. Additional safety resources may be assigned to work locations throughout the duration of the storm restoration process, depending on the scale and severity of the event.

The communication of safety initiatives and messaging is an important aspect of restoration activities. Safety communications begin pre-event, and continue throughout the response and recovery phases of the emergency. Safety communications include companywide initiatives, restoration focused plans, and/or daily briefings. Safety related communications are also modified to address any specific concerns that may arise, including event developments, incident trends, and public safety concerns.

Foreign Crews working with PSEG Long Island during restoration operations receive additional safety information, due to their unfamiliarity with the company, its systems, equipment, and landscape. All Foreign Crew supervision receive safety briefings delivered by PSEG Long Island Safety Coordinators, upon arrival to the territory. Additionally, all Foreign Crew personnel are provided a safety briefing before leaving the staging area and upon re-entry, as warranted.

All incidents, including accidents, near misses, and personnel injuries to the public, employees, contractors, and foreign restoration crews are reported, investigated, and tracked. All incidents are addressed, in accordance with the appropriate PSEG Long Island safety procedures, as well as state and federal guidelines. Incident summaries are reported to PSEG Long Island's senior leadership team during regular briefings and are communicated across the restoration organization through daily safety messages.

PSEG Long Island safety professionals, along with Contractor and Foreign Crew safety personnel, participate in daily status calls and/or planning meetings throughout restoration operations, as appropriate. Additional safety protocols and work practices pertaining to mutual assistance crews can be found in Appendix G, Section 3.

11.3 Health

The Occupational Health Coordinator is responsible for the development and implementation of recommended measures assuring employee health, as well as to assess and/or anticipate hazardous and unhealthy conditions to PSEG Long Island employees and support personnel. They are the primary point of contact for local, state, and federal agency matters related to health concerns and conditions.

The Occupational Health Unit provides medical services for locations used for housing, feeding, or staging of large numbers of crews, as required. Additionally, all staging sites and lodging sites are equipped with fire extinguishers and first aid and eyewash kits.

The Occupational Health Coordinator investigates, documents, and addresses any reported health concern with the appropriate party and/or agency. Health related issues are also reviewed and discussed daily, as applicable, during storm update calls.

11.3.1 COVID-19 Protocols

In response to COVID-19, additional plans and procedures were put in place by PSEG Long Island to protect the safety of our employees, contractors and the general public during storms and/or other large scale events. PSEG Long Island Health and Safety Teams, along with Emergency Preparedness Staff worked with storm process owners to implement COVID-19 enhancements into processes with increased risk of COVID-19. Additional details on COVID-19 plans and procedures during a storm and/or other large scale events can be found within Chapter 15 – Logistics.

The PSEG Long Island Health Organization, in conjunction with the Safety Organization oversee COVID-19 preparations, protocols and response plans.

11.4 Environmental

The Environmental Response Coordinator is responsible for the coordination and oversight of environmental operations for all PSEG Long Island personnel and support staff, along with company facilities and planned work locations. They are the primary point of contact for local, state, and federal agency matters relating to environmental issues and ensure compliance with mandated regulations.

PSEG Long Island takes a proactive approach regarding environmental safety by communicating with environmental contractors and vendors, pre-storm, to ensure availability with anticipated restoration activities. Environmental site plans and services (i.e., spill response, clean-up, material handling, waste disposal, etc.) are pre-established and environmental kits are distributed, pre-storm, to all staging sites in the event an incident occurs.

The Environmental Response Coordinator and staff will investigate, document, and address any reported environmental incident or potential occurrence with the appropriate party and/or agency. Environmental related issues are also reviewed and discussed daily, if applicable, during storm update calls.

12. LEGAL PROTOCOLS

12.1 Overall Approach and General Strategies

The primary function of the Legal Section is to provide legal guidance and support to the Incident Commander and staff, as well as ensuring all plans, policies, procedures and directives are consistent with Federal, State, and Local law. The Legal Section assists with compliance agreements and protocols, including mutual assistance arrangements with Edison Electric Institute (EEI) partner utilities and external agencies. The Legal Section also coordinates emergency legal requests with Federal, State, and Local officials and works closely with the Documentation Unit of the Planning Section to ensure all records are maintained in accordance with all applicable laws and regulations. Finally, the Legal Officer advises on, and ensures compliance with, 16 NYCRR Rules and Regulations of the PSC.

12.2 Emergency Orders and/or Actions

The Legal Section oversees emergency orders and/or actions pertaining to PSEG Long Island protocols utilized during restoration operations. The Legal Section may also issue emergency briefs in support of planned restoration actions.

12.2.1 Coordination

The Legal Section oversees all legal matters as they pertain to Federal, State, and Local laws and regulations. The Legal Section reviews and advises the Incident Commander and staff on the potential legal implications of proposed restoration plans.

The Legal Section also serves as the coordinating unit between Federal, State, and Local authorities, including NYS DPS and Public Service entities. The Legal Section assists with coordinating restoration plans where Federal, State, and Local laws and regulations may delay restoration plans. For example, the Legal Section may assist with NYS mandated travel restrictions during storm events, potential road closures and/or emergency requests.

12.2.2 Documentation Processes and Protocols

The Legal Section oversees the documentation processes utilized during restoration operations to ensure record keeping compliance in accordance with Federal, State, and Local rules and regulations. The Legal Section provides FEMA compliant language for inclusion in all relevant restoration contracts and assists with review of procurement and contract administration protocols to ensure adherence with FEMA guidelines.

12.3 Office of Government Funds Compliance

The Office of Government Funds Compliance (OGFC) initiates FEMA compliant storm services contracts as needed during storm events and performs quality assurance reviews to monitor and ensure that all relevant supporting documentation for storm expenditures is requested, obtained, and verified both during and after storm events. Additionally, OGFC issues Notices to Proceed (NTPs) activating FEMA compliant storm services contracts, tracks storm contract Purchase Orders (POs) and contract balances, and responds to internal and external inquiries concerning contract requirements and procedural protocols.

13. LIAISON PROTOCOLS

13.1 Overall Approach and General Strategies

13.1.1 Elected Officials and Municipalities

The External Affairs team maintains close relationships with elected officials, municipal leaders, and public safety officials throughout the year, as a means to familiarize them with PSEG Long Island's restoration protocols to better prepare them for interacting with PSEG Long Island during storms and other emergencies. When storms or other threats are approaching the Long Island and the Rockaways, the External Affairs team and support staff will proactively reach out to assigned public officials at all levels by phone, e-mail, text, and the NY Alert system. They coordinate Municipal calls to convey key information, arrange on-site support at EOCs by PSEG Long Island Liaisons, provide remote support for all additional municipalities, and continue to provide two-way communications before, during, and after the event. In addition, restoration/ETR strategy updates that the Liaison organization provides to municipal officials enables external agencies to respond to inquiries and concerns from residents in their jurisdiction.

The Liaison organization including District Managers, and EOC and Municipal Liaisons, receives inbound notifications and inquiries from public officials and their support staff via phone call, text and email in their assigned jurisdiction, and provides outbound updates that allow the officials to provide valuable and important information to their local communities and constituents. All communications are tracked in a Municipal Call Log, covered in section 13.4.1 below.

13.2 Liaison Officer

The Liaison Officer is responsible for communicating the status of PSEG Long Island's storm preparation and/or emergency response efforts with external government, public service, and public safety stakeholders. In addition, the Liaison Officer coordinates the efforts of the District Managers and the EOC and Municipal Liaisons to meet the dynamic and evolving needs of elected officials and municipal leaders across the service territory.

The Municipal Outreach objectives are as follows:

- Communicating and coordinating with municipal and government officials through regular conference calls and/or personal calls prior to and throughout an event. Incoming requests made to the Liaison Officer will be forwarded to the dedicated District Manager in that area, who will follow up on the issue and track it accordingly

- Ensuring that municipalities have relevant emergency preparedness and recovery information before potential emergency events
- Providing information related to storm anticipatory actions, as well as system storm damage and assessment progress, restoration status updates, manpower assignments, and ETRs
- Coordinating issues escalated by municipal officials or elected leaders
- Sending liaisons to the state, county, town, and village EOC, when requested by the municipality, to provide a means of open communication to resolve concerns

13.3 District Managers

Elected officials and municipal leaders are instrumental in communicating local damage conditions sustained in severe storms or emergency events and identifying priorities for recovery and restoration efforts in their jurisdiction. PSEG Long Island District Managers perform a vital role at the electric utility by working with the elected officials, municipal leaders and staff, and their constituencies, both before, during, and after an event.

District Managers are a key interface between PSEG Long Island personnel, local officials, municipal leaders, and their staffs during restoration operations. District Managers are assigned to each of PSEG Long Island's operating divisions and serve as the main point of contact during both "blue sky" and restoration events. Performing the same assignment during all operational conditions provides a consistent and dedicated point of contact for local officials and their personnel. District Managers may receive requests from local officials to address Make Safe to Clear (MSTC) locations, in addition to those directly reported through the Municipal Portal. Our crews will clear and de-energize power lines to make the area safe for tree and debris removal through our MSTC protocols and procedures in coordination with the System Make Safe to Clear Specialist. PSEG Long Island crews may occasionally work directly with Town/County public works and highway departments when deemed necessary. District Managers establish two-way communications between PSEG Long Island and elected officials and municipal leaders to ensure the delivery of accurate and timely messages, reports, and updates. Tailored messages are sent out following all press releases, as well as direct communication via phone, text and email.

District Managers also communicate with EOC and Municipal Liaisons in their division if an incident arises that needs their attention. They may reach out to Console Information Coordinators (CICs) in each division who can provide status updates on outstanding work and prioritize the restoration of escalated outage jobs. Please refer to Section 14.9 for more information regarding escalation prioritization.

13.4 Liaison Section

13.4.1 Overview

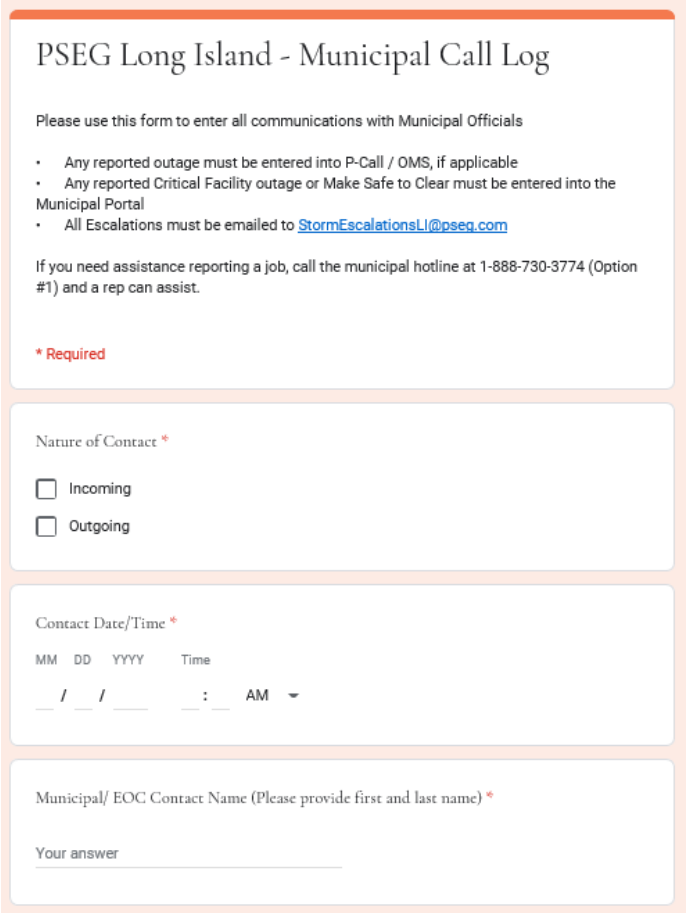
To support the District Managers and foster enhanced direct localized communication, the Liaison Officer directs the deployment of a team of Municipal and EOC Liaisons. Liaison Officer support staff notifies all Liaisons and confirms their assigned jurisdiction. These Liaisons work with local government stakeholders across the island to provide access and support for municipal leaders during major emergency events. This includes direct phone contact availability to the Liaison or a presence at local EOCs at the town and the municipality (if opened and staffing requests village level). Please refer to Appendix F for additional information on EOC and municipalities served.

In partnership with the External Affairs District Managers, Municipal Liaisons and EOC Liaisons are deployed as another resource for government officials to contact during an emergency event. The goal is to nurture strong working relationships, provide consistent communication channels, and to establish a clear understanding of local needs and priorities, including critical facility and critical road prioritization, during an emergency event.

The Liaison is responsible for establishing and maintaining contact with assigned elected officials throughout an emergency event. In addition to tailored press releases sent to all municipal officials by email, the preferred method of contact via phone call, text or email for each official is utilized in order to maintain direct communication. The Liaison provides timely and accurate status updates, facilitates coordination of issues with the appropriate internal departments on behalf of the municipality, raises awareness to escalated issues, communicates with internal employees, and supports various other responsibilities.

Municipal and EOC Liaisons are able to work in any of the municipalities throughout the territory, enabling full coverage of all districts. They are trained annually on, and have access to, OMS and SAS reports to view all jobs pending, assigned, dispatched, and completed within their assigned village, town, or county. Among other information, SAS reports are designed to support various municipal requests and filter data by specific county, town, or village to provide visibility to critical facility and LSE customer outages. All requests from local municipalities or the EOCs are entered into an internally maintained municipal call log and processed in conjunction with the District Managers. The Municipal Call Log is a shared document that serves to track and monitor issues reported by municipal officials (see Figure 131), including outbound and incoming communications. Liaisons and District Managers are able to review incidents reported in their division, avoid duplication of effort, and ensure issues are tracked and

resolved to completion. All applications needed during storms are located on the Municipal Dashboard. Liaisons are trained yearly on accessing and utilizing these applications.


PSEG Long Island - Municipal Call Log

Please use this form to enter all communications with Municipal Officials

- Any reported outage must be entered into P-Call / OMS, if applicable
- Any reported Critical Facility outage or Make Safe to Clear must be entered into the Municipal Portal
- All Escalations must be emailed to StormEscalationsLI@pseg.com

If you need assistance reporting a job, call the municipal hotline at 1-888-730-3774 (Option #1) and a rep can assist.

* Required

Nature of Contact *

Incoming

Outgoing

Contact Date/Time *

MM DD YYYY Time

/ / : AM

Municipal/ EOC Contact Name (Please provide first and last name) *

Your answer

Figure 13.1 Municipal Call Log Application

13.4.2 Municipal and EOC Liaisons

The Municipal and EOC Liaisons are responsible for:

- Communicating with assigned local officials on behalf of PSEG Long Island
  - Verifying storm assignment location with Liaison Support and District Manager (i.e., EOCs, normal work location, and/or division)
  - Proactively reaching out to all assigned municipal contacts, before the storm and routinely during the storm, with any relevant updates via phone call, text and email
  - Answering phone calls/texts/emails and addressing escalated issues from elected officials, EOC officials, and/or District Manager
- Entering escalated outage/make safe to clear jobs in the OMS or Municipal Portal that are not already entered
  - Requesting escalation of critical incidents when deemed necessary through the Escalation Processing Team based on status of restoration strategy and type of account (see Section 14.9, “Escalation Coordination”)
- Monitoring the Municipal Portal and escalated incidents in OMS for their assigned jurisdiction with support from the CICs and Escalation Team
  - Providing feedback by phone call. text or email as requested to any municipal contacts when requested on the following:
    - Information and escalation of downed wires
    - Information and escalation of critical facilities or LSE customer emergencies
    - High level manpower staffing
    - Jobs pending, assigned, dispatched, and completed, in addition to projected ETRs aligned with the work plan
    - Restoration status and priorities
    - Job details, including circuit information and incident boundaries

13.4.2.1 Emergency Operations Center (EOC) Liaisons

Depending upon the severity of an event and the needs of the various municipalities across the service territory, EOC Liaisons may be deployed directly to town, county, city, and/or state EOCs (when opened and staffing is requested) by the Liaison Officer or Emergency Preparedness EOC Leads. EOC Liaisons work with municipal officials to provide support and local access to outage information, crew assignments, restoration prioritization, and ETRs for each locality. EOC report outs are given by the Liaisons via the requested application (email, E-Team, Microsoft Teams, etc.) and reporting cycle timing specific to each municipality. EOC Liaisons will also report out

on any PSEG Long Island community outreach locations activated for dry ice distribution (see Section 14.4.4). These sites may be at existing PSEG Long Island customer walk-in centers, or in community centers where extensive outages have occurred.

The EOC Liaison acts as the interface between town, county, city, or state EOCs and PSEG Long Island personnel providing two-way communications of status updates and situational awareness. Additionally, EOC Liaisons may coordinate PSEG Long Island requests for assistance, resources, and/or actions with the appropriate agency liaison assigned to the EOC (i.e., NYS Division of Homeland Security & Emergency Services (DHSES), NYS Department of Transportation (DOT), County and State Police Departments, Department of Public Works (DPW), and Fire Rescue Emergency Services Organizations) through the shared EOC application or direct contact with the agency when directed by the Liaison Officer or Emergency Preparedness EOC Leads. EOC Liaisons may reach out to the District Managers and/or CICs in the divisions in order to facilitate escalations and obtain operational updates.

EOC Liaisons are responsible for providing PSEG Long Island restoration status updates at regular intervals throughout the day, both by updating EOC software and/or applications (i.e., E-Team) and during daily EOC report out sessions. EOC Liaison also assist with escalations and/or other critical outages brought to them by EOC staff. Moreover, EOC Liaisons assist with coordinating LSE well visits between PSEG Long Island and first responders/health care organizations and report back to the LSE Team. Lists of LSE customers without power are sent directly to the EOC Liaisons, who directs it to the established contact at the EOC for wellness checks. They will return any status updates back to the PSEG Long Island LSE Lead.

13.4.3 EOC Leads

PSEG Long Island also utilizes EOC Leads to assist State, County and City emergency management personnel during restoration events. PSEG Long Island Emergency Preparedness (EP) Coordinators serve as EOC Leads during events due to their blue-sky role and relationships with State, County and City emergency management organizations. In anticipation of an event, EOC Leads will reach out to their dedicated emergency management contacts pre-storm and provide details regarding mobilization efforts and anticipated restoration plans. EOC Leads remain in contact with OEM personnel throughout the duration of event as per established cycle of storm calls and email notifications, with the goal of assisting with coordination efforts, escalations, road clearing issues, etc. EOC Leads also support and coordinate efforts in conjunction with OEM Staff and EOC Liaisons on plans surrounding LSE operations and outreach plans.

13.5 Coordination with Elected Officials and Municipalities

13.5.1 Municipal Contacts

The External Affairs District Managers and support staff maintain a complete list of key contacts and alternate contacts for all elected officials for local, county, and state authorities across the service territory. In addition, the External Affairs support staff maintains a list of key contacts for Human Services Agencies with which PSEG Long Island maintains and fosters relationships throughout the year. The elected officials and Human Services Agency lists are utilized throughout the year by the External Affairs team for day-to-day interactions with these stakeholders. Semi-annually, in January and June, the contact lists are reviewed and updated internally by the External Affairs District Managers and then again in coordination with local Municipal Officials. District Managers are in contact with municipal officials throughout the year and report any changes in contact names or data. Full lists are included in Appendix F – Key Contacts. Coordination with the State, Counties, City and Local Municipalities

PSEG Long Island EP Coordinators meet with state, county, and NYC OEM representatives, semi-annually, to review restoration plans, procedures, critical facility lists, contact information, critical roads, dry ice distribution locations, and other key priorities (at least once per year in person or zoom call as per pandemic protocols; the others may be via telephone, etc.). Similarly, Emergency Planning and External Affairs are in contact with all municipalities, and meet with town officials semi-annually (at least once per year in person; the others may be via telephone, etc.) to review restoration plans, procedures, contact information, and key priorities for their jurisdiction. Associated villages are extended an invitation to these meetings as well by their dedicated District Manager. Acceptance and participation in these meetings is tracked by External Affairs support staff. EP Coordinators and External Affairs will then coordinate with the Major Accounts Consultant responsible for that segment (NYC, Town government, etc.) regarding any changes or additions to the critical facility lists that result from these meetings to ensure these accounts are properly coded. Critical facility lists are published yearly in the ERP (see Appendix D) and the most current list is readily available to municipal officials in the Municipal Portal. All Critical Facility locations are found in the Municipal Portal, in map and list form, for their territory, and are available 24/7 blue sky day to municipal officials.

Municipal Portal training is offered periodically throughout the year and provided to municipal officials at the county, city, town and village level. External Affairs proactively reaches out to the municipalities be email or direct contact. Acceptance and participation in training delivered by the External Affairs team is tracked by their team.

EP Coordinators are also dedicated to each OEM location in their blue-sky role and provide another level of contact during storms. EP Coordinators maintain constant communication with each EOC, throughout the event, via storm call, direct phone, e-mail, text, or 24/7 emergency pager, to ensure all concerns are being addressed, including prioritization for critical facilities, critical care and vulnerable customers, or crucial road clearance issues. These municipal priorities will be addressed through the escalation process and brought to Operations as requested priorities to include in their daily work plan. During large-scale events, roadway priorities and daily prioritization of critical facilities are coordinated with county officials through the EP Coordinators. On a daily basis during these events, they will reach out to each EOC by 4PM, via phone call or e-mail, as per the municipality's preference, to review any outstanding critical facility outages and request prioritization of these locations by the OEM officials. EP Coordinators will provide feedback from Operations and identify if these facilities are able to be restored that day, through day/overnight crews, or if they will be part of the next day's work plan. Storm notifications are saved to each storm file.

13.5.2 Tropical Storm Isaias – Remedial Actions

As a result of Tropical Storm Isaias, NYS DPS issued remedial actions requiring immediate attention, including activities supporting EOC Coordination. With that, PSEG Long Island created individual plans for New York City, Nassau County and Suffolk County with the goal of improving current coordination plans. Enhancement plans were provided to each jurisdiction with details surrounding improvements to EOC coordination tailored to each County/City. Enhancements include modifications to EOC staffing, road clearing efforts and improvements in communications/coordination plans. PSEG Long Island worked with each County and New York City to ensure an agreed upon plan was developed, for efforts going forward. PSEG Long Island Emergency Preparedness Staff remains engaged with County and City OEM officials on process improvement initiatives surrounding EOC coordination and other areas of restoration operations. To that point, EP Coordinators have begun hosting monthly meetings with County and City OEM staff to review areas for improvement, refine plans and build upon the collaboration between organizations. For additional information regarding the following, please see the listed sections:

- Escalation Coordination (see Section 14.9)
- Critical facility outages and priorities (see Section 14.6.2)
- Municipal Portal (see Section 14.7)
- Make Safe to Clear (see Section 15.1.4)

13.6 Municipal Calls

The Liaison Organization structures municipal calls and outreach to all municipal contacts. At the beginning of the storm, liaisons provide their contact information and request the preferred method of contact for each municipal official. The time schedule of proactive contact varies depending on the timing and extent of weather and damage to the system. During storm events that are expected to last longer than 48 hours, a municipal call will be held within the first 24 hours. The President and COO of PSEG Long Island will consult with the Liaison Officer on the need for island wide and regional calls, and the Liaison Officer support staff will send out invitations via phone call and email to the scheduled Municipal calls through the NY-Alert system. For storms where we experience significant multi-day outages, calls will take place on a daily basis until 90% of customers are restored. Regional calls will be arranged during events with significant multi day outages impacting a specific region. The President and COO of PSEG Long Island. Liaison Officer, District Managers as well as Operations and Communications Leads, provide municipal leaders, elected officials, and their emergency and/or operation leads with appropriate information related to the PSEG Long Island restoration plan and status, as well as particular incidents that have impacted the electric system within the PSEG Long Island service territory. Information is collated from Operations, Emergency Preparedness and the Communications senior leadership by the Liaison Officer support staff. This may include updates on damage sustained, hard hit areas, key actions and priorities, next steps in the restoration process, outage summaries, key restoration milestones achieved, outages affecting critical facilities or critical infrastructure, and operational objectives for the following day. Information on restoration strategy for customers that are still out will be provided in order for municipal officials to provide feedback to customers in their jurisdiction.

Municipal calls also serve as a mechanism to advise local leaders of additional actions taken by PSEG Long Island, in support of restoration events, including the opening of Community Outreach Centers, dry ice/water distribution plans, or any relevant information deemed necessary for the emergency event. During municipal calls, PSEG Long Island encourages municipal officials to report specific issues to their assigned District Managers, Municipal Liaisons, or through the Municipal Hotline. PSEG Long Island maintains an internal procedural document (ERIP-LIA-001) that provides additional detail on municipal calls, as well as the associated responsibilities and agenda items. Please refer to Figure 11.2 for a listing of agenda items.

Participants are notified by the Liaison Officer support staff of the calls through the New York Alert system (see Figure 13.3) by phone call and email, and participant lists are updated semi-annually throughout the year. These calls utilize an audio conference system, West Unified Communication Services (Intrado), as the platform

for the municipalities to gain access to the call. This operator-assisted system also has a moderator-supported feature, with line muting capabilities, to be used to facilitate the question and answer period of the call (if utilized) and to track call participation.

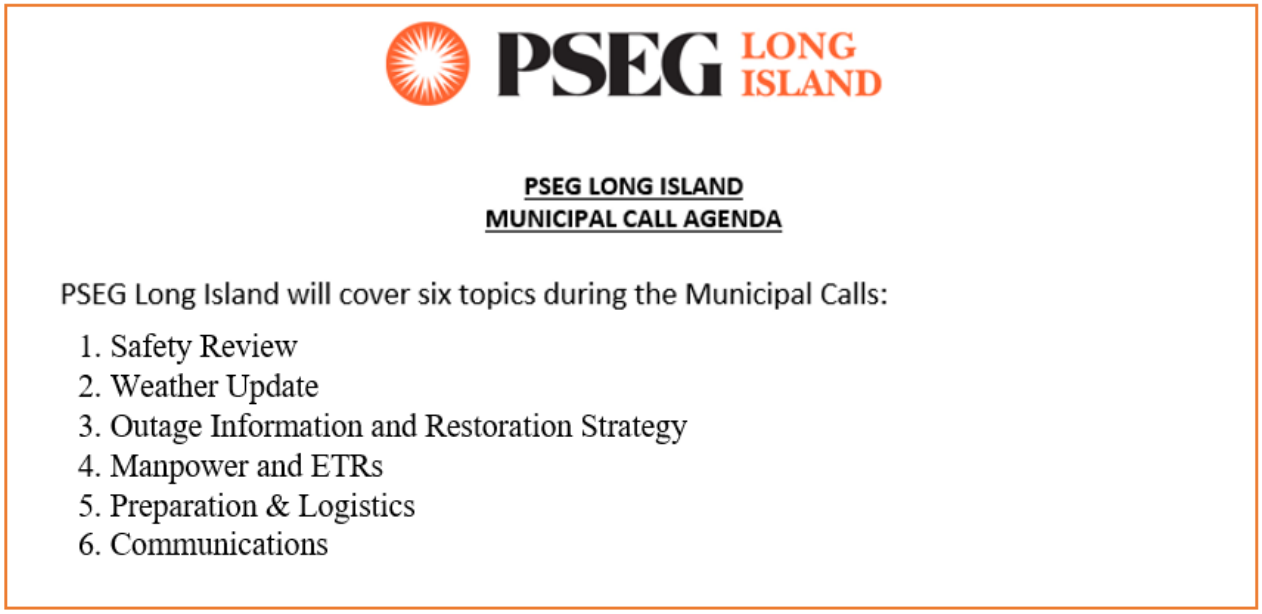
In addition to Municipal Calls, District Managers and Municipal Liaisons reach out across other channels (e-mail, phone, and text), based on preferences expressed by municipal leaders and elected officials. Municipal leaders and elected officials are provided with proper venues to obtain information or report issues (i.e., District Managers, Municipal Liaisons, Municipal Hotline, Municipal Portal, PSEG Long Island outage map, social media channels, etc.). At the end of each call, attendees are instructed to reach out directly to their District Managers to report specific issues, leaving the municipal calls to serve as brief updates for the affected area(s) as a whole.

Municipal Update Calls focus on, but are not limited to the following requirements:

- Prior to an event, ensuring that municipalities have relevant emergency preparedness information related to storm anticipatory actions
- Communicating key localized and area-wide outage information and coordinating with affected municipal and government participants
- During and following an event, ensuring that municipal leaders and elected officials have relevant recovery information to educate their constituents and respond to their inquiries
- Providing any details available from Operations on hardest hit areas and what customers can expect who are still without power
- Providing information on system storm damage and assessment progress, restoration status updates, manpower assignments, and ETRs at global and localized levels
- Providing information surrounding the activation of Community Outreach Centers, if applicable
- Providing information on the plan(s) for distribution of dry ice and/or bottled water, if applicable

During the advanced planning period before an event, Island-wide Municipal calls will include government officials from across the service area (Rockaways, Nassau, and Suffolk). As the event or storm occurs and passes, localized damages are surveyed and identified. At that stage, conference calls are migrated away from a centralized call across Long Island to four separate divisionally based calls (Queens/Nassau, Central Nassau, Western Suffolk, and Eastern Suffolk) to provide more focused and meaningful local updates to officials so they can better interact with constituents by providing ever-increasing levels of geographically specific information. These calls also use the operator-assisted system mentioned previously.

These calls are co-hosted by the District Manager from each affected division and the corresponding Distribution Operations Manager, in order to be able to address both politically sensitive and operational issues.



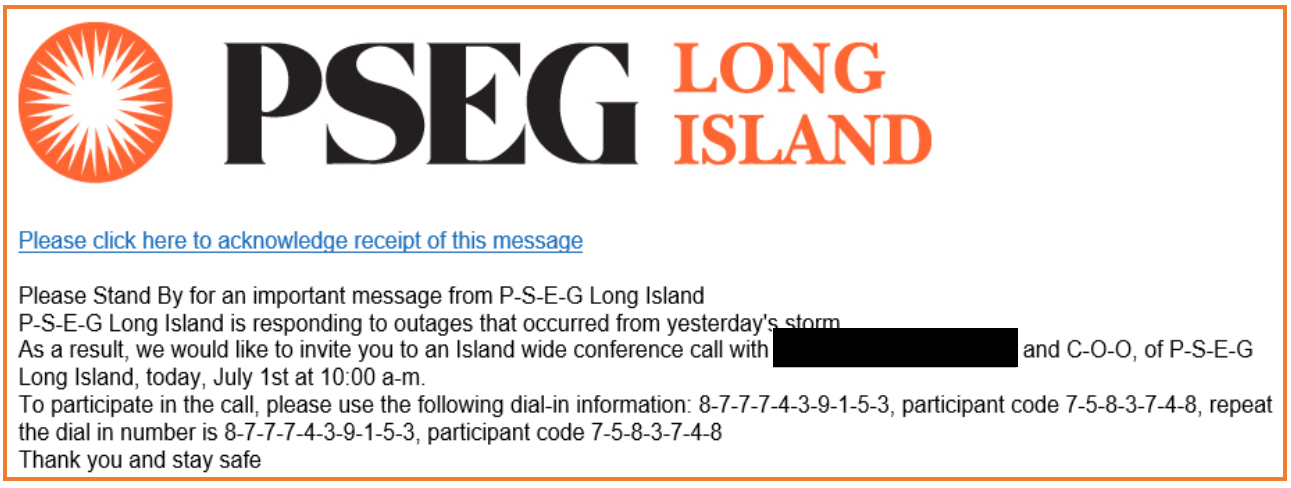
PSEG LONG ISLAND

PSEG LONG ISLAND
MUNICIPAL CALL AGENDA

PSEG Long Island will cover six topics during the Municipal Calls:

1. Safety Review
2. Weather Update
3. Outage Information and Restoration Strategy
4. Manpower and ETRs
5. Preparation & Logistics
6. Communications

Figure 13.2 – Sample Municipal Call Agenda



PSEG LONG ISLAND

Please click here to acknowledge receipt of this message

Please Stand By for an important message from P-S-E-G Long Island
P-S-E-G Long Island is responding to outages that occurred from yesterday's storm.
As a result, we would like to invite you to an Island wide conference call with [redacted] and C-O-O, of P-S-E-G Long Island, today, July 1st at 10:00 a-m.
To participate in the call, please use the following dial-in information: 8-7-7-7-4-3-9-1-5-3, participant code 7-5-8-3-7-4-8, repeat the dial in number is 8-7-7-7-4-3-9-1-5-3, participant code 7-5-8-3-7-4-8
Thank you and stay safe

Figure 13.3 – Sample Municipal Call Invitation

13.7 Escalation Processing and the Municipalities

The District Managers and Liaisons assist municipalities in tracking outages affecting Critical Facilities in their area, as well as MSTC conditions blocking municipal roads that require the utility to clear the area and make it safe for the towns to remove debris. They also coordinate with the CICs and Escalation Processing team to track outage and emergency incidents, provide restoration status updates, and escalate certain incidents, when deemed necessary. Additional information regarding Escalation Coordination protocols can be found in Section 14.9.

PSEG Long Island's Municipal Portal is a tool that is utilized to track and provide restoration status information to governmental leaders and elected officials during PSEG Long Island's restoration events. The Portal allows municipalities to directly input tickets into the Portal online, and at the same time, create a ticket in the OMS. Job status updates may also be received after entering incidents through the Portal. The Portal also allows the PSEG Long Island escalation team to track and help prioritize these critical incidents. Additional information regarding Municipal Portal protocols can be found in Section 14.7.

The Escalation Tracker, if needed, is an additional tool used internally to assist in tracking MSTC and escalated outages. Additional information regarding Escalation Tracker protocols can be found in Section 14.8.

14. COMMUNICATIONS PROTOCOLS

14.1 Overall Approach and General Strategies

The Communications Protocols section provides a summary of communications related plans and actions that are put in place when responding to storm events with dynamic and often unpredictable circumstances and situations. Other events may also negatively affect electric service to customers, across Long Island and the Rockaways, before or during restoration events.

In recent years, customer expectations have continued to evolve with respect to accessibility to information regarding storm response and associated restoration activities. In addition, customers have provided feedback regarding the mediums through which they desire to communicate and receive information. It has become increasingly important that thorough and comprehensive communications protocols be in place to meet the expectations of customers, elected officials, regulators, employees, local emergency response organizations, and other key stakeholder groups.

PSEG Long Island's Communications Plan ensures that its customers and key stakeholders receive storm preparation and restoration information necessary to properly prepare for anticipated storms. It also conveys information associated with local emergency response efforts utilized when recovering from emergencies. During the event, communications will be tailored to those customers that are still without power, with helpful information on restoration strategy, so customers understand where their outage stands in the restoration process.

Numerous communication vehicles are deployed across various channels, in advance of, and during storm events and other system emergencies, as a means to provide timely, accurate, and relevant information. See Section 9, "Restoration Contingency Plan" for strategies employed if technology issues arise.

In addition, PSEG Long Island utilizes platforms such as bill inserts, the website, periodic mailings, e-mail, and community outreach programs to educate and better prepare customers and key stakeholders for potential power outages, area flooding, and evacuation throughout the year, as a means of providing critical ongoing education and information.

Prior to a forecasted event, PSEG Long Island conducts communication outreach to stakeholders such as municipal leaders, emergency planning and first responder organizations, residential and commercial customers, local media, news agencies, and the general public.

With input from the Operations team from the Storm Strategy call, the Public Information Officer (PIO) conducts a Communications team conference call to consider the expected impacts of an approaching storm to develop a storm communications strategy, and tailor outbound messages based on the types and degree of damage that may occur. The members of the team include Corporate Communications Manager, Liaison Officer/Liaison Officer Support, Customer Assistance Manager, Customer Care and Community Outreach Manager, Escalation Manager, Lead Console Information Coordinator, Escalation Processing Coordinator, LSE Coordinator, and Major Accounts Coordinator. These storm organizations utilize many communication channels to encourage stakeholders to prepare for the storm, mitigate and respond to the impacts of power outages, and return to normal conditions as quickly and safely as possible.

During a storm, the Communications team actively monitors storm conditions, potential and actual damage, road closures, and evacuation orders (see areas of responsibility in sections below). They manage and track outages that directly affect LSE customers, Critical Facilities, and Managed Accounts. Assigned teams reach out to these affected customers to confirm their safety and restoration status. They develop and share information on damage assessments and set expectations relative to predicted outage durations and restoration times.

Following a storm or emergency event that causes extended power outages, it is important that consistent and useful information be provided as widely and quickly as possible to allow customers to make informed decisions. Messaging developed by Corporate Communications is approved by the Public Information Officer, Corporate Communications Manager and Escalation Manager. An additional layer of review by the Escalation Manager will ensure that consistent, accurate, and timely information is shared across a broad range of platforms and communication channels, including press releases, e-mails, text messages, phone calls, and/or on social media and the company website to ensure communications are accessible to all customers. Issuance and dissemination of press releases will be timed to coincide with local news cycles. Additional pertinent information may be disseminated through a press release by Corporate Communications, outside of the established cycle, when conditions warrant.

The Communications team also maintains contact with customers and the general public, health and human service agencies, the media, the DPS, the State Emergency Management Office, and other state agencies, county and local governments, public and private emergency response services, law enforcement agencies, and the Long Island Power Authority (LIPA) officials.

14.2 Plan Methodology and Activation Descriptions

In the event of a large-scale electric service interruption, the Communications Protocols offer key activity and role level details to be followed throughout Long Island and the Rockaways' service territory. To be effective, it is vital that all elements of the plan be thoroughly understood by participating employees. This is accomplished through continuous training and regularly scheduled review sessions, and is validated via scenario-based drills and exercises.

The Communications outreach effort is scalable and customizable, based on conditions experienced. During outage events, the Communications team continuously evaluates the status of weather, the electric grid system, outages and downed wires, blocked or restricted roadways, public feedback and other useful data that will be valuable to employees, the public, municipal leaders, elected officials, public service, and emergency response teams. Efforts are focused on ensuring access to the most up-to-date and complete information available, with a key goal of being consistent in messaging and information provided.

14.2.1 Communications Team Planning and Coordination

With the guidance of, and in coordination with the Incident Commander, the PIO convenes a meeting of the Communications team leaders once a Storm Strategy call is scheduled to brief them on the current situation and potential threats to the system. The team establishes a strategy for handling the current situation and forecasted risks of damage. Assignments are made and documented on a Storm Communications Matrix, listing each area of responsibility, which is updated, revised, and augmented as an event progresses, from the early warning stages through full customer restoration. All storm assignments are generated by the Resource Coordination Unit Leader (Planning Section), and any position changes during a storm are filtered through this position as well.

The communication planning process includes a Communications Team call before each storm call, and is repeated and revised, at least daily (if not more often), beginning up to 96 hours ahead of an approaching storm, and throughout the event, in order to provide prompt, consistent, and useful updates and information to all constituencies across all channels previously noted. Figure 14.1 shows an example of a typical Pre-Storm Communications Planning Matrix. Once a press release is issued, it is forwarded to the communications organizations in the matrix, who will tailor the message to the platform and customer type it is being delivered to. All storm communication files are saved in the organization's storm "X" files.

COMMUNICATION CHANNEL	MEDIUM	MESSAGE OWNER	MESSAGE/NOTES/ETC.
MEDIA / PRESS			
Press Release	e-Blast to targeted media Posted on PSEGLINY.com	Corporate Communications Manager	Preparedness
Media Updates	e-Blast to targeted Media Posted on PSEGLINY.com	Corporate Communications Manager	Storm updates
Response to Media Inquiries & Interview Requests	Phone/In-Person/E-mail	Corporate Communications Manager	Storm prep and how to stay in touch with the utility; storm updates
Press Conference	Teleconference and/or In-person Interview	Corporate Communications Manager	Upon Request
SOCIAL MEDIA			
Twitter - @PSEGLI	Twitter - @PSEGLI	Corporate Communications Manager	Press release/media updates; safety and preparedness messages or videos, as needed
Facebook facebook.com/psegli	Facebook.com/PSEGLI	Corporate Communications Manager	Press release/media updates; safety and preparedness messages or videos, as needed
EMPLOYEE			
The Link & Employee Email	Employee email – e-Blast to Employees, Link post	Corporate Communications Manager	Storm duty, safety messages
Intranet (mypseg)	Promo Box/Posted Updates	Corporate Communications Manager	Update with Corporate Communications e-blast and banners
REGULATORY			
NYS DPS	e-mail Teleconference	Planning Section Chief/Situation Status Unit	Notification
LEGISLATIVE/MUNICIPAL			
NYS Office of Emergency Management (OEM)	Personal Call/Email	Planning Section Chief	Notification
County EOC	Personal Call/Email Nassau & Suffolk	Planning Section Chief	Notification
NYC OEM	Conference Call - NYC	Planning Section Chief	Notification
District Manager/Liaison Calls to Government Officials	Personal Call/Email	Liaison Officer	Preparing to make calls
Island-wide Municipal Pre-Landfall Storm Call	Conference Call	Liaison Officer	Preparing for potential call
Regional Municipal Post-Landfall Storm Call	Conference Call	Liaison Officer	Preparing for potential call
Debris Removal - Municipalities	Teleconference	System Make Safe to Clear Specialist	Notification

COMMUNICATION CHANNEL	MEDIUM	MESSAGE OWNER	MESSAGE/NOTES/ETC.
CUSTOMER			
IVR Storm Messaging	PSEG Long Island IVR	Customer Assistance Center Manager	Workforce Management alerted
LSE Customers	Outbound Dialer	Cust. Care and Community Outreach Manager	Prep Pre-Storm message for tomorrow
Managed Critical Facilities (Hospitals, Nursing Homes, Water Treatment Facilities, Water Pumping Stations, Communications, Government facilities, etc.)	Outbound e-mail	Escalation Manager	Sending an e-mail message out tomorrow
Non Managed Critical Facilities - (Health Facilities, Assisted Living, Police and Fire Stations)	Outbound Dialer	Escalation Manager	Outbound calls to non-managed accounts
Managed Accounts w/Dedicated Major Account Consultants	Outbound e-mail	Escalation Manager	Sending an e-mail message out tomorrow
PSEG Long Island Customer e-mail	Automated e-mail Vendor	Corporate Communications Manager	Modified version of the Press Release

Figure 14.1 – Example of Pre-Storm Communications Planning Matrix

14.3 Key Actions and Responsibilities

The PIO and Corporate Communications Manager have the overall responsibility for coordinating all internal and external communications across the varied channels. The primary objective is to provide clear, timely, accurate, and consistent information to employees, customers, regulators, emergency response partners, and stakeholders, irrespective of the channel or platform for communication.

The PIO coordinates the activities of key areas with managers and coordinators assigned to handle the responsibilities of each critical function and sub-function.

The Corporate Communications and Customer Technology Teams will broadcast any known deficiencies in reporting outages and communication applications, across all available communication platforms, and direct the customers to alternate ways to report an outage or obtain other information. Please see Section 7.4 regarding error messaging and alternative methods to alert and redirect customers, as well as Section 9 “Restoration Contingency Plan,” and Section 10, “Information Technology Protocol” for further information on contingency planning and technology monitoring. Information Technology Officer will alert the Public Information Officer of any system issues to be reported through communications channels.

14.4 Customer Care and Community Outreach

The Customer Care and Community Outreach Manager is responsible for assuring the effective communication with LSE customers, maintaining 24/7 coverage for the Municipal Escalation Hotline, as well as planning for the needs of affected communities and opening Community Outreach Centers. More information on Community Outreach Centers and their utilization during restoration events is provided in Section 14.4.4.

14.4.1 Municipal Hotline

The Municipal Hotline team, led by the Customer Care and Community Outreach Manager, establishes and maintains a centralized point of contact for municipalities. While this hotline is available 24/7 blue sky days, a dedicated team of call agents is assigned once storm activation is declared, who specialize in managing escalations and an increased number of municipal calls. They are available for immediate contact by any municipal official to ensure prompt logging of critical issues. The team of call representatives collects and addresses escalations and appeals from municipal leaders, elected officials, state, county, and NYC OEM leadership, PSEG Long Island EOC and Municipal Liaisons, District Managers, Major Account Consultants, or other employees and executives who have received notification of critical outage conditions from municipalities, or uniquely urgent requests. These call representatives are able to escalate calls based on coding the tickets in OMS, or entering MSTC or Critical Facility outages through the Municipal Portal. These requests involve high priority outages conveyed by government offices that involve critical facilities, critical infrastructure, and/or MSTC support. The Municipal Hotline representatives may communicate with their Call Center Supervisor and Manager, or directly with the Console Information Coordinators, District Managers, EOC/Municipal Liaisons and CAC Command Center to resolve restoration inquiries or escalation status. The Municipal Hotline is monitored by the Workforce Management organization and the Information Technology Officer. See Section 9, “Restoration Contingency Plan” for strategies employed if technology issues arise.

Municipal Hotline Requirements:

- Maintaining 24/7 availability by phone for Municipal officials and internal staff
- Inputting issues into the OMS through P-Call
- Inputting issues into the Municipal Portal
- Providing updated status information of municipal escalated outages and MSTC tickets as requested via the hotline

Requests may come from any of the following:

- Government/Elected officials
- Municipal/Community leaders
- District Managers/Major Account Consultants
- EOC and Municipal Liaisons

The Municipal Hotline team utilizes the OMS/P-Call, and Municipal Portal to input escalated jobs, and to follow-up with the original point of contact as requested. Municipalities have the ability to get direct updates, via email or text, with restoration status based on real time information in OMS through the Municipal Portal. More detailed information on the Municipal Portal is included in Section 14.7. An additional manual internal Escalation Tracker database may be used, if OMS and the Municipal Portal are deemed unstable by the Information Technology Officer, and can be found in Section 14.8. See Section 9 “Restoration Contingency Plan” for strategies if technological issues arise with the Municipal Portal.

14.4.2 Life Support Equipment (LSE) Customers

14.4.2.1 Definition

Life Support Equipment (LSE) customers are customers who rely on electric equipment to sustain life. The Customer Information System is coded for residences of customers that have notified PSEG Long Island that an LSE is in use, when accompanied by a completed qualification form signed by a physician. LSE customers are required to certify annually; however, all LSE accounts retain the designation regardless of the recertification results, as per DPS regulations. Removal is subject to the DPS approval process involving review of the Utility Request for Removal form and substantiating documentation.

Examples of qualified equipment provided below:

- Apnea Monitor (Infant Monitor)
- Cuirass Respirator
- Positive Pressure Respirator
- Suction Machine
- IV Feeding Machine
- Tank Type Respirator
- Respirator/Ventilator
- Hemodialysis Machine (Home)

- Rocking Bed Respirator
- Oxygen Concentrator
- IV Medical Infusion Machine
- Additional devices may qualify as life-support equipment if certified by a medical professional

14.4.2.2 Blue Sky Outreach and Maintenance

During non-storm conditions, PSEG Long Island's Customer Safeguard Solutions (CSS) team will reach out to LSE customers on a semi-annual basis, in order to advise them of:

- The potential for power outages that would affect the supply to their medical equipment
- Options and actions for advanced preparation and planning for their own safety and security
- Emergency services available, along with appropriate contact information
- LSE enrollment guidelines including required documentation and annual recertification
- The importance of providing the most accurate and multiple contact numbers including emergency contacts for use during outage events

Customers are reminded that designation as a LSE customer is not considered a restoration priority, and service will be restored as quickly and safely as possible, following normal prioritization and safety guidelines. PSEG Long Island does not assign LSE customers with an elevated priority in OMS. However, when all other conditions are equal, an outage with LSE customers will be prioritized over an outage without any LSE customers (such as two single customers jobs, where one is LSE).

In addition to the semi-annual outreach, CSRs interacting with LSE customers on a daily basis will verify that all contact information on the account is accurate and current making updates as needed.

14.4.2.3 Procedure

Considering the vulnerable nature of this segment of the customer population serviced by PSEG Long Island, procedures are in place to contact to LSE customers before, during, and after a large-scale storm or electric system emergency when extended outages are expected to last more than 48 hours.

The process and reports described in this section are designed to comply with all requirements of 16 NYCRR Part 105, and are focused on the following requirements:

- Establishing and maintaining contact with LSE customers prior to, during and after an event, to ensure that they are apprised of the most current restoration information
- Ensuring that automated outbound campaigns to contact LSE customers are scheduled and completed within 24 hours of the expected start of any forecasted large scale event
- Confirming the wellness status of LSE customers affected by power outages
- Per the DPS Emergency Response Performance Measures:
    - Ensuring that staffing, automation, and operating procedures are in effect to contact 80% of the LSE customers affected by outages, within 12 hours from the start of restoration for the event
    - Tracking whether 100% of affected LSE customers were contacted or referred to an emergency service agency, within 24 hrs
- Ensuring that at least one additional attempt is made within the same 12 hour period to contact any LSE customer that was not contacted on the first attempt
- Ensuring that within 24 hours of the start of the event, LSE customers that have lost power must have been either
    - Directly contacted by speaking with an agent of the utility
    - Visited by a PSEG Long Island Outreach Liaison
    - Referred to an emergency services agency (e.g., police or fire department, county OEM or NYC EOC, other human services or volunteer agency etc.) for further direct contact attempts
    - Restored within that time limit

14.4.2.4 Pre-storm

When weather forecasts indicate a reasonable probability of storm related damage impacting the service territory with outages expected to last 48 hours or longer, and upon notification from the Public Information Officer through the Incident Command Structure, the Customer Care and Community Outreach Manager will initiate an automated outbound call campaign to notify LSE customers of the potential for an extended outage due to an impending storm. The automated messaging encourages customers to make necessary arrangements if an extended power outage has potential to disrupt the operation of critical personal health devices. Messaging will also offer tips and suggestions for preparing to 'weather a storm' or to evacuate to a safe location. The focus of the pre-storm messaging is to provide proactive, early warnings of potential, prolonged disruptions, so LSE customers can prepare in advance.

Customer Care and Community Outreach Manager is responsible for ensuring sufficient staffing levels are maintained and applicable operating procedures are in

effect to be able to execute the LSE storm response process as outlined in the ERP. The Customer Care and Community Outreach Manager will be supported by the LSE Coordinator, who is responsible for managing the proactive pre storm calls as well as the personalized live calls and wellness checks conducted during the restoration period. Figure 14.2 shows the minimum staffing dedicated to LSE contact during restoration.

LSE Customers Out of Service	Dedicated Staffing (FTE) for LSE Contact
0-250	1 - 5
251 - 750	6 - 9
751 - 1500	10 - 11
1500 - 2500	12 - 14
> 2501	15 +

Figure 14.2 – Minimum Staffing Matrix for LSE Contact

During an event, and in the recovery period following a storm or electric system emergency, LSE Analysts under the direction of the LSE Coordinator will generate the Key Customer Outages (Critical Facility and Major Account Customers) Report through SAS, which includes all affected LSE customers without power. Personalized live calls are made to the affected LSE customers identified in the report to obtain their status. LSE Representatives will make a minimum of two attempts to reach LSE customers, within the first 12 hours after storm restoration begins. The two attempts can be a combination of live calls and in person visits and will serve to confirm if the:

- Customer is safe and well
- Customer has arranged for any assistance required to stay in their homes
- Customer had to evacuate their home
- Customer account correctly indicates that the customer or a member of their household rely on electrically operated LSE

  Customer's service is affected by the storm as indicated by OMS

The representative will also provide the following information to the LSE customers:

- Call 911, in case of an emergency
- ETR, if available
- Information regarding the PSEG Long Island's direct Critical Facilities hotline ([redacted] for any further questions or concerns

- In the event a customer expresses a need for assistance related to their health or safety, the representative will refer the customer to an appropriate response agency.

When initial call attempts to reach the customer are unsuccessful, additional contact methods are utilized, including wellness visits by PSEG Long Island Outreach Liaisons. Occasionally, LSE customers will be referred to City or County EOCs (Nassau, Suffolk and NYC) for wellness visits to be conducted by emergency response agencies, human services, and volunteer organizations. The coordination between the LSE team and the County/City EOCs is facilitated by the PSEG Long Island EOC Liaisons, if activated, and/or the Emergency Preparedness staff. LSE Analysts will provide the EOC liaison or Emergency Preparedness staff with a list of LSE customers experiencing outages that have been unresponsive to live call attempts made by PSEG Long Island call representatives, by 6pm on any given day. At the County/City EOCs discretion, emergency response agencies, health and human services organizations and volunteer organizations are dispatched to conduct a wellness check on the referred LSE customers. The EOC Liaison or Emergency Preparedness staff will follow up with the City/County EOC partners for the results of the referred wellness checks to provide to the LSE Analysts for account updates and reporting.

The outreach process of making live calls to all affected LSE customers, followed by wellness checks by PSEG Long Island Outreach Liaisons or referrals to City/County EOC partners will continue each day during the restoration period as per 16 NYCRR Part 105.

The LSE team will track all contact and wellness visit results to ensure contact is made through the completion of restoration. A detailed daily report of all activity (at the individual customer level), including number of referrals, on a standardized template is provided to DPS, when requested. All LSE outreach plans have been enhanced to incorporate Covid-19 health and safety measures to protect PSEG Long Island employees and customers.

To facilitate the scaling up of LSE outreach in such events, 3rd party vendor(s), can be utilized to support direct outbound calling. The 3rd Party vendor will be activated at the joint discretion of the LSE Coordinator and the Customer Care and Community Outreach Manager, depending on various factors including volume, staffing, time restraints and other conditions. The LSE Analysts will make the list of LSE customers experiencing outages available to the 3rd party call vendor via a secure transmission, along with a call script and instructions. Vendor call representatives will conduct the outreach on behalf of PSEG Long Island, and provide a report back to the LSE Analysts with the necessary information so that PSEG Long Island can proceed with in person wellness checks or referrals to City and County EOCs as necessary.

14.4.3 Special Needs and Medical Emergency Customers

14.4.3.1 Definitions

A Special Needs Customer is defined in 16 NYCRR § 105.4(b)(9) as the elderly, the vision-impaired, the hearing and speech-impaired, the mobility impaired, and human service agencies representing these customers.

A Medical Emergency is defined in 16 NYCRR § 11.5(2) as existing when aresident of customers residence suffers from a serious illness or a medical condition that severely affects their well-being. A Medical Emergency is often a temporary situation, as described in 16 NYCRR § 11.5(4)(i), whereby a medical doctor or qualified official of the local board of health states in writing to the utility the expected duration of the medical emergency and explains either the nature of the medical emergency or the reason why the absence of utility service would aggravate the medical emergency.

Customers can register with PSEG Long Island as Special Needs Customers or Medical Emergency Customers per the enrollment process indicated on PSEG Long Island's website and other published brochures. The registration process requires the customer to obtain a medical provider's note confirming eligibility per the Special Needs or Medical Emergency definitions. Once all documentation is verified by the CSS team and is qualified, the customer will be designated with the applicable tag/flag in the Customer Information System (CAS). Once registered, CSS team will conduct annual outreach to Special Needs customers as further outlined in Section 14.4.3.3 below. Additionally, CAC personnel are trained to verify contact information for Special Needs and Medical Emergency customers during each live call encounter and make updates to their account as necessary.

14.4.3.2 Procedure

Prior to storms and other distribution system emergencies, when extended outages are expected to last more than 48 hours, the Customer Care and Community Outreach Manager will activate an automated outbound notification campaign to Medical Emergency and Special Needs customers. An appropriate message is selected by the Customer Care and Community Outreach Manager from a library of notification announcements with approval from the Corporate Communications Media Specialist or Corporate Communications Manager. The messages advise of the approaching conditions and recommend to customers that they consider making arrangements if service is interrupted (e.g., go to a hospital, call 911, etc.).

In an electric emergency, if requested by the customers, PSEG Long Island will refer Special Needs and Medical Emergency customers , to appropriate agencies, through the Consumer Advocates team. The agencies include, but are not limited to:

- County Offices for the Aging
- County Health Departments
- County Departments of Social Services
- American Red Cross
- Local Police and Fire Departments
- Advocacy Groups for the Hearing and Sight Impaired
- Other Agencies

Once an ETR is established, Customer Technology team will send proactive ETR information via text/call//email channels to Special Needs and Medical Emergency customers, along with the rest of the customers affected by the outage. Special Needs and Medical Emergency customers can choose to opt out of receiving notifications.

14.4.3.3 Outreach

Following an extensive outreach and comprehensive effort to update the Special Needs customer list in 2020, procedures have been established by the CSS team to reach out to Special Needs customers on an annual basis. The annual outreach process conducted by CSS includes a mailing that is designed to raise awareness of customers and other affected individuals about the Special Needs program and available protections. The included form requires Special Needs customers to confirm qualifications and verify and/or update their contact and emergency information on file. Information on this and all available Customer Assistance Programs can also be found on PSEG Long Island's website.Community Outreach Centers

The Community Outreach Coordinator is responsible for overseeing any outreach centers opened to provide direct support and relief to the public, based on the conditions of the electrical emergency. When an approaching storm with a high confidence weather forecast threatens to create significant outages that are expected to last 48 hours or longer, PSEG Long Island's PIO, in conjunction with the Customer Care and Community Outreach Manager, will determine if Community Outreach Centers should be opened, and the types of support to be provided, depending upon the time of year and expected conditions. In some cases, the decision to open outreach centers may occur after the impact of an unexpected storm or emergency event that results in unanticipated damage, and will be based on actual outages and customer needs.

Upon activation, the Customer Outreach Coordinator will identify potential locations for the set up of outreach centers, based upon the projected or actual damage and population density, and may include Customer Office locations, Staging Sites or other centrally accessible locations where tents or Mobile Command units (when available) can be set up for distribution of supplies. Once locations are identified, a contracted vendor is notified to address the logistical needs of the location such as set up and supplies.

The Customer Outreach Coordinator will schedule PSEG Long Island Outreach Liaisons to staff these locations, determine hours of operation and confirm supplies, then notify Corporate Communications Media Specialists in the Corporate Communications team of locations, hours of operation, and available provisions for distribution at each site. The Corporate Communications team will disseminate the information to customers, within 1 hour of receipt per the DPS scorecard requirement, through various communication channels, including press releases, website updates, social media, IVR messaging and/or e-mail blasts.

Community Outreach Center Requirements:

- Establishing and maintaining community outreach locations for the distribution of dry ice, water, and other supplies, as necessary. Eleven Customer Offices (listed below) and nineteen staging sites (refer to Section 17.6.2 for a list) spread across the service territory are available for use by the Community Outreach team to set up customer outreach centers. In addition, Mobile command units are utilized, when available, to distribute supplies, including wet or dry ice, to locations more central to hard hit areas following a storm or event.

  The sites are listed below:

- [redacted]
  - [redacted]
- [redacted]
  - [redacted]
  - [redacted]
  - [redacted]
  - [redacted]
- [redacted]
  - [redacted]
  - [redacted]
  - [redacted]

- [redacted]
- [redacted]
- [redacted]

- Providing phone charging stations, ice, bottled water, or other provisions when deemed appropriate to the particular emergency event and weather forecast
- Accepting and transmitting outage information and other customer feedback to appropriate areas
- Providing regular updates to the Corporate Communications Media Specialists in theCorporate Communications Team on staffed locations, hours of operation, and available services
- Providing daily updates, at a minimum, to the Customer Care and Community Outreach Manager on outreach status, supplies distributed, and current inventories
    - The Community Outreach Coordinator works with a supplies vendor to create a preliminary forecast for ice (dry and/or wet) and/or bottled water delivery for each outreach location, based on outage and damage conditions for each area
    - The needs will be projected for at least three days after the date the center(s) open.
    - With the possibility of an event expected to last longer than 48 hours, the Communications team will notify the public with distribution information for needed provisions
    - The Customer Outreach Center Coordinator will provide the supporting vendor 24 hours' notice of the need to set up Customer Outreach Centers when possible
    - Plans will include the number of centers, locations, and forecasted need for ice and/or bottled water when deemed appropriate. The supporting contracted vendor will provide the following types of materials for setup and/or distribution to customers, if requested:
- Dry Ice with clear safety instructions regarding use and handling in English and Spanish (volume will be estimated by the Community Outreach Coordinator on the basis of 10 lbs of dry ice for a certain percentage of customers expected to still be out, per weather conditions and the restoration forecast)
- Cases of Water (when deemed appropriate for the event and needs of the community)
- Wet Ice (when deemed appropriate for the event and needs of the community, or in the event of dry ice shortage)
- Cones, Tents, Heaters, Generators, Light Towers, Trailers, Portable Toilets, Tables and Chairs (as needed for set up).
- Other supplies as required based on event

Once in operation, the Community Outreach Coordinator provides a detailed report containing quantities of supplies distributed at each center to both the Customer Care and Community Outreach Manager and internal stakeholders . In addition, Corporate Communications will distribute the information on when outreach centers will be open

to the public through press releases per news cycle. Subsequent updates will be made via website, social media, and/or e-mail blasts within one hour, as per the by the DPS Scorecard requirements, of the press release. IVR may direct customers to the website for up to date information. Communications will include where the Community Outreach Centers are located, hours of operation and what provisions are being distributed, if applicable.

In addition to the Community Outreach Centers, Community Outreach Liaisons may be dispatched to severely impacted communities to assist with the distribution of pertinent information and materials. The determination of any severely impacted areas will be made after the initial impact of the storm/event by the Incident Commander. Community Outreach Liaisons may be sent to traverse the area, and bring restoration updates to customers when warranted at complex restoration sites. They may be supplied with information and materials that could include but not limited to storm preparation materials, PSEG Long Island contact information, bottled water, non-perishable foods, and/or safety supplies. All outreach plans have been enhanced to incorporate Covid-19 health and safety measures to protect PSEG Long Island employees and customers.

14.5 Customer Assistance Center (CAC)

During emergency conditions, the Customer Assistance Center (CAC) Manager has overall responsibility for ensuring efficient call center operations.

Throughout the course of the restoration efforts, the normal 24-hour staffing in the CAC may need to be augmented. When this becomes necessary, the CAC will secure sufficient staff in order to answer the maximum number of electric emergency calls in an efficient, courteous, and responsible manner. Staff augmentation can occur through a variety of means, using both live agents and automated systems, with internal and external resources. Prior to a large-scale event, the Call Center Operations Coordinator will alert the Call Center Representatives that outage calls take precedence over non-outage calls (i.e., flickering lights, billing inquiries, etc.). Customers will be directed to call back once emergency calls are reduced.

The CAC Call Representatives take electric emergency calls and provide restoration information to customers. They maintain and staff dedicated lines for police and fire departments, Critical Facilities, and for municipalities to reach an agent 24/7 during emergency events. Additionally, they ensure adequate staffing levels in the CAC and provide metrics reporting. Satellite communication system has been tested and implemented in the CAC to specifically ensure police and fire departments are able to

reach an agent successfully in the event of a POTS (Plain old Telephone System) failure, as experienced during Tropical Storm Isaias in August 2020.

All critical applications utilized by the Customer Assistance Center including IVR, HVCA, phone line capacity, will be stress tested as outlined in Chapter 10 'Information Technology Protocols'.

The decision to augment the CAC staff and/or to activate the CAC Command Center staff will be made by the PIO and CAC Manager, and will be based on any of the following:

- Storm conditions
- Number of customer outages
- Targeted or desired response/call answer rates
- Number of lost customer calls at the CAC
- Number of governmental calls being received at the CAC
- Number of service calls being received from hospitals and/or other critical facilities
- Any major event affecting PSEG Long Island facilities or equipment that requires communications between PSEG Long Island, their customers, and/or government officials

Customer Assistance Center (CAC) Requirements:

- Organizing and achieving the efficient operation of the CAC staff and technologies, so that an answer rate of over 80 percent of calls within 90 seconds can be obtained (as per the DPS Emergency Response Performance Measures)
- Enabling customers with emergency conditions to report detailed information to a live call representative for all calls handled by the IVR system
- Ensuring that all staff, IVR and automated outbound messaging on telephone lines are updated, within one hour following communication releases of event related information (i.e., a Global or Regional ETR update)
    - Due to the limited length of the IVR up-front message, this application is primarily used to get customers to report their outage on the IVR and to get an ETR; customers are directed to the website for additional detailed information regarding

14.5.1 Customer Assistance Center Staffing and High Volume Call Application (HVCA) Methodology

When PSEG Long Island's service territory is affected by either a forecasted or a non-forecasted emergency event, the CAC may experience a substantial increase in call volume.

The CAC will routinely extend shifts, recruit or mandate overtime, cancel vacations and time off, and/or utilize cross-departmental support (to increase the staffing complement), as well as to activate the HVCA to maintain CAC performance and integrity. The Customer Assistance Center Manager along with the Call Center Operations Coordinator will be responsible for monitoring incoming call volume, outage volume and call center performance and ensuring sufficient staffing is in place to:

1) Achieve Service Level (SVL) of 80% calls answered by a live representative within 90 seconds
2) Ensure messaging on IVR and other front end systems align with Corporate Communications timeline and meet score card requirements. Refer to Section 14.1.10 for more informaion on IVR messaging.
3) Utilize less than 75% of trunk capacity
4) Changes in staffing are guided by the Event Evaluation matrix in Figure 14.3 and the Staffing Complement matrix in Figure 14.4. See Section 9, "Restoration Contingency Plan" for strategies employed if technology issues arise with the HVCA allowing call center operations to continue.

EVENT TYPE	EVENT PARAMETERS	STAFFING	HVCA
Minor	< 5,000 outages in a division OR < 20,000 outages companywide	• Normal staffing complement • Overtime	Aligned with HVCA Utilization Parameters
Moderate	20,000 – 100,000 outages companywide	• Normal staffing complement • Extended shifts • Overtime • Vacation and Time Off Cancellation • Cross-department support	Aligned with HVCA Utilization Parameters
Heavy	>100,000 outages companywide	• Increased staffing complement from other departments • Extended shifts • Overtime • Vacation and Time Off Cancellation • Cross-department support	Aligned with HVCA Utilization Parameters

Figure 14.3 – Customer Assistance Center Event Evaluation Matrix

EVENT MATRIX FOR INCREASES TO STAFFING COMPLEMENT				
SHIFT	TYPICAL STAFFING*	MINOR EVENT	MODERATE EVENT	HEAVY EVENT
12:00AM – 8:00AM	3 – 4	> 5	> 10	> 15
8:00AM – 4:00PM	100 – 110	> 120	> 140	> 160
4:00PM – 12:00AM	20– 30	> 40	> 100	> 150

* Note: The staffing levels represent average daily staffing levels for the period shown.

Figure 14.4 – Customer Assistance Center (CAC) Staffing Levels by Shift

14.5.2 High Volume Call Application (HVCA) Utilization Parameters

The HVCA allows PSEG Long Island to manage call volume, subject to conditions within the following three areas: staffing, performance, and outage volume. The Customer Assistance Center Manager will determine when HVCA is to be activated based on the three areas mentioned above.

The following is a non-exhaustive list of situations that can lead to the activation of the HVCA:

1) Trunk Capacity*
2) It is necessary to maintain a certain level of free capacity to take emergency calls in the CAC. If trunk capacity reaches a level viewed by management as a threat to the CAC's ability to answer emergency calls, the HVCA can be activated to free trunk space until said space is at a controllable level, relative to call volume.
3) Wait Time (Average Speed of Answer (ASA))
4) Extended wait times correlate parabolically with abandoned calls, meaning that the majority of those abandoned calls happen within the earlier stages of the waiting period. It is essential that wait times be minimized, as much as possible. If wait times are exceeding a level deemed to place the CAC's service performance at risk at the amount of call volume being experienced, management can activate the HVCA to move calls to self-service application or provide critical messaging to customers. The HVCA allows for the mitigation of customers receiving busy signals.
5) HVCA Readiness for Forecasted and Non-Forecasted Outages
6) When outages occur, the CAC expects call volume to rapidly increase. Dependent upon the outage volume and staffing complement, there may be a need to initiate the HVCA to maintain call center integrity and performance standards. The initiation of the HVCA allows for flexibility in handling calls, should there be a spike in call volume at particular points in time.

**Note: Trunk capacity is being increased with communications provider as per Business Continuity initiative at PSEG Long Island facilities.*

The Customer Assistance Center team has been reviewing and testing various back up and work around systems and processes to prevent the HVCA shortfalls that were experienced during Tropical Storm Isaias in August 2020. See Chapter 9 “Restoration Contingency Plan’ for strategies employed if technology issues arise.

14.5.3 Call Center Operations

The Call Center Operations Coordinator isresponsible for coordinating the activities of call representatives and other CAC support teams. The Call Center Supervisors will support the Call Center Operations Coordinator to ensure all call representatives are sufficiently trained and prepared to support the increased call volume and event specific customer needs. . In addition, the team distributes all communication updates quickly and effectively, and ensures consistent messaging for all phone agents.

14.5.4 Workforce Management

The Workforce Management Coordinator supported by the Technology and Scheduling staff has the following responsibilities:

- Assigning staff schedules to cover expected inbound calls and ensuring adequate staffing levels as per required metrics
- Providing continuous metric and regulatory reporting
- Maintaining and updating IVR messaging based on conditions and restoration activities when necessary. Please refer to Section 14.1.10. for more information on IVR messaging.
- Maintaining and updating HVCA messaging to ensure consistency with IVR messaging
- Continually monitoring and resolving any instances of high abandonment rates on incoming call center lines
    - High abandonment rates and ASAs will dictate the need for additional CSRs
- Continually monitoring for busy signals on incoming call center lines utilizing a newly implemented constant-call system. When busy signals are detected, or reported from callers or social media, PSEG Long Island Customer Assistance Center will implement more CSRs or HVCA.

14.5.5 IVR Messaging

IVR messaging will be managed by the Workforce Management Coordinator under the direction of the Customer Assistance Center (CAC) Manager. Specifically, the Workforce Management Coordinator will be responsible for ensuring:

1. IVR messaging is revised within 1 hour of a communications press release and will be drafted by the Workforce Management Coordinator in conjunction with the Corporate Communications Manager and will not exceed 60 – 90 seconds in length The messaging will include, but is not limited to:

    - Detailed or broad scale data related to ETRs (global or regional), when available)

- Storm status, when available
- Outage and restoration information, when available
- Dry Ice/Shelter/Water information, when available
- Reference to the company website for detailed or additional information on the above topics
- Time and Date stamp of update

2. In the absence of a communications press release, IVR messaging will be reviewed and updated, at a minimum, every 8 hours during the storm restoration period. When there is no new or additional information to add, and the previous message continues to be relevant and accurate, the Workforce Management Coordinator will update the time and date stamp.

3. Post event documentation of the IVR updates will be provided by the Workforce Management Coordinator for further reporting and compilation by the Corporate Communications team.

14.6 Escalation Manager

The Escalation Manager confirms availability of dedicated communication channels for the Customer Relations team to support the DPS inbound calls. Additional lines of communication are open for the Large Customer Support (LCS) team to reach out to and respond to Large Commercial Customers, Managed Accounts, and Critical Facilities across all business segments.

14.6.1 CAC Command Center

The Escalation Prioritization team includes the Call Center Quality Assurance organization and assigned Call Center Leads and Supervisors in the CAC Command Center has the following responsibilities:

- Receives all escalated tickets from the CAC, Social Media and other Customer Service departments including issues that cannot be resolved easily with the customer including extended ETRs or special extenuating circumstances. The Command Center reviews OMS and restoration strategy for the event for any additional data that may help inform the customer.
- The Command Center Leads and Supervisors will research the full details of customer restoration status. When escalation is deemed appropriate, based on the current stage of restoration, they will coordinate with the Escalation Processing team and Console Information Coordinators to escalate incidents to Operations by the Escalation process detailed below.
- The Command Center Leads and Supervisors collect any recurring issues reported from call takers, social media, or the DPS hotline and report back to the Call Center Coordinator, who will in turn alert Corporate Communications and/or the Customer Assistance Center (CAC) Manager

14.6.2 Department of Public Service (DPS) Call Center Coordination

The DPS Hotline (Customer Relations) Coordinator, Supervisor and Call representatives have the responsibility to contact the DPS to coordinate coverage for the same hours of operation as the extended hours for the DPS Call Center. DPS Hotline staff perform identical duties blue sky days, and are assigned and empowered to assist with any issues forwarded by the staff of the DPS.

In support of the DPS escalation procedure, the DPS Hotline Coordinator will contact the designated DPS Call Center Manager, as soon as an event occurs, or if potential storm damage is predicted.

The DPS Hotline Coordinator (Customer Relations) monitors an internal phone line for escalations submitted to DPS called the DPS Hotline. Only DPS has access to the hotline. The Customer Relations Coordinator will send the following response to DPS, once they receive notification of the hours that the DPS Call Center will be open for storm calls:

"PSEG Long Island Customer Relations staff will be available to accommodate your extended Call Centers hours of 7:30AM to 7:30PM on **insert day of the week, month, and date** (i.e., Saturday, January 23rd). You may call the Customer Assistance Group Line/Hotline at [redacted] during those hours."

The DPS Hotline requirements are as follows:

- DPS Hotline Coordinator submits staffing and hours of operation to match DPS contact center and staff
- DPS Hotline Representatives provide phone and e-mail support for DPS calls or complaints, prior to, and throughout an electrical outage event or emergency
- DPS Hotline Supervisor coordinates with the CAC Command Center and the Escalation Processing team to help resolve any known outage emergency incidents deemed necessary for escalation

Representatives from the DPS are invited to participate in PSEG Long Island's daily storm update calls, and receive written summaries of the call notes following each call.

14.6.3 Managed Accounts and Critical Facilities

The Large Customer Support (LCS) Coordinator is responsible for assuring that the leadership and assigned points of contact for Managed Accounts and Critical Facilities receive timely and accurate updates prior to, and throughout storms or other electrical emergencies.

The Managed Accounts and Critical Facilities requirements are performed by the Major Accounts Consultants for their assigned customers as follows:

- Notifying and maintaining ongoing contact with Major Account customers, prior to, and during, a PSEG Long Island emergency or outage event
- Coordinating with the Escalation Processing team to ensure the prompt restoration of critical facilities and crucial infrastructure. Major Accounts Consultants may work directly in the Division Dispatch Areas in order to coordinate with the Console Information Coordinators and T&D Operations.
- Providing pre-storm notification to Managed Accounts and Critical Facilities to determine if they have back-up generation in the event of an outage
- Reviewing customer plans for generator usage, corresponding fueling plans, and the benefits of pre-outage testing and preparations
- Tracking the status and ETR of electric service for Critical Facilities (LIRR, Communications companies, hospitals, nursing homes, local and county governments, water-pumping/sewage treatment, fuel storage and distribution, and schools used as shelters)
- Tracking the status and ETR of electric service for Non-CF Managed Account customers (remaining schools and government, universities, developers, manufacturers, retail, business services, and telecommunications)

Major Account Consultants maintain a complete list of key operational and managerial contacts for all hospitals, nursing homes, and other managed Critical Facilities served across the Rockaways and Long Island for their assigned customers. Critical Facility customer lists are maintained within CAS by Major Accounts support staff, based on critical facility coding in the Customer Information System. It enables PSEG Long Island to maintain the most current and updated information possible throughout the year. Comprehensive customer lists are pulled and reviewed, at least semi-annually, to verify accuracy and completeness (see Appendix D).

Major Accounts Consultants maintain day-to-day relationships with municipal building and critical facility management to assist them in planning for potential emergencies and electrical outages. They review the critical facility accounts and contact information, semi-annually at a minimum, for completeness and accuracy purposes. Major Account Consultants also review the critical facility lists with EP Staff and NYC and County EOC personnel, semi-annually, to ensure all modifications are captured. Please refer to Section 13.5.2 for additional details regarding coordination and the prioritization of critical facilities during restoration events. The most current Critical Facility lists are available to each municipality through the Municipal Portal by downloading the data, which may be run by the municipality or provided by EP staff.

In addition, District Managers may coordinate with the Major Accounts Department on any additions to the critical facilities listing provided by elected or municipal officials. This contact information can be found in Appendix F.

Figure 14.4 details the Critical Facility Levels guidelines and parameters.

CRITICAL FACILITY LEVELS

Critical Facility Level 1 - These facilities provide services critical to public health and safety:

- Hospitals and Emergency Medical Facilities
- Emergency Shelters and Cooling Centers
- Fire, Police, Paramedics, and Rescue Facilities
- Emergency Management Offices
- Water pumping stations and Wastewater treatment plants
- Critical Utility and Communications Facilities, including 911 Centers (PSAPs)
- Fuel Transfer and Fuel Loading Facilities (ports)
- Mass Transit (tunnels, electric drawbridges, ferry terminals, major rail facilities/rectifier stations)
- Airports
- Military Bases
- Critical Flood Control Structures

Critical Facility Level 2 - These facilities provide significant public services and may include some of the same type of facilities described in Level 1 depending on the event type, but are considered to some extent less critical by government agencies:

- Nursing Homes and Dialysis Centers
- Facilities to support other critical government functions
- Prisons and Correctional Facilities
- Communications (radio, TV, etc.)

Critical Facility Level 3 - These facilities provide some public services and may include some of the same type of facilities described in Level 2 depending on the event type, but are considered to some extent less critical by government agencies.

- Event Specific Concerns
- High-Rise Residential Buildings
- Customers providing key products and services (food warehouse)
- Managed Accounts, Large Employers, and Other Key Customers
- Other Government Buildings, Schools, and Colleges
- Residential developments with large elderly populations or other similarly vulnerable establishments, when requested by County OEM to be considered as CF

Figure 14.4 – Critical Facility Levels

Municipal facilities, government offices, critical infrastructure, health care, water treatment, fuel distribution, and other key commercial, government, and public safety facilities require accurate and timely updates on outages and restoration.

PSEG Long Island Emergency Planning Coordinators (EOC Leads) will continue to coordinate with county officials throughout the year to identify any vulnerable residential developments with large elderly populations deemed necessary to code in our OMS. Options for tracking these customers in our system will be discussed, including critical facilities designation (and all requirements necessary), life support equipment customers, elderly/special needs designation, as well as back-up generation, and any known issues regarding specific locations. Any large commercial/institutional accounts will be verified with Major Accounts Consultants who maintains the critical facility list. System coding, established regulations and protocols, and appropriate portions of this Plan will be reviewed accordingly. Additional meetings will be held semi-annually with county officials to discuss any updates to the county's known priorities. EP is in communication with County officials during all extended outage events as well, and may use the escalation tagging process to track and monitor customers identified by the County OEMs (see Section 14.9).

In advance of potentially damaging storms, the Major Accounts Consultants proactively sends e-mails to all Managed Accounts and Managed Critical Facilities, and Business Consumer Advocates (BCAs) send to Non-Managed Critical Facilities, to offer safety tips and reminders on how best to prepare for the forecasted conditions and potential outages. E-mail messages provide the toll-free number to report outages and a direct number to reach the Major Account Consultants or BCAs assigned to the facility, as well as a Critical Facility hotline when activated.

When large-scale outages are projected to last more than two days on the storm strategy call, additional hotline numbers may be established by the Escalation Manager as an additional layer of contact for managed, critical facilities and municipal customers. After an event occurs and electrical outages are reported, the assigned Major Accounts Support lead run reports, throughout each day, to identify, track and monitor all affected Critical Facilities. As shown in Figure 14.5, the SAS "Key Customer Outages Report" for Critical Facility and Major Account Customers, provides an area overview and details, down to the individual account and street location, for coded accounts. Major Accounts Consultants can filter the report to focus on a specific geographic area or their particular segment of critical customers.

The outage reports allow the Major Account Consultants to quickly identify affected facilities, assess their level of damage, determine the ETR from information in the system, reach out to customers to discuss the status, and share all available

information about the restoration process. In addition, these "Key Customer Outage Reports" are also run by the Planning Section Situation Status Lead to report Critical Facility outages to DPS at scheduled updates, typically four times a day.

Two-way communication is maintained throughout the event by call, text and email between the managed and critical facility customers and their assigned Major Account Consultant or BCA. When a critical facility outage location is identified through OMS, their communication with the designated point of contact for the facility can assist in mitigation of the outage, by providing status updates, adding details to an outage ticket, and advocating for restoration prioritization if necessary, based on available damage assessments, service crews and local conditions. Major Account Consultants, with the help of Call Center representatives, and supplemental LCS staff when activated for a large event, are available to provide assistance 24/7, until all customers are restored.

Figure 14.5 – SAS Key Customer Outages (Critical Facility and Major Account Customers) Report Sample

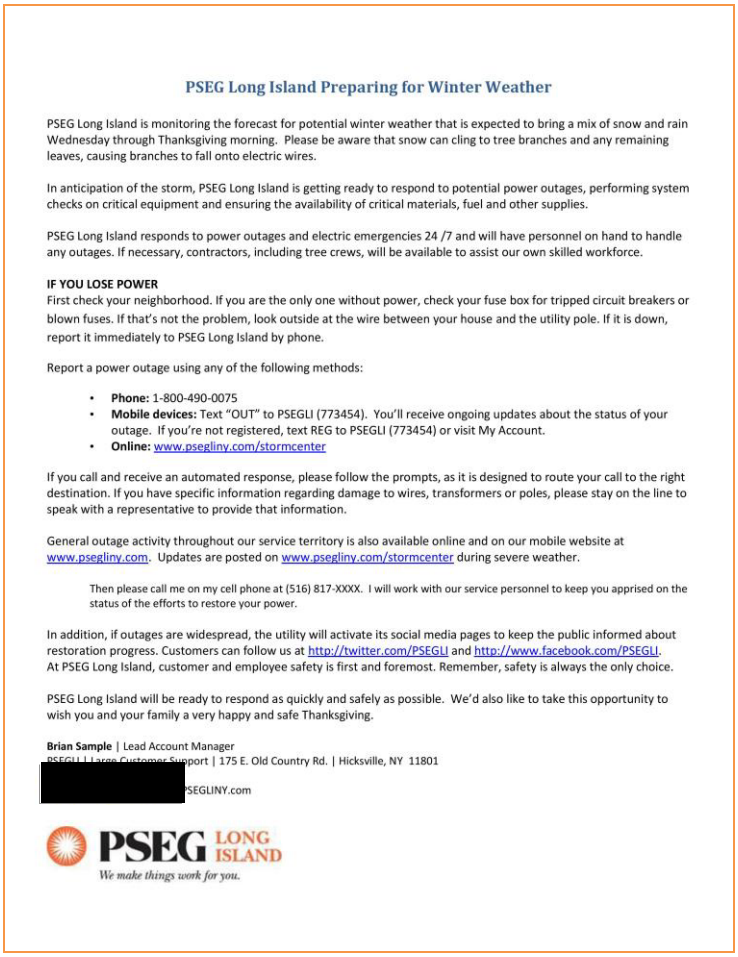
The Major Accounts Consultants send annual notifications, by e-mail, to accounts with critical facilities. The notification will outline the key points used to assess critical facilities and set expectations and recommendations for action, across each level. Figure 14.6 shows a summary of the types of actions suggested to customers to assist them in planning.

LEVEL	RECOMMENDATIONS FOR CUSTOMERS
Level 1 - Public Health and Safety Refineries, LSE in use (Hospitals, Critical Care Facilities)	• Backup generation or four hour access to rental equipment • Business continuity plan if applicable
Level 2 – Significant Public Services Impaired or Senior Services, Critical Government Functions, Prisons/Correctional Facilities	• Backup generation/list of generator rental companies • Plan for being without power up to 14 days • Formal evacuation plan (people staying overnight, etc.)
Level 3 – Other Public Services High Rise Buildings, Limited Egress Facilities, Food Storage, Distribution, Key Products, Large Employer, Schools, Government Buildings	• Backup generation (taking geographic locations, reliability issues into account, etc.) • Plan for being without power up to 14 days • Business continuity plan if applicable (e.g., moving food to cold storage/dry ice, etc.)

Figure 14.6 – Recommendations for Critical Facilities Advance Planning

When a storm or other potential threat to the electric system is approaching, the LCS team will employ press briefings and talking points, provided by the Corporate Communications team, to prepare outbound e-mails. Messages are tailored by the Major Accounts Consultant reporting lead for the situation to assist managed and non-managed Critical Facilities, and other Managed Accounts, to prepare, as far ahead as possible, in advance for potential damage and electrical outages.

Approved messages received by the Corporate Communication Manager may include safety tips, checklists for advance planning, and options for reporting outages or dangerous critical situations. An example of an e-mail is shown in Figure 14.7. In the sample e-mail, Major Account Consultants and BCAs advise customers of the approaching storm and expected impacts from the weather. It includes descriptions of the preparations being made, hours of coverage, and resources being activated. In addition, this sample provides tips for assessing possible causes of an outage in the customer's area, and provides several options for contacting PSEG Long Island, including the toll-free number, texting, the website at www.psegliny.com/outages, and a direct mobile phone number for the Major Account consultant assigned to the facility.



PSEG Long Island Preparing for Winter Weather

PSEG Long Island is monitoring the forecast for potential winter weather that is expected to bring a mix of snow and rain Wednesday through Thanksgiving morning. Please be aware that snow can cling to tree branches and any remaining leaves, causing branches to fall onto electric wires.

In anticipation of the storm, PSEG Long Island is getting ready to respond to potential power outages, performing system checks on critical equipment and ensuring the availability of critical materials, fuel and other supplies.

PSEG Long Island responds to power outages and electric emergencies 24 /7 and will have personnel on hand to handle any outages. If necessary, contractors, including tree crews, will be available to assist our own skilled workforce.

IF YOU LOSE POWER
First check your neighborhood. If you are the only one without power, check your fuse box for tripped circuit breakers or blown fuses. If that's not the problem, look outside at the wire between your house and the utility pole. If it is down, report it immediately to PSEG Long Island by phone.

Report a power outage using any of the following methods:

- **Phone:** 1-800-490-0075
- **Mobile devices:** Text "OUT" to PSEGLI (773454). You'll receive ongoing updates about the status of your outage. If you're not registered, text REG to PSEGLI (773454) or visit My Account.
- **Online:** www.psegliny.com/stormcenter

If you call and receive an automated response, please follow the prompts, as it is designed to route your call to the right destination. If you have specific information regarding damage to wires, transformers or poles, please stay on the line to speak with a representative to provide that information.

General outage activity throughout our service territory is also available online and on our mobile website at www.psegliny.com. Updates are posted on www.psegliny.com/stormcenter during severe weather.

Then please call me on my cell phone at (516) 817-XXXX. I will work with our service personnel to keep you apprised on the status of the efforts to restore your power.

In addition, if outages are widespread, the utility will activate its social media pages to keep the public informed about restoration progress. Customers can follow us at http://twitter.com/PSEGLI and http://www.facebook.com/PSEGLI.
At PSEG Long Island, customer and employee safety is first and foremost. Remember, safety is always the only choice.

PSEG Long Island will be ready to respond as quickly and safely as possible. We'd also like to take this opportunity to wish you and your family a very happy and safe Thanksgiving.

Brian Sample | Lead Account Manager
PSEGLI | Large Customer Support | 175 E. Old Country Rd. | Hicksville, NY 11801
[redacted]PSEGLINY.com

PSEG LONG ISLAND
We make things work for you.

Figure 14.7 – Critical Facility Pre-Storm E-Mail Message Sample

Critical Facilities that are not part of the "Managed Account" process, will be managed only during storms by the Business Consumer Advocates. They consist of firehouses and other small critical businesses that are not large enough to be managed on a daily basis.

As an event occurs, and in the restoration period following a storm, OMS provides data for detailed reports on which critical facilities have been affected. The Major Account consultants and BCAs can then reach out to the appropriate points of contact for each account, in order to assist in mitigating the impacts of the outage, and to provide accurate and up-to-date ETRs and other pertinent information. Outreach to the Escalations Processing team to escalate crucial outages will be made when deemed necessary.

14.6.3.1 Utility Coordination

Utility Coordination is also handled through the Major Accounts Consultants and designated Operational contacts via telephone and/or e-mail.

Communication with the LIRR typically occurs several times a day through scheduled conference calls with the dedicated Major Accounts Consultant, Major Accounts Manager, operational and senior leadership teams at PSEG Long Island, and the LIRR. Coordination between the two companies is achieved during an event through the creation of elevated action plans for restoration as a result of a pre-established definition of emergency levels with the LIRR to assist with the classification and assignment of outages.

During non-storm conditions, each year, PSEG Long Island's dedicated Major Accounts Consultants coordinate with utilities (i.e., GasCo, TelCo, CaTV, water, etc.) within the PSEG Long Island service territory to verify and update a list of their critical facilities. Critical facilities are noted within OMS and are provided with priority restoration.

PSEG Long Island Major Account Consultants will proactively communicate, via telephone, with the Long Island Rail Road (LIRR) and telecommunication companies (Verizon and Altice) prior to an impending storm event or electric emergency, to update each company on their plans for the upcoming event as well information on reporting outages or contacting PSEG Long Island in case of an emergency. In addition to this, with the assistance of the EP team, contact information of the designated staff facilitating pole replacement activity, shared downed wire issues and escalations will be shared with each of the telecom utilities (Verizon & Altice) prior to the event. At the discretion of the Operations Branch Director or the emergency point of contact at the utilities listed above, a utility representative may also be asked to report to the various Operations Centers to review plans and coordinate restoration activities.

In addition to pre-storm communications, the dedicated Major Account Consultants will remain in contact with LIRR and telecommunications companies, as needed, on a daily basis throughout the event. When utility coordination is activated, Emergency Planning staff member will also provide a report, via email, at least once daily to both Verizon and Altice with information on jobs identified as pertaining to telecommunication providers throughout the event. This report will include the location of the job and customer information among other details as reported or surveyed. It will also include any findings by the damage assessor as noted in OMS.

14.7 The Municipal Portal

The Municipal Portal is a tool to track and provide clear and timely information to governmental leaders and elected officials, based on municipal input during PSEG Long Island's restoration events.

The Municipal Portal allows municipalities to directly input incidents into OMS for outages at their Critical Facilities, if one does not currently exist. They can also rank each outage job with a priority of importance for their locality that will be considered by PSEG Long Island when developing restoration work plans (see Figure 14.9). The Portal also includes a user friendly map for inputting Wire Down/MSTC jobs, providing the ability to place a pin on a map location where the issue exists (see Figure 14.10). Clear and timely status information will then be sent to governmental leaders and elected officials based on municipal contact information provided in the Municipal Portal. The customer's preference for text or email status update, as indicated by the individual entering the outage during PSEG Long Island's restoration events will be used for communication.

The Municipal Portal is fed data from OMS, and will be tested prior to and throughout an event by the Information Technology (IT) Officer and staff. Any issues with the stability or performance of the platform will be communicated to Emergency Planning who will alert DPS, and to the Public Information Officer, who will direct External Affairs and Major Accounts to broadcast to their municipal customers (see Section 9, "Restoration Contingency Plan" for strategies employed if technology issues arise with the Municipal Portal.

The Municipal Portal requirements are as follows:

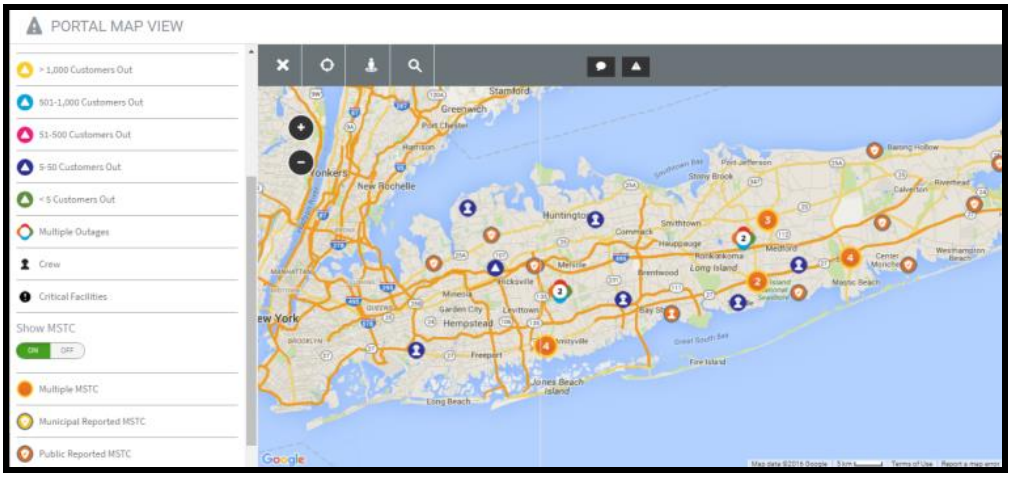
- Providing centralized data storage of escalated issues put in by the municipalities
- Providing government officials with an additional means of reporting outages and making requests for MSTC assistance to make an area safe for road debris removal
- Enhancing automated communications between PSEG Long Island, external stakeholders, and government officials when the municipality signs up for alerts for particular facilties
- Ensuring comprehensive tracking and visibility to escalated tickets that are entered directly by the municipality

The Municipal Portal is fed by OMS by job ticket coding, and is designed to record and log the following types of issues:

- Outages at critical facilities, including, but not limited to:
  - Healthcare facilities (hospitals and senior care centers)

- First responder (police and fire) stations
- Mass transit facilities
- Data centers and telecommunication providers
- Wastewater treatment plants
- Schools (when schools are used for shelters or emergency response efforts)

- Road debris with utility poles that are damaged and blocking roads on routes that are deemed vital to a municipality
- Utility poles or trees blocking access to critical facilities
- Downed power lines blocking access to roads, or trees and limbs entangled with wires, making transportation impossible and/or creating a safety hazard
- Road blocking incidents where road closure includes no egress or ingress for customers or emergency responders, creating an elevated sense of urgency and risk of no access for any potential emergency conditions
- Locations where police, fire department, or other emergency personnel are on the scene and require PSEG Long Island support to make the area safe



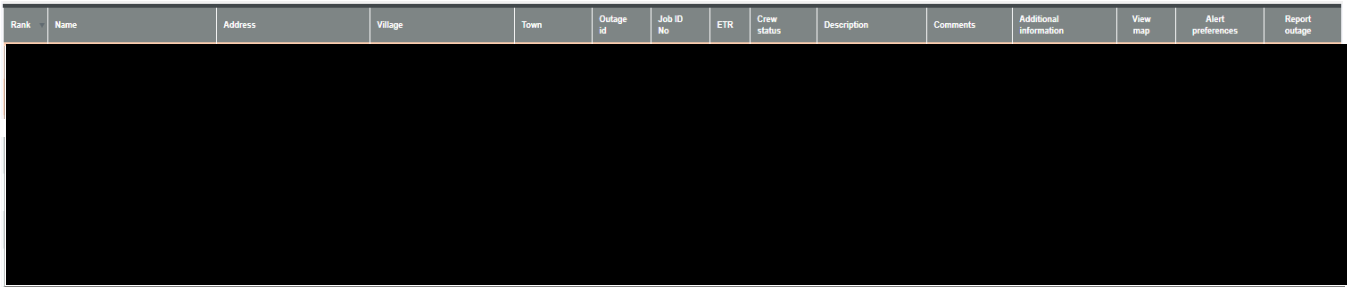


Figure 14.9 – Municipal Portal: Critical Facilities Outages

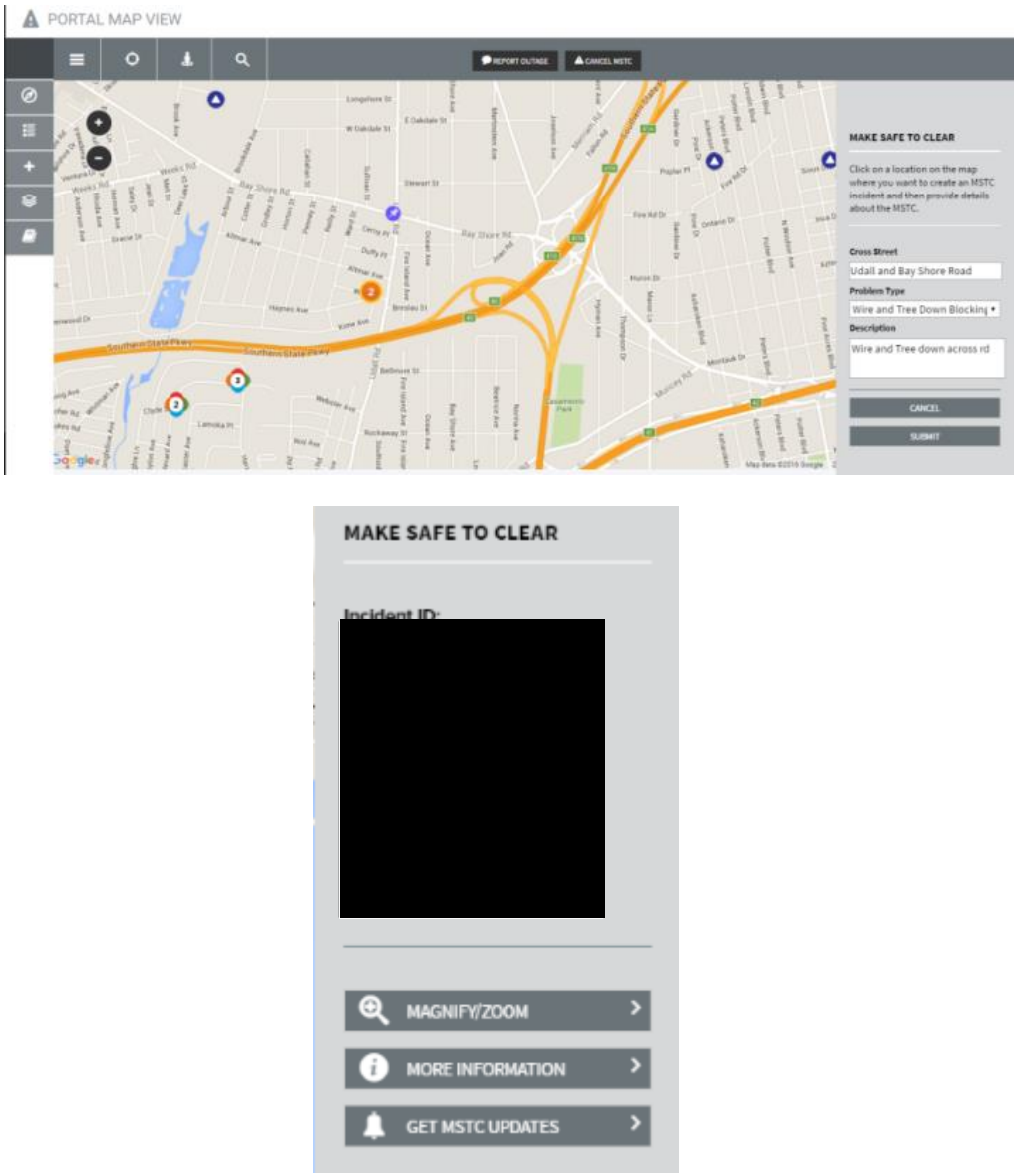


Figure 14.10 – Municipal Portal: Make Safe to Clear

14.8 Escalation Tracker

OMS is the primary system for capturing and storing data and information about outages, and the condition of the electric system. OMS governs outage identification, the dispatching of crews, and the management of the restoration response.

Following severe storms, many individuals contact PSEG Long Island requesting status updates on key outages and/or customer inquiries. The Escalation Tracker, if needed, is an additional internal escalation tracking system to capture, record, track, and respond to escalated issues and priorities that are not already escalated through the Municipal Portal or Escalation Tags, as an added tool for prioritization, or instead of OMS and the Municipal Portal if those systems are deemed unstable by IT as per above. These issues and priorities are reported through the CAC Command Center, municipal liaisons, the municipal hotline, or the LCS Team. The Tracker will remain in place as an additional backup mechanism should the other avenues of escalation need to be supplemented. The Escalation Manager will determine of the Tracker is needed before or during an event. The Excel format can be used off line in the case of network issues.

The Escalation Tracker objectives are as follows:

- Providing centralized data storage of additional escalated issues
- Ensuring comprehensive tracking and visibility to escalated issues
- Ensuring timely completion and/or follow through

14.9 Escalation Coordination

14.9.1 Console Information Coordinators (CICs) in Divisions

The Console Information Lead Coordinator will report to the Escalation Manager any crucial restoration escalation priorities being addressed by the Escalation team.

Console Information Coordinators will be responsible for monitoring and processing the outstanding escalations in Queens. Nassau County and Suffolk County. CICs will prioritize escalations in their respective divisions (Queens/Nassau, Central Nassau, Western Suffolk, and Eastern Suffolk) and work with Operations in alignment with the work plan and storm restoration strategy to escalate any known priorities.

The CICs oversee the process of utilizing the information available in OMS, the Municipal Portal, and Escalation Tagging to coordinate, track, and communicate the highest restoration priorities by Division. They will report up to the Console Information Lead Coordinator.

The CIC objectives are as follows:

- Support District Managers, Municipal Liaisons, EOC Liaisons, Major Account Consultants, Corporate Communications and CAC Command Center in identifying, prioritizing, tracking, and reporting escalated outages and make safe to clear/wire down jobs
- Consolidate escalated outage and MSTC incident lists and work with Operations to incorporate these jobs into their Restoration Plan/Work Plan as per customer input, Critical Facility level, level of local damage, and available crews

During an event, the CIC is the Communications advocate working with Operations in reviewing restoration priorities and crew availability, work plan strategy, and identifying and escalating emergent issues and situations as reported. The CICs work closely with the Division Manager and Dispatchers in all areas, providing consolidated lists of escalated incidents to be coordinated with the Operations Restoration Plan, Critical Facility level prioritization, and number of available field workforces. When activating use of Foreign Crews, the CICs reach out to Remote Dispatch Areas to solicit, collect, and package outage and restoration related information between Operations and Customer Service. Figure 14.11 below shows the process of escalations between the Communications Section and various Operations Sections that CICs work with in the division to help expedite issues affecting customers requiring escalation.

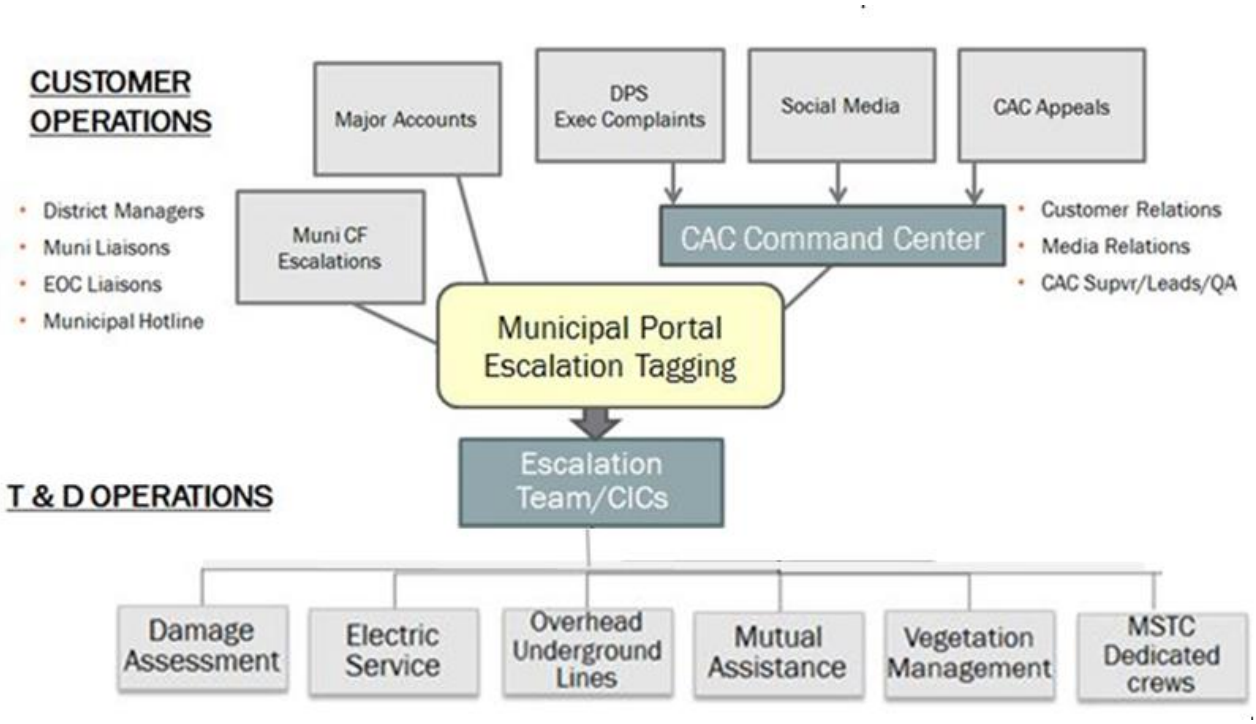


Figure 14.11 – Escalation Processing Information Flow

The CIC plays a critical role in the overall storm communications process, helping to consolidate all key restoration data and information for the operational division to which they are assigned. The Lead Console Information Coordinator is responsible for communicating with CICs in the division. A daily comprehensive overview of restoration activities reported by Operations Branch Directors, and within the divisions by Division Managers, as well as communications plans are discussed, establishing a daily strategy for escalation outstanding outages. This includes geographically specific detail, restoration information on high priority critical facilities and infrastructure, and enhanced visibility to valuable information from field forces and operations control room.

14.9.2 Escalation Processing Staff

In order to track and escalate priority jobs, a process of tagging escalations has been developed in our OMS. An Escalation Processing Coordinator and Escalation Processing Staff have been assigned to oversee incoming requests for escalation from the Customer Service and Communications organizations. Incidents qualifying for escalation by established work plan and restoration strategy will be sent to the shared "Storm Escalations" email inbox from Communications organizations. Escalation Processing Staff will provide a tag in our OMS in order to enhance the visibility to Operations, and allow the Communication team to track the outages electronically. Please see Figure 14.12 for escalation tagging in OMS.

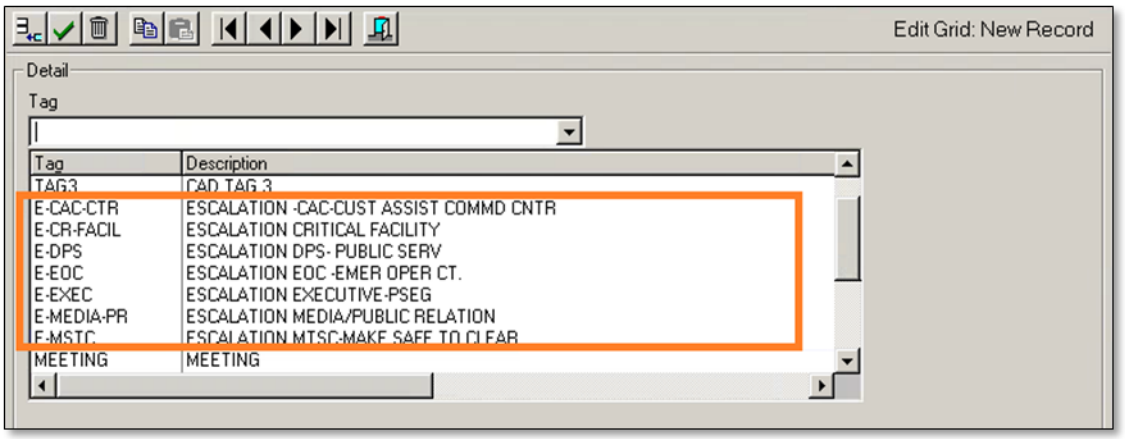


Figure 14.12 – Escalation Tagging in OMS

Restoration activities of escalated incidents will be captured and documented in OMS, and then available for reporting and tracking through SAS reports to communicate to other areas of the Communications organization. The information collected is for situational awareness and assists with operational decision-making and

communications. Manual Escalation Tracker may be used off line to collate escalations if OMS has been determined by the Information Technology Officer to be unstable. See Section 9, “Restoration Contingency Plan” for strategies employed if technology issues arise.

14.10 Corporate Communications

The Corporate Communications Manager is responsible for conveying the following to PSEG Long Island employees, the general public, media outlets, PSEG Long Island’s website, and its social media channels:

- Communication materials and contact information
- Restoration status updates and ETR forecasts
- General information regarding storm safety and local emergency services available
- Key talking points regarding storm restoration plan
- External messaging to news and media outlets

The Corporate Communications requirements are as follows:

- Deliver clear, timely, and consistent messages appropriate to the circumstances, including pre-event, during a storm, during restoration, or post-event follow-up
- Provide messaging through multiple channels to reach employees, the general public, and media outlets
- Update the PSEG Long Island website, storm center, and social media platforms, as required by the DPS Scorecard requirements
- Alert all Communication Team (Customer Technology, Marketing, External Affairs, Customer Operations and Call Center) Leads when sending out new press release for coordination of updated information
    - Each communication application will follow messaging with updated information from the press release, within one hour of release
    - The length of messaging will be dependent on platform type
- Provide “time stamp” on all communication applications, with each new update following a press release to ensure customers know when the newest restoration data has been updated
    - At a minimum, the communication applications will be time stamped no less thenevery eight hours when there are no updates
- Alert Communication Leads if one platform is down, enabling alternate application to provide customer information on alternate reporting methods
- Establish a daily communication schedule for all communications

The Corporate Communications Manager works with the Public Information Officer and Escalation Manager to approve press releases, and all additional messaging across multiple platforms. Corporate Communication team responsibilities are categorized in the below sections.

14.10.1 Customer Technology

The Customer Technology Coordinator has the following responsibilities:

- Troubleshoot any issues with communications technology. Customer Technology Support will work with vendors to resolve
- Oversee customer technology interfaces including the Website MyPower map, text alerts, e-mail alerts, outage callbacks
    - Provide storm banner on the Website MyPower Map with additional storm or emergency information, such as global or regional ETR when declared, any issues with outage reporting, definitions of ETRs, etc.
    - A link may be provided there as well, which will direct customers directly to additional pertinent information including warming/cooling centers open, charging stations, and/or dry ice distribution
- Provide reporting data for all applications
- Sending proactive messaging regarding ETR strategy and global/work plan ETR information via text/call/email channels as per customer preference in coordination with Operations
- See Section 7.4.1 for OMS and associated communication application BCP Initiative

14.10.2 Internal Communications

Internal communications are prepared and distributed periodically, prior to and throughout each day of an event, by the Corporate Communications Internal Communications Specialist. This is undertaken to ensure that all PSEG Long Island employees have an understanding of the damages and impacts of the event, expectations for their support, as well as an understanding of the nature, scope, and status of PSEG Long Island's restoration response. Communication to internal employees will directly follow external press releases. Information and updates flow to PSEG Long Island employees for distribution to all outreach channels. This ensures that all have timely, accurate, clear, and consistent information to answer questions from the general public, LSE customers, residential and commercial customers, municipalities, and elected officials. Employee updates are prepared by the Corporate Communications team and distributed through a variety of channels, including electronic newsletter, e-mail, intranet and mobile platform "The Link" which enables employees to access company information from their mobile devices.

Messages include information consistent with that released to the general public, as well as additional safety tips and reminders focused on the specific types of issues and dangers associated with working in, and traveling through, conditions associated with the current storm.

Notices to employees also include tips and reminders to prepare their families and their homes, prior to an event, so that the employees will be available for the demanding assignments and extended shifts that come with a severe storm or other emergency.

14.10.3 External Communications

The primary responsibility for distributing information and updates to the general public, and media outlets resides with the PIO and the Corporate Communications team. Prior to a storm or predicted emergency situation, messaging is focused on alerting customers and the general public of the approaching threat, so they are aware that electrical outages may occur, and to allow them as much advance warning, as possible, to prepare.

Safety tips, PSEG Long Island contact information, updates, restoration priorities, crew availability, and general and local ETRs flow out quickly and consistently to the general public and customers through press releases, press briefings, website updates, e-mail blasts, and social media updates.

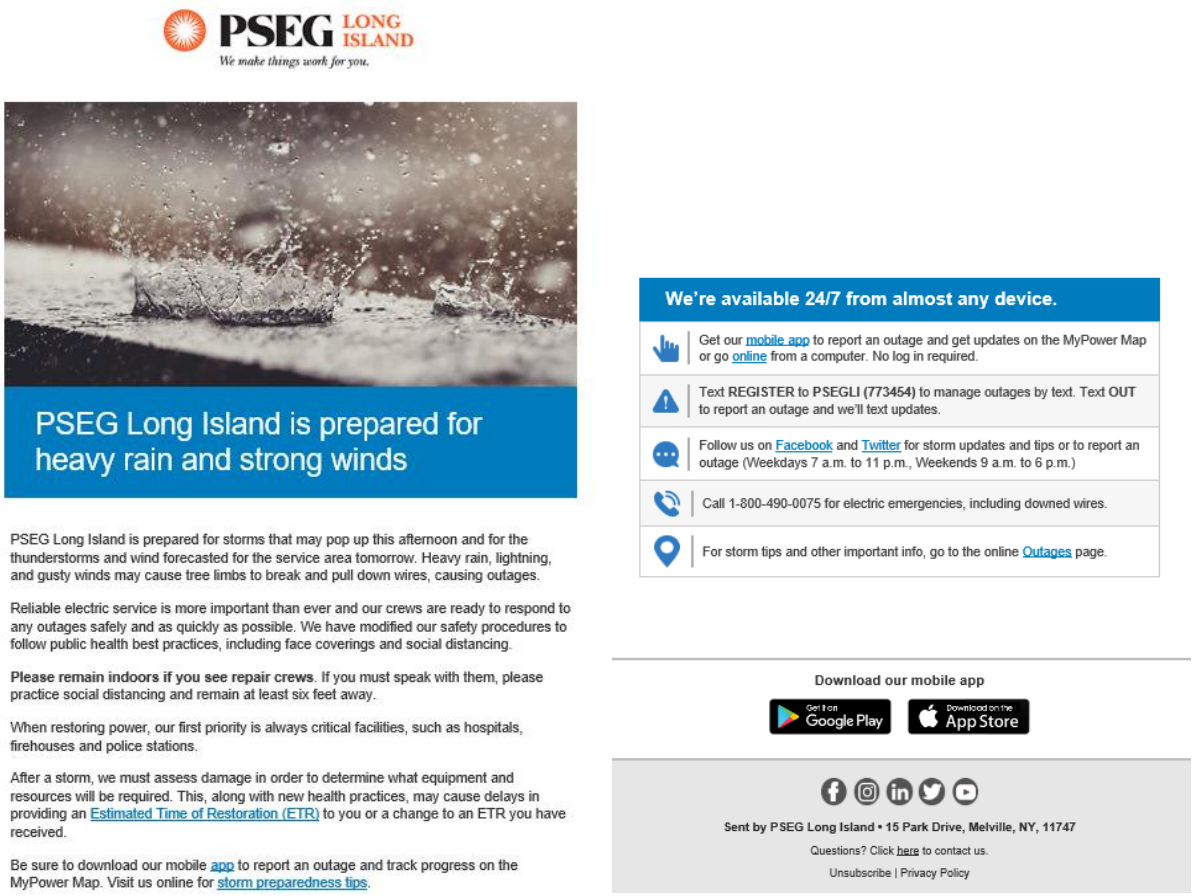
The CAC also plays a primary role as the central point of contact for inbound calls coming from the public, residential and commercial customers, police, fire and other public safety organizations, and municipal and elected officials. The Workforce Management Coordinator ensures that the IVR system and HVCA are updated throughout each day if there is any detailed information from Corporate Communications that would supersede the readily available data the customer receives on their job specific restoration data. They also support the outbound dialer messaging for outreach to LSE, Managed Accounts, and Critical Facilities customers.

Press releases, briefings, website updates, and/or e-mails are issued by the Corporate Communications and Marketing teams. Message content will be determined by the Public Information Officer and Corporate Communications Manager. Messages will contain some of the following types of information, appropriate to the type of platform, time and circumstances when issued:

- Safety tips
- Type and anticipated severity of storm
- Geographic areas likely to be impacted, by regions and counties

- Preparedness messages for LSE customers
- Public service messages and pre- and post-event warnings
    - These messages and warnings allow for all constituents to be prepared for potential power outages, and how to handle them in the safest manner possible
- Number of crews activated or anticipated
- How to report an outage, check for outage status, and note estimated time of restoration
- Notifications of dangerous situations identified in the course of restoration operations, details of the storm, and damage occurring or occurred with area specific restoration information
- Restoration Strategy for remaining customers without power
- Notification of special circumstances affecting restoration efforts, including flooding, travel restrictions, evacuation orders, etc.
- Updates on crew assignments, mutual aid support, and other resources allocated or requested to ensure safe and prompt restoration
- Other key information that may be valuable to the public for planning purposes
- Social media links/handles
- Affected number of customers
- Affected geographical areas in the service territory
- Dry ice/bottled water distribution locations
- Shelter information when provided by the municipalities
- PSEG Long Island contact information
- PSEG Long Island website address
- How to report an outage by multiple applications

An example of a pre-storm e-mail to customers (Figure 14.13) and sample press releases (Figure 14.14 and Figure 14.15) are shown below.



PSEG LONG ISLAND
We make things work for you.

PSEG Long Island is prepared for heavy rain and strong winds

PSEG Long Island is prepared for storms that may pop up this afternoon and for the thunderstorms and wind forecasted for the service area tomorrow. Heavy rain, lightning, and gusty winds may cause tree limbs to break and pull down wires, causing outages.

Reliable electric service is more important than ever and our crews are ready to respond to any outages safely and as quickly as possible. We have modified our safety procedures to follow public health best practices, including face coverings and social distancing.

Please remain indoors if you see repair crews. If you must speak with them, please practice social distancing and remain at least six feet away.

When restoring power, our first priority is always critical facilities, such as hospitals, firehouses and police stations.

After a storm, we must assess damage in order to determine what equipment and resources will be required. This, along with new health practices, may cause delays in providing an Estimated Time of Restoration (ETR) to you or a change to an ETR you have received.

Be sure to download our mobile app to report an outage and track progress on the MyPower Map. Visit us online for storm preparedness tips.

We're available 24/7 from almost any device.

- Get our mobile app to report an outage and get updates on the MyPower Map or go online from a computer. No log in required.
- Text **REGISTER** to **PSEGLI (773454)** to manage outages by text. Text **OUT** to report an outage and we'll text updates.
- Follow us on Facebook and Twitter for storm updates and tips or to report an outage (Weekdays 7 a.m. to 11 p.m., Weekends 9 a.m. to 6 p.m.)
- Call 1-800-490-0075 for electric emergencies, including downed wires.
- For storm tips and other important info, go to the online Outages page.

Download our mobile app

Get it on Google Play | Download on the App Store

Sent by PSEG Long Island • 15 Park Drive, Melville, NY, 11747

Questions? Click here to contact us.

Unsubscribe | Privacy Policy

Figure 14.13 – Sample E-Mail to Customers Pre-Storm

PSEG LONG ISLAND | My Account | Outages | Save Energy & Money | Safety & Reliability | Corporate Citizenship

Hurricane Laura Approaches Long Island

PSEG Long Island has social distancing plans in place to restore power safely and as quickly as possible

(UNIONDALE, N.Y. – Aug. 27, 2020) – PSEG Long Island is monitoring thunderstorms forecasted for later today and the remnants of Hurricane Laura expected to pass through the service area Saturday. The weather system today is expected to bring heavy rains and thunderstorms with peak gusts of 50 to 65 mph. The heavy rain, lightning and gusty winds may cause tree limbs to break and pull down wires, causing outages. As the remnants of Hurricane Laura progress north, additional plans will be adjusted for Saturday.

"We are closely monitoring the two weather systems and will have a full complement of personnel to respond safely and as quickly as possible to any service interruptions it may cause," said John O'Connell, PSEG Long Island's vice president of Transmission and Distribution Operations.

Additional crews from both local and off-Island resources are being procured to work alongside PSEG Long Island's highly trained line personnel to quickly and safely restore power to customers. In addition, based on the experiences during Tropical Storm Isaias, we have made configuration and capacity changes to our phone system; rolled back our outage management system to a previous more stable version; and put processes in place to continuously monitor our IT systems for capacity and bottleneck issues.

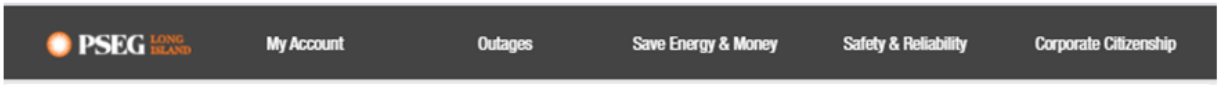
"During the COVID-19 pandemic, PSEG Long Island remains committed to providing safe, reliable electric service, strong storm response and excellent customer service," O'Connell said. "We have adapted our storm procedures to follow public health best practices and accommodate for other potential industrywide changes. As our personnel operate under these unusual circumstances to safely restore power as quickly as possible, we thank our customers for their patience and understanding."

The safety of PSEG Long Island's customers and employees is the company's top priority. We ask that customers remain in their homes while crews are working nearby. If customers must speak with our crews, we ask that they practice responsible "social distancing" and remain at least 6 feet away to ensure the health of everyone involved. For more information about how PSEG Long Island continues to live up to its commitments during the pandemic, please visit www.psegliny.com/covid19.

Stay connected:

- Download the new PSEG Long Island mobile app to report an outages and receive information on restoration times, crew locations and more.
- To report and receive status updates via text, text OUT to PSEGLI (773454) or visit us online at www.psegliny.com/outages
- To report an outage or downed wire call PSEG Long Island's 24-hour Electric Service number: 800-490-0075 or use our web chat feature at www.psegliny.com
- Follow PSEG Long Island on Facebook and Twitter to report an outage and for updates before, during and after the storm
- Visit PSEG Long Island's outage information across Long Island and the Rockaways online at https://mypowermap.psegliny.com

Figure 14.14 – Sample Press Release (Pre Storm)



Newsroom / 2020

Press Release

PSEG Long Island: Storm Update -- April 14, 2020 4:30 p.m.

(UNIONDALE, N.Y. – April 14, 2020) Working 16-hour shifts, PSEG Long Island crews have made significant progress restoring customers impacted by the strong winds and hazardous gusts. As of 4:30 p.m., 98% of customers affected have been restored.

- We expect to restore the majority of outages that occurred prior to 7 p.m. Monday by midnight and virtually all of the remaining storm-related jobs by morning.
- PSEG Long Island is reporting 787 of its customers across Long Island and the Rockaways are currently without service. This number includes customers that reported an outage overnight and today.
- Crews worked in dangerous wind conditions to assess damage and make repairs. The winds have subsided, however additional outages may occur.
- PSEG Long Island has additional personnel, including tree and line crews, to repair damage and restore outages.
- Crews work to restore critical facilities and outages affecting the largest numbers of customers first. Information about PSEG Long Island's restoration process is available at https://www.psegliny.com/outages/restorationprocess.
- Our goal, always, is to restore power safely and as quickly as possible. We ask our customers for a fair amount of patience and to know we will be there just as soon as it is safe.

Customer Safety:

The safety of PSEG Long Island's customers and employees is the company's top priority. We ask that customers remain in their homes while crews are working nearby. If customers must speak with our crews, we ask that they practice responsible "social distancing" and remain at least 6 feet away to ensure the health of everyone involved. For more information about how PSEG Long Island continues to live up to its commitments during the pandemic, please visit http://www.psegliny.com/covid19.

Stay connected:

- Download the new PSEG Long Island mobile app to report an outages and receive information on restoration times, crew locations and more.
- To report and receive status updates via text, text OUT to PSEGLI (773454) or visit us online at www.psegliny.com/outages
- To report an outage or downed wire call PSEG Long Island's 24-hour Electric Service number: 800-490-0075 or use our web chat feature at www.psegliny.com
- Follow PSEG Long Island on Facebook and Twitter to report an outage and for updates before, during and after the storm
- Visit PSEG Long Island's outage information across Long Island and the Rockaways online at https://mypowermap.psegliny.com

Figure 14.15 – Sample Press Release (During Storm)

14.10.4 Media Coordination

The Corporate Communications Media Coordinator is responsible for communicating with a full range of broadcast, online and print media outlets. This ensures timely and clear communication of all key messaging, based on the situation, circumstances, and timeframe of an event. The Media Coordinator formulates press releases, coordinates appropriate interviews, and provides periodic status updates, throughout an event and afterward.

In addition, the Media Coordinator and support staff maintain focus on storm related threats, including flooding, snow accumulations, extreme heat conditions, etc., and shares all available safety and restoration information, recommendations for preparing for flooding or evacuation, safety precautions, and suggested steps to arrange for re-energization (if a home or area has been de-energized due to flooding or other conditions). When appropriate, the team may share in-field videos and photos to support damage characterizations and demonstrate restoration procedures and activities under way.

The Corporate Communications support staff maintains a complete list of key contacts and alternate contacts for all media outlets, across the service region territory, including newspapers, periodicals, radio and TV broadcasters, and internet news services. The media contact list is utilized and updated throughout the year to maintain a current list of reporters and contacts at each media outlet. Semi-annually, the Corporate Communications Media Coordinator and support staff reviews the media list and coordinates with appropriate outlets for proper contact information (see Appendix E). In addition, the Media Coordinator sends each press release to a list of internal communications organization leads enabling all customer types to be notified with updated information across all communication platform. The Escalation Manager will oversee alignment of communication updates within one hour of press release.

14.10.5 Website and Social Media Coordination

The Website and Social Media Specialists maintain around-the-clock availability of the website during an electrical emergency and coordinate updates to the site with new restoration information provided in each press release within one hour of press release issuance. These updates include safety tips, press releases and updates, website updates, and procedural guidance, when the service territory is impacted by flooding, mandatory evacuations, or other special circumstances. The Website and Social Media Specialists utilize all available internet and social media channels to share proactive, current and consistent messaging, in order to reach the broadest possible range of internet protocol connected devices.

Customer inquiries on social media are managed by dedicated Social Media Staff at the CAC, as well as additional staff as needed to assist the Social Media team with real-time customer account access and details to be provided to customer inquiries on Facebook, Instagram and Twitter. Applications to manage social media across all platforms are used blue sky days and during storms. Any customer requests reporting unsafe conditions or medical hardships may be escalated by the Social Media Analyst to a Call Center Supervisor or CAC Command Center per standard escalation process, (see Section 14.9 Escalation Coordination.) PSEG Long Island is currently implementing artificial intelligence automation to help manage increased customer use during large events.

The “Outages” section on PSEG Long Island’s website allows the customer to access safety tips and storm updates, along with a means to report outages. Examples of the home page for the Outage Section and the MyPower map are shown in Figure 14.16.

The website and social media platforms will be monitored by the Information Technology Officer. Any issues with the stability or performance of the platforms will be communicated to Emergency Planning who will alert DPS, and to the Public Information Officer, who will broadcast these issues to customers (see Section 9, “Restoration Contingency Plan” for strategies employed if technology issues arise.

During a Storm Event

When power goes out, we understand you're eager to know when it will be restored. Here's a look at what goes into giving you that information after a major storm.

Damage Assessment Phase: Onset of Storm

During the Damage Assessment phase, a customer reporting an outage may receive an "Assessing Conditions" message or see that on our online outage map. You will receive a Estimated Time of Restoration (ETR) once the majority of the storm has passed and we know the extent of damage and outages. The bigger the storm, the longer this may take. Our systems will determine if a reported outage is part of a larger issue affecting many customers or just one. At that time, we will dispatch a repair crew or damage assessor to inspect the conditions. The detailed damage report we receive helps ensure we bring the appropriate repair crew, material and equipment to the job site to make repairs.

Global ETR Phase

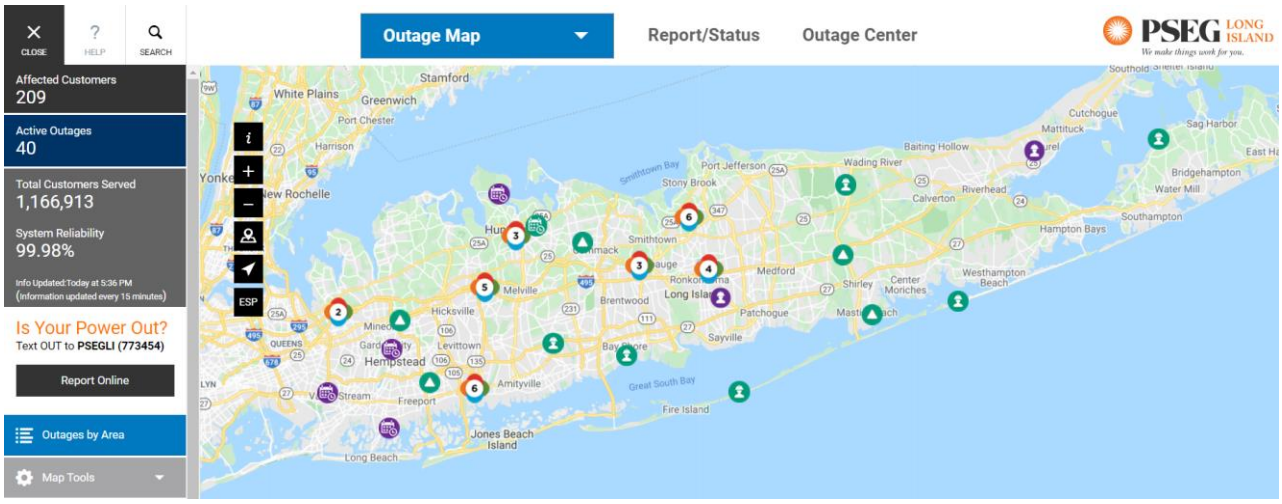
If we cannot yet provide detailed, individual ETRs, we may provide a "global" ETR to all customers affected by the event. At this stage, we have a good understanding of the damage across the affected area(s). Based on the number of outages and crews available, we develop a global ETR, which is an estimate of how long it will take to restore 90% of all customers affected. The more damage there is to the system, the further out in time the global ETR will be. Most customers will be restored on or before this global estimate.

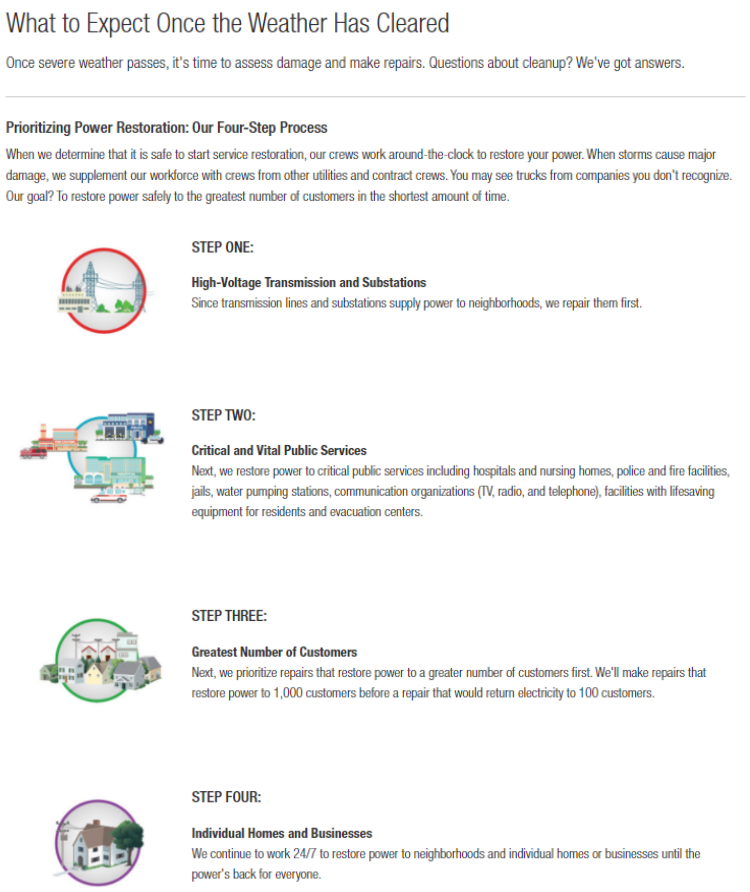
Work Plan (Regional) ETR Phase

This is the second ETR provided to customers with an outage. It is a more detailed estimate that supersedes the Global ETR, grouping the number of outages that can be restored into three-day blocks. The work plan is updated and communicated daily. As additional repair crews arrive to aid in restoration efforts, more jobs are added to the daily work plan and more customers are restored.

Job Level (Local) ETR Phase

This is the 3rd ETR a customer receives. A crew is on site, repairing damage and adjusting the Work Plan ETR based on actual field conditions. If more work is required and additional time needed, a 4th ETR may be required. The opposite can occur as well, especially if damage was fixed quicker than expected.





What to Expect Once the Weather Has Cleared

Once severe weather passes, it's time to assess damage and make repairs. Questions about cleanup? We've got answers.

Prioritizing Power Restoration: Our Four-Step Process

When we determine that it is safe to start service restoration, our crews work around-the-clock to restore your power. When storms cause major damage, we supplement our workforce with crews from other utilities and contract crews. You may see trucks from companies you don't recognize. Our goal? To restore power safely to the greatest number of customers in the shortest amount of time.

STEP ONE:

High-Voltage Transmission and Substations

Since transmission lines and substations supply power to neighborhoods, we repair them first.

STEP TWO:

Critical and Vital Public Services

Next, we restore power to critical public services including hospitals and nursing homes, police and fire facilities, jails, water pumping stations, communication organizations (TV, radio, and telephone), facilities with lifesaving equipment for residents and evacuation centers.

STEP THREE:

Greatest Number of Customers

Next, we prioritize repairs that restore power to a greater number of customers first. We'll make repairs that restore power to 1,000 customers before a repair that would return electricity to 100 customers.

STEP FOUR:

Individual Homes and Businesses

We continue to work 24/7 to restore power to neighborhoods and individual homes or businesses until the power's back for everyone.

Figure 14.16 – Website Outage Home Page, ETR Section, MyPower Map and Restoration Process Page

PSEG Long Island also utilizes social media to interact with our customers who are still out and provide feedback to their specific comments and/or concerns about their restoration. Figure 14.17 and Figure 14.18 provide examples of social media.

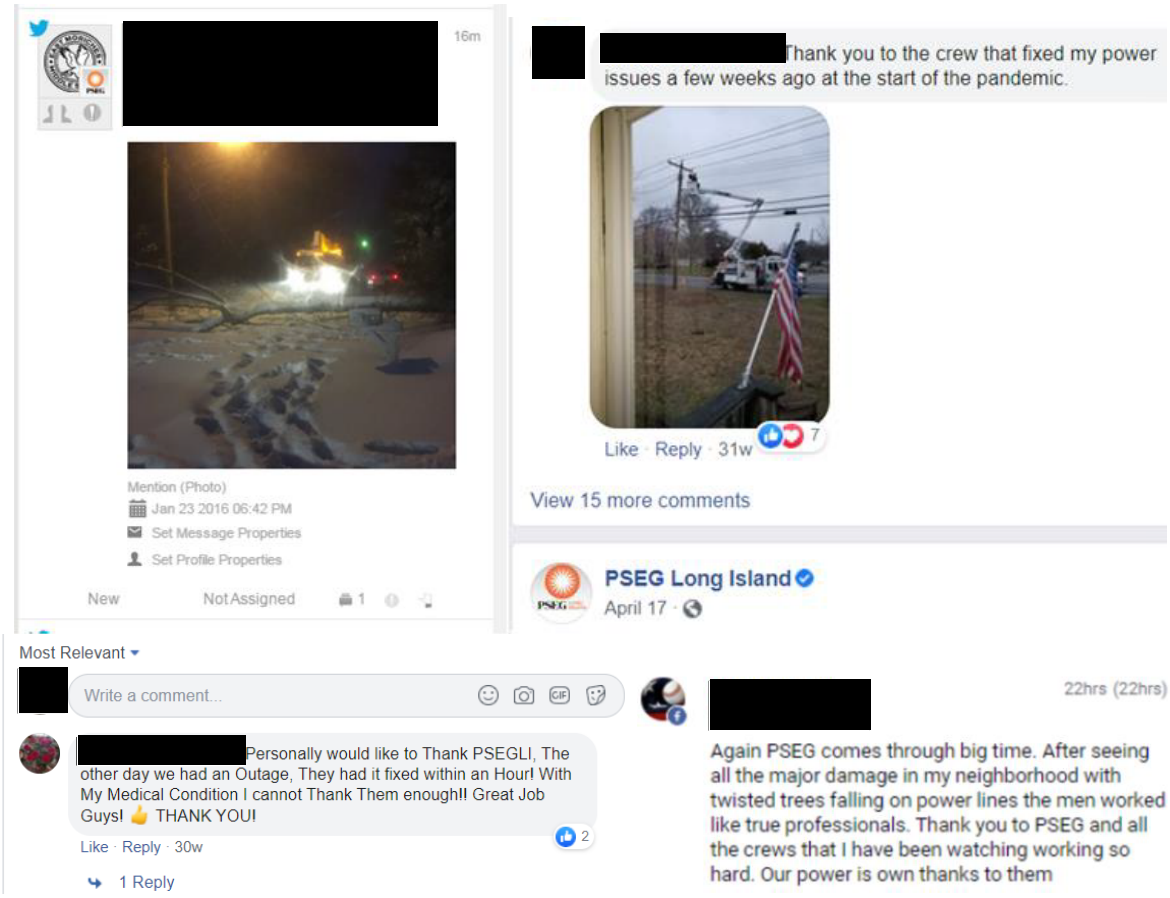


Figure 14.17 – Social Media Posts from Facebook and Twitter

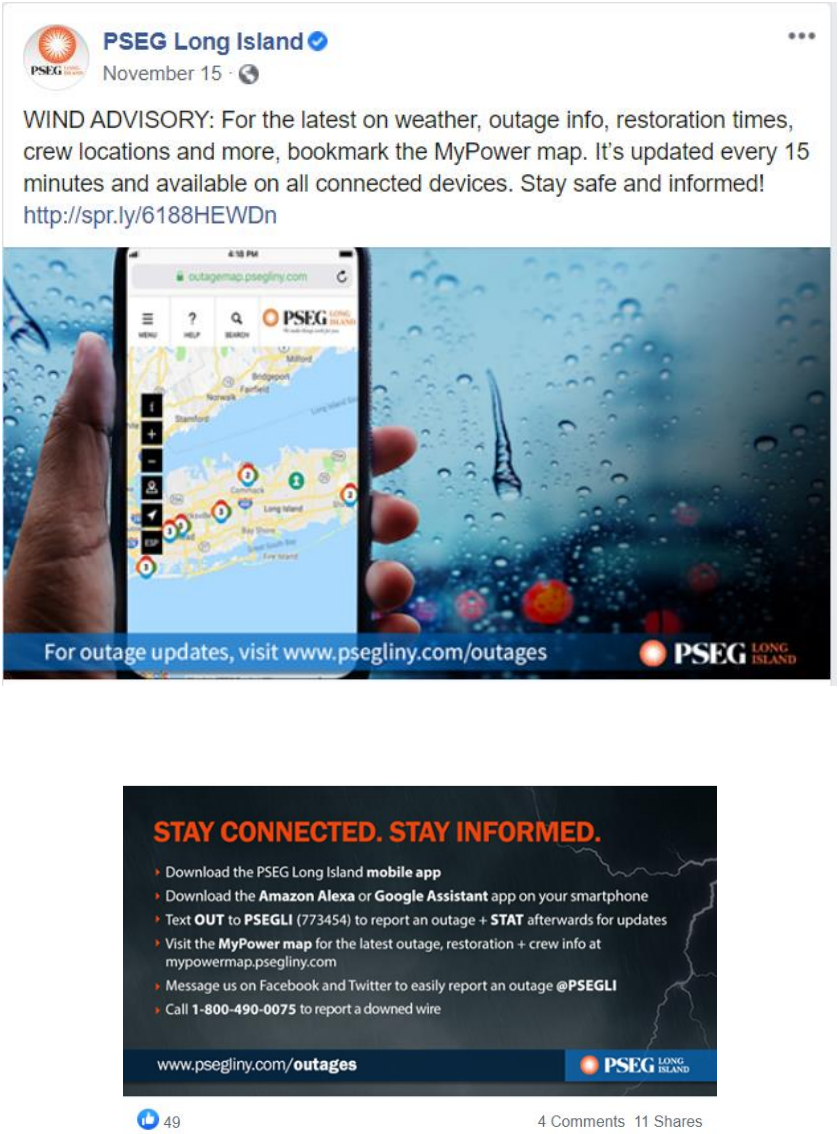


Figure 14.18 – Social Media Banners

In addition, PSEG Long Island maintains a portfolio of informative educational videos on the website www.PSEGLINY.com and YouTube channel at www.youtube.com/PSEGLI. Examples of the videos are shown in Appendix O.

15. OPERATIONS PROTOCOLS

This section of the ERP details comprehensive tactics for restoration operations that are implemented by PSEG Long Island, in response to a severe storm or system-wide emergency impacting Long Island and the Rockaways. These tactics, which are intended to be scalable and flexible, may also be implemented during storms of intermediate intensity, such as a severe thunderstorm or strong windstorm, where significant localized damage has occurred.

The Operations organization is comprised of two branches and two groups, along with their support staff and resources:

The T&D Operations West and East Branches perform the following actions:

- Coordinating restoration activities divisionally and at decentralized dispatch areas
- Surveying the distribution system for damage
- Managing the Foreign and Contractor Crews
- Repairing the electric T&D system

The Transmission Survey & Operations Control Group performs the following actions:

- Coordinating restoration activities centrally
- Surveying the transmission system for damage
- Staffing and monitoring of substations

The Line Clearance Group performs the following actions:

- Coordinating line clearance activities centrally
- Staffing the Contractor Line Clearance Crews

The responsibilities and supporting activities of Operations Section Branches, which significantly contribute to the overall restoration effort, are addressed in this section.

15.1 Overall Approach and General Strategies

During emergencies, the Operations Section is responsible for managing all tactical operations associated with an incident, specifically the safe and efficient assessment of damage to the electric T&D infrastructure and restoration of electric service. To accomplish this mission, the Operations Section is structured into two branches, split geographically, with supporting staff. The T&D Operations West and East Branches perform damage assessment, coordinate restoration activities, mobilize and manage the repair crews, including PSEG Long Island, Contractor, and Foreign Utility Crews, and direct the overall repairs.

The activities of these branches occur at the Division Headquarters, and, depending on the level of decentralization for the particular event, at decentralized Dispatch Areas. The necessity to decentralize is dictated by the number of tactical resources required, and is greatly influenced by span of control considerations. A tiered restoration approach is the principle that guides how restoration is escalated, from divisional/console dispatch up to full delegation of configuration authority to decentralized dispatch areas. Please refer to Section 15.2.3 of the ERP for features on this approach.

In any storm situation, three vital pieces of information must be gathered to enable an effective restoration plan:

- Number of electric customers out of service
- Amount and type of damage to the T&D Electric System
- Manpower available (along with timing of availability) to repair damage

Once this information has been collected, efficient restoration plans can be developed.

15.1.1 Restoration Protocols

After a major event, PSEG Long Island utilizes a process to repair damage and restore power that is recognized as an industry best practice. Restoration protocols are designed to safely restore power to the largest number of customers, in the shortest amount of time. The safety of the public and the crews making repairs and restoring power are PSEG Long Island's first priority. This can mean that sometimes a storm must pass before damage assessment personnel and repair crews are able to be released to the field, to begin to assess and repair damage. Field damage assessments and repairs may commence when:

1) Field personnel are able to be deployed without unacceptable safety risks from continued severe weather conditions (where adverse weather conditions are applicable)
2) The potential additional damage to the electric system from the storm is low, in proportion to the expected level of damage already sustained

The decision to commence restoration is made locally by either the T&D Operations West or East Branch Director. This is termed as the "start of restoration" and, at the discretion of leadership, may be delayed to coincide with the beginning of daylight hours, if practical, to maximize safety and efficiency.

The "start of response" is defined as the time resources can be deployed safely to the field, i.e., make safe crews. PSEG Long Island is now required to inform the DPS Director of OREP or Deputy Director of OREP of the specific date and time of the start of response (Make Safe crews are sent out into the field) and, if different, the start of restoration, immediately after either begins. This information will be provided by the Operations Section, to the Planning Section Chief, who will inform DPS.

The order in which repairs are made is aligned with the path that electricity flows from the power plants to the customer. PSEG Long Island crews begin with transmission and distribution circuits that affect large numbers of customers. Repair crews then restore primary branch-line distribution lines that can affect multiple customers, continuing down to secondary distribution lines that affect fewer customers. Finally, service lines to individual customer businesses and residences are restored.

Jobs with more than one type of damage at a location are prioritized and arranged by the highest priority work at the location. In such cases, all of this work is considered one job, and is assigned as such. The objective is to proceed so that each hour of work will return the maximum number of customers to service, as possible.

Concurrently, PSEG Long Island focuses restoration efforts to restore service to Critical Facilities, such as hospitals, police departments, firehouses, and other public health and safety facilities on a priority basis, as warranted. While efforts are made to

provide prioritized restoration to Critical Facilities, it is not always possible to restore such customers on a prioritized basis. In addition, customers designated with LSE status do not imply priority restoration after a storm. However, when the end of restoration is nearing 100% and outage numbers are low, with all things being equal, consideration is given, when practical, to restoration of outages with LSE customers over those outages without LSE customers.

As such, PSEG Long Island also implements specific outreach programs to alert LSE customers to properly prepare for potential prolonged power outages, and to provide information and updates on PSEG Long Island's storm preparation and restoration activities. These programs provide an expanded level of communication to LSE customers. They include pre-event notifications (for forecasted events), and daily outreach to those that experience outages during PSEG Long Island's response and restoration, to assist them with their continuity planning. For more details on this process, refer to Chapter 14 – Communications Protocols.

PSEG Long Island crews are initially assigned to high priority transmission work, while Foreign Crews are just arriving or still in transit. During such time periods, divisions continue to perform damage assessment. Once Foreign Crews become available, they are allocated either directly to divisions or to decentralized dispatch areas.

Overall, at both the division and dispatch area levels during emergencies, all work for restoring electrical service on the T&D system is assigned, repairs are performed, and service restored, in accordance with the following set of general priorities:

Eliminate Unsafe Conditions

The elimination of hazards to the public takes precedence during emergencies. Available personnel are divided into the minimum size crews, as required to cut and clear or repair the primary and secondary hazards. Wires are cleared so that service can be restored up to the break. Special crews consisting of non-line personnel may be established to respond to municipal reports of downed wires, as required and as possible.

Response to emergency calls is prioritized based on the severity of risk for areas such as schools, playgrounds, and high pedestrian traffic areas, providing response as soon as possible. Please refer to Section 15.1.3 of the ERP for features on this activity.

Additionally, at the initial stages of the restoration process, PSEG Long Island crews may be directly assigned to municipalities to work with their DPW crews to "make safe" downed wires, so that trees and other debris may be removed from

major roadways by municipal crews. Please refer to Section 15.1.4 of the ERP for features on this activity.

Transmission Circuits

Transmission line restoration is prioritized by the Transmission Survey and Operations Control Group Supervisor. Damage assessment and repair of transmission lines are directed by the designated Division Supervisor. Support personnel are assigned to permit restoration of transmission service to substations, by the time load can be served from the substation. Bulk power circuits, not directly affecting substations, are assigned priority, depending on the importance of the circuit and the effect of its loss on the bulk power system. The Chief Transmission System Operator, in coordination with the applicable Division Distribution Control Center, determines the need for bulk power circuits.

Substations

Substation repairs are directed by the Substation Maintenance/Relay Protection Group Supervisor, who consults with the Chief Transmission System Operator and the Division Distribution Control Center to determine the order of restoration.

Primary Distribution Circuits and Branch Lines

Main portions of 3-Phase primary distribution circuits that are “locked-out” are restored either by cutting faulted sections clear, or by opening sectionalizing devices (i.e. switches). Damages are then repaired, restoring all 3-Phase primary distribution circuits.

Repair crews then begin restoration of all primary distribution branch lines affecting multiple customers. Repair crews are directed to complete all the work on a primary distribution branch line, even if this includes secondary distribution lines and services. Depending on the extent of damage, this may entail the repair crew returning the following day to complete repairs. It is the responsibility of the repair crew to perform a final assessment of damage in the area and repair any additional damage found.

Secondary Distribution Lines and Services

Areas where there is only damage to secondary distribution lines and services are restored simultaneously. Again, repair crews are directed to complete all the work on one visit to the area and, depending on the extent of damage, may entail the repair crew returning the following day to complete repairs. It is the responsibility of

the repair crew to perform a final assessment of damage in the area, and repair any additional damage found.

In addition, if the customer's equipment requires repair, the repair crew will notify the customer and, if possible, restore the service wires by making temporary repairs, provided that the customer has authorized such, via a temporary service agreement.

Critical Facilities

Where possible, priority for electric service restoration is provided to those facilities, from which essential services, functions for the continuation of public health and safety, and disaster recovery are performed or provided, such as hospitals, water-pumping stations, sewage treatment plants, police and fire stations, etc., as practicable.

LSE Customers

Efforts are taken to restore service to LSE customers as quickly as conditions warrant. Again, priority restoration is not guaranteed or provided for in such cases. Customers are reminded that their LSE designation is not regarded or considered as a restoration priority. Service will be restored as quickly and safely as possible, following normal prioritization, safety guidelines, and the practicality of being able to restore.

Permanent Repairs

In addition to eliminating unsafe conditions, the initial focus of restoration is to get the power back on, and then return to make permanent repairs, where necessary. After all electric service has been restored, permanent repairs are made to any remaining temporary field conditions. During restoration of service, if practical, permanent repairs are made to avoid hazardous conditions and eliminate duplication of effort. To simplify the completion of permanent repairs, a log of the locations of temporary repairs is maintained within the OMS during the restoration process.

15.1.2 Damage Assessment/Survey Protocols

A key element of the Operations Section is damage assessment. This capability ranges from mobilization of select individuals performing damage survey for minor events to the mobilization and staffing of a Divisional Operation Center's Survey Console during events where damage is more widespread.

Damage assessments can be a very detailed and, depending on the severity of the damage, lengthy process. Therefore, alternate methods of calculating preliminary impacts are employed at the outset of major events.

When a major storm initially strikes, the first estimate of the number of customers affected is made from the Long Island Control Area (LICA) Report, produced by the Critical National Infrastructure (CNI) Department. This report is used to compare the current level of electric demand on the system, on an hourly basis, with the forecasted demand, based on historical demand, at a similar time of year, and the current weather forecast during non-storm conditions. This is a best estimate of customers interrupted based on available data at the time. However, due to the lack of damage information, no highly reliable prediction of restoration duration can be made at that point.

Prior to the initial damage assessment being conducted, the "Lockout Coordination Center" is mobilized. This group, contained within the Planning Section, assists the Transmission System Operations District Operators with the dissemination of T&D lockout data to the four Distribution System Operations Divisions. This group produces a Lockout Report from information obtained via SCADA, along with preliminary reports from field personnel. This is the first quantitative indicator of the amount of actual damage to the system, based solely on distribution circuit lockouts and loss of supply.

Employing worksheets that provide predictions based on lockout counts of the number of customers out-of-service and the amount of damage, the first estimates of the duration of the restoration effort can be made. As soon as the number of crews committed can be determined, or at least estimated, the predictions can be revised.

Two algorithms have been developed, based on historical data. The first postulates the estimated number of customers out-of-service based on the number of lockouts. The second provides an estimated forecast of the number of primary and secondary damage locations based on the same data. Then, by means of an algorithm relating the number of anticipated crews to the number of estimated primary and secondary damage locations, an initial system level or global restoration duration, in days, can be approximated.

Additionally, by obtaining the AMI Storm Outage Report from the Strategic Utility Technology Measurement Systems Group, the total number of AMI meters out system wide can be utilized to estimate and validate the impact of the storm, as well as support the establishment of the initial Global ETR.

For those severe emergencies when field damage assessments are required, the 3-Phase mainline of locked out distribution circuits that are most heavily impacted (based on SCADA readings and/or OMS predictions, as well as locked out circuits serving critical infrastructure) are patrolled. This is done in order to obtain damage information, as soon as possible, for the initial repair crews and to generate a preliminary prediction of global restoration duration. A prerequisite for this action is a completed Lockout Report, obtained via SCADA from the Lockout Coordination Center.

The T&D Operations Branch Directors will determine if field damage assessment is warranted, based on the number/severity of incidents reported in OMS, and the number of operating divisions affected. In response to storm devastation, the T&D Operations Branches are tasked with performing damage assessment from the four operating divisions (*Divisional Survey*). These Damage Assessment teams are mobilized, deployed, and dispatched to known incidents within the OMS. They are directed to record and report their findings, in a manner that allows for the development of work packages and ETRs.

As part of the ERP, Divisional Survey personnel are managed through a centralized Division Survey Console, which is staffed with coordination and dispatching personnel. Divisional Survey personnel are pre-identified and trained to conduct widespread damage assessments. Staffing plans are developed to address anticipated needs, through the execution of pre-existing contracts and mutual assistance requests. A list of outside contractors are noted within Appendix Q for securing additional Divisional Survey personnel.

The survey (damage assessment) involves “two-person” teams physically inspecting, either by car or on foot, all reported overhead primary and secondary damage locations associated with each locked out circuit. This ensures that all damage locations are physically verified, as opposed to relying solely on customer-generated damage reports. After assessing the damage, Survey personnel identify the material and equipment requirements necessary to effect repairs.

Damage information is collected and then entered into OMS. For additional information on specific Damage Assessment/Survey protocols followed by PSEG Long Island during restoration activations at the Division level, see Section 15.3.3 of the ERP.

Within 24 hours of the commencement of restoration, PSEG Long Island targets to survey as part of a preliminary assessment:

1) 75% of all locked out transmission circuits causing a loss of supply
2) 30% of the 3-Phase mainline and unfused branch line of all locked out distribution circuits

These broad scale preliminary assessments of the nature and extent of system damage are based on rapid surveys of damaged areas (mainline circuits considered to be heavily impacted based on SCADA readings and/or OMS predictions, as well as circuits serving critical facilities known to be without commercial power). From these preliminary assessments, an initial damage assessment can be made based on the total number of damage locations, and augmented with input from other data sources (i.e., system load, lockout algorithm, AMI data, etc.). This initial assessment is implemented to support the establishment of initial global ETRs.

Within 48 hours of the commencement of restoration, PSEG Long Island targets to survey:

1) 100% of all locked out transmission circuits causing a loss of supply
2) 75% of all locked out transmission circuits not causing a loss of supply
3) 75% of the 3-Phase mainline and unfused branch line of all locked out distribution circuits
4) 30% of the reported fused branch line incidents of all distribution circuits

These more detailed assessments of system damage are based on systematic field surveys. From these more detailed assessments, a more comprehensive damage report can be made on the total number of damage locations surveyed. This comprehensive assessment is implemented to further support decision making in resource acquisition and deployment.

Within 72 hours of the commencement of restoration, PSEG Long Island targets to survey:

1) 100% of all locked out transmission circuits not causing a loss of supply
2) 100% of the 3-Phase mainline and unfused branch line of all locked out distribution circuits

Once the Divisional surveys are essentially complete, and more accurate damage reports are gathered, further refined restoration predictions can be made. As the restoration process continues, and both field survey data and crew availability are known, ETR estimates will continue to be refined, starting from the system level (global ETR) and continuing down to regional, local, and ultimately, individual job level restoration estimates.

15.1.3 Wire Down Protocols

During a large-scale storm event, the safety of the public is a primary concern of PSEG Long Island. The elimination of hazards to the public takes precedence during emergencies and includes plans to promptly address downed wires within 18 hours of notification of the location of such downed wires from a municipal emergency official, for events up to 5-days, and within 36 hours for events greater than 5-days, as specified in Case 13-E-0140. Response to down wires involves the dispatch of trained and qualified employees or contractors to investigate reports of downed wires, make safe, fix, and, if needed, arrange for standby personnel to protect the public. In the event external contractors are needed for wire watching duties, resources are contacted by the Distribution Damage Assessment Strike Team Leaders, in conjunction with the Government Funds Compliance Group.

The following Wire Watch resource matrix (see Figure 15.1) was developed as a baseline of resources needed to respond to Wire Watch situations during restoration events. The matrix reflects PSEG Long Island's baseline compliment of resources available to perform Wire Watch activities during different storm classifications.

	Condition I – White	Condition II – Blue	Condition III – Red
PSEG Long Island Wire Watch Resources	None	1-20 FTEs	20+ FTEs*

Figure 15.1 – Make Safe to Clear (MSTC) Resource Matrix

*In instances where it is determined that additional Wire Watch resources are required, PSEG Long Island would secure additional contractor/mutual assistance resources that would supplant additional internal resources assigned to Wire Watch activities.

Non-outage emergency call reports are received from customers, police/fire dispatchers, 911 center representatives, or field personnel. Incidents are created within the OMS system with one of the following conditions marked:

- WIRES DOWN - POLE-TO-POLE or WIRES DOWN - POLE-TO-BUILDING
- WIRES DOWN AND BURNING
- SPARKING WIRES
- WIRE DOWN – BLOCKING ROAD

Qualified individuals are dispatched to reported wire down locations to determine whether the incident involves PSEG Long Island equipment (i.e., is not facilities owned by Cable or TelCo). If the crew is capable of making a permanent or temporary repair to a down conductor that may be energized, they will clear the hazard. If the crew is not qualified to perform the corrective action, they will contact their respective dispatcher, who may assign either a Wire Watcher to replace them and "standby" the hazard until made safe, or a qualified crew to make safe or clear the hazard.

Should prioritization delay a qualified crew from responding, the crew at the location of the down conductor will safeguard the public from encroaching upon the hazard by either "coning off" the immediate area, applying caution tape or, if necessary, remaining on-site and standing by the incident to protect the public. At no time should downed/low-hanging conductors be considered de-energized (only correctly installed grounds allow for downed/low-hanging conductors to be considered de-energized). Therefore, at all times, Survey Teams and Wire Watchers shall continue to maintain safe approach distances, and at no time, shall any conductors be moved.

The objectives of PSEG Long Island's Wire Down Protocols include heightened tracking of wire down incidents, accurate reporting of the response time to wire down locations, and full documentation of the actions taken.

Response to downed wires is under the direction of the T&D Operations Branch Directors, for performing the initial investigation, and for clearing the hazard. Dispatchers within the Distribution Survey and Operations Control Divisions and T&D Crew Control Divisions will prioritize and sort reports for assignment. Dispatchers will determine the appropriate resources to be assigned to both evaluate and guard downed wires or make the incident safe.

When assigning/dispatching and responding/assessing wire down reports, the NYS DPS Wire Down Priority and Severity levels are utilized as a guideline. Reports of downed wires with the highest risk to public safety, based on comments received, are assigned higher priority.

In addition to performing damage assessment, Divisional Survey teams also respond to non-outage emergency jobs during restoration activations at the division level. These calls include wire downs, burning/sparking wire, pole damage, and miscellaneous emergency calls. These Survey teams are frequently able to close out trouble calls that do not involve PSEG Long Island facilities (i.e., telephone, cable, etc.), or arrange for Wire Watchers to stand by lower priority downed wires, thereby enabling them to continue performing damage assessment and for repair crews to focus on higher priority work. PSEG Long Island strives to relieve divisional Survey

teams, who are standing by hazardous situations, with a Wire Watcher, within eight hours from the time relief was requested.

Damage assessment and/or repair personnel are then dispatched from the division or dispatch area, through OMS, to assess and/or safeguard downed wire incidents, in priority order. Upon arrival at the location of a wire down report, and initial assessment of the situation, the severity of the situation will be determined. If necessary, the responder will either:

- Make the situation safe, so that wire is not a risk to the general public in the area
- Standby the location, until relieved, or until the situation is made safe by a qualified crew

Notification of a wire down by a 911 agency that involves a hazard, such as a fire or situation where individuals are trapped by a downed wire, will result in the immediate dispatch of an Overhead Line Crew to the incident. Remaining wire down reports are then assigned to damage assessment and/or repair personnel, according to the wire down priority, as referenced below (highest to lowest):

Priority:

Priority 1A – (HIGHEST) Wire down reports, where it is indicated that the wire is burning, arcing/sparking, or an immediate hazard

Priority 1B – Wire down reports, where it is indicated that the wire is causing a road closure resulting in no ingress or egress

Priority 2 – Relief of fire departments, police departments, or other municipal agencies that are standing by downed wires

Priority 3* – Report of electric wire down from an emergency organization:

- Reported to be affecting traffic flow on a major public highway
- Reported to be blocking/near a pedestrian walkway or driveway
- Reported to be primary conductor
- Reported to be secondary conductor

Priority 4 – Report of electric wire down from other sources:

- Primary conductor is indicated
- Secondary conductor is indicated

Priority 5 – (LOWEST) Report of wire down where type of wire is not indicated, and it appears the wire is not likely an electric conductor

* Priority 3 includes reports from members of the 911 call center, police, fire, OEM (including EOC personnel), and municipal emergency managers.

Blocked road incidents can be put in through OMS including multiple options for wire sparking, wire down, wire low, or wire blocking the road. Escalated incidents are put in the Municipal Portal by the municipalities or by various groups in the Communication, Escalation, and Liaison organizations in order to provide greater visibility and a higher priority. These incidents are reported directly from a municipal official, public works supervisor, or PSEG Long Island employee to ensure field conditions are already verified. Emergency jobs with the six clue codes from the Municipal Portal are routed and assigned to dedicated crews who are reserved for these escalated incidents exclusively.

Field conditions that involve road closure with no ingress or egress are clearly indicated with descriptive notes and may be assigned "escalation tags" within OMS to provide an even more heightened priority to Operations. For further details of the escalation process, please refer to Section 7.3.10, “External Interface – Municipal Portal,” Section 14.7, “Municipal Portal,” and Section 14.9, “Escalation Coordination.”

Damage assessment and/or repair personnel that are specifically dispatched to safeguard downed wire situations will drive to the location of the wire down report. After assessing the situation, they will determine the SEVERITY of the situation. SEVERITY is determined based on the following guidelines (highest to lowest):

Severity:

Severity 1 – (HIGHEST) – Wire down conductor that poses a high risk to public safety, due to its location on a road or pedestrian-accessible area. These situations will require damage assessment and/or repair personnel to remain on-site and guard the wire until they can be relieved by a Wire Watcher or after a qualified employee or contractor has made the wire safe.

Severity 2 – Wire down is a primary conductor, but is not on a main road or other easily accessible location. These situations will also require damage assessment and/or repair personnel to remain on-site until relieved by a Wire Watcher or the conductor can be verified de-energized by a qualified employee or contractor. Once the wire is known to be de-energized, the damage assessment and/or repair

personnel will barricade or tape the area and then can move on to their next location.

Severity 3 – Wire down is a secondary conductor. Damage assessment and/or repair personnel will attempt to notify nearby customers and will barricade/tape off the area to clearly distinguish the hazardous area. If the wire is either open wire secondary or triplex service cable that has an exposed end (wire is broken), damage assessment and/or repair personnel will remain on-site until relieved by a Wire Watcher or a qualified employee or contractor has verified that the wire is not energized.

Severity 4 – (LOWEST) Wire down is not an electric conductor and is not in contact with an electrical conductor, but is instead phone, cable, or other communications property. If the situation is safe, damage assessment and/or repair personnel will inform their coordinator of this, and move on to the next order. Their coordinator may then provide this information to the appropriate company or liaison for communication to the responsible company.

The Division Distribution Damage Assessment Coordinators, within the Distribution Survey and Operations Control Division, assign Wire Down Response/Standby Strike Teams (i.e., Wire Watchers) to replace Divisional Survey Teams, when appropriate, so that these Survey Teams are able to proceed to their next assignment. The Division Distribution Damage Assessment Coordinators also keep track of where Wire Watchers are standing by, and will provide relief, as needed.

All personnel called upon to standby downed wires during Condition III “Red” are trained in these Wire Down Protocols. Qualified personnel working with energized conductors in making the area safe or completing service restoration will also have received proper training, prior to the event. Those not trained and qualified shall not work with energized equipment, or attempt to do any work outside of their qualifications and level of training.

It is recognized that during large-scale weather events, the number of internal resources that are trained and readily available is limited, and the demand could greatly exceed those available. In these situations, PSEG Long Island anticipates the need for significantly more wire watch personnel, depending on the impact of the storm, and may contract for additional wire watch resources. Therefore, it is critical to address the reporting of down wires, in the priority outlined in this protocol, and to efficiently utilize the available Survey Teams and Wire Watchers.

15.1.4 Make Safe to Clear (MSTC) Protocols

PSEG Long Island recognizes the importance of clearing emergency evacuation routes and main thoroughfares, after major storm events, and understands the key role they play in helping to make areas safe to clear by de-energizing and/or removing downed electrical wires that may be blocking roads or entangled in downed trees or roadway debris.

MSTC protocols are activated under a storm event where municipalities and/or emergency first responder organizations request PSEG Long Island assistance in clearing municipal roads blocked with debris and potential electric hazards.

In anticipation of a large-scale event and/or other system emergency affecting the electric system, the Incident Commander, in conjunction with the Operations Branch Directors (East & West) and the Make Safe to Clear Group Supervisor, will activate the MSTC Unit and these protocols, as required, in support of restoration needs and emergency conditions. The Make Safe to Clear Group Supervisor oversees all MSTC plans and protocols including pre-event municipal outreach, activation, response activities and event coordination.

In anticipation of an potential large scale weather event, the Make Safe to Clear Group supervisor will conduct outreach to their municipal contacts (i.e., Department of Public Work (DPW) officials) to review plans and anticipated weather conditions and impact.

Once the event and/or major storm has passed, the Make Safe to Clear Group Supervisor will conduct additional outreach to understand the current need and conditions faced by municipalities, as it pertains to road closures due to electrical wires. The Make Safe to Clear Group Supervisor will then discuss the information received from the municipalities, along with incidents already received via traditional channels with the Operations Branch Directors and Division Managers to review and decided upon a MSTC strategy. The strategy for dispatching MSTC includes two options and/or a hybrid of both.

1) Direct Dispatch – MSTC crews are held in a “bullpen” in anticipation of receiving MSTC incidents during the event. MSTC crews are then assigned and dispatched on MSTC jobs from the Road Debris Clearing (RDC) group, according to the priority and receive date/time.

2) Dedicated – MSTC crews are assigned directly to the municipalities and are embedded with DPW crews for an assigned territory. MSTC crews will work directly with DPW crews until all valid MSTC conditions have been resolved for

the territory. MSTC crews will reconcile all DPW work with jobs in OMS and provide status updates.

The decision to dedicate MSTC crews to municipalities will be reviewed based upon crew quantities, storm conditions and subsequent damage experienced by the requesting municipalities. MSTC incidents will continue to dispatched in the "direct dispatch", a "dedicated" fashion, and/or a hybrid fashion based upon event conditions and the needs of municipalities. The Make Safe to Clear Group Supervisor will remain engaged with both the municipalities and PSEG Long Island Operational Leadership (i.e., Branch Directors and Division Managers) on MSTC efforts and associated restoration strategy.

When dedicated crews are activated, the MSTC Group Supervisor will conduct daily outreach to requesting municipalities to manage expectations and deployment plans with municipal DPW supervision to ensure the proper utilization of MSTC resources. Once it has been determined that dedicated MSTC crews are no longer necessary within a municipality, MSTC Crews will return to the bullpen and dispatch on MSTC incidents as they are received in the RDC group. As resources are limited, MSTC crews may also be re-deployed to assist other organizations, in accordance with the severity of damage experienced by the various requesting entities, and the resources available for deployment.

PSEG Long Island MSTC crews work cooperatively with the respective municipality's DPW crews to "make safe" downed wires, so that trees and other debris that are blocking major roads may be safely cleared by the DPW crews. MSTC crews are comprised of trained, Underground linemen that typically work in three man crews. MSTC crews have the proper skill sets to cut, clear, and/or de-energize downed wires, so that municipal DPW crews can then safely remove downed trees and other debris from the roadways. By doing this, the DPW crews can re-open key arteries that have become impassible during the storm event. PSEG Long Island MSTC crews have the proper tools to test and remove downed electrical cables, but are not equipped to perform debris removal, which remains the responsibility of the requesting municipality. In certain circumstances, MSTC crews will work with internal Line Clearance crews (i.e., vegetation management) on conditions where electrical hazards and vegetation damage intersect (i.e., downed tree caught in primary). Responding MSTC crews will ultimately assess the incident damage and coordinate response efforts to safely and expeditiously open assigned roadways.

MSTC crews will not engage in activities related to the clearing of secondary roads, individual properties, etc., and it is envisioned that they will only be assigned to work

with the municipalities to clear blocked priority roadways for at most a 48 to 72 hour period, immediately following the storm.

As previously discussed in Section 15.1.3, to address efforts related to “wire down”/ “make safe” issues not covered by these assigned resources, PSEG Long Island has a parallel process in place whereby resources are dispatched through its operating divisions across Long Island, in response to requests received for such assistance. In these cases, resources are dispatched on a job-by-job basis, in direct response to the trouble calls received.

Again, during large-scale weather events, the number of internal resources that are trained and readily available is limited, and the demand could greatly exceed those available. In these situations, PSEG Long Island anticipates the need for additional MSTC crews, depending on the impact of the storm, and may contract for additional MSTC resources, or may reassign other available internal resources to support these activities and backfill their roles with additional contractor support. Therefore, it is critical to address blocked roadways, in the priority outlined in this protocol, and to efficiently utilize the available MSTC crews.

The following MSTC resource matrix (see Figure 15.2) is utilized as a baseline of resources identified to respond to MSTC conditions during restoration events. The matrix reflects PSEG Long Island’s baseline compliment of underground resources available to perform MSTC activities during different storm classifications.

	Condition I – White	Condition II – Blue	Condition III – Red
PSEG Long Island Underground Resources (MSTC)	None	0-40 FTEs	40-100 FTEs*

Figure 15.2 – Make Safe to Clear (MSTC) Resource Matrix

*In instances where it is determined that additional MSTC resources are required, PSEG Long Island would secure additional contractor/mutual assistance resources that would supplant additional internal resources assigned to MSTC activities.

15.1.4.1 Make Safe to Clear (MSTC) Dispatch Strategy

PSEG Long Island receives many requests for assistance at wire down locations affecting blocked roads during restoration events. With that, PSEG Long Island strives to dispatch verified MSTC incidents based upon priority, conditions on the scene and the origin of the request. PSEG Long Island aims to dispatch MSTC incidents out of the Road Debris Clearance (RDC) group in the following order:

1) MSTC incidents indicating a road closure with no ingress or egress
2) Escalated MSTC incidents (i.e., escalation received from OEM officials, municipality and/or tagged with a MSTC escalation tag
3) Municipal Portal requests
4) Municipally reported incidents with “blocking road” comments (non-Municipal Portal)
5) Customer reported incidents with “blocking road” comments that have been verified by a survey team ensuring MSTC conditions have been met
6) Jobs directly routed to the RDC referral group by the Router/Gater based upon the comments and identifiers within the incident report. These incidents have not been surveyed, but reflect details that support a MSTC dispatch.

15.1.4.2 Make Safe to Clear (MSTC) County Prioritization Plan

During large scale restoration events with many potential MSTC locations, PSEG Long Island may coordinate with State and County OEM representatives on a prioritization plan for pending MSTC incidents to ensure an effective and agreed upon use of MSTC crews. State and County EOC personnel can assist with identifying critical roadways in most need of attention, including the identification of primary, secondary and local roads needing assistance. Having EOC personnel assist with priorities also alleviates multiple requests received from various towns, villages and municipalities requesting MSTC assistance, while supporting a fair and agreed upon mechanism for clearing critical roadways.

PSEG Long Island Emergency Preparedness Staff will coordinate MSTC priority plans with State and County EOC personnel, in conjunction with the MSTC Group Supervisor and/or MSTC Assistant Group Supervisors. Emergency Preparedness Staff may also coordinate MSTC prioritization plans with PSEG Long Island EOC Liaisons when activated and/or conditions warrant. The agreed upon MSTC prioritization plan will be utilized for the next day’s work plans and dispatch strategy for assigned MSTC crews. MSTC prioritization plans will remain in effect until dispatch levels return to normal conditions and/or until all critical roadways have been cleared of electrical hazards.

County prioritization plans will be coordinated based upon MSTC restoration plans, event conditions and the needs of County OEM.

15.1.4.3 Road Clearing Task Force

To improve restoration efforts surrounding road clearing efforts during large scale events PSEG Long Island has established a formalized 'Road Clearing Task Force' and supporting processes to improve response plans and allow participants to better coordinate and expedite road clearing activities during restoration events. PSEG Long Island has created County specific plans supporting the 'Road Clearing Task Force' initiative and has hosted numerous meetings with County OEM and DPW representatives on the topic. Plans include hosting a daily call among participants to discuss MSTC efforts, coordination plans, escalations, etc. In addition, the 'Road Clearing Task Force' plan includes the following details:

Participants to include, but are not limited to:

- PSEG Long Island
- NYS Division of Homeland Security & Emergency Services (DHSES)
- NYS Department of Transportation (DOT)
- Nassau or Suffolk County OEM
- County Police Department
- County Department of Public Works (DPW)
- Verizon
- Altice

Objectives for 'Road Clearing Task Force' members include, but are not limited to:

- Improve coordination among first responder agencies and utilities
- Reduce redundancy of efforts and multiple calls regarding the same issue
- Enhance abilities to expedite critical road clearance issues with responsible parties
- Improve response times surrounding overall road clearing efforts
- Develop daily communications mechanism (i.e., daily phone call) to improve information sharing among participants, during events

Plans and Procedures for 'Road Clearing Task Force' include, but are not limited to:

- Activate 'Road Clearing Task Force' in anticipation/response to a large scale storm event
  - PSEG Long Island & County OEM
- Establish daily call schedule and distribute call-in information to members
  - Calls to be held once daily while the Task Force is activated
  - PSEG Long Island to set up and distribute invite
  - Calls will established based upon event conditions and needs
- Task Force Daily Call Agenda
  - Weather Conditions and Storm Effects
  - PSEG Long Island - MSTC Resource Levels and Response Plans
  - PSEG Long Island - Daily Progress and Status
  - County DPW/OEM Update
  - NYS DOT/OEM Update (if applicable)
  - Partner Utilities Update (if applicable)
  - Critical Escalations and/or Concerns
  - Next day work plans
  - See Figure 15.3 for a sample call agenda and meeting summary
- Task Force Plans
  - Task Force members will participate in a once daily, check in call, when activated
  - Task Force members will work within their own organizations to coordinate and assist with the clearing of blocked roadways
  - Task Force members will share information and data relative to road clearing efforts to assist and expedite the overall process
    - MSTC crew mobilization and deployment plans (PSEG Long Island)
    - Reported blocked roadway locations and/or jobs (PSEG Long Island)
    - Blocked roadway locations and/or lists (State DOT and County DPW)
    - Closed reports, but needs another utility (PSEG Long Island, VZ, Altice)
  - Task Force members will work together to expedite and coordinate escalations and/or other critical blocked roadways
  - The Task Force will assist with the prioritization of roadways and subsequent roadway clearing efforts during large scale events with substantial numbers of blocked roadways and/or limited MSTC resources

Road Clearing Task Force Call Agenda and Meeting Summary Document

Task Force Meeting Date & Time: _____

Event Name: _____

Call in details: _____

Participating Organizations

Organization	Name	Participation (Y/N)
PSEG Long Island		
Nassau County OEM		
Nassau County DPW		
Nassau County Police		
DHSES		
NYS DOT		
Verizon		
Altice		
National Guard		

Task Force Daily Call Agenda

Topic	Speaker	Comments
Weather Conditions & Storm Effects	PSEG Long Island	
MSTC Resource Levels and Response Plans	PSEG Long Island	
MSTC Daily Progress & Status	PSEG Long Island	
County Update	Nassau OEM and/or DPW	
State Update	State DOT and/or DHSES	
Partner Utility Update	Verizon and/or Altice	
Critical Escalations and/or Concerns	ALL	
Next Day Work Plans	ALL	
Other	ALL	

Next Meeting Date & Time: _____

Figure 15.3 – Sample Road Clearing Task Force Call Agenda and Meeting Summary

PSEG Long Island remains engaged with both Nassau and Suffolk OEM on the 'Road Clearing Task Force' process. A Road Clearing Task Force plan has been reviewed and approved by Nassau County and discussions remain ongoing with Suffolk County on plan refinement and finalization. In New York City, PSEG Long Island participates in NYC OEM's 'Down Tree Task Force' which has similar goals and plans as the 'Road Clearing Task Force'.

For additional details, please refer to ERIP-OPS-017 – *Make Safe to Clear Protocols During Restoration Events*.

15.2 System Headquarters Procedures

15.2.1 Key Actions and Responsibilities

The System Headquarters section encompasses those actions that are undertaken at the PSEG Long Island Corporate Operating Headquarters, in anticipation of, and following, the declaration of Condition III "Red". Once Condition III "Red" has been declared, the PSEG Long Island T&D Operations VP, assuming the role of Incident Commander, is responsible for command and control. The Incident Commander sets the incident objectives, strategies, and priorities, and has overall responsibility for the incident.

Simultaneously, the Division Managers, Electric West and East assume the roles of T&D Operations West and East Branch Directors, respectively. The T&D Operations Branch Directors establish the tactics to achieve the incident objectives and directs all operational resources. The Transmission Operations Manager assumes the role of Transmission Survey & Operations Control Group Supervisor, and the Vegetation Management Manager assumes the role of Line Clearance Group Supervisor. Both the Branch Directors and the Group Supervisors implement the operational tactics necessary to achieve the incident objectives.

15.2.2 Mobilization of Personnel

15.2.2.1 Local Resources

The Incident Commander has overall responsibility for notifying the Command Staff segment of the Restoration Organization, including the SHE Officer, the Legal Officer, the Liaison Officer, and the PIO. The Incident Commander may also activate other roles necessary to serve the response, based on incident developments. Upon notification, the Command Staff Officers subsequently notify and mobilize the personnel from their respective elements, and direct them to initiate their emergency restoration callouts. An automated roster callout system is utilized, via phone call or mobile app, for notification and callout of certain emergency restoration roles (primary, secondary, etc.), allowing PSEG Long Island to communicate expediently with employees.

The Incident Commander is also responsible for notifying the General Staff segment of the restoration organization, including the Planning Section Chief, Logistics Section Chief, Finance/Administration Section Chief, and the two T&D Operations Branch Directors. Upon notification, the General Staff Section Chiefs and Branch Directors

subsequently notify and mobilize the personnel from their respective sections, and direct them to initiate their emergency restoration callouts.

Consequently, the T&D Operations Branch Directors make notification to the Line Clearance and Transmission Survey and Operations Control Group Supervisors. Upon notification, these elements subsequently notify and mobilize the personnel from their respective branches, groups, and areas, and direct them to initiate their emergency restoration callouts.

The T&D Operations Branch Directors also have responsibility for making notifications to the T&D Operations Branch portions of the restoration organization in their respective geographic territories. The Distribution Survey and Operations Control Division Supervisors (Distribution Operations Division Managers) are responsible for notifications to, and mobilization of, division personnel required for survey and operations control of the distribution system, commensurate with the size, scale, and complexity of the emergency. The T&D Crew Control Division Supervisors (OH/UG Lines Division Managers) are responsible for notifications to, and mobilization of, division personnel required for crew control, commensurate with the size, scale, and complexity of the emergency.

The Transmission Survey and Operations Control Group Supervisor (Transmission System Operations Manager) is responsible for making notifications to, and mobilizing personnel required for survey and operations control of, the transmission system, commensurate with the size, scale, and complexity of the emergency.

The Line Clearance Group Supervisor (Vegetation Management Manager) is responsible for making notifications to, and mobilizing personnel required for line clearance operations, commensurate with the size, scale, and complexity of the emergency.

15.2.2.2 Foreign Crews

The mustering and assignment of crews is a vital part of the restoration process. PSEG Long Island can call on several sources of manpower to perform restoration work depending on the severity of the storm including:

- PSEG Long Island
  - Electric Servicemen (One-Person Crews)
  - High Voltage Overhead Line Crews
  - High Voltage Underground Splicing Crews
  - Low Voltage Two-Man Makeup Crews (Various departments)
  - Contractor – High and Low Voltage Crews
  - Contractor Tree Crews
  - Damage Assessment Teams
- Foreign Utility
  - High and Low Voltage Crews
  - Damage Assessment Teams
- Contractor
  - High and Low Voltage Crews
  - Tree Crews
  - Crew Guides
  - Damage Assessment Teams
  - Wire Watcher Teams

The T&D Electric Operations West and East Departments are routinely engaged, on a continuing basis, in the type of work necessary to restore electric service. Traditional lines of communication exist between these departments that facilitate, to whatever degree necessary, the coordination of PSEG Long Island and regular contractor work forces, in all conditions of readiness. PSEG Long Island has readily available contracts with various vendors (i.e., crew guides, flaggers, damage assessors, etc.) that can be utilized during restoration events. When needed, depending on the number and type of external resource required, the contract owner, in conjunction with the Government Funds Compliance Group, communicates with outside contractors to active the contract and procure the resources needed to assist with restoration. For a listing of contracted damage assessors, please refer to Appendix Q.

Distribution Operations and OH/UG Lines management personnel are located adjacent to each other, at the divisional level, thereby enhancing interaction and direction of the restoration effort.

While all storms require the use of PSEG Long Island Crews, and routinely PSEG Long Island Contractor Crews for restoration activities, Condition III "Red" events require supplemental help by Foreign Utility and Foreign Contractor Crews. PSEG Long Island is highly dependent on help from other utilities and contractors to address and respond to massive damage caused by major storms. Restoration events in adjacent service territories or other parts of the country may influence the availability of line workers, tree trim resources, and other support personnel, as well as accessibility to our logistics support contractors, and the timing of when such resources become available.

Mutual assistance is an essential part of the electric power industry's service restoration process and contingency planning. Created decades ago, the current mutual assistance process works well following regional outage events during which individual utilities or Regional Mutual Assistance Groups (RMAGs) play a key role in enabling a successful response. Foreign Utility Crews and Contractor Crews are utilized via the EEI Mutual Assistance Agreement to augment PSEG Long Island repair forces under the ERP.

1) PSE&G New Jersey Coordination

   As part of this process, PSEG Long Island also coordinates with PSE&G New Jersey regarding the mobilization and sharing of available operations, communications, and logistics resources to support restoration efforts on Long Island and in the Rockaways. A formal process to provide assistance between the two companies in the form of personnel, equipment, material, and other key resources has been developed. Resource needs have been pre-identified, quantified, and categorized for storm events of various scales. Availability of resources is contingent upon the scope of the storm and the area(s) impacted.

2) Mutual Assistance Requests

a) Guidelines

When preliminary damage assessment indicates that the restoration effort is expected to exceed 48 hours using only PSEG Long Island Crews and regular Contractors, consideration is given to obtaining Foreign Crew support. The PSEG Long Island President and COO, or their designee, is responsible for making the decision to request outside Line and/or Tree Crew assistance. An immediate commitment to proceed with obtaining personnel is often required to allow for the securitization of resources in a resource-constrained and high demand environment.

Depending upon the number of crews requested, the T&D Operations Branch Directors will direct the Logistics Section Chief to prepare for the arrival of outside Line and Tree Crew assistance. The Logistics Section is responsible for the processing of Foreign Crews at a FCP site.

To facilitate the acquisition of Mutual Assistance and contractor crews from Canada, a procedure for crossing the US/Canada border has been developed by the NYS OEM. This procedure must be followed, or assistance will not be allowed to cross the border. Effective pass through the border requires coordination with the Port of Entry (POE), the NYS OEM, and NYS DPS as described in the border crossing procedure included in Appendix R. It is the responsibility of the Foreign Crew Branch Director, collaborating with the Planning Section Chief, to implement this procedure.

b) Agreements

i) North Atlantic Mutual Assistance Group (NAMAG) Coordination

PSEG Long Island requests outside assistance from Foreign Utility, Contractor Line, Tree Crews, damage assessors, and wire watchers through participation in the NAMAG. Please refer to Appendix G for the full NAMAG Agreement. As warranted, the Incident Commander may initiate actions to secure additional support available through municipal utilities.

ii) National Response Event (NRE)

Given the increasing frequency and severity of storms in the United States, competition for resources and ever-increasing expectations regarding restoration activities, the electric power industry has recognized the value of enhancing the mutual assistance process to scale it to a national level. During a significant outage event, a more efficient resource allocation will further improve public safety, accelerate restoration, and reduce potential economic consequences. This enhanced coordination also provides the means for a more equitable allocation of resources aligned with damage experienced.

An industry-wide NRE is a natural or man-made event that is forecasted to cause, or that causes, widespread power outages impacting a significant population or several regions across the U.S., and requires resources from multiple RMAGs.

A requesting utility's Chief Executive Officer (CEO), or a designated officer, from an EEI member utility, may initiate the NRE process if, and/or when, multiple RMAGs cannot adequately support the resource requirements of the requesting utilities.

NRE Activation Criteria:

The request for activating the NRE should meet any of the following criteria regarding the actual/forecasted event:

- The event is expected to, or has impacted, two or more RMAGs
- The resource requirements are greater than what the impacted RMAGs can offer
- There are multiple events that create a resource constraint or competition between RMAGs

NRE Resource Allocation:

When an NRE is declared, all available emergency restoration resources (including contractors) will be pooled and allocated to participating utilities in a safe, efficient, transparent, and equitable manner, without regard to RMAG affiliation. Resource allocation in regional events will continue to be managed through the existing RMAG processes.

During a declared NRE event, resources will be allocated to requesting utilities based on the following criteria:

- Pre-event – Allocation is proportional to the utility request for pre-staging, and involves the "initial wave" of resources, unless broader mobilization is required per National Mutual Assistance Resource Team (NMART) and National Response Executive Committee (NREC)
- Intra-event – Weighted average of customer outages and damage locations relative to all requesting utilities:

  60% portion of customer outages relative to all requesting utilities
  40% portion of trouble spots relative to all requesting utilities

The same breakdown is used to allocate Line Crews, Tree Crews, Damage Assessment Teams, and other types of storm support resources.

iii) New York State Public/Private Utility Mutual Assistance Protocol Coordination

The New York Public/Private Utility Mutual Assistance Protocol is an outline of general principles and practices for the NYS utilities to follow, enabling them to leverage a public/private partnership among the utilities within NYS (see Appendix H). This provides access to critical resources to facilitate and expedite utility restoration following an emergency impacting the customers and visitors of NYS.

The foundation of this protocol draws upon the concepts, which have been utilized by members of, but not limited to, the NAMAG and New England Public Power Association (NEPPA) mutual assistance programs. This protocol is intended to be flexible in every respect, since it is not possible to predict exactly what the nature or scope of an emergency will be. It is flexible in allowing individuals in command to call upon further reserves of personnel, supplies, equipment, and space as required, but in an organized, documented, and logical manner.

In instances where PSEG Long Island requests mutual assistance through the NAMAG process, a formal notification will be made to the member organizations (New York Association of Public Power (NYAPP) and Municipal Electric Utilities Association (MEUA) of NY) that the NAMAG process has been enacted and that mutual assistance may be requested from the municipalities and electric cooperatives. This protocol is not intended to usurp any organization's primary means of securing additional assistance, rather to provide a supplemental source of additional potential resources within NYS.

iv) Emergency Assistance Agreement with National Grid (Long Island)

PSEG Long Island maintains an Emergency Assistance Agreement with National Grid (Long Island). This agreement allows National Grid to provide local personnel and equipment to support restoration efforts during major events, when PSEG Long Island requests emergency assistance. National Grid is not under any obligation to furnish emergency assistance and any resources that are provided are at the sole discretion of National Grid.

c) Call-up Thresholds (Resource Matrices)

The number of crews required and the approximate duration of their needs shall be determined jointly by the PSEG Long Island Incident Commander and the T&D Operations Branch Directors.

Tropical Cyclone Resource Matrix Guide:

PSEG Long Island has developed a Tropical Cyclone Resource Matrix Guide, which is used as a guide to aid the Incident Commander and the T&D Operations Branch Directors in making the determination of the appropriate number of Foreign Utility and Contractor Crews. This matrix can be seen in Appendix K, an example of which is illustrated in Figure 15.4. The matrix provides time-measured decision points, commencing at 96 hours prior to the anticipated impact of the storm, for the initiation of commitment to crewing, and the initiation of contracted third party vendor assistance for staging areas.

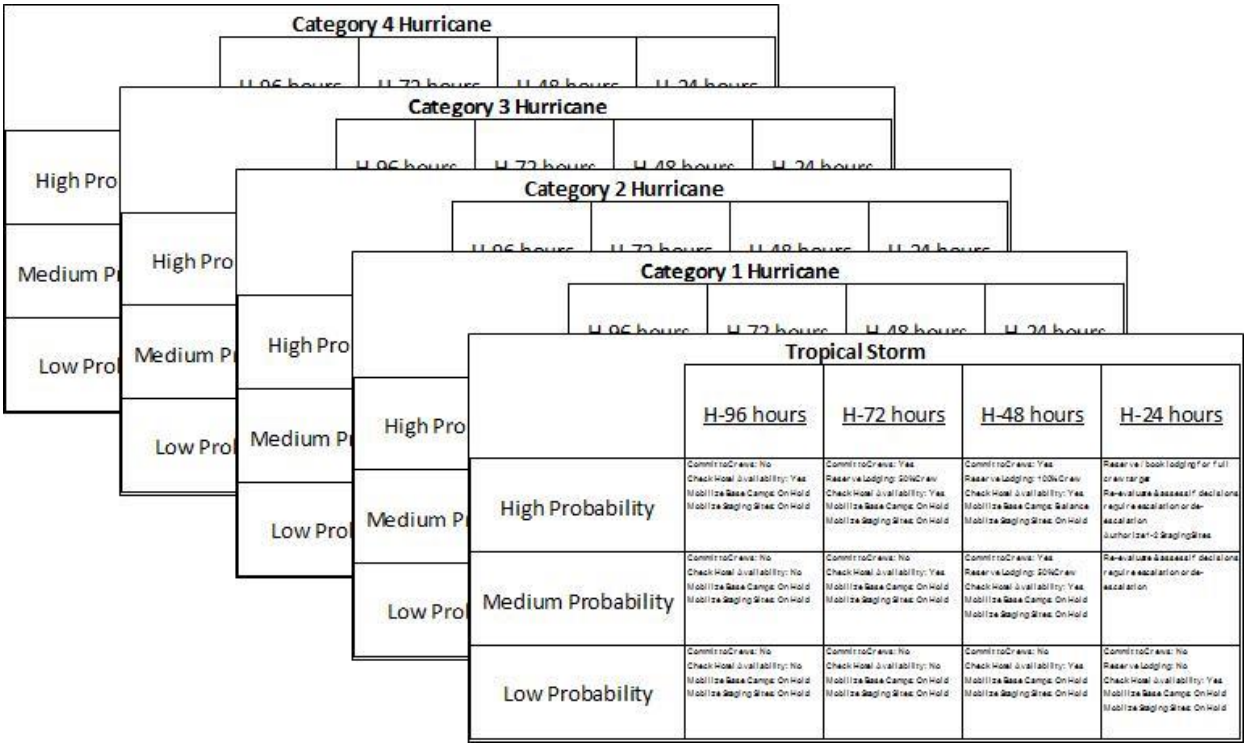


Figure 15.4 – Tropical Cyclone Resource Matrix Guide

The matrices span events from tropical storms through Category 4 hurricanes, and take into account only two variables, as it relates to the service territory:

- Probability of the centerline of the error-swath cone
- Probability of those intensities of sustained wind speeds being experienced

As wind speed forecasts and probabilities increase, and approach the next level, consideration is given to escalating to the next level of the matrix. Long duration wind events may also prompt escalation to the next level of the matrix.

The initial number of Foreign Crews requested is based on the appropriate matrix and adjusted to account for other factors, such as weather duration, wind speed, expected accumulation of ice, etc. The number of crews will be adjusted resulting from the extent of damage suggested by the lockout information, and as field damage assessment proceeds and additional intelligence is gathered. Based on the severity of damage and the number of incidents, additional manpower may be mobilized. These include damage assessors, wire watchers, and flood assessment personnel.

d) Action Plan

As Foreign Crews begin to arrive, they are initially received at a Foreign Crew Reception Center. Here, they are processed into the system, in an efficient and orderly manner by the FCP organization. For more information regarding Foreign Crew Branch protocols, please see Section 17.4.

Once Foreign Crews are processed, they are allocated to divisions in “area” control, and subsequently, to decentralized dispatch areas in “local” control, as appropriate. The assignment to divisions and/or dispatch areas is based on the severity of the damage sustained in the locality, and the effect on Critical Facilities. Please refer to Section 15.3.4 of the ERP for additional information regarding this activity.

15.2.2.3 Company Retirees

When the skills and knowledge of retirees are necessary to provide support in such areas as Operations, Planning, Logistics, Finance, etc., they are engaged as contractors, via a third party vendor.

Once a Section Chief or Command Staff Officer has determined that there is a need for retiree assistance, the Planning Section Chief is contacted, in advance of obtaining retirees, to discuss their specific requirements. The Planning Section Chief will notify the Resource Coordination Unit Leader that retirees are being engaged. The Resource Coordination Unit Leader will engage the Human Resources Unit Leader to contact retirees and handle the administrative details of their employment arrangements.

15.2.2.4 National Guard

The NYS National Guard Support Program provides for power restoration support from National Guard personnel when a catastrophic event occurs, and the customary sources of supplemental personnel, such as mutual assistance, contractors, or internal staff cannot provide adequate personnel to address needs.

In order for the NYS National Guard to be available for deployment, the Governor of the State of New York must declare a "State of Emergency." The request and deployment process could take days before support arrives. In addition, total deployment time (including deployment and demobilization time) should be less than ten to fourteen days.

As warranted and available, the Incident Commander may initiate actions to secure additional support available through the National Guard.

National Guard Capabilities and Power Restoration Roles:

The National Guard is frequently called on to conduct disaster response and domestic emergency missions. These missions are a specific subset of the National Guard Civil Support (NGCS) mission area. NYS National Guard forces can provide surge logistics, transportation, communication assistance, and general-purpose capability to areas identified by the NYS OEM to supplement company emergency response to expedite power restoration during the initial response to an incident. If National Guard Domestic Operations (NGDO) resources are deemed necessary, the following is a summary of roles that they could fulfill:

1) Public Safety
   a) Wire guarding for down wires
   b) Flagging for traffic control
2) Logistics Support
   a) Points of Distribution – including transportation and distribution of dry ice, wet ice, or water to citizens without power
   b) Fueling – delivery of fuel to vehicles and equipment engaged in power restoration work
   c) Lighting – delivery and operation of portable light towers to support restoration crews (The National Guard has only a limited number of portable light towers that they can bring with them, but they can operate, transport, and refuel any light towers provided to them by the company, Mutual Assistance Crews, contractors, or equipment rental companies)

3) Emergency Transportation
   a) Short-haul transport of cargo or materials from staging areas to point-of-repair locations
   b) High-axle transport of Damage Assessment Teams or Restoration Crews
   c) Aerial assessments (only as "lift of opportunity," when combined with an existing National Guard mission); should National Guard assets be utilized for aerial patrols, National Guard pilots will be required to attend PSEG Long Island training to ensure compliance with internal safety requirements
4) Communications Support
   a) Provide assistance with temporary communications in critical areas

Tree and debris clearance, while a high priority in power restoration operations, is an activity that crosses multiple response efforts, and is not work that National Guard personnel will perform.

Requesting National Guard Support

The PSEG Long Island Incident Commander will determine whether it is necessary to request National Guard support. If PSEG Long Island determines that it is necessary, the request shall be submitted to the NYS DPS Emergency Manager by the Planning Section Chief, utilizing the National Guard Request Form (see Appendix J). Requests submitted in this manner ensure that all required information, associated with the request, has been considered and provided, including where possible, pre-scripted mission sets.

Requests from all NYS electric utilities are then coordinated and forwarded to the NYS Power Restoration Working Group for processing. The NYS Power Restoration Working Group will determine what resources are available for deployment. If the group determines that requests exceed available resources, they may request support from the National Guard from other states.

Deployment and On-boarding

All NYS National Guard personnel are deployed with general rules of engagement for civilian population. NYS National Guard personnel are self-sufficient with regard to food, water, and lodging. However, PSEG Long Island will provide National Guard personnel with any PPE required to perform a particular job that is not part of National Guard "standard-issue" PPE. National Guard Standard Operating Procedures (SOPs) already delineate that they should typically be outfitted with:

- Eye or face protection
- Head protection

- Hand protection
- Foot protection

In addition, National Guard personnel, upon assignment, will be provided training that will include a job briefing, and, if necessary, on-the-job training. Once National Guard personnel arrive on property, PSEG Long Island will provide "Just-In-Time" training to perform all requested mission sets. Training for National Guard personnel performing wire guarding, flagging, or other work needing such training, may be performed at the jobsite, at a staging site or base camp, or at a training facility.

PSEG Long Island will coordinate with National Guard local leadership to create job aids, which will be provided to National Guard personnel. These job aids may contain information such as safety instructions, job instructions, contact names, phone numbers and addresses, etc.

Disaster response and domestic emergency missions have distinct characteristics and traits from the other missions in the NGCS mission area. The focus of these missions is usually on providing humanitarian support and no threat or hostility is normally anticipated.

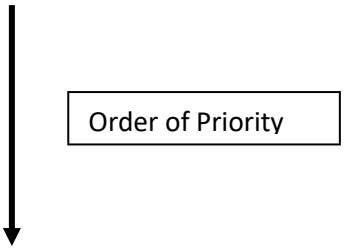
While some generalized deliberate planning and preparation is possible, conditions often dictate an immediate response is required, with minimal preparation or planning time available. While some specialized National Guard units and capabilities are utilized for disaster response and domestic emergency missions, normally the bulk of the forces and units employed are general-purpose forces.

15.2.3 Tiered Restoration

The tiered restoration approach is the principle that guides how restoration is escalated, from divisional/console incident based dispatch up to full delegation of configuration authority directly to decentralized dispatch areas.

Traditional Outage Restoration Tiers

Tiers
Transmission
Substation
Circuit Level
Area (Transformers, Fuses)
Singles



The above table shows the restoration strategy currently used during a storm. The highest priority is given to transmission related outages and damages. Then, substation outages/damages are given the next priority. Circuit level outage/damages are prioritized next followed by Fuses, transformers and singles subsequently.

	Decision Points				Restoration Strategy
Tiered Restoration Approach	# Mainline Events	# Incidents	# Contractor Crews	#Damage Locations (Non-Single) Per Lockout	
Divisional/Console Dispatch	N/A	N/A	<50	N/A	Traditional
Decentralized Dispatch/Remote Dispatch Authority (RDA)	N/A	N/A	>50	N/A	Traditional
Circuit Sweep	>200	>6000	>400	>20	Circuit Sweep
Remote Configuration Authority (RCA)	>400	N/A	N/A	>50	Circuit Sweep

Figure 15.5 – Tiered Restoration Decision Matrix

The goal of this matrix is to clearly provide a high-level guide from which would trigger a decision point to activate Divisional/Console Dispatch, Decentralized Dispatch, Circuit Sweep, and RCA. It provides specificity of criterion to help the Operations Branch Director to make this decision. The matrix provides a guide to productive and efficient way to activate different stages of restoration plan escalation. The matrix is a guideline only, and the activation of different Escalation Points ultimately rests with the Operations Branch Director.

The Tiered Restoration Approaches in the matrix are:

- Divisional/Console Dispatch: This is normal state that is in place on a blue sky day, and the initial stages of storm where the dispatch is out of the division and Overhead/Underground lines consoles or Area Dispatch Authority (ADA). ADA is the process by which divisional dispatch consoles are supported through local console dispatch, and is implemented when off-island resources exceed dispatch capability of the existing OH/UG divisional consoles (ERIP Section ADA - 13.3.5). During the duration of this tier, job level ETR strategies are used. This ETR strategy includes using features including Null, Global, and crew feedback to continually update the ETR throughout the lifecycle of a job. Detailed ETR information can be found in our ETR Procedure (ERIP-OPS-006).
- Decentralized Dispatch (RDA): RDA is the process whereby decentralized dispatching is supported through localized dispatch areas. This escalation point refers to at least one of more RDA being opened (ERIP “RDA” - Section 13.4.2.1). During the duration of this tier, job level ETR strategies are used. This ETR strategy includes using features including Null,

Global, and crew feedback to continually update the ETR throughout the lifecycle of a job. Detailed ETR information can be found in our ETR Procedure (ERIP-OPS-006).

- Circuit Sweep: Circuit sweep is a restoration technique where personnel and crews are assigned to a circuit and work to restore any and all customers affected to completion. This escalation point refers to placing an area in a circuit sweep restoration mode. During the duration of this tier, Circuit Level ETR strategies are used. This ETR strategy includes using features including Null, Global, and crew feedback to continually update the ETR throughout the lifecycle of a circuit. Detailed ETR information can be found in our ETR Procedure (ERIP-OPS-006).
- RCA: This escalation point refers to putting a circuit in Remote Configuration Authority where configuration control is managed outside the distribution control room. (RCA – Section 13.4.2.2). RCA During the duration of this tier, Circuit Level ETR strategies are used. This ETR strategy includes using features including Null, Global, and crew feedback to continually update the ETR throughout the lifecycle of a circuit. Detailed ETR information can be found in our ETR Procedure (ERIP-OPS-006).

The Decision Points in the matrix are:

- # Mainline Events: This includes lockouts, ASU Auto sects, and AAAs.
- # Incidents: This refers to the total number of incidents in OMS.
- # Contractor Crews: This refers to contractor crews being brought in during the storm.
- # Damage Location/Lockout: This refers to the number of damage locations per circuit.

Decision Process:

- The above matrix is a guide to prompt a decision point from the Operations Branch Director to enact one the Tiered Restoration Approach.
- Each Decision Point is independent of each other. Any of the Tiered Approach can be enacted when the threshold for any of the decision point is hit.
- RCA can be used in conjunction with the other three escalation points – Divisional/Console Dispatch, Decentralized Dispatch, and Circuit Sweep.

Restoration Strategy:

- Divisional/Console Dispatch: During this tier, the restoration strategy follows the traditional approach as described above.
- Decentralized Dispatch: During this tier, the restoration strategy follows the traditional approach as described above.
- Circuit Sweep: During this tier, the restoration strategy follows the circuit sweep strategy as described in ERIP-OPS-012. In this strategy, crews work on a circuit until all outages are restored.
- RCA: During this tier, the restoration strategy follows the circuit sweep strategy as described in ERIP-OPS-012.

Delegation of Authority:

- The matrix is to be used by Operations Branch Director to decide on whether to activate a given stage when the decision point is met.
- If the Operations Branch Director is unavailable, Distribution Survey & Operations Control Division Supervisor shall have the responsibility of making the decision.

Activation Criteria Development:

- Experienced Operation Managers identified key drivers for each of the restoration approaches (Main Line Incidents, Total Incidents, # of crews and Incidents per lock out)
- Operation Managers reviewed historical storm information and drafted activation level matrix (see artifact)
- Operation Managers reviewed material with Senior Directors, Manager of EP, and VP T&D
- Operations Managers finalized activation guidelines

15.2.4 Operational Coordination with Other Utilities

15.2.4.1 Guidelines

Working arrangements have been established between PSEG Long Island and other utilities (TelCo, CATVCo, GasCo, etc.) that operate within Long Island and the Rockaways to facilitate a coordinated response during major storms or other system emergencies. The objective of these arrangements is to enable a safe and efficient coordinated response to the benefit of the customers served by each utility. Efforts include the sharing of information and resources to enhance situational awareness and enable the betterment of each individual utility's emergency restoration response.

PSEG Long Island conducts operational meetings annually with these companies to update procedures and review working arrangements between organizations, during emergency restoration efforts. These meetings arranged by EP and Major Accounts will discuss the placement of their respective liaisons in PSEG Long Island Divisional Operations Headquarters. A listing of contact information for TelCo, CaTV, GasCo, and neighboring municipal electric utilities can be found in Appendix F.

There is no formal joint operational restoration arrangement between PSEG Long Island and wireless telecommunication providers. Both before and during major events, all coordination with wireless telecommunication providers is performed by the Large Customer & Customer Relations Group of the Communications Organization, and is outlined in Chapter 14 – Communications Protocols.

15.2.4.2 Activation Plan

The above utilities provide a list of Critical Facilities to PSEG Long Island annually (see Appendix D). Likewise, PSEG Long Island supplies the utilities with a list of their Critical Facilities. The lists of locations are reviewed by the companies, with the purpose of agreeing on restoration priorities, prior to implementation for a declared emergency event.

The PSEG Long Island T&D Operations Branch Directors notify the appropriate TelCo, CATVCo, and/or GasCo executive that PSEG Long Island has declared Condition III "Red," and that the Joint Restoration procedure is being implemented. The T&D Operations Branch Directors also request that a TelCo, CATVCo, and/or GasCo representative report to its Hicksville Operations Center to review coordination, at both the division and substation levels.

Restoration information is openly shared at the system, division, and dispatch area level through the co-location of TelCo, CATVCo, and GasCo representatives at PSEG Long Island operational centers. This information can include:

- Distribution lockout status
- Areas restored
- Completed outage jobs
- Locations where PSEG Long Island facilities are interfering with TelCo or CATVCo restoration
- Locations where TelCo or CATVCo facilities are interfering with PSEG Long Island restoration
- PSEG Long Island facilities that are impacted due to a loss of telecommunication
- TelCo, CATVCo, or GasCo facilities that are impacted due to a loss of power
- Locations of TelCo/CATVCo generators

Joint work with telephone company line crews (i.e., TelCo assistance to set new poles) is coordinated between the PSEG Long Island T&D Crew Control Division Supervisors, or their designee, and the TelCo representative, co-located at the PSEG Long Island Division Operating Headquarters. If warranted, the representative may also assist in cases of failure of supervisory and voice telephone circuits leased by PSEG Long Island.

Additional efforts are underway to create an information-sharing template to be utilized by responding utilities (i.e., electric, TelCo, CaTV) during larger restoration events. This information-sharing template will be utilized to enhance situational awareness and

facilitate improved coordination among utilities during events when conditions affect multiple entities. Sample information that may be shared can be found in Section 15.2.3.2. Information sharing plans will include a mechanism for sharing information during events and the relevant points of contact among responding entities.

15.3 Division Headquarters Procedures

15.3.1 Key Actions and Responsibilities

The Division Headquarters Section details those actions that are undertaken at the four Division Operating Headquarters, in anticipation of, and following, the declaration of Condition III "Red." Prior to the impact of a major storm, the Distribution Operations Division Managers are responsible for initiating a Pre-Storm Checklist. The Pre-Storm Checklist has been developed to assist the organization to check all items that are important, should a storm affect the service territory.

Once Condition III "Red" has been declared, the Distribution Operations Division Managers assume the role of Distribution Survey and Operations Control Division Supervisors. In turn, they notify the OH/UG Lines Division Managers, who assume the role of T&D Crew Control Division Supervisors, that the OH/UG Lines Console Operation and mobilization of the Two-Man Makeup Crew organization may be required to support the restoration effort.

Following the declaration of Condition III "Red," the Distribution Survey and Operations Control Division Supervisors and the T&D Crew Control Division Supervisors are responsible for notifying and mobilizing their respective restoration organization, at the local division level and below, and directing them to initiate their Emergency Restoration callouts.

Simultaneously, the Distribution Survey and Operations Control Division Supervisors notify the Division Lead Router/Gater, the Division ETR Coordinator, the Division Distribution Automation (DA) Specialist, and the Division Primary Control Coordinator. The Division Primary Control Coordinator then notifies the Division Secondary Router/Gaters.

Upon notification by the Distribution Survey and Operations Control Division Supervisors of the declaration of Condition III "Red," the Distribution Design Lead Engineers assume the role of Division Restoration Task Force Leaders, and notify the Division Mutual Assistance Coordinators (MACs) and the Division Distribution Damage Assessment Coordinators. The Division MACs then notify their Dispatch Area Task Force personnel, consisting of Dispatch Area Lead Coordinators, Dispatch Area Alternate Coordinators, Dispatch Area Tag Holders, and Dispatch Area Operators. Concurrently, the Division Distribution Damage Assessment Coordinators notify their

Division Distribution Damage Assessment Operators, as well as all the Distribution Survey personnel assigned to their division. This divisional operations structure and reporting relationship is illustrated in Figure 15.6.

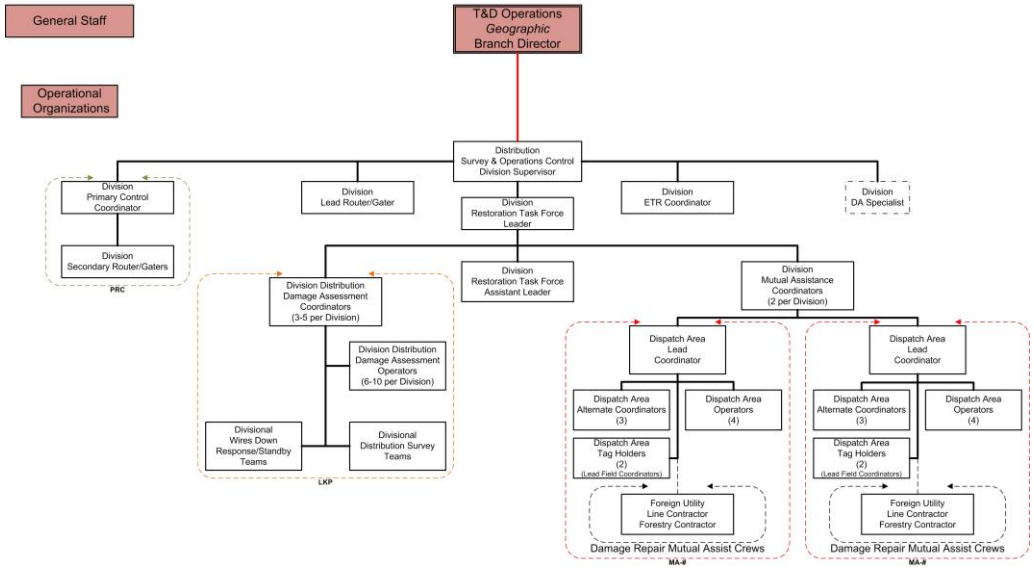


Figure 15.6 – Typical Divisional Operations Structure

Once the decision to decentralize operations has been made, the Distribution Survey and Operations Control Division Supervisors, along with the Division Restoration Task Force Leader, assign and brief the Dispatch Area Task Forces. Concurrently, the Division Restoration Task Force Leader briefs their Division MACs, who are located at the division console, and provides them a list of the Remote Dispatch Areas that will be activated along with the names of the assigned Dispatch Area Lead Coordinator, Dispatch Area Alternate Coordinators, Dispatch Area Tag Holders, and Dispatch Area Operators. Dispatch Area Task Forces report to their assigned location when weather conditions are safe to proceed. The Distribution Survey and Operations Control Supervisor makes all decisions with regards to crew distribution between divisions and dispatch areas.

15.3.2 Transmission Circuit Protocols

The first restoration priority in a storm is the transmission system. Following Condition III “Red” events, it is essential that the transmission system be returned to normal, as rapidly as possible, particularly those circuits that are causing substations to remain out of service. PSEG Long Island crews are assigned this task immediately.

Following the passing of a severe storm, an initial survey of the transmission system is accomplished by Divisional Transmission Survey Strike Teams, patrolling in vehicles,

on foot, and/or by helicopter. The current model establishes 40 qualified two-person Transmission Survey Strike Teams, system wide. Post-storm weather conditions may delay the dispatch of helicopters for use in patrolling the transmission system and, therefore, a sufficient number of teams are readily available to perform a ground patrol. At the direction of the Transmission Survey and Operations Control Group Supervisor, affected transmission circuits are patrolled, repaired, and reenergized.

15.3.3 Damage Assessment/Survey Protocols

Divisional damage assessment is performed in all areas regardless of whether divisional or Remote Dispatch Area control has been activated. The current model initially establishes a baseline of 125 qualified two-person Distribution Survey Strike Teams, system wide. The teams are largely resourced from trained PSEG Long Island personnel, and would be supplemented by contracted damage assessment personnel, as necessary. The Division Distribution Damage Assessment Coordinators and Division Distribution Damage Assessment Operators direct these teams and dispatch incidents to these teams, according to established priorities and locations.

A Survey Team consists of a minimum of two survey people, one who acts as a driver, whose primary responsibility is to operate the vehicle safely, while the second individual surveys the lines and equipment. Survey Teams complete a Storm Lookup Report, creating a record of all damage found at a specific location. This report provides documentation of damage for assigning Repair Crews, and allows for the damage to be entered as Field Reports into OMS.

15.3.3.1 Rapid Survey

When sufficient damage affecting the distribution facilities of several substations has occurred or is anticipated, the division implements Rapid Survey protocols. Rapid Survey is defined as a patrol of the main line 3-Phase distribution facilities that are locked out while control of the system is maintained by the T&D System Operations Department.

This is performed to provide an eyewitness report of damage to the Distribution Operations Department, which directs all restoration efforts. Rapid Survey is not 100% complete until all damage to facilities on locked-out distribution circuit 3-Phase mainlines and all unfused branch lines have been assessed.

15.3.3.2 Restoration Survey

Following the completion of Rapid Survey, a patrol of the remaining portions of the locked-out circuit (all fused branch line primary, secondary, and service facilities) may be initiated. This Restoration Survey is implemented to provide Distribution

Operations, either conducting restoration divisionally, or from a decentralized Dispatch Area, the ability to restore a feeder on a "piece by piece" basis. Restoration Survey is defined as a patrol of all distribution facilities, from sectionalizing device to sectionalizing device, so that all damage between these sectionalizing devices can be identified, and systematic repairs made to energize sections of circuits.

During Restoration Survey, faults may be located that allow switching to be performed to restore undamaged portions of circuits. As part of Restoration Survey, Survey Teams are dispatched to survey branch taps with unblown fuses associated with distribution circuit lockouts to determine if they must be opened prior to energizing mainline 3-Phase.

Restoration Survey is not 100% complete until all damage to facilities on locked-out distribution circuit 3-Phase mainlines and all unfused branch lines has been identified, followed by a complete patrol of the remaining portions of the locked-out circuit (all fused branch line primary, secondary, and service facilities). This enables the repair crews assigned to the decentralized Dispatch Areas, to safely perform all repairs.

15.3.3.3 Incident Survey

Survey Teams assigned to a division are also dispatched to "known" incidents within OMS, or dispatched to reports of wire down with power.

Survey Teams are always dispatched to reports of wire downs that have been reported by members of the 911 call center, police, fire, OEM (including EOC personnel), and municipal emergency managers. Once the report has been investigated by a Survey Team, a wire watcher may be sent to the location to relieve the team, allowing the team to continue conducting damage assessment.

15.3.4 Primary Control (PRC) Protocols

In most events, routing/gating decisions are made by the Division leadership in pre-storm meetings. Decisions include whether to send "wire down-lights on" incidents to Damage Assessment or "single no lights" incidents to Secondary/Service Crews. For major events, these decisions are based on the severity of damage and the location of the most severely impacted areas.

When activated, Primary Control (PRC) analyzes and prioritizes all outage incidents that have already been surveyed. They are responsible for reviewing all Field Reports associated with these jobs, prioritizing outage jobs, and creating corresponding work packets, which include a cover sheet, in addition to copies of all the Storm Look-up Reports.

Once PRC has created a prioritized work packet for the work, they "route" repair jobs, according to established priorities, to areas where a Remote Dispatch site has been deployed. It is recognized that at the initial onset of a storm event, jobs that may not have been surveyed, may bypass the damage assessment process and could be routed directly to a Remote Dispatch Area.

Work packets are delivered to decentralized dispatch centers from which crews are being managed. At the decentralized dispatch center, the crew supervision meets with the Lead Coordinator (or Dispatcher) to review the work and discuss any work permits/clearances that may be needed. Crew Guides may deliver additional work packets, throughout the day, to the crews or supervision, directly at the incident location and in advance of the next work assignment.

PSEG Long Island is in the process of migrating to electronic assignments utilizing a newly developed Field Mobility Application, which is designed to streamline the process and move towards electronic "delivery" of work to minimize delays. For more information, please refer to Section 7.2.3.

15.3.5 Area Dispatch Authority (ADA) Protocols

The PSEG Long Island ERP is both flexible and scalable, based on the severity of the event. Under the current model, dispatch authority and configuration authority is typically maintained at the divisional level, but can be decentralized down to the distribution feeder circuit level, in whole or in part. This hybrid approach allows for centralized operations at the divisional level, while supplementing efforts at the more localized area or circuit level.

In the case of the latter, decentralized operation allows for closer alignment of resources to areas impacted by the most severe damage, in addition to providing flexibility and efficiency in damage assessment and the dispatch of repair crews. Local control out of select decentralized Dispatch Areas is generally limited to areas where damage conditions are so extensive that outage analysis and crew control from the centralized division headquarters may no longer be practical.

If damage to the distribution facilities of one or more substations is severe and warrants the assignment of Foreign Crew resources under a Dispatch Area Task Force, the division may grant these areas either Remote Dispatch Authority (RDA) or Remote Configuration Authority (RCA), commonly known as "Local Control." For further details on this aspect of restoration, see Section 15.4.2.

The designation of, staffing for, and operation within, a remote (non-centralized) OH/UG Lines storm console is identified as an Area Dispatch Authority (ADA). ADA is

the process by which divisional dispatch consoles are supported through local console dispatch, and is implemented when off-island resources exceed dispatch capability of the existing OH/UG divisional consoles.

Locations utilized for the execution of ADA are generally established in existing operating facilities (satellite yards and/or substations) near damage sites. Other locations may be used, provided that the IT, radio, cell phone, and nearby mobilization areas are adequate.

ADA is intended to be utilized to support significant Condition II "Blue" events, where decentralization down to the remote dispatch area level and the placement of these dispatch areas into RDA or RCA is not deemed necessary. Additionally, ADA may be utilized during some Condition III "Red" events to provide expanded capabilities of the organization to effectively manage additional repair resources when off-island resources exceed the dispatch capability of the existing OH/UG Lines divisional consoles. Operation and management of ADA is identical to that of storm console operation and management at the centralized storm consoles. Under ADA, the Division Distribution Control Center maintains configuration authority. The authority granted to an ADA is shown in Figure 15.7.

	DAMAGE ASSESSMENT *Performed by Division*	**CREW DISPATCHING AUTHORITY**	**SYSTEM CONFIGURATION AUTHORITY**	**EMERGENCY SWITCHING**
AREA DISPATCH AUTHORITY (ADA)	Incident Based Survey	Yes	No	No (Branch line fuses only)

Figure 15.7 – Area Dispatch Authority (ADA) Comparison

Decision to Decentralize:

Following the passing of the storm, the Distribution Survey and Operations Control Division Supervisors (one per division) assess system outage status for their own division. This initial status, obtained from substation loss-of-supply and lockout information, will determine the geographic areas that may require deployment of a Dispatch Area Task Force.

The Distribution Survey and Operations Control Division Supervisors make the determination of which areas should be placed in ADA, RDA, or RCA. Areas from which the largest proportion of customer calls have been received, in addition to the physical facility of the remote site to support decentralization, are considered when determining which areas should be placed in ADA, RDA, or RCA.

Once the dispatch areas are active for one operational period, OMS can provide a quick ranking of the amount of damage being reported by the areas. From this information, further decisions can be made as to where additional available crews should be deployed and, therefore, which areas should be placed in, remain in, or be removed from ADA, RDA, or RCA. The number of crews assigned to each Dispatch Area is conditional on the amount and severity of damage, as well as the size of the territory to be covered.

15.4 Remote Dispatch Area Procedures

15.4.1 Key Actions and Responsibilities

The Remote Dispatch Area Section of the ERP identifies those procedures and actions that are undertaken by Dispatch Area Task Forces. A single Dispatch Area Task Force consists of a Dispatch Area Lead Coordinator, three Dispatch Area Alternate Coordinators, and four Dispatch Area Operators, plus two Dispatch Area Tag Holders (Lead Field Coordinators), reinforced by repair crews, who report to a remote dispatch area, following the declaration of Condition III "Red." Dispatch Area Task Forces within the same division report up to a Division MAC. A sample of this organizational structure is depicted in Figure 15.8.

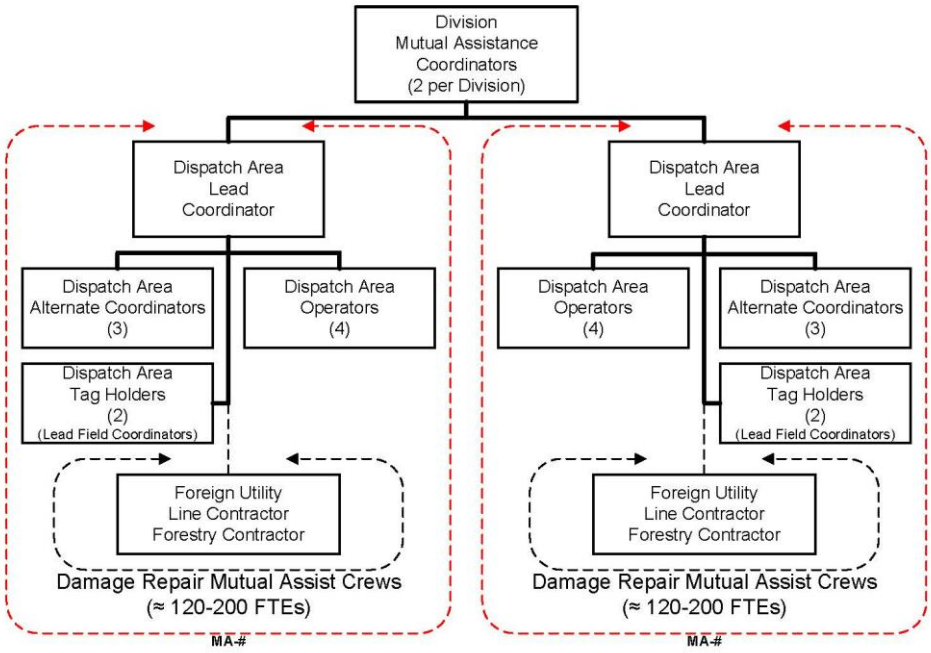


Figure 15.8 – Dispatch Area Organizational Chart

Processes are implemented for operating as a decentralized dispatching unit, by directing Restoration Crews and tracking repairs, and, if implemented, a decentralized configuration authority, by performing emergency switching on the distribution system.

Similar to ADA, discussed in Section 15.3.5, locations utilized for the operation of Remote Dispatch Areas are generally established in existing operating facilities (satellite yards and substations) near damage sites. Other locations may be used provided that the IT, radio, cell phone, and mobilization areas are adequate. Multiple Dispatch Area Task Forces can be assigned to operate from the same physical remote dispatch area, but controlling different geographic territories.

Under the guidance of their Division MAC, the Dispatch Area Lead Coordinator is responsible for activating the remote dispatch area and directing repair crews, when their dispatch area is placed in RDA or RCA, commonly known as “Local Control.” Additionally, if RCA is granted, the Dispatch Area Lead Coordinator is responsible for assuming control for the operation of distribution sectionalizing devices and the distribution feeder breakers.

The Dispatch Area Task Force, under the direction of the Dispatch Area Lead Coordinator, is responsible for ensuring the entry of all data related to that remote dispatch area, including manpower, personnel attendance, and OMS inputs.

In summary, Dispatch Area Task Forces operate under their respective Division Headquarters, and report their restoration activities performed at the Remote Dispatch Area level to their respective Division MAC at Division Headquarters. All support functions (i.e., logistics, communications, etc.) are facilitated through the Division MAC.

15.4.2 Protocols for Decentralization

When outage analysis and crew control, from the centralized division headquarters, are no longer practical, or when off-island resources exceed the dispatch capability of the existing OH/UG Lines divisional consoles, or remote, non-centralized OH/UG Lines storm consoles (otherwise known as ADA), the decision will be made by the T&D Operations Branch Directors to decentralize further, by activating remote dispatch areas. These levels of decentralization are displayed in Figure 15.9.

	DAMAGE ASSESSMENT *Performed by Division*	CREW DISPATCHING AUTHORITY	SYSTEM CONFIGURATION AUTHORITY	EMERGENCY SWITCHING
REMOTE DISPATCH AUTHORITY (RDA)	Incident Based Survey	Yes	No	No (Branch line fuses only)
REMOTE CONFIGURATION AUTHORITY (RCA)	Rapid Survey or Restoration Survey	Yes	Yes	Yes

Figure 15.9 – Remote Dispatch Area Decentralization Comparison

Remote dispatch areas that are granted either Dispatch Authority or Configuration Authority serve as compact geographic areas that are utilized as reporting locations for Foreign Crews. Grouping Foreign Crews from each company together within remote dispatch areas is desirable because it provides a means for their own supervision to maintain better crew control. Foreign Crews are only assigned to those areas that are under ADA, RDA, or RCA. However, dispatch areas are not placed under RDA or RCA until repair crews are available. PSEG Long Island crews may also be assigned to dispatch areas in RDA or RCA.

15.4.2.1 Remote Dispatch Authority (RDA) Protocols

RDA is the process whereby decentralized dispatching is supported through localized dispatch areas. RDA is implemented when off-island resources exceed dispatch capability of the existing OH/UG divisional or area consoles. RDA is established in existing operating facilities near damage locations.

The key to the success of RDA is establishing a “ring fence” around the areas for the dispatch operation to ensure multiple parties are not dispatching crews into the same area.

Under RDA, the Division Distribution Control Center maintains configuration authority, and performs all 3-Phase mainline model updates in OMS, while the Dispatch Area performs all branch line model updates.

15.4.2.2 Remote Configuration Authority (RCA) Protocols

Local Control of the restoration effort at the dispatch area level is desirable when extensive damage is experienced in an area, or when outside Utility Crews or outside Contractor Crews are brought in to assist. The Distribution Survey and Operations Control Division Supervisor delegates configuration authority, also known as “Local Control,” to the Dispatch Area Lead Coordinator, in order to expedite repairs and

restore service, as rapidly as possible. Configuration authority is typically delegated on a feeder-by-feeder basis (i.e., "Feeder Control"), but may be delegated to an entire substation area, as deemed necessary by the Distribution Survey and Operations Control Division Supervisor.

When a Dispatch Area Lead Coordinator is delegated Local Control, they assume command of the feeder or area, including operation of distribution line sectionalizing devices and feeder breakers. In addition, the Dispatch Area Lead Coordinator must return control of the feeder breakers to the Transmission System Operator (TSO) at the end of each operational period, or when the area is demobilized.

Under RCA, the Division Distribution Control Center delegates configuration authority to the Dispatch Area. However, the Division Distribution Control Center maintains and performs all 3-Phase mainline model updates in OMS; while the Dispatch Area continues to perform all branch line model updates in OMS.

15.4.2.3 Notification to Dispatch Area to Assume Dispatch Authority or Local Control

The T&D Operations Branch Directors notify the Distribution Survey and Operations Control Division Supervisors for Hewlett, Hicksville, Brentwood, and Riverhead, as to which areas in their respective divisions are to be placed into RDA or RCA, as well as the number of crews to be assigned to each dispatch area.

In turn, the Distribution Survey and Operations Control Division Supervisors notify the Division MACs, as to which of their dispatch areas are going to be placed into RDA or RCA. The number of crews assigned to each Dispatch Area is conditional on the amount and severity of damage, as well as the size of the territory to be covered.

Finally, each Division MAC then notifies their Dispatch Area Lead Coordinators to assume RDA or RCA, and conveys to them the number of crews their dispatch area will be receiving, as well as the expected arrival time of these resources. If the dispatch area has been placed in RCA, the Dispatch Area Lead Coordinator then contacts the TSO, and requests permission to take control of the distribution feeder breakers that have been delegated to them.

15.4.3 Emergency Switching

Under RCA only, the Dispatch Area Lead Coordinator is delegated configuration authority, which includes the authority to operate distribution system equipment/devices, consisting of substation distribution feeder breakers and distribution line sectionalizing switches. This is permitted so that restoration of service, to as many customers as possible, can be rapidly accomplished, in a safe and effective manner.

The Dispatch Area Lead Coordinator and Dispatch Area Tag Holder are expected to sectionalize the circuits under their control to restore service safely and expeditiously. The Dispatch Area Tag Holder must receive the appropriate "return of permission-to-work" from any workers who were granted permission-to-work. Under no circumstances can a Dispatch Area Tag Holder energize a section of line without clearing all Foreign Utility, Contractor, and PSEG Long Island Line and Tree Crews off of the line first. This is received at the end of the shift, or when all associated fieldwork has been completed.

15.5 Emergency De-energization and Re-energization Protocols Due to Flooding

15.5.1 De-energization and Re-energization of Local Areas

The actions and strategies described in this section apply to emergencies or electrical outages affecting multiple structures/areas, and are applicable to situations wider in scope than single-building emergencies, such as house fires, which are addressed under separate protocols. De-energization of an area may occur, if deemed necessary, by PSEG Long Island or by request from a municipality or local jurisdiction. Smaller scale localized incidents are responded to, on an individualized basis, and done so in coordination with the assistance of the affected local jurisdiction.

During major storm events, PSEG Long Island's T&D Operations Branch Directors will determine if substations and/or areas need to be proactively de-energized, as a means to safeguard electric transmission, substation, or distribution system equipment, mitigating the impact of predicted or experienced storm surge and flooding.

In such cases, PSEG Long Island will utilize the Liaison Organization and associated mechanisms to notify the municipalities affected by the deenergization, and provide the rationale for the action. Notifications will be made via a PSEG Long Island EOC Representative or by a member of the PSEG Long Island Liaison Organization. PSEG Long Island's Distribution Operations Department will re-energize substations and/or areas, once deemed that conditions exist, where the substations and/or areas can be safety re-energized. As part of the process, the affected municipalities will be alerted, prior to re-energization.

Requests may also be made by municipalities/local jurisdictions to de-energize electric service to an area(s), in response to a mandatory evacuation order, to ensure public safety in advance of a major storm. In such cases, requests can be made, in writing, to PSEG Long Island's EP Department, via fax or e-mail, and should include marked maps of areas requested to be de-energized (see Figure 15.10). Such requests are to be coordinated through the county EOCs.

In addition, requests to de-energize an area can be made through the PSEG Long Island representative at an activated EOC, via the Municipal Hotline at the Customer Contact Center or through the PSEG Long Island Liaison Organization. In all cases, the aforementioned request form must be completed by the requestor and/or PSEG Long Island for documentation purposes.

MUNICIPAL REQUEST TO DE-ENERGIZE A PORTION OF THE LIPA ELECTRIC DISTRIBUTION SYSTEM					
DATE:		CONTACT INFORMATION			
Municipality:		OFFICE:		CELL:	
Municipal Representative:		EMAIL			
BORDER		CRITICAL FACILITIES			
NORTH	SOUTH	TYPE	CHECK		NOTES
		Hospital	Yes___	No___	
		Police	Yes___	No___	
		Fire	Yes___	No___	
EAST	WEST	Water Supply	Yes___	No___	
		Water Treatment	Yes___	No___	
		Sewerage pump sta	Yes___	No___	
		Other Medical Fac.	Yes___	No___	
		School	Yes___	No___	
MAP ATTACHED?		YES:		NO:	
COMMENTS:					

Figure 15.10 – Sample Municipal Area De-Energization Request Form

PSEG Long Island's Communications Department shall, to the extent reasonably feasible under the circumstances, provide advance notice to those customers whose service will be interrupted, as a result of emergency steps to de-energize substations and/or areas. If advanced notification is not possible, PSEG Long Island will disconnect electrical service in accordance with 16 NYCRR § 13.13, "Disconnection without Notice."

15.5.2 De-energization and Re-energization of Homes and Businesses Affected by Flooding

Large-scale storms are capable of producing widespread flooding affecting multiple towns, villages, and municipalities across Long Island and the Rockaways. Such flooding can cause power disruptions to homes and businesses, create conditions that make it unsafe to re-energize electric service, and at times, produce unsafe conditions that may require electrical power to be de-energized at a customer's premises. In advance of a major storm that is anticipated to cause significant widespread multi-jurisdictional flooding, the Engineering Department, with the assistance of the Planning Section, will closely monitor the anticipated potential impact of forecasted flooding for a specific event.

In addition, PSEG Long Island will initiate discussions with the gas utility concerning their planned flood restoration response, up to five days prior to an event, with the

potential for significant flood damage and/or impact. PSEG Long Island's Communications Department will then proactively communicate with customers regarding steps required to re-energize homes/buildings, if such structures become de-energized due to flooding, or if disconnected by PSEG Long Island, due to safety concerns, given the field or equipment conditions observed.

Such communications are paramount to ensuring customers and key stakeholders are fully aware of the de-energization/re-energization requirements, and will help to avoid any undue confusion, allowing for the safe and efficient provision of electric service. Information regarding the process and required forms will be made available, year round, through the PSEG Long Island Storm Center web page.

To facilitate the process, PSEG Long Island has created a Flood Assessment Command Center, whose sole purpose is to coordinate all activities associated with flood damage assessment, disconnection, and reconnection of electrical service, in events where severe widespread multi-jurisdictional flooding is experienced (see Figure 15.11). In cases where flood damage is more localized, PSEG Long Island will work cooperatively with the affected local municipality and make resources available, as appropriate.

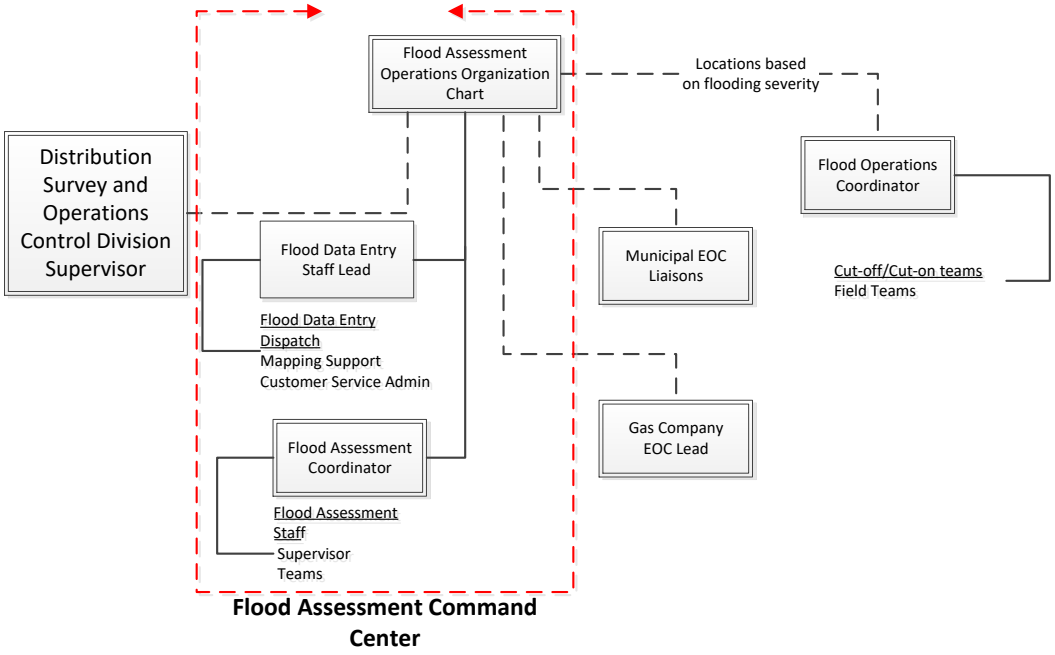


Figure 15.11 – Flood Assessment Operations Organizational Chart

In advance of the anticipated weather event, PSEG Long Island's Flood Assessment Operation Lead will review flood prediction maps prepared by weather services and/or internal data sources.

Once the storm has passed, and it is safe to deploy resources to the field, PSEG Long Island's Flood Assessment Operation Lead will make the appropriate resources available, in areas suspected of flooding, to perform a rapid assessment. PSEG Long Island flood assessors will make decisions regarding whether the home or business can be safely re-energized.

These assessments will be performed from outside the customer's home or business to quickly assess whether flooding may have adversely affected the meter, electrical panel, or intruded into the premises, thereby potentially damaging the electrical system within the structure and making it unsafe to re-energize.

In the course of conducting these assessments, or when isolating meters from the system during the restoration process, if obvious unsafe conditions caused by flooding are observed in a home or business that remained energized (i.e., water in electric meter), the affected home or business may then be pro-actively de-energized for safety reasons.

Figure 15.12 displays the PSEG Long Island flow chart that outlines the decision making process associated with determining whether a structure is safe to re-energize. Data collected through the assessment process will be utilized by PSEG Long Island Flood Assessment team members to determine whether the affected home or business is safe to re-energize.

In cases where PSEG Long Island determines that the structure is "unsafe," PSEG Long Island field personnel will isolate the affected premises from the electrical system by isolating the home or building's electrical meter or service wires. Unsafe conditions may include, but are not limited to, water intrusion to electrical meter, electrical panel, or electrical outlets/wiring.

This isolation process will allow PSEG Long Island to restore electrical service to any neighboring homes or businesses that may have not been adversely affected by flooding, as well as those made safe to re-energize without any unnecessary delay.

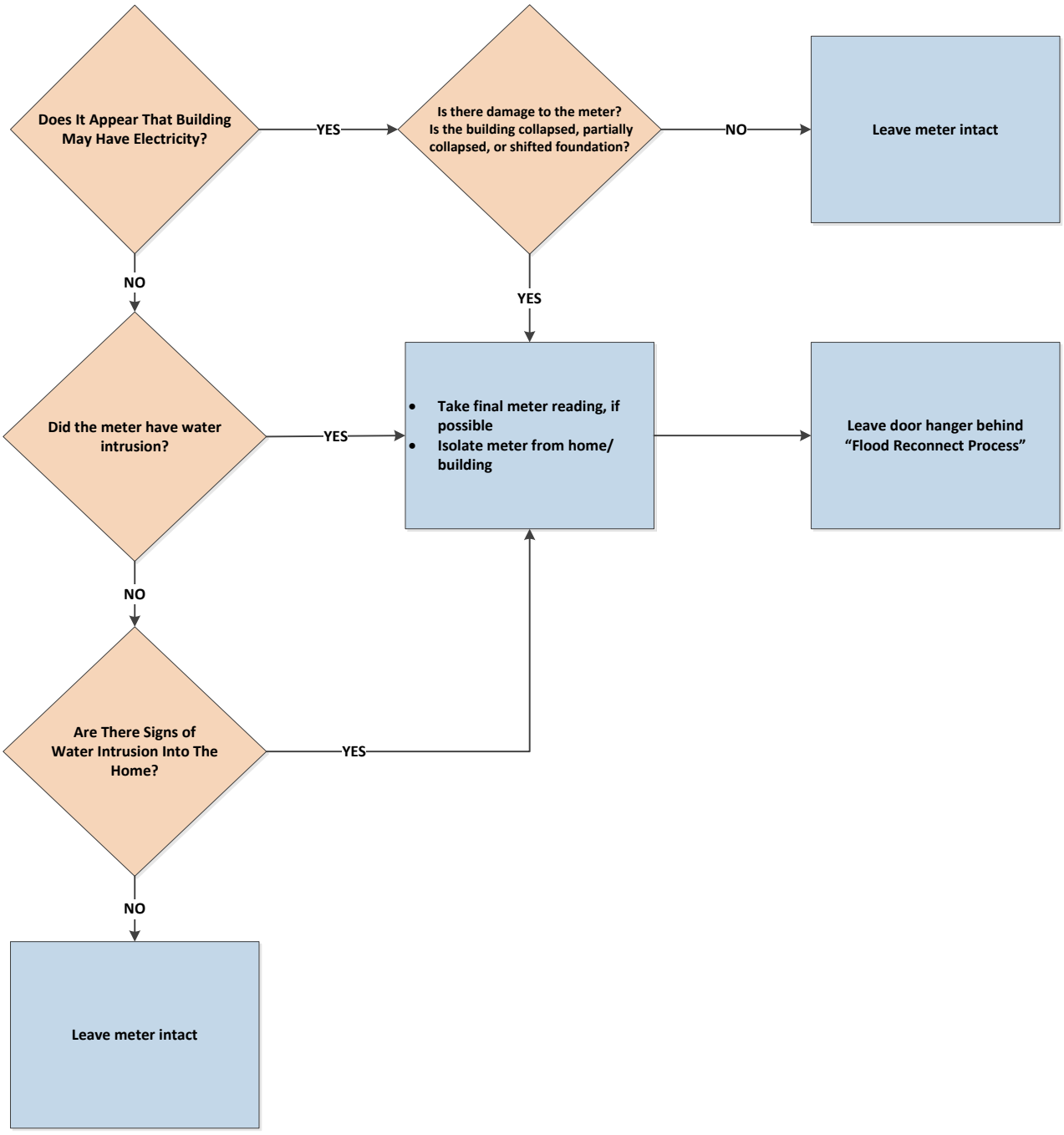


Figure 15.12 – Decision Matrix for Flooded Homes/Buildings

Customers occupying a home or business deemed “unsafe to re-energize,” will be informed, via a pamphlet (door hanger) that will be left at the premises by the PSEG Long Island resource deployed to the site to isolate the affected meter from the T&D system. This door hanger (see Figure 15.13) explains the potential reasons for de-energization, details the process for restoring electric service, and explains the steps required for re-energization.

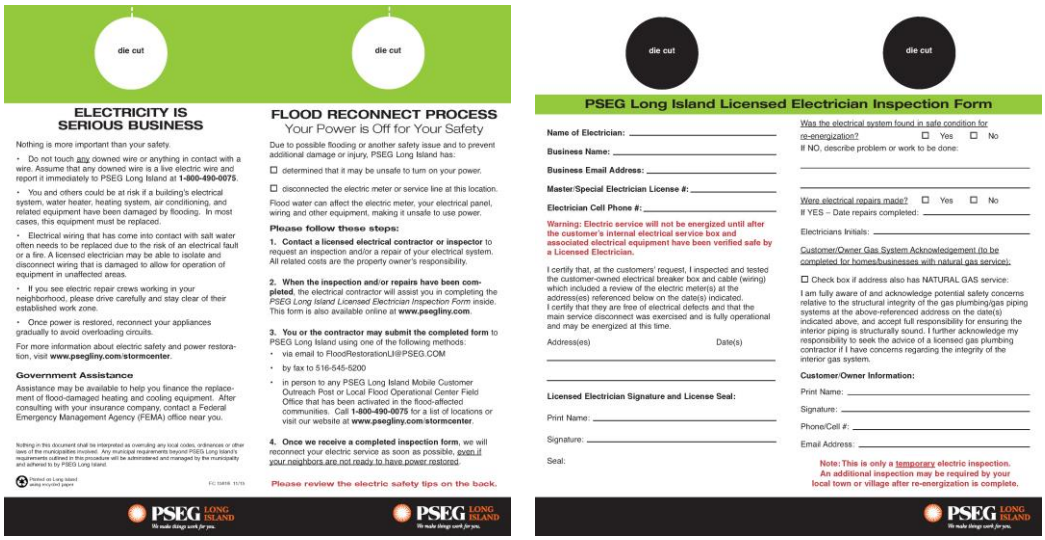


Figure 15.13 – Restoration of Electrical Service after Major Flooding Door Hangers

Additionally, PSEG Long Island’s Communications Department will utilize various channels (website postings, social media, external communications, etc.) to communicate information regarding required forms. In such cases, prior to re-energization by PSEG Long Island, customers will be required to engage a licensed electrician to certify that the customer-owned electrical equipment has been inspected, tested, and/or repaired, and can be safely energized and operated.

In instances where the local jurisdiction or municipality may impose additional requirements for re-energization, beyond those outlined by PSEG Long Island, PSEG Long Island will abide by any such local codes and/or ordinances. PSEG Long Island will work with the local municipalities to create awareness of any such additional requirements (i.e., follow up documentation and/or inspection requirements beyond temporary authorization for re-energization). PSEG Long Island will forward all electrical inspection forms received from customers to the local jurisdiction or municipality.

An electrical inspection by a licensed electrician will be required before electric service can safely be restored. All inspections and/or repairs, including cost, are the property owner's responsibility. Licensed electricians/inspectors or customers will need to submit a completed "Licensed Electrician Inspection Form" to PSEG Long Island's Flood Task Force, prior to the restoration of electric service. Electrical Inspection Forms (see Figure 15.14) can be accessed on PSEG Long Island's website and other means identified by PSEG Long Island (i.e., local town hall, Mobile Customer Outreach Post, PSEG Long Island Customer Office, etc.). Completed Electrical Inspection forms can be e-mailed, faxed, or hand-delivered to any PSEG Long Island Customer Office or PSEG Long Island Mobile Customer Outreach Posts that are established to facilitate the restoration process in hardest hit flood areas.

Once customers acceptably submit the required form, PSEG Long Island's Flood Task Force will work directly with customers to reconnect electric service in a safe and timely manner. In addition, when PSEG Long island's Flood Task Force receives the Licensed Electrical Inspection form, PSEG Long Island will notify the gas utility of homes that are approved for re-energization. This process will be coordinated to ensure safe and timely restoration of utility services.

PSEG LONG ISLAND

PSEG Long Island Licensed Electrician Inspection Form

Name of Electrician Inspecting Location: _____

Business Name: _____

Business Email Address: _____

Master/Special Electrician License No.:_____

Electrician Cell Phone #:_____

Warning: Electric service will not be energized until after the customer's internal electrical service box and associated electrical equipment has been verified safe by a Licensed Electrician.

I certify that, at the customers' request, I inspected and tested the customer's owned electrical breaker box and cable (wiring) which included a review of the electric meter at the address referenced below on the date indicated. I certify that they are free of electrical defects and that the main service disconnect was exercised and is fully operational and may be energized at this time.

Customer Address SEAL:

_____

_____

Licensed Electrician Signature and License Seal:

Print Name: _____

Signature: _____

Date:_____

Was the electric system found in safe condition for re-energization? Yes No If No, description of problem or work to be done:

Were electric repairs made? Yes No If yes, date when repairs made _____ Elect. Initials__

Customer/Owner Gas System Acknowledgement (to be completed for homes/businesses with gas service):

☐ Check box if address also has GAS service:
I am fully aware and acknowledge potential safety concerns relative to the structural integrity of the gas plumbing/gas piping systems at the above-referenced address on the date(s) indicated above, and accept full responsibility for ensuring the interior piping is structurally sound. I further acknowledge my responsibility to seek the advice of a licensed gas plumbing contractor if I have concerns regarding the integrity of the interior gas system.

Customer/Owner
(Print Name)_____ Signature: _____

Customer/Owner Phone/Cell #:_____ Date:_____

Customer/Owner email: _____

Note: This is only a temporary Electric inspection. An additional inspection may be required by your local town or village after re-energization is complete.

Figure 15.14 – Sample PSEG Long Island Licensed Electrician Inspection Form

NYS Code Enforcement Disaster Assistance Response (CEDAR) Teams

In the spirit of efficiency and cooperation, where conditions permit, PSEG Long Island will work closely with locally deployed NYS CEDAR teams to perform the aforementioned rapid assessments, leveraging a skilled resource that has been deployed to perform similar, but more comprehensive, assessments in these flooded areas.

CEDAR resources are essentially mutual assistance building inspectors and code enforcement professionals from across NYS that are requested by local towns and villages, though the Nassau and Suffolk EOCs, to assist with damage assessment in their storm ravaged areas.

In cases of such requests, county EOCs submit requests received from the various jurisdictions to the NYS OEM, who will then request the CEDAR resources to be activated and deployed to the local towns and villages requesting their assistance. Upon assignment, the local towns and villages assume responsibility for deploying the CEDAR resources to the local flooded areas to perform the desired assessments.

Recognizing that it is common practice for local towns/jurisdictions to request these resources, where appropriate, PSEG Long Island will closely coordinate with these deployed teams of code enforcement personnel to leverage information collected by these CEDAR resources. This is a means to assist with the process of determining whether the premises or area is safe to re-energize.

PSEG Long Island will coordinate with NYS CEDAR teams to obtain a copy of their completed assessment forms. This will be facilitated through the Nassau and Suffolk County EOCs, providing access to valuable data that will be utilized by PSEG Long Island to make the ultimate determination as to whether a structure is safe to re-energize. PSEG Long Island will maintain responsibility for determining what is safe or unsafe to re-energize, disconnect, or reconnect individual electric service to homes/buildings, as previously described.

New York City (NYC) Area

If major flooding occurs in the NYC area, PSEG Long Island's restoration personnel will work with the Department of Buildings in NYC to re-energize service to homes. PSEG Long Island's restoration personnel will work directly with customers affect by flooding to reconnect electric service in a safe and timely manner.

15.6 De-escalation Protocols

At the conclusion of major restoration efforts, and when the T&D Electric system is returned to "system normal" status, a comprehensive, territory-wide survey of the T&D system may be conducted. Efforts can range from a survey of just the most severely damaged circuits, to a complete survey of the 3-Phase mainline, or a complete re-survey of the entire system. The purpose of such efforts is to identify and record any remaining substandard conditions so that appropriate corrective actions can be initiated.

Identified substandard conditions may include temporary repairs but are more often equipment issues that have not caused an interruption in electric service such as broken insulators, slack in primary/secondary lines, broken cross arms, wire off insulators, as well as areas requiring tree trim work or the removal of tree limbs resting on power lines. In such instances, identified locations would then be prioritized and assigned for field correction. Efforts would also be made to identify, and make permanent, any temporary repairs performed during restoration operations.

As a result of these proactive efforts, the T&D system is reinforced and returned to its pre-storm configuration, helping to curtail post-storm interruptions that could have subsequently occurred as a result of existing damage or substandard conditions on the system.

16. PLANNING PROTOCOLS

In addition to the performance of other activities, the Planning Section serves as an information and resource hub during restoration events. The Planning Section is responsible for resource requests and the collection, evaluation, documentation, and dissemination of incident information. Additionally, this Section oversees employee and family assistance needs and ensures an orderly demobilization.

When activated, the Planning Section is managed by the Planning Section Chief, who is a member of the General Staff. The Planning Section is comprised of five primary units:

1) Situation Status
2) Resource Coordination
3) Documentation
4) Demobilization
5) Human Resources Unit

The five Planning Section units may include a number of Technical Specialists who assist in evaluating the situation and forecasting requirements for additional personnel and equipment. Technical Specialists may function within the Planning Section, or be assigned based on where their specialized knowledge and expertise are required.

16.1 Planning Section Chief

The Planning Section Chief oversees the five branches and their associated areas of responsibility within the Planning Section. Additional responsibilities for the Planning Section Chief will include:

- Manpower coordination
  - Mutual Assistance requests
    - North Atlantic Mutual Assistance Group (NAMAG) and other Regional Mutual Assistance Groups (RMAGs)
    - Partner Utilities and contractors
    - NYS Public/Private partnership
  - Internal personnel (PSEG Long Island and PSE&G New Jersey)
  - Supplemental personnel requests and needs
- Agency and EOC coordination
- LIPA and DPS coordination

- RDA activation and coordination
- Restoration staffing levels
- ETR strategy support
- Establishment and execution of strategy, anticipation, and storm calls
- Coordination of specialized restoration resources and teams

16.2 Situation Status Unit

16.2.1 Situation Status

The Situation Status Unit oversees the preparation, posting, and dissemination of incident and/or event data including updates, briefs, notifications, and situation status reports. The Situation Status Unit oversees data collection and reporting for the following:

- Outage data
- Crew data
- ETR information
- DPS reporting
- Storm matrix
- Weather information
- Flood information
- Liaison activations
- General Situation Status reports

16.2.2 Reporting

Integrated with OMS, via real-time database connectivity, is a SAS reporting tool that provides both actionable real-time operational feedback and historical reporting. Its reporting functionality includes multiple delivery mechanisms, such as web, text, e-mail, FTPs, VA self-service Graphical User Interface (GUI), and Mobile Application. This reporting infrastructure provides direct support across all components of the restoration organization, including Operations, Planning, Logistics, Finance, and Communications, as well as external agencies. To ensure the consistency of information, the Situation Status Unit coordinates all reporting requests.

Other reporting tools and/or sources will be employed for data that is not captured within SAS reports.

Figure 16.1 summarizes some of PSEG Long Island's current reporting capabilities.

REPORT NAME	GENERATED BY	DATA SOURCE	FREQUENCY	AUDIENCE
Outage Summary	Situation Status Unit Staff	SAS	On demand	Situation Status Unit Leader; Documentation Unit Leader
Foreign Crew	Situation Status Unit Staff	FCP Team	3 times a day	Situation Status Unit Leader; Documentation Unit Leader
Manpower	Situation Status Unit Staff	Manpower Share Drive	Once a day	Incident Commander; Planning Section Chief; Situation Status Unit Leader; Documentation Unit Leader
ETRs	Situation Status Unit Staff	Operations Section Chief; Division Supervisors	Once a day	PSEG Long Island Leadership; Municipal Liaisons
Storm Event Operations Matrix	Situation Status Unit Staff	Division Restoration Task Force Leader	Twice a day	Internal Stakeholders
Critical Facility / LSE Customer Report	Situation Status Unit Staff	SAS	4 times a day	Situation Status Unit Leader
DPS Report (EORS)	Situation Status Unit Staff	SAS; Manpower Share Drive	4 times a day	Planning Section Chief; DPS
Muni Call Report	Situation Status Unit Staff	SAS; Manpower Share Drive; Storm Call	On demand	Internal Stakeholders
Storm Accounting	Situation Status Unit Staff	SAS	Once for the storm	Internal Stakeholders; LIPA

Figure 16.1 – Reporting Information Table

Note: Reports are generated based upon need, feasibility, and storm conditions

16.2.3 Coordination with Department of Public Service (DPS)

16.2.3.1 Guidelines

The Planning Section maintains relationships with DPS throughout the year and during emergencies. The Planning Section provides updates on key restoration initiatives and plans to DPS, as conditions warrant. The Communications Organization oversees the DPS Hotline as detailed in Section 14.6.1. The Planning Section Chief coordinates with DPS as follows:

- Advising DPS Operations Section of PSEG Long Island's storm anticipation plans and/or status, as appropriate
- Maintaining communication with DPS staff, to provide on-going status updates and to promptly respond to requests for information

Concurrently, similar activities are coordinated with senior officials at LIPA.

16.2.3.2 Emergency Outage Reporting System (EORS) and Information Sharing with DPS

The EORS data sheet has been developed by the DPS staff to communicate electric outage data in a timely and consistent format. Information compiled in the reporting system is used by DPS to monitor utility progress, and to inform other agencies, including the NYS OEM, of response status.

Submission of data is required by all New York utilities whenever NYS OEM activates the NYS EOC, or as requested by the DPS Staff. The main components of the EORS Report include:

- Outage information
- Summary of restoration plans and major damage
- ETRs
- Crewing information on site and en-route
- Planned crew relocation and mutual assistance activity
- Listing of critical facilities and LSE customers affected
- Summary of dry ice/bottled water distribution activities
- Listing of any additional supplies or services being provided at Community Outreach sites

During any type of event, outage data and crew assignment data are to be submitted, as requested by DPS staff (typically 7AM, 11AM, 3PM, and 7PM). Templates provided by DPS staff will be used to report information. The information is provided, via e-mail, during an event by the Situation Status Unit Staff. Concurrently, senior officials at LIPA are provided the information contained within the EORS reports. A sample EORS form is provided in Appendix N.

Crew assignment data includes a breakdown of Company and Foreign (non-Company) Line Crews, as well as Tree and Service Crews utilized for response efforts by the company and operating division.

In addition, PSEG Long Island, together with other New York utilities, participates in an automated process that provides outage information to the DPS staff every 30 minutes, via an automatic data file transfer, throughout the year, as conditions warrant.

16.3 Resource Coordination Unit

The Resource Coordination Unit oversees the coordination of incident resources and restoration assignments. The Unit is broken down into two distinct functional areas:

- Resource Assignment
  - Storm assignments
  - Manpower data
- Resource Coordination
  - Utilities
  - Damage assessment
  - Flood assessment
  - Make Safe To Clear

16.3.1 Resource Assignment

A key component of PSEG Long Island's ability to successfully implement its ERP is the readiness of its employees to respond to an outage emergency. All PSEG Long Island employees are assigned a specific storm restoration assignment that they are required to fulfill when emergency conditions dictate. While many PSEG Long Island employees currently play a role in daily operations functioning in traditional roles, others are shifted from their normal function to their storm support (non-traditional) role. These additional personnel resources help PSEG Long Island to better manage and respond to widespread outages and other system emergencies.

Storm assignments center on PSEG Long Island's three main emergency focus areas: Operations, Communications, and Logistics. Training is conducted on key storm restoration assignments throughout the year, with drills and exercises utilized to practice storm assignments. Please refer to Chapter 18 for more information on training, drills, and exercises.

PSEG Long Island's EP Department is responsible for administering and maintaining the readiness of personnel and tracking assignments through the company's storm assignment database, throughout the year. Upon hiring, all employees are provided a storm restoration assignment. These roles are determined by the employee's current functional skill set and PSEG Long Island's storm restoration needs. Where allowable, considerations are also given to the employees work or home location. Efforts are also made to align roles to the skill sets of assigned personnel, when possible.

Employees or their direct supervisors are notified, via e-mail and/or telephone, of their assigned restoration roles. The EP Department ensures employees are aware of their emergency assignment, responsibilities, and corresponding assigned restoration location. The EP Department also regularly verifies the required staffing levels for restoration efforts and adjusts manpower, as necessary.

Additionally, the EP Department sends out notifications to employees throughout the year, pertaining to storm restoration changes and/or updates. The EP Department also ensures that storm restoration roles and staffing levels are, at a minimum, updated semi-annually, and maintained throughout the year.

The decisions made by PSEG Long Island's Incident Management Team based on Weather Assessment and Damage Predictions and Emergency Classifications and Activations (correspondingly described in Chapter 4 and Chapter 5, respectively) ultimately determine the activation levels and the corresponding personnel needs for each specific event.

16.3.2 Resource Coordination

This Unit is responsible for maintaining the status of all deployed resources (primary and support) assigned to an incident. The Resource Coordination Unit makes certain that all assigned personnel have checked in at the incident. Physical resources consist of personnel or teams available for assignment to, or employment during, incidents.

For effective management of their deployment, committed and assigned resources must be categorized by capability and capacity across disciplines and tracked continuously as to their current location and status. The following tools are useful for maintaining an up-to-date and accurate picture of resource utilization:

1) Status Conditions - Tactical resources at an incident can have one of three status conditions:
   b) Available resources are personnel or teams that have been deployed to an incident, and are ready for a specific work detail or function
   c) Assigned resources are personnel or teams that have checked in and are currently supporting incident operations
   d) Out-of-service resources are personnel or teams that have been assigned to an incident, but are unable to function due to rest, or personal reasons; or because their condition makes them unusable
2) Changes in Status – Resource status changes will be coordinated through the Resource Coordination Unit

16.4 Documentation Unit

The Documentation Unit oversees the collection and archiving of incident and/or event data in support of restoration operations. This Unit is responsible for consolidating and publishing status updates provided on the restoration calls by key internal and external stakeholders into a Storm Call Notes Report. Figure 16.2 shows the information gathering organizations and restoration topics discussed on the call. This report is subsequently forwarded, via e-mail, to a preset distribution list as a means of consistent information sharing.

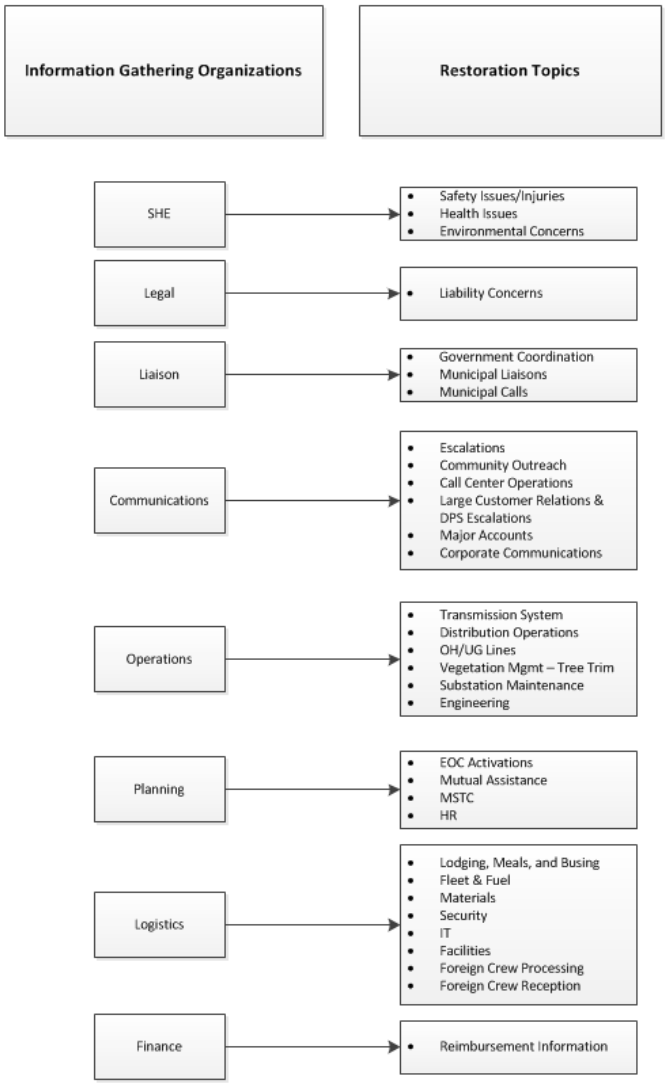


Figure 16.2 – Information Gathering and Restoration Topics

Additionally, the Documentation Unit distributes, collects, and retains pre-storm restoration checklists. Restoration checklists have been developed for key restoration positions and include position-based action items and associated timeframes for completion (often beginning 72 hours in advance of the storm). Pre-established checklists provide continuity between events and provide a position guideline when restoration assignments change. Checklists are distributed pre-storm, collected post-event, and stored so as to document that all necessary actions were executed.

16.5 Human Resources Unit

The Human Resources Unit oversees resource support initiatives relative to restoration personnel, including employee lodging, family assistance, and/or labor relations.

The Human Resources Unit is broken up into three components:

- Employee Lodging Resource Group
  - This group coordinates employee lodging assistance, when conditions warrant accommodations (i.e., safety concerns and/or operational readiness). The Employee Lodging Resource Group will work with the Logistics Organization to coordinate housing requests of PSEG Long Island employees, based upon availability and need.
- Employee and Family Assistance Group
  - This group coordinates employee and family assistance based upon event conditions and need. Coordination can include, but is not limited to, assistance with housing, transportation, and/or family support concerns. The group also coordinates employee and family assistance initiatives with external stakeholders and/or agency representatives, as needed.
- Labor and Employee Relations
  - The Labor and Employee Relations Group establishes and maintains on-going communications with Union Leadership. This group also coordinates labor related issues associated with restoration plans and/or conditions and ensures that all 1049 contracted and other labor related requirements are properly followed.

16.6 Demobilization Unit

The Demobilization Unit oversees the coordination and dissemination of the demobilization plan(s) and/or requests with participating personnel and organizations. The Demobilization Unit reviews operational and resource data to determine potential size, extent, and timing of demobilization efforts and plans in accordance with these assessments. This Unit also works to coordinate with FCP on crew release times and plans, and also reviews and coordinates demobilization resource needs and requests with internal and external stakeholders.

At the conclusion of major restoration efforts, the shift from full activation to a reduced level of restoration is essential for an orderly transition of operations. The Distribution Survey and Operations Control Division Supervisors, T&D Crew Control Division Supervisors, and Substation Maintenance/Relay Protection Group Supervisors assess the need, within their geographic division, for the continued deployment of restoration crews. This assessment allows for the completion of permanent repairs, while maintaining a contingent of available resources to address any additional isolated outages.

This information is provided to the Operations Branch Directors to coordinate demobilization plans with the Planning Section Chief and Demobilization Unit Leader. They jointly determine the continuing level of crew involvement, after all customers are restored, based on the following conditions:

- Extent of damage repaired and quantity of temporary repairs made during the storm
- Forecast weather conditions for the next 48 to 72 hours
- Availability of personnel for continuing operations

Once the demobilization plan is approved, the Operations Branch Directors initiate the transition of staff to normal operations by informing the Distribution Survey and Operations Control Division Supervisors, T&D Crew Control Division Supervisors and Substation Maintenance/Relay Protection Group Supervisors in each of the operating divisions, as well as the Logistics Section, through normal communication channels (i.e., phone, e-mail, etc.). Internal resources are notified of demobilization by their respective restoration supervisors.

The Distribution Survey and Operations Control Division Supervisors, T&D Crew Control Division Supervisors, and Substation Maintenance/Relay Protection Group Supervisors will commence the transition to normal operations by:

- Determining which sites, if any, require continued coverage as the transition to normal operation commences, and providing for such coverage
- Notifying all areas for which the function interacts, that the function is commencing with demobilization plans
- Demobilizing on duty personnel, as appropriate, and advising personnel scheduled for subsequent shifts that they will not be required and that they should report to their regular work assignment for the following operational period
- Directing the return of all restoration equipment and unused material

The restoration workforce deployed during a major storm may consist of division, non-PSEG Long Island represented and non-PSEG Long Island non-represented Repair and Construction Crews, Tree Crews, Damage Assessors, Wire Watchers, Crew Guides, and other personnel. Demobilization of external resources occurs once the defined storm role is complete. This is performed in coordination with the NAMAG, NRE, and/or appropriate collective bargaining agreements.

The Foreign Crew Branch Director is responsible for communicating a timetable for the orderly transition and release of restoration personnel and services. The Foreign Crew Branch Director will direct the Foreign Crew Processing Area to disseminate this information, via normal communication channels (i.e, phone, e-mail, etc.), to applicable crew guides, their associated foreign crew supervision, and the foreign crew resources home offices. Restoration personnel should be released in the following order, but will ultimately be determined by conditions specific to the given event:

1) Non-represented, non-PSEG Long Island personnel
2) Represented, non-PSEG Long Island personnel
3) PSEG Long Island non-division, represented personnel
4) PSEG Long Island division personnel

The deactivation of personnel during demobilization is event specific and dependent on resource requirements. Supervisors are responsible for the orderly and safe transition and release of restoration personnel and services.

17. LOGISTICS PROTOCOLS

17.1 Overview and Plan Methodology

The Logistics Section plays a vital role in the execution of PSEG Long Island's storm restoration efforts. The Logistics Section's mission is to facilitate and to ensure that all required storm support resources are made available, in an effective and timely manner, to enable a thorough and efficient storm response. These activities are governed by the severity and scope of the emergency. The Logistics Section plans for, and supports, the operational needs of all restoration organizations during large-scale storm events and other system emergencies. The actions of the Logistics Section routinely begin prior to the storm arrival, given the importance and reliance on their services. Logistics Section operations remain in effect throughout the duration of the activation and/or emergency and often continue into the recovery phase of restoration operations.

The Logistics Section facilitates and organizes its actions into four functional branches: Foreign Crew, Support, Staging, and Service. The Logistics Section's four-branch structure supports a more strategic and long-term perspective regarding resource requests and needs. Each branch is further broken down into sub-functional units to consolidate and more effectively respond to emergencies and/or activations. Each functional unit has an assigned leader and the support personnel needed to carry out the associated critical actions and responsibilities. The Logistics Section's branches and supporting functional units are detailed below:

1) Foreign Crew Branch
    a) Foreign Crew Processing
    b) Foreign Crew Reception
2) Support Branch
    a) Fleet Maintenance & Fueling
    b) Real Estate
    c) Facilities Management
    d) Security

3) Staging Branch
   a) Site Preparation
   b) Fleet and Fuel
   c) Materials and Logistics
   d) Waste and Environmental

4) Service Branch
   a) Materials Procurement
   b) Materials Distribution
   c) Lodging
   d) Busing
   e) Meals

17.2 Logistics Support Center (LSC)

PSEG Long Island's LSC is critical in facilitating effective communications and coordination during restoration operations. The LSC utilizes a large conference room, that is transformed into a Logistics headquarters, which includes representation from all key logistical functional areas and the personnel responsible for leading the associated efforts. The LSC allows for information sharing on a real-time basis and the ability for functional unit leaders to have instant "face-to-face" interactions with one another. This close coordination allows for improved situational awareness and more rapid and efficient decision-making, thereby creating a more organized and comprehensive response structure.

The readiness of the LSC is maintained throughout the year and can be activated at a moment's notice by the Logistics Section Chief. Personnel assigned to the Logistics Section also prepare for activations through annual exercises, training, and drills, where the LSC is fully assembled to further simulate a real world scenario. The LSC facility layout is shown in Figure 17.1.

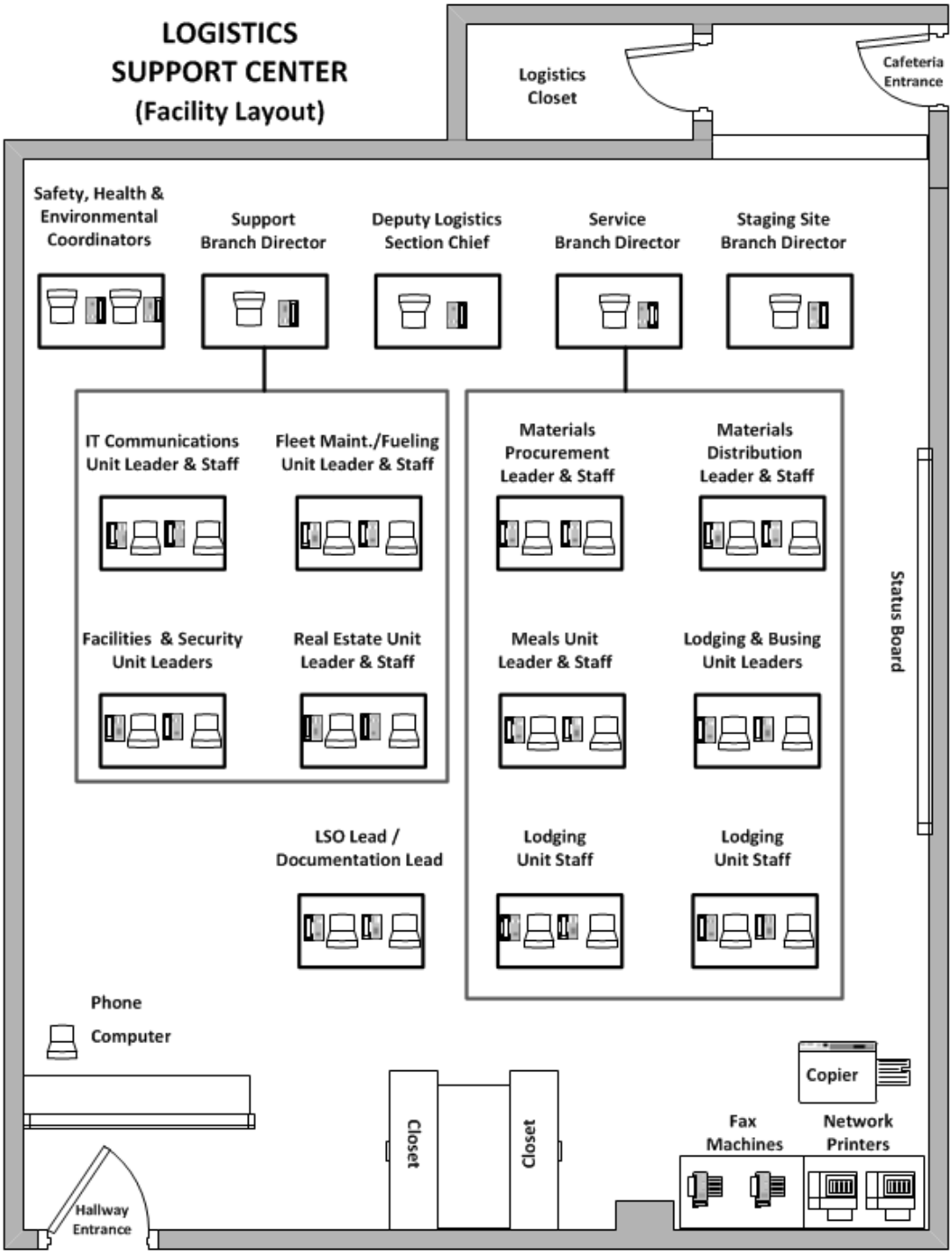


Figure 17.1 – Logistics Support Center (LSC) Facility Layout

17.3 Senior Leadership

17.3.1 Logistics Section Chief

In anticipation of a large-scale storm or other system emergency affecting the electric system, the PSEG Long Island Managing Director and Vice President of Construction and Operations Services assumes the role of Logistics Section Chief. Similarly, the PSEG Long Island T&D Services Director assumes the role of Logistics Section Chief. If the Logistics Section Chief is not available, the Service Branch Director will serve in his/her absence.

The role of the Logistics Section Chief is to lead the Logistics Section, its personnel, and all supporting functional areas. Throughout the duration of an event, the Logistics Section Chief coordinates Section initiatives with the Incident Commander, PSEG Long Island Senior Leadership, Branch Directors, and Unit Leaders.

The Logistics Section Chief is responsible for overseeing the Foreign Crew, Support, Service, and Staging Branch Organizations, as well as their supporting units described in the following sections of this chapter. Additionally, they work closely with the SHE Officer, Planning Section Chief, and PSE&G counterparts to ensure FCP logistical needs are addressed, demobilization plans are carried out, and restoration resources are shared, respectively. Logistical updates are communicated to key internal PSEG Long Island restoration personnel, as well as governing external agencies (i.e., LIPA, DPS).

17.4 Foreign Crew Branch

17.4.1 Overview

The Foreign Crew Branch of the Logistics Organization is comprised of the following functional areas:

- Foreign Crew Processing Organization
- Foreign Crew Reception Organization

17.4.2 Foreign Crew Branch Director

The Foreign Crew Branch Director coordinates and leads the above functional areas and its associated personnel. The Foreign Crew Branch Director coordinates with the Operations Branch Directors, Planning Section Chief, and/or Logistics Section Chief on planned Foreign Crew support. Once the need for external resources has been determined, the Foreign Crew Branch Director notifies key Foreign Crew personnel (i.e., processing and reception) of the planned restoration activation schedule. In addition, the Foreign Crew Branch Director will oversee and coordinate the management of all Foreign Crew activities at the Foreign Crew Processing Unit ([redacted]) and the Foreign Crew Reception Unit ([redacted]), in conjunction with restoration plans and operations. The Foreign Crew Branch Director will maintain communication throughout the event with the Operations Branch Directors, Planning Section Chief, and their logistical counterparts in reference to ongoing daily restoration plans, initiatives, and foreign crew support needs.

17.4.3 Foreign Crew Processing Organization

The Foreign Crew Processing Organization oversees the day-to-day management of the crew processing operations throughout the restoration event. They establish contact with the foreign crew organizations (contractor or utility companies) that are assisting in storm response to determine their planned deployment schedule and time of arrival. Incoming foreign personnel are then on-boarded by the Foreign Crew Processing Organization at the [redacted], via representation by crew supervision. This organization is responsible for the processing of the following foreign personnel:

- Line crews and support personnel
- Tree crews
- Crew Guides
- Wire Watchers
- Damage Assessors

In addition, the Foreign Crew Processing Organization is divided into specified units to aid in the processing of the aforementioned foreign support personnel. These units consist of the following:

- Onboarding Team
  - Coordinates crew travel information and personnel data with responding mutual assistance companies in advance of arrival
- Crew Check-In Unit (when activated)
  - Records arrival of Foreign Crews (General Foreman/Supervisor)
- Crew Processing Unit
  - Reviews and validates RoD Sheet, which contains Foreign Crew personnel details and equipment to be deployed for support storm restoration (please see Appendix P for a sample Crew Roster (RoD Sheet))
- Crew Guides Unit
  - Assigns a Crew Guide(s) to each Foreign Crew team (i.e., RoD team) due to unfamiliarity with the service territory and serves as a liaison between foreign crew and operations
- Electric Work Assignment Unit
  - Provides Crew Guide (and Foreign Crew supervision) with an initial Remote Dispatch Area and/or operating yard locations and a PSEG Long Island point of contact for obtaining electric restoration work assignments
- Vegetation Work Assignment Unit
  - Provides Crew Guide (and Foreign Crew supervision) with an initial Remote Dispatch Area and/or operating yard locations and a PSEG Long Island point of contact for obtaining vegetation restoration work assignments
- Lodging Assignment Unit
  - Provides Crew Guide and Foreign Crew supervision with a hotel assignment and hotel contact information
- Quality Assurance, Special Assignments & Reporting Unit
  - Prepares and issues foreign crew reports
- Wire Watchers and Damage Assessors Unit
  - Processes Wire Watcher and/or Damage Assessor personnel when their services are to be utilized (based upon restoration needs)
- Foreign Crew Management (FCM) Communications
  - Communicates with internal and external stakeholders on key foreign crew activities and/or plans

- Safety Orientation Unit
    - Provides crew orientation (i.e., territory information, travel restrictions, police/hospital, etc.) and safety meeting (i.e., proper PPE, work methods, etc.) for incoming Foreign Utility supervision (i.e., electric, vegetation, wire watcher, damage assessor, etc.)

Processing foreign personnel utilizing the above units enhances overall efficiency, while minimizing the number of issues that may occur, during the restoration event, as well as assisting with documentation and reconciliation efforts, post event.

17.4.3.1 Crew Guides

Crew Guides act as the intermediary between PSEG Long Island Foreign Crew Management/Operations personnel and Foreign Crew supervision. Crew Guides are processed through the Crew Guides Unit and serve to direct Foreign Utility Crews (Line and/or Tree) to job and lodging locations, while documenting the daily actions of Foreign Crews (meals, work performed, materials used, equipment utilized, etc.). Crew Guides serve as the liaison between the foreign crew and Foreign Crew Processing and/or Operations restoration personnel (i.e., Console Dispatchers, Field Coordinators, Remote Dispatch Area staff, Store Room personnel, etc.). Additional responsibilities include, but are not limited to, the following:

- Facilitate meal requests and needs
- Lead crews to and from work sites
- Facilitate lodging accommodations in conjunction with Lodging Assignment Unit
- Report any accidents or injuries to field supervision and internal Operations personnel
- Remain aware of published ETR times for jobs assigned and report any cases where published ETR needs to be extended
- Communicate locations of transformer leaks or oil spills to Operations and/or Environmental personnel
- Request switching, if necessary
- Record necessary information for their assigned crews (i.e., crew details, field reports, time logs, daily summary logs, etc.) and submit to Foreign Crew Processing for documentation purposes
- Provide communication between field and office including location of crews, job status, and next work location
- Call in restoration information to Dispatcher immediately after service is restored to each case/location

17.4.4 Foreign Crew Reception Organization

If an event requires Foreign Utility Crews and additional outside personnel to support the effort, the Foreign Crew Reception Organization contacts the NYS Parks Department to activate and utilize [redacted] as the primary crew reception site. PSEG Long Island utilizes this site during foreign crew activations and arrivals. The site is centrally located to assist with crew deployments and is in close proximity to PSEG Long Island's crew processing headquarters in [redacted]. The crew reception site is built-out, per established site drawings, to serve as the primary reception staging area for accepting foreign crews upon their arrival. In the event of a small-scale incident, PSEG Long Island may utilize the [redacted] location as a crew reception site.

PSEG Long Island utilizes multiple site configurations for the crew reception site at [redacted], ranging from area layouts for 80 to 245 vehicles. Figure 17.2 shows a sample layout for 245 vehicles.

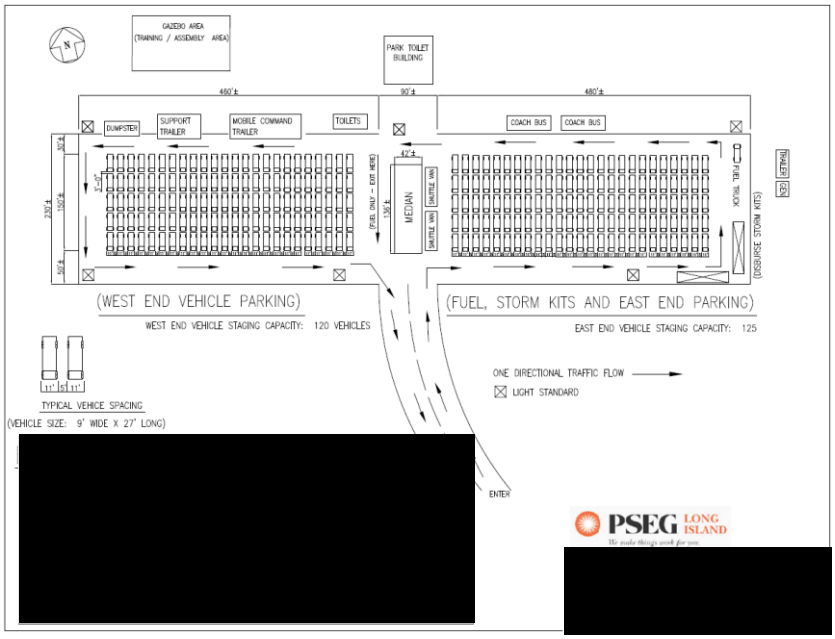


Figure 17.2 – [redacted]

The Foreign Crew Reception Organization oversees the day-to-day management of the crew reception operations throughout the restoration event. Moreover, they oversee the set-up of the crew reception site and ensure key assets have been delivered and documented in support of planned site usage.

At the crew reception site, crews receive safety and information briefings by PSEG Long Island personnel and safety advocates. All foreign crew vehicles and/or trucks are re-fueled in preparation for crew deployments and crews are subsequently issued the required restoration storm kits (equipment and materials). Finally, crews are reunited with their supervision and Crew Guides before proceeding to operational locations. During emergency conditions, PSEG Long Island strives to deploy all field crews directly to their work location after they are processed and receive their job assignment and safety briefs. However, deployment directly to the field can sometimes be delayed due to work restrictions, travel, or contractual terms and conditions (i.e., safety issues, weather conditions, shift times, lodging, etc.).

17.5 Support Branch

17.5.1 Overview

The Support Branch of the Logistics Organization is comprised of the following functional areas:

- Fleet Maintenance and Fueling Unit
- Facilities Unit
- Real Estate Unit
- Security Unit

17.5.2 Support Branch Director

The Support Branch Director coordinates and leads the above functional areas and its associated personnel. Throughout the event, the Support Branch Director coordinates with the Logistics Section Chief on planning initiatives, action items, and any potential areas of concern associated with these functional areas. These goals and priorities are then cascaded down to the Support Branch Unit Leaders for incorporation into their pre-established restoration routine. The Support Branch Director continuously reviews and assesses their unit's progress and reports to the Logistics Section Chief to confirm that responsibilities have been completed and any other issues or concerns have been appropriately addressed.

17.5.3 Fleet Maintenance and Fueling Services Unit

The role of the Fleet Maintenance & Fueling Unit Leader in the Logistics Section is to continuously assess the event for vehicle repair and maintenance issues, as well as towing and garage services. In addition, they coordinate fuel services (i.e., in-house fueling, vehicle refueling at off-site locations, fuel vendor coordination, etc.) to meet the demands of the event. If needed, the Fleet Maintenance & Fueling Unit Leader will also help secure additional vehicles to supplement existing fleet assets.

The Fleet Maintenance & Fueling Unit Leader coordinates with the Staging Site Area Manager regarding equipment, fueling, and transportation needs at vehicle staging sites. They also serve as a liaison with external agencies (i.e., NYS DOT) on fueling and transportation issues and requests.

17.5.4 Real Estate Unit

The role of the Real Estate Unit Leader is to continuously assess the event for Real Estate related needs, including staging site locations and site agreements. Semiannually, the Real Estate Unit Leader will validate and update their list of contact information (names, phone numbers, e-mail addresses, etc.) for all staging areas on file (i.e., buildings, parks, airports, universities, firehouses, etc.). The Real Estate Unit Leader contacts their list of staging area property owners/representatives, via telephone or e-mail, to confirm/update each staging site's subject contact information.

The Real Estate Unit Leader communicates with property owners, where pre-arranged site agreements exist with PSEG Long Island, to utilize their property as established emergency staging sites during restoration events. Additionally, they will coordinate with non-agreement property site owners to secure additional sites, as needed. If supplemental real estate is required for restoration operations, the Real Estate Unit Leader will contact owners of vacant land and/or useable facilities for short term lease agreements. For all utilized staging sites, the Real Estate Unit Leader ensures site readiness with the property owners.

17.5.5 Facilities Unit

The Facilities Unit Leader is responsible for the management and maintenance of all company facilities, operating yards, and associated support locations during restoration operations. The Facilities Unit Leader is also responsible for overseeing all facilities management services, including the proper operations of Heating, Ventilation and Air Conditioning (HVAC) equipment, janitorial services, garbage removal, etc. performed to support and maintain company and restoration sites.

The Facilities Unit oversees the setup of restoration sites, including the CAC, LSC, Remote Dispatch Areas, and other support locations. Additionally, they coordinate all building repairs and contract labor performed at all work locations. The Facilities Unit Leader directs the testing and maintenance of critical back-up systems (i.e., emergency generators, Uninterruptible Power Supplies (UPS), etc.) and building support infrastructure throughout the restoration event.

Furthermore, the Facilities Unit coordinates with building landlords regarding shared space services and planned restoration operations. They also oversee the distribution of mail and duplication services, when applicable.

17.5.6 Security Unit

The Security Unit Leader is responsible for the development and implementation of PSEG Long Island's security plans to ensure the safety and security of company employees, support personnel, work locations, and assets.

The Security Unit Leader and Staff continuously review, determine, and address security threats and potential hazards at all current and planned work locations. Appropriate levels of security patrols are provided at all utility crew sites including, but not limited to:

- Staging area locations
- Crew processing sites
- Material laydown yards
- Hotels and/or motels
- Base camps and/or tent cities
- Alternative housing facilities
- Truck staging sites
- Fueling locations

Additionally, the Security Unit Leader will oversee all credentialing and access protocols at all company work locations and secondary restoration work sites. When appropriate, security incidents and/or claims regarding company personnel, work locations, and/or assets are investigated, documented, and reported.

During restoration events, the Security Unit Leader coordinates with Federal, State, and Local law enforcement on security concerns and to facilitate restoration activities and crew movements, as necessary

17.6 Staging Branch

17.6.1 Overview

The Staging Branch of the Logistics Organization is responsible for the setup, management, and coordination of all activities at staging sites and/or emergent support facilities during restoration operations. PSEG Long Island utilizes a variety of staging sites to support emergency activations.

Site types are broken down by functional area or support category and can include, but are not limited to, the following:

- Crew Processing sites
  - Foreign Utility Crew processing, coordination, and deployments
- Staging Sites (general)
  - Forward operating sites and remote dispatch areas operations
- Base Camps
  - Crew staging and short- and long-term lodging sites
- Material Laydown Sites
  - Material preparation and staging
- Truck Mobilization and Fueling
  - Utility crew vehicle staging and fueling sites

17.6.2 Staging Site Locations

PSEG Long Island has nineteen pre-arranged site agreements across Long Island [redacted] in place, and has secured access to over thirty different properties in past storm events. The nineteen secured sites with agreements are as follows:

[redacted]

PSEG Long Island has also had prior arrangements with additional sites, should conditions require a larger operational footprint. Arrangements can be requested with site contacts and the utilization of these sites are coordinated upon emergency activations, in conjunction with property owner needs and daily operations.

While these sites have “non-agreements,” PSEG Long Island has been able to enter into a memorandum of understanding for their use between property owners and PSEG Long Island, during certain conditions. The Real Estate Unit, along with staging site personnel, will arrange and coordinate, as required. There are twenty-eight total sites [redacted] The twenty-eight staging sites with *non-agreements* are:

[redacted]

[redacted]

While all staging site locations may not be activated regularly, PSEG Long Island takes a proactive approach by developing and maintaining site layout drawings for each staging site location, in the event an activation takes place.

17.6.3 Mobile Command Center(s)

PSEG Long Island also utilizes Mobile Command Centers during large-scale system emergencies and storm restoration efforts. Mobile Command Center vehicles can replace temporary accommodations that previously needed to be rented and set-up, whenever a major storm brings in outside utility crews. The Mobile Command Center can also be deployed to hard-hit areas or other areas requiring a local presence within our service territory, in order to manage and assist PSEG Long Island personnel on site.

Built on a three-axle trailer platform, the Mobile Command Centers have its own Wi-Fi network, televisions displaying satellite news feeds, and eight workstations. Security cameras and external lighting assist with location deployments and safety concerns. Other amenities include an on-board generator, air conditioning, heat, and a refrigerator. A photograph of one of PSEG Long Island's three Mobile Command Centers is included in Figure 17.3.

Figure 17.3 – Mobile Command Center

17.6.4 Additional Staging Support

If a storm event causes significant damage to PSEG Long Island's T&D electric system, and a large Foreign Crew workforce is required to support PSEG Long Island, additional staging support can be established. If the planned Foreign Crew personnel headcount exceeds the capacity of available Long Island and Queens County hotels, alternative housing arrangements will be implemented. These measures include setting up sleeping arrangements at available universities, large vacant buildings/complexes, and firehouses across the territory to house the Foreign Crews.

PSEG Long Island may also utilize third party logistics contractors to build out base camps in order to house, feed, and fully accommodate the needs of the Foreign Crews, if necessary. The photos (see Figure 17.4) depict base camps constructed during Superstorm Sandy in 2012, in support of restoration efforts. Upon the authorization from the Logistics Section Chief and/or Incident Commander, PSEG Long Island may utilize approved logistics contractors for base camps services and support, when conditions warrant. For more information on alternative housing, please see Section 17.7.5.

PSEG Long Island personnel serve in an operational and financial oversight role at the base camps and support locations throughout the duration of the event. The Staging Branch also oversees the planned site layouts, security, and safety initiatives of the agreed upon sites. The Support Branch Director, along with the Lodging Unit Leader, assists the Staging Unit in preparation of large-scale utility crew base camps, as required.

Figure 17.4 – [redacted]

17.6.5 Staging Site Roles and Key Positions

Depending on the planned usage and size of the staging site, the Staging Site Branch Director may oversee a contingent of key staging site positions and their associated functional areas. The Staging Site Branch Director determines the needs of each particular site and determines an acceptable level of personnel to be utilized. The functional staging site roles include, but are not limited to:

- Site Preparation Unit Leader
- Fleet Unit Leader
- Materials and Logistics Unit Leader
- Waste and Environmental Unit Leader
- Warehouse Supervisors
- Logistics Supervisor
- Staging Site Manager(s)

17.6.6 Staging Site Branch Director

The Staging Site Branch Director oversees and coordinates the planning (i.e., potential site locations, design, layout, etc.) and management of operational activities at staging locations and/or support sites, in conjunction with restoration operations.

The Staging Site Branch Director reviews staging site and/or base camp inventory levels to ensure proper resources are maintained throughout the duration of restoration operations. This review includes coordinating logistics between warehouses and staging sites, providing intra-site logistics to move materials, and overseeing fueling activities at staging sites.

17.6.7 Fleet Unit Leader – Staging Sites

The Fleet Unit Leader at the staging sites oversees and coordinates all fleet and transportation activities (i.e., motor vehicle repair and maintenance and associated transportation equipment) in support of staging site operations. In addition, they coordinate with the Fleet and Fuel Maintenance Unit Leader (in the LSC) on staging site fueling operations and services.

17.6.8 Site Prep Unit Leader – Staging Sites

The Site Prep Unit Leader at the staging sites oversees and coordinates all staging site setup and demobilization tasks. In addition, they coordinate support services at the staging site (i.e., snow/debris removal, traffic plans, parking, etc.).

17.6.9 Materials and Logistics Unit Leader – Staging Sites

The Materials and Logistics Unit Leader at the staging sites coordinates material management and distribution during restoration events. In addition, they oversee and coordinate storm kit distribution in support of planned operations.

17.6.10 Waste and Environmental Unit Leader – Staging Sites

The Waste and Environmental Unit Leader at the staging sites oversees and coordinates environmental and waste activities and spill response in support of staging site operations.

17.6.11 Warehouse Supervisors

The Warehouse Supervisors are responsible for preparing material deliveries for distribution from warehouses to material laydown sites. Additionally, they oversee the check in/out of all materials from PSEG Long Island warehouses.

17.6.12 Logistics Supervisor

The Logistics Supervisor oversees material circulation for the entire PSEG Long Island service territory and coordinates the distribution and replenishment of materials to restoration personnel and support sites.

17.6.13 Staging Site Manager(s)

The Staging Site Manager(s) oversees staging site operations and material distribution at assigned staging sites, in conjunction with warehouse employees, material handlers, and staging site contractors.

17.7 Service Branch

17.7.1 Overview

The Service Branch of the Logistics Organization is comprised of the following functional areas:

- Materials Procurement Unit
- Materials Distribution Unit
- Lodging Unit
- Busing Unit
- Meals Unit

17.7.2 Service Branch Director

The Service Branch Director coordinates and leads the above functional areas and its associated personnel. Throughout the event, the Service Branch Director coordinates with the Logistics Section Chief on planning initiatives, action items, and any potential areas of concern associated with these function areas. These goals and priorities are then cascaded down to the Service Branch Unit Leaders for incorporation into their pre-established restoration routine. The Service Branch Director continuously reviews and assesses their unit's progress and reports to the Logistics Section Chief to confirm that responsibilities have been completed and any other issues or concerns have been appropriately addressed.

17.7.3 Materials Procurement Unit

The Materials Procurement Unit Leader directs and coordinates the efforts of obtaining the necessary materials required to support logistical operations during restoration efforts. The Materials Procurement Unit Leader also oversees the activities pertaining to materials and equipment purchases, service related needs, vendor management and contracts, supply sources, accounts payable issues, and inbound logistics.

In addition, the Materials Procurement Unit Leader and Staff will review, oversee, and expedite the status of open orders pertaining to critical storm supplies, non-stock materials, equipment, and services.

The Materials Procurement Unit is required to semi-annually update the contact information (names, phone numbers, e-mail addresses, fax numbers, etc.) for all logistics-related vendors and contractors on file. In addition to updating contact information, the Materials Procurement Unit Leader and Staff will confirm contracts and/or agreements and review potential plans and/or needs.

17.7.4 Materials Distribution Unit

The Materials Distribution Unit Leader is responsible for assessing and properly addressing the material(s) needs in support of restoration operations including ordering, receiving, maintaining, and distributing all supplies and equipment, in support of restoration operations. In addition, they will oversee storeroom facilities and secondary mobile distribution sites throughout the entirety of restoration operations.

The Materials Distribution Unit Leader and Staff will assess and quantify inventory levels against storm target quantity levels and determine potential material needs, in conjunction with the Service Branch Director, Staging Site Branch Director, and corresponding Unit Leaders. Furthermore, the Materials Distribution Unit Leader and Staff will prepare, review, and deliver storm restoration kits to support Foreign Utility and Contractor Crews, when utilized.

Moreover, the Materials Distribution Unit Leader, in conjunction with the Staging Site Branch Director, Logistics Section Chief, and Planning Section Chief, will coordinate with other NYS Utilities, under the NYS Utilities Material Sharing Program, to draw on the group's stockpile of key materials and equipment (i.e., transformers, poles, cross arms, cables, wire, insulators, fuses, etc.) during restoration, if required.

17.7.4.1 Material Sharing Group

If material or equipment mutual assistance is required, the Planning Section Unit Leader, in conjunction with the Materials Distribution Unit Leader or Logistics designee, will participate in the NYS Utilities Material Sharing Group's conference calls, and initiate the NYS Utilities Materials Sharing Group protocol to prepare to draw on the group's stockpile of key materials and equipment.

The NYS Utilities Material Sharing Group was established in accordance with the New York PSC's "Order Instituting a Process for the Sharing of Critical Equipment" in Case 13-M-0047 (issued November 19, 2013) to provide a system, whereby participating companies may receive, and provide assistance, in the form of materials and equipment to aid in restoring and/or maintaining electric utility service.

This would only occur when such service has been disrupted by weather events, equipment malfunctions, sabotage, or any other occurrence for which emergency assistance is deemed necessary or advisable. Participating companies have agreed to establish a warehouse network in order to stockpile key materials and equipment to share, as outlined by the Group's governing principles and procedures.

17.7.5 Lodging Unit

The Lodging Unit Leader is responsible for reviewing and determining the anticipated lodging requirements and, ultimately, the procurement of lodging accommodations for PSEG Long Island personnel, Foreign Utility Crews, and support personnel as required. If in the event the number of personnel, both internal and external, exceeds the quantity of rooms available, the Lodging Unit Leader and Staff will review alternative housing needs and potential agreements with universities, firehouses, government sites, sporting arenas, etc. Additionally, in conjunction with the Logistics Section Chief, they will review and implement existing contracts with third party logistics contractors to establish and operate base camp staging sites for lodging accommodations.

The Lodging Unit Leader is required to semi-annually update the contact information (names, addresses, phone numbers, e-mail addresses, fax numbers, etc.) of their Nassau County, Suffolk County, and Queens County hotel/motel lists. The Lodging Unit Leader will contact each hotel/motel, via phone or e-mail, and verify/update the respective hotel/motel's contact information. In addition to updating contact information, the Lodging Unit Leader and Staff will also document various hotel details in support of anticipated lodging needs (i.e., parking, room capacity, catering halls, etc.).

PSEG Long Island also utilizes a third party lodging vendor, Travelliance to assist with securing hotel rooms during restoration events. Travelliance coordinates with local hotels and motels regarding room availability, costs, reservations, etc. and provides the Lodging Unit Leader with detailed summaries to facilitate decision making regarding anticipated lodging plans. The Lodging Unit Leader, in conjunction with Travelliance will secure hotel accommodations based upon event needs and conditions.

17.7.6 Busing Unit

The Busing Unit Leader is responsible for assessing and establishing the shuttling needs associated with restoration activities and associated operations. This includes shuttling services from staging areas, operating centers, and places of lodging for PSEG Long Island personnel, Foreign Crews, and support personnel, as required. The Busing Unit Leader will coordinate with other Unit Leaders to ensure additional shuttling needs have been identified, coordinated, and addressed.

17.7.7 Meals Unit

The Meals Unit Leader is responsible for coordinating and supplying the daily meal requirements at all company and secondary work locations for PSEG Long Island employees, when requested. Additionally, the Meals Unit Leader will also manage food services (i.e., boxed lunches) for Foreign Crews and support personnel at staging sites and alternative lodging locations.

The Meals Unit Leader is required to semi-annually update the contact information (names, phone numbers, e-mail addresses, fax numbers, etc.) for all food/eatery establishments (delicatessens, restaurants, caterers, etc.) on file. The Meals Unit Leader will contact each food/eatery establishments, via telephone or e-mail, and verify/update the respective establishment's contact information. In addition to updating contact information, the Meals Unit Leader and Staff will also document various catering details in support of anticipated meal needs (i.e., delivery capabilities, travel limitations, production quantities, etc.).

17.8 National Guard Assistance – Logistics Support

The Logistics Section also supports the needs of National Guard personnel when deployed to PSEG Long Island's service territory. All PPE required to perform assigned roles will be provided to National Guard personnel. Supplemental equipment relative to planned tasks may also be distributed, if required. Training may also be provided at worksites or staging areas, if necessary. Additional information pertaining to National Guard assistance and deployments can be found in Section 15.2.2.4.

17.9 Demobilization

Upon the direction of the Logistics Section Chief, the Logistics Section and supporting Units will begin demobilization of the LSC and/or staging site(s), as required. These actions can be utilized in anticipation of an event coming to conclusion or the shifting of priorities due to changes in restoration needs. While performing demobilization actions, or shortly thereafter, the Logistics Section will review and aim to replenish inventory levels depleted during restoration operations. The Logistics Section will also coordinate demobilization protocols with the Planning Section Unit Leader and corresponding Demobilization Unit.

17.10 COVID Protocols – Logistics Support

To further protect the health and safety of our employees, customers and members of responding companies from COVID-19, additional precautions and contingencies are enacted to support mutual assistance personnel during Tropical Storm Isaias. Additional plans and precautions were implemented by our Safety, Health, FCP and Logistics personnel to help minimize the risk to our employees and those of responding companies when deployed to the PSEG Long Island service territory.

A high-level summary of the key COVID-19 precautions and steps taken by PSEG Long Island to support mutual assistance efforts is detailed below. The efforts detailed are in alignment with EEI Guidelines on conducting mutual assistance during the COVID-19 pandemic.

17.10.1 COVID-19 Mutual Assistance – Onboarding Support

- Enhanced onboarding and scheduling plans to more effectively coordinate arrival times and subsequent staging and processing plans for responding crews
- PSEG Long Island staff performs virtual check-ins with crew supervision upon arrival to the territory
- A COVID-19 Mutual Assistance Screening Form is sent to all responding companies by PSEG as part of the 'Welcome Package' during the onboarding phase
    - The form/questions are reviewed with each individual crew member pre-deployment and submitted back to the PSEG Onboarding Team via email
    - Crew questionnaires are completed daily for all responding crew members
- Job Hazard Analysis (JHAs) and relevant safety information are distributed to responding companies via email, before deployment
- A subsequent COVID/Safety teleconference is hosted upon arrival to Long Island to review and/or answer any outstanding questions
- Enhanced communications surrounding local COVID-19 guidelines and procedural changes are provided and/or communicated throughout the event

17.10.2 COVID-19 Mutual Assistance – Logistics Support

- Enhanced our cleaning plans and frequency according to CDC guidelines and local health officials
- All mutual assistance locations are cleaned in advance of mobilization, with additional efforts utilized throughout the duration of the event
- Lodging plans are reviewed and altered to support additional social distancing efforts for responding crews
    - Crews are provided individual rooms

- A comprehensive meal plan was created to support individualized meals for crews while working in the PSEG Long Island territory
- Material plans were enhanced to include additional precautions when distributing storm kits and/or materials to responding crews
- Additional restrooms and/or hygiene stations are set up at all staging sites, including our Crew Reception site and/or truck staging locations
- COVID-19 specific personal protective equipment (PPE) is made available at the Crew Reception site, if needed by mutual assistance crews
- Pre-determined truck mobilization sites are utilized for additional staging to limit the number of crews in our reception site at any given time
- Members of our Safety Team visit mutual assistance locations (i.e., Crew Reception site and truck staging sites) daily to distribute COVID-19 safety/health documents and to promote awareness among onsite personnel
- Utilize a COVID-19 busing plan for safely shuttling Foreign Utility Crews between truck staging sites and hotels

17.10.3 COVID-19 Additional Procedures for Travelers from Restricted States

Upon confirmation that requested crews were secured from States with travel restrictions, PSEG Long Island FCP Staff reach out to participating companies to review upcoming plans and protocols, including enhanced social distancing protocols and separation plans.

- Crews received from restricted states are highlighted (i.e., ROD sheets, storm documentation) and identified for PSEG Long Island awareness and planning modifications
- Incoming Mutual Assistance Crews from Restricted States are directed to designated areas within reception sites, truck mobilization locations and / or hotels for enhanced social distancing
- Crews are kept together as a unit to avoid exposure to others (e.g. reception site, truck mobilization sites, hotels)
- Enhanced social distancing is emphasized and utilized whenever possible when interacting with non-restricted personnel
- Mutual assistance crews are instructed to the extent possible, to avoid contact with the public and large congregate settings
- Mutual Assistance Crew Supervision screen responding crew members daily to limit potential exposure
    - Take notice of any change to how they feel; and notify their supervision immediately if their health condition changes
    - Supervision instructed to notify the PSEG Long Island Crew Guide / Point of Contact immediately

- Customer premise entry is prohibited by Crews from Restricted States
- Mutual Assistance Crews from Restricted States are not be allowed inside PSEG property except for the use of restrooms facilities and/or material pickup
- COVID-19 positive/symptomatic mutual aid workers are expected to contact the PSEG Pandemic Response Hotline
    - The Hotline then initiates/performs a contact investigation to identify any PSEG employees that maybe considered close
- Any mutual assistance crewmember who contracted or exhibited signs of COVID 19 are released and instructed to self-isolate at their home location for a 14 day period

COVID-19 plans and procedures continue to reviewed and refined based upon Federal, State, Local and EEI guidelines.

18. FINANCE/ADMINISTRATION PROTOCOLS

18.1 Overall Approach and General Strategies

The Finance/Administration Section, headed by the Finance/Administration Section Chief, is responsible for supporting financial, administrative, and cost analyses associated with restoration efforts. The primary purpose of this section is to monitor the various costs and expenses, while tracking and reporting the rate and level of expenditures during restoration operations. The Finance/Administration Section also oversees LIPA/FEMA reimbursement protocols and submissions, including cost reconciliation and substantiation procedures.

18.2 Cost & Reimbursement Unit

The Cost & Reimbursement Unit, headed by the Cost & Reimbursement Unit Leader, is responsible for providing cost data analysis and preparing estimates of potential restoration event costs.

In addition to the above responsibilities, the Cost & Reimbursement Unit Leader oversees restoration reimbursement protocols. It is the role of this unit, in conjunction with the cost-bearing units of the Operations and Logistics Sections, to ensure that expenditures and/or invoices are adequately identified and reconciled for auditing and reimbursement purposes. These units work together, during and post-event, to gather the necessary supporting documentation needed to substantiate all incurred costs (i.e., labor, materials, lodging, meals, etc.). Once incurred costs have been justified, the Cost & Reimbursement Unit will prepare an invoice package for submission to LIPA for reimbursement.

Additionally, the Cost & Reimbursement Unit, together with the Legal Section, ensure that all PSEG Long Island personnel are compliant with Federal, State, and Local guidelines. The Cost & Reimbursement Unit also oversees all FEMA compliance matters and requests, as required.

With a focus on continuous improvement, PSEG Long Island strives to further enhance the Finance/Administration Section, paying particular attention to reimbursement eligibility. To this end, restoration procedures (i.e., logistical, operational, and financial ERIPs) have been reviewed, modified, and/or created to ensure the appropriate supporting documentation is maintained and that invoices are properly reconciled and substantiated in the event of a FEMA reimbursement claim. Additionally, PSEG Long Island has a checklist to support reimbursement documentation and associated process owners for accountability purposes. Moreover, PSEG Long Island has developed a matrix that highlights the processes around reimbursement as a method of information sharing and communicating alignment with our internal stakeholders. This reimbursement RASIC matrix identifies roles and responsibilities to key individuals with reimbursement functions. In addition, vendor contracts are in the process of being reviewed, refined, and awarded, where applicable, to ensure FEMA compliance, in the case where a restoration event qualifies for reimbursement.

18.3 Compensation & Claims Unit

The Compensation & Claims Unit, headed by the Compensation & Claims Unit Leader, is responsible for financial concerns resulting from property damage (i.e., oil spills, landscape maintenance, etc.), injuries, or fatalities associated with restoration efforts.

This unit has a very robust claims handling process by which customers can file claims via the PSEG Long Island website, mail, fax, or multiple telephone lines. The Compensation & Claims Unit strives to handle claim reimbursements within 30-45 days, dependent upon on volume.

It is vital that the Compensation & Claims Unit develop a strong relationship with the SHE Officer to review the Incident Medical Plan (ICS Form 206) and ensure that all logs, forms, and other pertinent documentation are completed for post-incident processing.

18.4 Time and Payroll Unit

The Time and Payroll Unit is responsible for ensuring proper daily recording of personnel time and the issuance of payroll, in accordance with PSEG Long Island policy. This unit will also assist field personnel with time entry during restoration events and ensure that time is properly charged according to storm accounting protocols. Additionally, in order for LIPA to recover available federal funds, PSEG Long Island provides more detailed labor related data. In order to provide this information, PSEG Long Island uses functionality within its SAP time module to capture this information. By completing employee timesheets using the short text functionality to address the location and activity description elements of hours charged to storm accounting, sufficient data will be created to support LIPA's claims for federal reimbursement.

18.5 Treasury Unit

The Treasury Unit plays a vital role in ensuring the company has enough cash available at all times to meet the needs of its primary business operations. This unit also ensures that corporate financial goals are maintained throughout the year, as well as during restoration events. Personnel in these units will primarily transition into the Cost & Reimbursement Unit during restoration events to further support operations.

18.6 Plant Accounting Unit

The Plant Accounting Unit is responsible for ensuring accurate financial reporting for company assets and projects. This unit quantifies, capitalizes, and records the cost and depreciation of plant assets throughout the year, as well as during restoration events. Personnel in these units will primarily transition into the Cost & Reimbursement Unit during restoration events to further support operations.

19. DEPARTMENT OF PUBLIC SERVICE (DPS) SCORECARD PROTOCOLS

19.1 Emergency Response Performance Measurement Guide

The Storm Performance Scorecard was developed by the NYS DPS to measure the performance of utilities across NYS, when restoring power to customers after an outage event lasting three days or greater in length. The Scorecard is intended to hold utilities accountable to standards and expectations that can help assure that they have the ability, capacity, and mindset to act quickly and effectively during outages. While outage events can never be eliminated, these metrics establish minimum-targeted performance levels to assess utilities' restoration activities after significant outages.

This Scorecard is to be applied to any event during which the outage duration, as defined below, lasts more than three days. The "Start of Event" is triggered when more than 5,000 customers are interrupted, within a division, for more than 30 minutes, or more than 20,000 customers are interrupted, companywide, for more than 30 minutes. If the event affects less than the customer counts listed, the start time shall be the earlier of the peak level of interruptions, or start of utility restoration.

Per DPS guidelines, PSEG Long Island is required to provide data with which the Scorecard can be completed, on a per event basis, within 30 days of the completion of customer restoration. DPS staff will use the information, provided by the utility, in its review, and determine a score for each event for every utility. Electric companies will continue to be required to file a Part 105 report within 60 days, as set forth in the NYCRR[1].

19.2 Scorecard Categories

The Scorecard assigns metrics and points across three categories: Preparation (150 points), Operational Response (550 points), and Communications (300 points). The three categories are intended to capture the key activities associated with preparing for, and responding to, a major storm event.

[1] 16 NYCRR §105.4(c) Within 60 days following completion of service restoration in an emergency where the restoration period exceeds three days, each electric corporation shall submit to the Secretary of the Public Service Commission a review of all aspects of its preparation and system restoration performance.

19.2.1 Preparation

The Preparation metric is intended to score utility performance with respect to activities and communications performed prior to forecasted storms, and in response to alerts from the NWS, or a utility's private weather service.

19.2.2 Operational Response

The Operational Response metrics are intended to score performance with respect to the utility's response and ability to effectively mobilize personnel. Accurate and timely ETRs continue to be an area in which the utilities need to improve. ETRs furnished by utilities should be appropriate to the distribution of the communication vehicle (ETRs in press releases should reflect the area where press releases are distributed, ETRs on municipal calls should be appropriate to the area where municipal call is held, etc.).

19.2.3 Communications

The Communications metrics are intended to score performance with respect to the utility's ability to receive and disseminate information, related to the impact of the storm/outage and restoration activities. The need for communicating with customers, public, news media, and local officials is very important during emergency conditions, such as storms. Therefore, the sharing of information will be measured with respect to several communication vehicles (calls, press releases, social media, etc.).

19.2.4 Scorecard Metrics Owners Responsibility

To facilitate the Scorecard process, metrics were assigned to the appropriate stakeholders throughout the PSEG Long Island organization. Accordingly, each assigned stakeholder, in conjunction with Emergency Preparedness staff, is responsible for providing the appropriate information that will be collected and provided to the NYS DPS to demonstrate performance against the corresponding measurement criteria included in the Scorecard. As a means to ensure visibility and its associated metric ownership, the NYS DPS Storm Performance Scorecard is shown in Figure 19.1 through Figure 19.3.

NYS DPS Storm Performance Scorecard Metrics

PREPARATION (10% of total – 150 points)		
Area of interest	**Metric**	**Owner**
Event Anticipation	Complete steps to provide timely and accurate emergency event preparation in response to the NWS or the company's private weather service, in accordance with the company's PSC approved Electric Emergency Plan, for an event expected to impact the company's service territory	• Division Managers, Electric • Director, Corporate Communications • Director, External Affairs • Director, Revenue Operations • Manager, Account Management • Manager, Emergency Preparedness • Director, T&D Services

Figure 19.1 – Draft Emergency Response Performance Measures: Preparation

OPERATIONAL RESPONSE (60% of total – 550 points)		
Area of interest	**Metric**	**Owner**
Down Wire	Response to downed wires reported by Municipal emergency Official	Division Managers, Electric
Preliminary Damage Assessment	Completion of preliminary damage assessment	Division Managers, Electric
Crewing	80% of the forecast crewing committed to the utility	Division Managers, Electric
ETR (Made available by utility on web, IVR, etc.)	Publication of global ETR in accordance with ETR protocol	Director, Corporate Communications
	Publication of Regional/County ETRs in accordance with ETR protocol	
	Publication of Local/Municipal ETRs in accordance with ETR protocol	

Figure 19.2 – Draft Emergency Response Performance Measures: Operational Procedure

OPERATIONAL RESPONSE (60% of total – 550 points)		
Area of interest	**Metric**	**Owner**
ETR Accuracy	Global ETR accuracy as published in accordance with ETR requirement time	Division Managers, Electric
	Regional ETR accuracy as published in accordance with ETR requirement time	
	Local ETR accuracy as published in accordance with ETR requirement time	
Municipality Coordination	Coordination with Municipalities regarding hazards or electric utility equipment impending road clearing, down wires, Critical Facilities, etc.	Director, External Affairs
County EOC Coordination	Coordination with County EOCs	Manager, Emergency Preparedness
Utility Coordination	Electric utility coordination with other utilities (electric, gas, communications, water)	Division Managers, Electric
Safety	Measure of any employee or contractor serious injury doing hazard work during storm/outage and restoration	Director, T&D Services
Mutual Assistance	Crew requests made through all sources of mutual assistance	Division Managers, Electric
Restoration Times	Time it takes utility to restore power to 90% of customers affected	Division Managers, Electric

Figure 19.2 (continued) – Draft Emergency Response Performance Measures: Operational Procedure

COMMUNICATIONS (30% of total – 300 points)		
Area of interest	**Metric**	**Owner**
Call Answer Rates	Customer calls answered by properly staffing call centers	Director, Customer Contact and Billing
Municipal Calls	Municipal call must be properly managed and provide, at minimum, baseline information, updates on road clearing activities, and allow for questions and answers	Director, External Affairs
Web availability	Company's web site must be available around the clock, and must be updated at least hourly, until restoration is complete	Director, Corporate Communications
LSE Customers	LSE customer contact	Director, Revenue Operations
PSC Reporting	Provide storm event information to PSC in accordance with EORS guideline requirements	Manager, Emergency Preparedness
Customer Communications	Press releases/text messaging/e-mail/social media to customers	Director, Corporate Communications
Outgoing message on telephone line	Recorded messages providing callers with outage information is updated within one hour of communication releases	Director, Customer Contact and Billing
PSC complaints	Number of storm/outage related PSC complaints received	Director, Customer Experience and Utility Marketing

Figure 19.3 – Draft Emergency Response Performance Measures: Communication

PSEG Long Island has taken steps to appropriately address the aforementioned Scorecard metrics and associated targeted performance levels by building processes and procedures into its ERP that position the company to successfully deliver against these metrics.

20. TRAINING, EXERCISES, AND AFTER ACTION REVIEWS

20.1 Training and Exercises

Continual training and operational based exercises are critical elements of the emergency preparedness process and effective methods to refresh and reinforce skills in preparation of restoration events. PSEG Long Island is committed to ongoing exercises and trainings for the benefit of preparedness and restoration operations.

20.1.1 Training

An important aspect of storm restoration planning is the advanced training of company personnel. Training is vital to a timely and effective restoration effort and PSEG Long Island goes to great lengths to ensure its employees are appropriately trained for their restoration roles and responsibilities. PSEG Long Island takes a proactive approach regarding training during non-storm conditions to ensure employees with non-traditional storm roles are sufficiently prepared to respond during emergencies. Skills training is not a requisite for those employees with traditional storm roles (i.e., linemen, customer call representatives, etc.), as their assignments are equivalent in nature to their regular day-to-day jobs. Overall “storm restoration” training will be provided for all PSEG Long Island employees.

As mentioned in Section 16.3.2, employees, upon their hiring, are assigned a restoration role and PSEG Long Island strives to ensure that its employees who are assigned non-traditional roles are properly trained for these assignments and ready to assist, if restoration protocols are put into effect. The EP Department is responsible for the identification, coordination, and notification of restoration roles for personnel and oversite of associated training. The EP Department, in conjunction with SMEs from selected organizations, is responsible for governance of the development and delivery of training, as well as the notification of training to personnel and tracking of training. A Training Governance Specialist role is being created to help provide training oversight, tracking and centralization. PSEG Long Island strives to complete a minimum of 90% of planned trainings each year. Completion of training is measured and reported on a monthly basis as part of an internally kept scorecard metric.

Training can vary in length depending on an employee's work experience and their associated role. For example, upon hiring, some employees may receive more in-depth training, while other employees may undergo refresher courses on restoration roles, as required based on need. Refresher courses are primarily used to train on new procedures and reinforce restoration principles and, therefore, may not be required annually. Often times during a year, PSEG Long Island activates its employees to perform their restoration assignment during an actual event. In these instances, real-case scenarios can substitute and/or supplement training courses.

PSEG Long Island utilizes a variety of training platforms and methods when training its employees for emergency restoration operations. Training can include lectures, seminars, workshops, and video presentations. Modular training sessions are also utilized for training employees. Modular training sessions can be both self-study and/or traditional classroom based instructor led training. Computer based/Web based training may also be utilized and can serve as an effective refresher immediately before the onset of an event. Interactive classroom style training often provides the greatest amount of success and is one of the main sources of training companywide. These sessions allow employees to work hands-on and experience real life training scenarios. This method allows employees to better comprehend and anticipate their expected roles during an emergency.

Please see Appendix P for a targeted listing of training courses being offered in 2021.

20.1.2 Exercises

While training of employees continues to be a priority of PSEG Long Island, restoration personnel in selected roles participate in various exercises throughout the year. PSEG Long Island currently plans, develops, and executes a variety of exercise programs with a focus on Command and Control, Operations, Planning, Logistics, and Communications. PSEG Long Island develops and aligns exercises, in conjunction with Department of Homeland Security's (DHS) – HSEEP. This program provides a set of guiding principles utilized for exercise programs to provide standardization for exercise development, evaluations, and improvement planning initiatives. PSEG Long Island currently utilizes HSEEP principles during the following planned exercises types:

- Discussion-Based Exercises
  - Tabletop Exercises
  - Workshops
  - Seminars
- Operations-Based Exercises

- Drills
- Functional Exercises
- Full-scale Exercises

Exercises are an important part of PSEG Long Island's overall preparedness initiatives. They play a vital role in testing the readiness and effectiveness of our planned response actions. Exercises allow PSEG Long Island to test our plans and determine the corresponding results of each, during non-emergency, yet lifelike, situations. These simulations assist in identifying the areas in need of improvement or additional attention going forward. Exercises also provide opportunities for employee development by keeping employees better prepared through practice and will ultimately assist with identifying the areas where additional training or support may be necessary.

20.1.2.1 Drills

Drills, a specific type of Operations-Based Exercises, test a single operation or organization, in isolation from other response elements, and involve personnel and equipment in a realistic environment. Drills typically have a narrow focus and can be conducted in a training environment. Employees affected by the planned drill will be mobilized and observed throughout the process.

PSEG Long Island conducts drills across various operational departments with restoration responsibilities. Drills are developed to validate a specific function within the restoration organization. Drills are task specific and therefore are utilized to test action plans and evaluate opportunities for improvements. Drills can range in size and scope, and typically simulate a response to a weather event, or other storm-like electric emergency, classified at the highest or next highest level of severity, depending on planned objectives. In the end, drills help to better prepare our employees for real-life emergencies and PSEG Long Island continues to train its employees through simulation and practice.

Please see Appendix P for a targeted listing of exercises being offered in 2021.

20.1.3 Annual Hurricane Preparedness Tabletop Exercise

PSEG Long Island conducts a company-wide annual hurricane preparedness tabletop exercise to test the abilities and coordination among restoration personnel and departments. More importantly, this discussion-based exercise tests the effectiveness of employees performing job functions outside of their normal areas of responsibility.

The tabletop exercise is designed to simulate all planning, execution, and the follow-up activities associated with large-scale outages. It is not intended to be a "hands on" drill that tests abilities; PSEG Long Island has supplemental exercises to test such capabilities (see Section 20.1.2.1). The annual hurricane preparedness exercise brings together all the relevant departments needed for an effective response.

Coordination across organizational lines is vital during emergencies. Our annual tabletop exercise sharpens our one-team approach and requires participants to make real-time decisions in response to real-world injects that might be encountered in an actual event. The storm exercise scenario is based around a large-scale electric service interruption (i.e., tropical storm or hurricane). The EP Manager will oversee the exercise's design, implementation, and results. The goals of the tabletop exercise may include, but are not limited to:

- Testing the readiness of PSEG Long Island employees
- Training personnel and clarifying roles and responsibilities
- Demonstrating PSEG Long Island's ability to plan, implement, and successfully exercise established restoration processes and protocols
- Demonstrating established communications protocols and plans
- Demonstrating the ability to utilize the OMS system to facilitate restoration actions and enhance associated storm communications including ETRs
- Demonstrating PSEG Long Island's commitment to safety, efficiency, and communications, while delivering excellence in all restoration organizations
- Illustrating coordination, both internally and with external agencies, utilities, and partners (discussions with TelCo and/or CaTV may include pole replacements, wire down plans, MSTC protocols, etc.)
- Identifying resource gaps and/or process improvement opportunities

PSEG Long Island also invites outside agencies such as fire, law enforcement, public safety, emergency management personnel, LIPA, and DPS to participate in the annual storm exercise. The above listed outside agencies are notified of the exercise during the planning stages and are regularly engaged in these exercises. The Department of Public Service staff will be notified at least two weeks in advance of the schedule annual exercise. Effective coordination between PSEG Long Island and the first responder community is vital to any restoration event and participation of these entities provides a forum to work with and learn from one another.

Following the annual hurricane preparedness tabletop exercise, PSEG Long Island's EP Department reviews the event, in its entirety, to identify areas for improvement. The EP Organization conducts an AAR, identifies improvements to be made, assigns and

tracks corrective actions to completion, and/or institutes additional training of employees.

PSEG Long Island also actively participates in exercises, which include external stakeholders, throughout the year. These exercises can encompass events facilitated by local and state emergency response organizations, as well as other exercises conducted by our partner utilities (i.e., GasCo, TelCo, and CaTVCo). PSEG Long Island also participates in a variety of large-scale exercises focused on coordination, including materials sharing exercises and NRE exercises.

20.2 After-Action Reviews (AARs) and Continuous Improvement

Comprehensive performance assessments are a critical component to continuous improvement and PSEG Long Island may conduct such reviews in the aftermath of a large-scale storm or other system emergencies and after key exercises. As a practice, PSEG Long Island conducts AARs to identify learning opportunities and to introduce changes to enhance the overall process going forward. AARs are maintained by the EP Department and action items are stored in an all-encompassing database for tracking and continuous improvement purposes.

PSEG Long Island also collects invaluable feedback through a variety of information gathering and reporting mechanisms, as illustrated below. This approach provides the means to conduct a complete, thorough, and timely evaluation of our performance and protocols and leads to overall process improvements. PSEG Long Island continuously solicits input from internal and external stakeholder groups and aims to build upon its knowledge base for the purpose of process improvement, as shown below.

The following practices are routinely utilized for the purposes of Performance Reviews and After-Action Reporting:

1) After-Action Reviews (AARs)

   Performance Reviews and After-Action Reporting is a formal and thorough process, with well-documented and comprehensive reports being generated for the purpose of memorializing performance during an event and providing opportunities for education, training, and continuous improvement. Immediately following a major storm event and after key exercises, PSEG Long Island will launch a formal AAR of its performance, as appropriate.

   Teams of SMEs from across the organization are pulled together to lead efforts to solicit feedback on what worked well and to identify opportunities for improvement. Feedback is proactively solicited from both internal and external stakeholder groups and is analyzed and captured in thorough and comprehensive reports detailing the subject event opportunities for improvement. This information is then summarized, categorized, prioritized, and assigned to appropriate groups and individuals for development and implementation.

Detailed tracking reports are developed, which summarize key initiatives, responsible parties, and targeted due dates. PSEG Long Island EP maintains and monitors the action plan to ensure that all initiatives are tracked to completion. Efforts are also undertaken to properly communicate any changes, ensure appropriate training is provided, and document changes within the ERP, as appropriate.

2) Continuous Analysis and Improvements

PSEG Long Island reviews restoration efforts on an ongoing basis to determine what worked well and to identify opportunities for improvement. Opportunities are ultimately identified, prioritized, assigned, and tracked to completion. Lean Six Sigma activities are also conducted in support of continuous improvement.

3) Consultation with PSE&G New Jersey

Close coordination and the sharing of best practices with PSE&G New Jersey provides additional insight to effective practices and emergency restoration protocols. PSEG Long Island continues to consult and confer with PSE&G counterparts to enable an effective dialog and sharing of institutional knowledge.

4) Consultation with SMEs

PSEG Long Island gathers information on best practices and efficiency improvements from SMEs across the electric utility industry. These individuals provide real life experience and knowledge, which is beneficial to identifying process improvements going forward.

5) Consultation with External Stakeholders

PSEG Long Island solicits information on an ongoing basis from external stakeholders, including first response organizations, municipalities, government agencies, and others. These sources provide local insight that can greatly benefit PSEG Long Island's preparation and response efforts during restoration events. Such input is of great value, as PSEG Long Island works to ensure a timely and efficient restoration response.

6) Consultation with NYS DPS

PSEG Long Island aims for continuous improvement through formal meetings and briefings with NYS DPS. PSEG Long Island will continue to solicit feedback and utilize NYS DPS's Utility Scorecard as a guidance document and assessment tool for large-scale outages. PSEG Long Island will seek feedback and integrate the recommendations (i.e., DPS Storm Review reports), as a means to continuously improve its performance.

7) Participation in External Events

PSEG Long Island actively participates and takes a leadership role in many industry groups and organizations. Additionally, PSEG Long Island representatives routinely attend conferences and workshops in areas of emergency management and electrical transmission and distribution. These outlets provide access to innovative insight and cutting-edge information into processes utilized by others.

These meetings and groups also contribute to improving relationships and coordination during large-scale restoration efforts. PSEG Long Island representatives participate in numerous forums and industry groups including, but not limited to:

- EEI
- Energy Council of the Northeast (ECNE)
- NAMAG
- Emergency Managers' Forum

- All Hazards Consortium (AHC)
- Chartwell Outage Communications Committee
- EUCI Logistics Restoration Workshop
- DHSES Regional Round Table Meetings
- Participation in various municipal and local workshops and exercises

PSEG Long Island continuously looks for areas of improvement and opportunities to drive change for the better. Internal analysis and feedback from employees and various stakeholder groups proves invaluable to future enhancements. Performance Reviews, After-Action Reporting, and participation in external events continue to be major focus areas of PSEG Long Island's improvement efforts going forward.

21. APPENDICES

Appendix A – Cross Reference Spreadsheet with Public Service Law NYCRR 105

PART 105 SECTION	SECTION TEXT	WHERE ADDRESSED IN PSEG LONG ISLAND PLAN
§ 105.1	Preamble. These electric utility emergency plans are primarily intended to ensure adequate utility response for storm and storm- like emergencies; however, some aspects of the plans will have application to virtually all electric emergencies (e.g., customer contacts, communication with the media and government officials) and should be used accordingly.	Section 1.2
§ 105.2	Definitions. For the purposes of this Part, the following definition shall apply:	N/A
§ 105.2 (a)	Storm drill. A storm drill is a training exercise held by an electric utility to test the adequacy and effectiveness of its regularly assigned personnel and personnel performing job functions outside of their normal areas of responsibility in implementing the utility's service restoration procedures in the wake of a storm classified at the highest or next highest level of severity by the utility. Drills shall simulate the involvement of a majority of a utility's customers served by overhead transmission and distribution facilities or individual operating areas on a sequential basis. The purposes of the drill can be achieved through the mobilization of utility personnel with specific storm response, service restoration assignments under simulated storm conditions or through the actual preparation for an advancing storm, which may or may not damage the overhead T&D system. However, in either case, to qualify as a drill, the participants must have carried out all of their storm response assignments under either an impending storm scenario or a simulated storm scenario. Also the drill must involve contacts with outside agencies, local governments and others who would normally be included in service restoration responses. For actual preparations, in lieu of a drill, the company shall certify in section 105.3 of this Part that all requirements of this definition were met.	Section 20.1
§ 105.3	Submission of electric emergency plans. Each electric corporation shall file, in accordance with the requirements of section 3.5 of this Title, with the Commission an electric emergency plan that addresses storms, as well as other causes of electrical emergencies with storm-like characteristics, and that complies with the requirements of section 105.4 of this Part. On or before April 1st of each year or on such other date as the Commission may prescribe, each electric corporation shall file such amendments to its emergency plan as it deems necessary, or as the Commission may require, to maintain a high level of preparedness, or a statement that no amendments are contemplated. In any event, by April 1st of each year, each electric corporation shall certify in a report filed with the Secretary that within the past 12 months, it has taken the following actions:	Emergency Restoration Plan
§ 105.3 (a)	periodically verified telephone contacts with and updated its lists of names of internal and external contact persons identified in section 105.4(b)(5) of this Part; and	Appendix D, E, F, and L
§ 105.3 (b)	conducted at least one storm drill or emergency exercise involving key company personnel assigned service restoration responsibilities. Submissions made under this section shall be sent to the Director of the Office of Electric, Gas, and Water. Each electric corporation shall make available for public inspection its currently effective system-wide electric emergency plan at its principal corporate headquarters. Those corporations that have developed customized plans for individual operating areas shall make a currently effective customized plan available for public inspection at the principal offices of each operating area.	Section 20.1
§ 105.4	Content of electric emergency plans.	N/A

Figure A.1 – Cross Reference Spreadsheet with Public Service Law NYCRR 105

PART 105 SECTION	SECTION TEXT	WHERE ADDRESSED IN PSEG LONG ISLAND PLAN
§ 105.4 (a)	(a) Each electric corporation's electric emergency plan shall be compiled in a loose-leaf manual to facilitate updating. The manual shall provide a current, detailed description of each corporation's service restoration plan and, to the extent practicable, shall contain the information set forth in subdivision (b) of this section.	Emergency Restoration Plan
§ 105.4 (b)	Each electric corporation's emergency plan shall include the following information:	N/A
§ 105.4 (b) (1)	Table of Contents.	Table of Contents
§ 105.4 (b) (2)	Introduction. A statement of the purpose, policies and objectives of the plan.	Section 1
§ 105.4 (b) (3)	Emergency classifications. Specify the criteria or guidelines used for determining the severity of electric emergencies and their classification. The guidelines should include, but need not be limited to, the geographical scope of the emergency, the estimated time required to restore general service, the type of expected damage to the electric system, i.e., from a storm or other storm-like emergency, and an indication of whether company personnel alone or company and supplementary, non-company personnel will be needed to repair system damage.	Section 5 Section 8.4
§ 105.4 (b) (4)	Emergency response training program. State the corporation's program to provide emergency response training for those personnel assigned service restoration responsibilities that are different from their normal duties. Identify person(s) responsible for managing and evaluating the effectiveness of the program. Include procedures for conducting a minimum of one annual storm drill simulating a response to either a storm, or other storm-like electric emergency that would be classified at the highest or next highest level of severity. State the extent to which any personnel outside the company may be involved in a storm drill. Include as well, provisions for critiquing the drill procedures and for giving staff a minimum of two weeks' advance notice of a scheduled drill.	Section 3.2.2 Section 16.3 Section 20.1
§ 105.4 (b) (5)	Advance planning and preparation. Specify the on-going actions that the corporation expects to take throughout each year to plan and prepare for an electrical emergency. State the corporation's procedures to update at least semiannually its lists of contact persons, with titles, addresses, phone numbers and other pertinent data for the following:	Section 3 Section 16.3 Appendix L
§ 105.4 (b) (5) (i)	all utility personnel assigned service restoration responsibilities;	Section 16.3
§ 105.4 (b) (5) (ii)	mutual aid companies and contractors;	Section 15.2.2 Appendix G
§ 105.4 (b) (5) (iii)	all life support and other special needs customers;	Section 14.4.2 Section 14.4.3
§ 105.4 (b) (5) (iv)	human services agencies;	Section 14.4.2 Section 14.4.3 Section 14.4.4 Appendix F.8
§ 105.4 (b) (5) (v)	print and broadcast media;	Section 14.10 Section 14.10.3 Appendix E
§ 105.4 (b) (5) (vi)	operators/managers of motels, restaurants and dormitories, etc.;	Section 17.7
§ 105.4 (b) (5) (vii)	state, county and local elected officials, law enforcement officials, and emergency management and response personnel;	Section 13.1.1 Appendix F
§ 105.4 (b) (5) (ix)	medical facilities; and	Section 14.6.2 Appendix D

Figure A.1 (continued) – Cross Reference Spreadsheet with Public Service Law NYCRR 105

PART 105 SECTION	SECTION TEXT	WHERE ADDRESSED IN PSEG LONG ISLAND PLAN
§ 105.4 (b) (5) (x)	vendors.	Section 17.7.3
§ 105.4	At least annually, the corporation shall verify that all of the preceding data are current. At least semiannually, the corporation shall issue updated lists of known changes to its employees that have plan implementation responsibilities. The procedures should include the corporation's plans to stockpile emergency restoration tools and supplies in loose or kit form. State also, provisions for the preparation and distribution of literature or other forms of communication with information on customer storm preparations. Such information should address storm survival without electric power and safety precautions regarding electrical hazards such as downed wires and the use of portable generators.	Section 1.1 Section 15.1.3 Section 15.5.2 Section 16.3 Section 17.5.3 Section 17.7.4
§ 105.4 (b) (6)	Emergency anticipation. Identify the preparatory measures corporate management would implement in anticipation of a potential system emergency expected to affect the service territory within hours or days. Identify the criteria under which key personnel with service restoration responsibilities would either be notified of an impending emergency or deployed to assigned areas, and any special precautions that would be taken.	Section 16.3 Section 4 Section 5
§ 105.4 (b) (7)	Service restoration procedures. Provide the corporation's procedures for mobilizing its personnel, materials and equipment in order to survey system damage and implement measures to ensure timely, efficient and safe restoration of service to customers in areas damaged by a storm or other storm-like electric emergency. The procedures need to identify restoration priorities to ensure that restoration time is minimized, while ensuring critical customers' needs are met. Include a listing of the priorities for service restoration among customer groups in these procedures. Identify criteria for determining when centralized versus decentralized control is appropriate. For those severe emergencies when field damage assessments are needed, describe the methods for making, within 24 hours, broad scale preliminary assessments of the nature and extent of system damage based on rapid surveys of damaged areas and other data sources, and for making, within 48 hours, more detailed estimates of system damage based on systematic field surveys. Describe how field reports of system damage will be integrated with damage reports or indicators from other sources, such as customer call-ins, in order to make a reasonably accurate assessment of system damage and reliable projections of the personnel, equipment, materials and time that will be needed to rapidly and safely achieve service restoration goals in all damaged areas. Provide the procedures for deploying company and mutual aid crews to work assignment areas, monitoring crew activity, reassigning crews as necessary and releasing crews, under both centralized and decentralized command modes. Describe the methods and means that will be used to communicate with damage survey crews and service restoration crews. Identify the procedures for coordinating company restoration procedures with those of other utilities' restoration efforts and with state and local emergency management and public works agency efforts.	Section 6 Section 7 Section 8 Section 15
§ 105.4 (b) (8)	Personnel responsibilities. Provide a narrative and chart of the organization and operational assignments of personnel to be mobilized for each emergency classification identified. State the areas of management and supervisory responsibility and functions to be performed at each emergency classification level. Include the procedures for contacting and managing all personnel assigned duties under the emergency restoration plan at both the corporate and operating division level.	Section 2 Section 5 Section 6

Figure A.1 (continued) – Cross Reference Spreadsheet with Public Service Law NYCRR 105

PART 105 SECTION	SECTION TEXT	WHERE ADDRESSED IN PSEG LONG ISLAND PLAN
§ 105.4 (b) (9)	Customer contacts. Provide the corporation's procedures and facilities for handling the extraordinary volume of customer calls that are normally placed during emergency events. Include a description of the type of messages that may be given to call-in customers regarding projections for service restoration or other pertinent information. State the overall corporate goals for answering customer calls during electric emergencies including, but not limited to, plans for staffing levels, number of positions activated, use of pre-recorded messages, means of providing updated information to customer service representatives, and the means of monitoring calls received and answered at the utility's office and, to the extent possible, at telephone company switching offices serving the utility's office. State the procedures for contacting within 24 hours, and policies for responding to the needs of, life support customers (those who require electrically operated machinery to sustain basic life functions) during an electrical emergency. State the procedures for contacting other special needs customers such as the elderly, the vision-impaired, the hearing and speech-impaired, the mobility- impaired and human service agencies representing these customers, along with policies for handling inquiries and requests for assistance from them. Describe the corporation's method for estimating dry ice needs during an emergency period projected to last more than 48 hours and arrangements for obtaining and distributing dry ice to designated customer groups. State also the means of making out-of-service customers aware of the availability and the location, dates, hours and amounts of dry ice to be distributed.	Section 14.4.4 Section 14.5 Section 14.5.1
§ 105.4 (b) (10)	Communications. Provide the corporation's procedures and facilities for establishing and maintaining external communications exchanges regarding damage and restoration progress with customers in general, human service agencies, the media, the Department of Public Service, the State Emergency Management Office and other state agencies, county and local governments, emergency response services, and law enforcement agencies, etc. Include the identification of any dedicated phone lines, the designation of any special company representative to act as liaison with government entities, and any special provisions that may be required for dealing with critical facilities. State the corporation's planned frequency of communication updates to the media.	Section 13.1 Section 13.2 Section 13.3 Section 13.4 Section 14.5 Section 14.6.2 Appendix F
§ 105.4 (b) (11)	Outside aid. State corporate policy and criteria governing conditions under which requests for service restoration aid from other utilities, contractors, government agencies or others would be made and the procedures to be followed in obtaining outside aid.	Section 5 Section 15.2.1 Appendix G
§ 105.4 (b) (12)	Support services. Describe the actions that will be taken, and who will be responsible for implementing them to sustain and support restoration crew activities. These shall include vehicle management; foreign crew accommodations, e.g., housing, food and transportation; and distribution of warehouse supplies, e.g., materials, tools, parts and equipment needed in the restoration process.	Section 17
§ 105.4 (c)	Within 60 days following completion of service restoration in an emergency where the restoration period exceeds three days, each electric corporation shall submit to the Secretary of the Public Service Commission a review of all aspects of its preparation and system restoration performance.	Section 19.3
§ 105.4 (d)	Each electric corporation may submit such additional information and plans as it believes necessary or desirable to fulfill the purposes of this Part.	----------
§ 105.4 (e) (1)	Each electric corporation may delete the names and phone numbers of its employees and outside contact persons from the copies of plans filed with the commission and available for public inspection at its corporate headquarters. Such deleted information shall be subject to inspection by the commission or Department of Public Service employees.	PSEG Long Island will provide DPS a redacted copy of the Emergency Restoration Plan for public viewing

Figure A.1 (continued) – Cross Reference Spreadsheet with Public Service Law NYCRR 105

PART 105 SECTION	SECTION TEXT	WHERE ADDRESSED IN PSEG LONG ISLAND PLAN
§ 105.4 (e) (2)	Any electric corporation may request that the commission designate as confidential any information required to be submitted in emergency plans. Confidential information may include, for example, internal security matters. Such requests shall identify the specific information requested to be treated as confidential and shall explain why confidentiality is sought. Unless the commission directs otherwise, such information shall not be included in the plans available for public inspection.	----------
§ 105.5	Commission review and approval. Upon receipt and review of emergency plans or amendments filed by an electric corporation under this Part, the commission may require any such corporation to modify such plans or amendments or otherwise prescribe conditions for approval. Approval will be based on compliance with the requirements of this Part.	----------
§ 105.6	Compliance with electric emergency plans	----------
§ 105.6 (a)	Each electric corporation shall comply with the guidelines and practices set forth in its effective emergency plans. Each electric corporation shall comply with any additional electric emergency plan requirements that may be imposed by the commission.	----------
§ 105.6 (b)	Under emergency conditions, an electric corporation may modify its response from that in the filed electric emergency plan to the extent required to restore service in a safe and efficient manner. However, modifications and the circumstances that caused them shall be reported in writing to the secretary of the commission within 60 days from restoration of full service. Minor changes such as telephone numbers, personnel changes, etc., need not be reported, but as soon as practicable should be made to the plans.	----------

Figure A.1 (continued) – Cross Reference Spreadsheet with Public Service Law NYCRR 105

Appendix B – ERIP Titles and Descriptions

TITLE	DESCRIPTION
General	
ERIP-GEN-001 – ERIP Table of Contents	This document lists all of the ERIPs, sorted by ICS organization.
ERIP-GEN-002 – ERIP Summaries	This document provides a brief description of all of the ERIPs.
ERIP-GEN-003 – Storm Activation Protocols	This procedure describes the internal classifications to determine storm levels and the decision-making process behind the activation of the Emergency Restoration Plan (ERP) and Emergency Response Implementation Procedures (ERIPs), either partially or in totality.
Safety, Health, Environmental (SHE)	
ERIP-SHE-001 – Environmental Protocols During Restoration Events	This procedure details the roles and responsibilities required to secure/maintain contracts with Environmental Contractors, control and maintain spills during restoration events, and reconcile invoices.
Legal	
Liaison	
ERIP-LIA-001 – Activation and Operation of Coordinated Municipal Conference Calls (External Affairs)	The purpose of this procedure is to ensure that municipal and government officials and their emergency and/or operation leads are provided appropriate emergency preparedness and recovery information related to incidents that impact the electric system. This procedure also establishes a process to communicate and coordinate with intended participants through regular pre-, during, and post-event conference calls.
ERIP-LIA-002 – External Affairs and EOC / Municipal Liaison Operations Guidelines	The purpose of this procedure is to provide an overview of the Liaison Officer/ District Managers storm process and the utilization of Liaisons to the Emergency Operation Centers (EOCs) of Nassau County, New York City (NYC), Suffolk County, and New York State, as well as local villages and municipalities.
Planning	
ERIP-PLN-001 – Checklist Protocols During Restoration Events	The purpose of this procedure is to document the process for initiating, obtaining, completing, and collecting restoration checklists.
ERIP-PLN-002 – Restoration Calls and Documentation Protocols	The purpose of this procedure is to detail restoration call types, frequencies (time frames), and participants involved. In addition, it highlights the process for capturing appropriate information and dissemination to affected parties.
ERIP-PLN-003 – Storm Reporting Protocols	The purpose of this document is to provide instruction on generating storm reports. This ERIP will list the person(s) responsible for creating the report, how to create the report, and how often the report should be generated.
ERIP-PLN-004 – Storm Event Operations Matrix	This procedure outlines the use of the Storm Event Operations Matrix (also referred to as “Matrix” within this document) as a tool for collecting, consolidating, reporting and sharing information concerning a decentralized storm restoration event. It describes the use of the Matrix spreadsheet as a means for conveying various important information about the storm restoration event.
ERIP-PLN-005 – DPS Scorecard Protocols	This procedure details the scorecard metrics, definition and measurement criteria, points awarded, metric owner, and the source in which the data can be obtained.
ERIP-PLN-006 – Dispatching and Restoring Parallel Generation with Independent Power Producers	This procedure describes those steps necessary to maintain safe operating conditions between LIPA electric transmission and distribution facilities and Independent Power Producers before, during, and after the passage of a severe storm (forecasted or actual Condition III “Red” event) or other forecasted or actual system emergency or system pre-emergency.

TITLE	DESCRIPTION
Communications	
ERIP-COM-001 – Emergency Communications to Managed Accounts and Non-Managed Critical Facilities	This procedure outlines the pre- and post-emergency notifications to Managed Accounts and Critical Facilities by the Account Management Large Customer Support (LCS) team.
ERIP-COM-002 – Life Support Equipment Notification Process	This document defines the procedure for notifying and maintaining contact and support with Life Support (LSE) customers during storm or power related emergencies.
ERIP-COM-003 – Customer Assistance Center Operations – Emergency Conditions	The purpose of this procedure is to ensure adequate staffing levels in the Customer Assistance Center (CAC) and to describe the operation of the CAC under major storm conditions, in order to optimize restoration efforts and provide best-in-class customer service.
ERIP-COM-004 – Community Outreach Centers	This procedure provides the Customer Care and Community Outreach Coordinator and the Community Outreach Manager with pre- and post-emergency implementing action guidelines.
ERIP-COM-005 – Customer Complaint / DPS Storm Response Protocols	This procedure outlines the responsibilities of the Department of Public Service (DPS) Support team (Customer Relations) during restoration events. It also defines the roles of the DPS Manager and supporting team in interacting with DPS and the handling of storm related customer complaints.
ERIP-COM-006 – Escalation Processing Protocols	This procedure describes the coordinated actions of PSEG Long Island personnel to assure critical facility and municipal electric outages are properly processed and, when necessary, escalated through service restoration. It details the internal roles and responsibilities of PSEG Long Island personnel found within the Escalation Processing Team, as well as how Customer Service personnel coordinate and escalate Municipal (Muni) Portal outages and/or Escalation Tracker entries with the Operations Section
ERIP-COM-007 – Corporate Communications Protocols During Restoration Events	This procedure describes the coordinated actions taken to assure PSEG Long Island customers and stakeholders are provided appropriate information related to incidents that impact the electric system within the service territory. The focus is to bring together the Corporate Communications team with Customer Service and Electric Operations to discuss and prepare information for release. This procedure details the responsibilities of the organizations participating in the Corporate Communications.
Logistics	
ERIP-LOG-001 – Security Protocols During Restoration Events	This procedure details the roles and responsibilities required to secure/maintain contracts with security vendors, mobilize and demobilize security staff, and reconcile invoices.
ERIP-LOG-002 – Fleet/Fuel Protocols During Restoration Events	This procedure details the roles and responsibilities required to secure/maintain contracts with fleet/fuel vendors, mobilize and demobilize fleet/fuel assets, and reconcile invoices.
ERIP-LOG-003 – Real Estate Protocols During Restoration Events	This procedure details the roles and responsibilities required to utilize non-PSEG Long Island properties during restoration events and document the site usage.
ERIP-LOG-004 – Facilities Protocols During Restoration Events	This procedure details the roles and responsibilities required to secure and/or maintain facility service functions, respond to facility service requests, and reconcile invoices.
ERIP-LOG-005 – Lodging Protocols During Restoration Events	This procedure details the lodging processes utilized to obtain temporary housing accommodations for assisting Foreign Utility Crews and/or PSEG Long Island personnel during storm restoration events or other system emergencies when conditions warrant such arrangements.

TITLE	DESCRIPTION
ERIP-LOG-006 – Busing Protocols During Restoration Events	This procedure details the roles and responsibilities required to secure/maintain contracts with busing contractor(s), mobilize and demobilize transportation services, and reconcile invoices.
ERIP-LOG-007 – IT/Communications Protocols During Restoration Events	This procedure details the roles and responsibilities required to setup, test, and maintain IT/Communications networks, equipment, and applications during restoration events.
ERIP-LOG-008 – Meals Protocols During Restoration Events	The purpose of this procedure is to outline the processes utilized to procure food services for PSEG Long Island employees, support personnel, and Foreign Crews during restoration events or other system emergencies.
Logistics (continued)	
ERIP-LOG-009 – Material Distribution Protocols During Restoration Events	The purpose of this procedure is to outline the processes utilized to inventory, replenish, track, deliver, and return materials, tools, and/or storm kits that are issued for use during restoration events or other system emergencies.
ERIP-LOG-010 – Staging Site Protocols During Restoration Events	The purpose of this procedure is to outline the responsibilities and associated processes centered around the activation, operation, and demobilization of staging sites during restoration events or other system emergencies.
Operations	
ERIP-OPS-001 – Foreign Crew Processing Protocols During Restoration Events	This procedure outlines PSEG Long Island's procedures for processing Foreign Utility Crews and associated support personnel during restoration events. It details the activation of the Foreign Crew Processing Organization, Foreign Crew Processing Center, and Foreign Crew Reception Staging Area. Futhermore, the procedure details the functional units of the Foreign Crew Processing Organization and their associated roles and responsibilities.
ERIP-OPS-002 – Obtaining Foreign Crew Support	The purpose of this procedure is to specify how to obtain outside assistance via local contractors, the North Atlantic Mutual Assistance Group (NAMAG) process, NYS National Guard, and the National Response Event (NRE) process, when applicable.
ERIP-OPS-003 – Outage/Damage Incident Protocols	The purpose of the procedure is to detail the activities necessary to perform decentralized storm restoration.
ERIP-OPS-004 – Distribution Damage Assessment Protocols	The purpose of the Outage/Damage Assessment procedure is to detail the overall activities necessary to perform decentralized storm Damage Assessment restoration.
ERIP-OPS-005 – Outage/Damage Repair Protocols	The purpose of the Outage/Damage Repair procedure is to detail the overall activities necessary to perform tasks required for the outage/damage repair of a decentralized storm restoration.
ERIP-OPS-006 – Estimated Time of Restoration (ETR) Strategy (Operations)	This procedure details the process for the development of ETRs by PSEG Long Island T&D Operations which is used in customer and stakeholder outage communications during Condition III Red events. This procedure also discusses the NYS DPS ETR requirements and associated metrics approved by the NYS Public Service Commission for large scale storm events.
ERIP-OPS-007 – Remote Dispatch Center Re-Deployment and Demobilization Protocols	The purpose of the procedure is to detail the activities necessary to perform decentralized storm restoration.
ERIP-OPS-008 – Primary Control Protocols	The purpose of the procedure is to detail the activities necessary to perform the Outage/Damage Incident Primary Control (PRC) Process of the Outage Restoration Model.
ERIP-OPS-009 – Storm Work Plan Protocols	The purpose of the procedure is to detail the activities necessary to perform decentralized storm restoration during a multi-day event where it becomes necessary to provide a focused effort on effectively scheduling the incidents based upon prioritization criteria and available crew and equipment resources.

TITLE	DESCRIPTION
ERIP-OPS-010 – Circuit Damage Assessment Protocols	ARCHIVED – Combined in ERIP-OPS-004
ERIP-OPS-011 – Wire Down and Wire Watcher Protocols	The purpose of this procedure is to outline the responsibilities and actions required of Wire Watchers, when assigned to stand by downed electric wires. It also describes the mobilization and dispatch operation of Wire Watchers from various departments within PSEG Long Island, as well as outside contractors and New York State National Guard (if mobilized), during major storm events.
ERIP-OPS-012 – Circuit Find and Fix Repair Protocols	The purpose of the procedure is to detail the activities necessary to locate and repair circuits during storm restoration.
ERIP-OPS-013 – Call Back Protocols	The purpose of the procedure is to detail the activities necessary to update the Customer Outage status.
ERIP-OPS-014 – Crew Guide Protocols During Restoration Events	This procedure provides information and instructions to the personnel assigned as Crew Guides to the Utility Crews from outside of PSEG Long Island.
Operations (continued)	
ERIP-OPS-015 – Decentralized Outage Restoration Model	The purpose of the Decentralized Outage Restoration Model process is to detail the overall processes/activities necessary to perform decentralized storm restoration.
ERIP-OPS-016 – National Guard Assistance	The purpose of this procedure is to detail the process for requesting and obtaining National Guard assistance.
ERIP-OPS-017 – Make Safe to Clear Protocols During Restoration Events	The purpose of this procedure is to provide the guidelines for establishing Make Safe to Clear (MSTC) Teams to respond to municipal requests to PSEG Long Island for assistance in the clearing of priority/critical roads.
ERIP-OPS-018 – TelCo – PSEG LI Joint Restoration Instructions	The purpose of this procedure is to describe working protocols between PSEG Long Island and TelCo providers during applicable major storms/system emergencies.
ERIP-OPS-019 – CaTV – PSEG LI Joint Restoration Instructions	The purpose of this procedure is to describe the working protocols between PSEG Long Island and CaTV providers during applicable major storms/system emergencies.
ERIP-OPS-020 – GasCo – PSEG LI Joint Restoration Instructions	The purpose of this procedure is to describe working protocols between PSEG Long Island and GasCo providers during applicable major storms/system emergencies.
ERIP-OPS-021 – Emergency De/Re-Energization for Homes and Businesses	The purpose of this procedure is to describe the necessary actions to be taken by PSEG Long Island and their customers to restore electric service when PSEG Long Island determines that post-incident flood assessments are required.
ERIP-OPS-022 – Emergency De/Re-Energization for Substations and Large Areas	The purpose of this procedure is to describe the necessary actions to be taken by PSEG Long Island when it is determined that substations/ equipment need to be de-energized to safeguard them from the impact of storm surge and flooding or when requests are received from municipalities/ local jurisdictions to de-energize electric service to an area(s). It also discusses preventive measures that are in place at substations that mitigate the impact of storm surge and flooding.
ERIP-OPS-023 – Transmission Damage Assessment Protocols	The purpose of this procedure is to provide a method by which adequate transmission sources can be reestablished and maintained.

TITLE	DESCRIPTION
ERIP-OPS-024 – Lockout Information Coordination	The purpose of this procedure is to describe the means of providing transmission and distribution lockout information system conditions to assess weather-caused damage to the T&D system and determine appropriate corrective measures.
ERIP-OPS-025 – Mobilization of Personnel	ARCHIVED – Content included in ERP and ERIP-GEN-003
ERIP-OPS-026 – Estimating Storm Damage and Restoration Time	The purpose of this procedure is to provide a methodology for making early estimates of the number of customers out of service and the number of primary and secondary damage locations. These estimates are based on transmission and distribution lockouts.
ERIP-OPS-027 – Placing Multi-Station Operations in Substations without Supervisory Control	The purpose of this procedure is to provide instructions for dispatching personnel to substations that are not centrally monitored.
ERIP-OPS-028 – Mobilization and Dispatch of Electric Line Crews	The purpose of this procedure is to describe the process of dispatching high voltage crews in the Electric Design & Construction Department.
ERIP-OPS-029 – Mobilization and Dispatch of Two-Man Makeup Crews	The purpose of this procedure is to provide instructions for activating and dispatching Two-Man Makeup Crews.
ERIP-OPS-030 – Division Support Instructions	The purpose of this procedure is to detail the actions taken by the Division Support Coordinator.
ERIP-OPS-031 – Emergency Switching – Distribution System	The purpose of this procedure is to provide for the safe emergency operation of distribution feeder breakers and line sectionalizing devices on radial distribution feeders.
ERIP-OPS-032 – Placing Dispatch Areas into Configuration Authority	The purpose of this procedure is to describe the various steps necessary to establish which substations should be placed into local control and in what order.
ERIP-OPS-033 – Assigning Transmission and Distribution Repair Jobs by Priority	The purpose of this procedure is to establish a method for assigning repair work with priorities in order to create an orderly and efficient system for restoring customers.
Finance	
ERIP-FIN-001 – Storm Accounting Protocols	This procedure describes requirements for charging costs to a Storm Event and associated accounting, reporting, and record keeping procedures, as defined by the Amended & Restated Operations Services Agreement (A&R OSA), and in support of FEMA Public Assistance (PA) and other State/Local requirements.
ERIP-FIN-002 – Cost Reconciliation and Substantiation for Restoration Events	The purpose of this ERIP is to supplement and support the processes described in ERIP-FIN-001, "Storm Accounting Protocols" and assist with the reconciliation of documentation and, further, the substantiation of any incurred cost throughout the four phases of a Storm Event.
ERIP-FIN-003 – Use of Personal Vehicles	This procedure describes the method used to lease a personal vehicle from an employee during larger scale storm events or other system emergencies. It includes the use of the Lease Authorization and Insurance of Private Vehicle form.

Figure B.1 – ERIP Titles and Descriptions

Appendix C – Restoration Checklists

TITLE
General
CL-GEN-001 – President and COO Checklist
CL-GEN-002 – Incident Commander Checklist
Safety, Health, Environmental (SHE)
CL-LOG-002 – SHE Officer Checklist
Legal
CL-LEG-001 – Legal Officer Checklist
Liaison
CL-LIA-001 – Liaison Officer Checklist
Communications
CL-COM-001 – Public Information Officer Checklist
CL-COM-002 – Corporate Communications Manager Checklist
CL-COM-003 – Customer Assistance Center Manager Checklist
CL-COM-004 – Customer Care and Community Outreach Manager Checklist
CL-COM-005 – Large Customer and Customer Relations Manager Checklist
CL-COM-006 – Escalation Processing Manager Checklist
CL-COM-007 – Life Support Equipment Coordinator Checklist
CL-COM-008 – Major Accounts Coordinator Checklist
Operations
CL-OPS-001 – Operations Section Chief Checklist (ARCHIVED)
CL-OPS-003 – SPT Group Supervisor Checklist
CL-OPS-005 – Foreign Crew Branch Director Checklist
CL-OPS-007 – Transmission Survey & Operations Control Group Supervisor Checklist
Planning
CL-PLN-001 – Planning Section Chief Checklist
Logistics
CL-LOG-001 – Logistics Section Chief Checklist
CL-LOG-002 – SHE Officer Checklist (SHE Officer reports through Logistics Unit)
CL-LOG-003 – Support Branch Director Checklist
CL-LOG-004 – Staging Site Branch Director Checklist
CL-LOG-005 – Service Branch Director Checklist
CL-LOG-006 – Fleet Maintenance & Fueling Unit Leader Checklist
CL-LOG-007 – Facilities Unit Leader Checklist
CL-LOG-008 – Real Estate Unit Leader Checklist
CL-LOG-009 – Information Technology & Communications Unit Leader Checklist
CL-LOG-010 – Security Unit Leader Checklist
CL-LOG-011 – Materials Procurement Unit Leader Checklist
CL-LOG-012 – Materials Distribution Unit Leader Checklist
CL-LOG-013 – Lodging Unit Leader Checklist
CL-LOG-014 – Busing Unit Leader Checklist
CL-LOG-015 – Meals Unit Leader Checklist
Finance
CL-FIN-001 – Finance/Admin Section Chief Checklist

Figure C.1 – Restoration Checklists

NOTE: While PSEG Long Island utilizes their restoration checklists to ensure activities are performed in anticipation of storm events, checklists are intended to be used for large-scale events or system emergencies that provide advanced warning to complete preparatory action items.

Appendix D – Critical Facilities (As of December 1, 2020)

The Large Customer Support and Critical Facilities team is divided by segments and the contact information for each Segment and Account Manager is shown in Figure D.1

NAME	JOB TITLE	STORM ASSIGNMENT	CONTACT NUMBER
[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]

Figure D.1 – LCS Account Manager and Support Assignments by Segment as of 12/1/20

Figure D.2 below shows a summary of all of the Critical Facilities, both managed and non-managed.

Critical Facilities	
Row Labels	**Count of Market Segment**
Business & Financial Srvcs	1
Federal Public Transportation	32
Federal/State Govt	80
Health Services-Hospitals	269
Health Services-Nursing Homes	216
Manufacturing	16
Nas/Suf County Govt Twnsps	375
Nassau K-12 Schools	42
Nassau Universities	7
Non-Managed	520
NYC Agencies	20
Private Schools - Nassau	30
Private Schools - Suffolk	78
Real Estate/Developers	66
Refineries	20
Suffolk K-12 Schools	40
Suffolk Universities	5
Telecommunications	103
Villages	193
Water Districts	601
Grand Total	**2713**
Managed	2194
Non-Managed	520

Figure D.2 – Summary of Critical Facilities

Figure D.3 on the following pages shows a list of all Critical Facilities for Tiers 1, 2 and 3. The table is summarized and includes the Critical Facility Description, Market Segment, Primary Parent Customer (when applicable), Customer Name, and Address. This summary table is pulled from a comprehensive internal list that includes all of the following fields:

- Market Segment
- Primary Parent Customer
- Customer Name
- Address, Town, State
- Restoration Description (Critical Facility Description)
- Restoration Code (Critical Facility Code)
- Electric Rate
- Account
- Account Grid
- Circuit ID
- Electric Meter ID
- Electric Service Division

CF DESCRIPTION	MARKET SEGMENT	PRIMARY PARENT CUSTOMER	CUSTOMER NAME	CAS ADDRESS	CAS TOWN, STATE
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]

CF DESCRIPTION	MARKET SEGMENT	PRIMARY PARENT CUSTOMER	CUSTOMER NAME	CAS ADDRESS	CAS TOWN, STATE
[redacted]					

CF DESCRIPTION	MARKET SEGMENT	PRIMARY PARENT CUSTOMER	CUSTOMER NAME	CAS ADDRESS	CAS TOWN, STATE
[redacted]					

CF DESCRIPTION	MARKET SEGMENT	PRIMARY PARENT CUSTOMER	CUSTOMER NAME	CAS ADDRESS	CAS TOWN, STATE
[redacted]					

CF DESCRIPTION	MARKET SEGMENT	PRIMARY PARENT CUSTOMER	CUSTOMER NAME	CAS ADDRESS	CAS TOWN, STATE
[redacted]					

CF DESCRIPTION	MARKET SEGMENT	PRIMARY PARENT CUSTOMER	CUSTOMER NAME	CAS ADDRESS	CAS TOWN, STATE
[redacted]					

CF DESCRIPTION	MARKET SEGMENT	PRIMARY PARENT CUSTOMER	CUSTOMER NAME	CAS ADDRESS	CAS TOWN, STATE

CF DESCRIPTION	MARKET SEGMENT	PRIMARY PARENT CUSTOMER	CUSTOMER NAME	CAS ADDRESS	CAS TOWN, STATE
[redacted]					

CF DESCRIPTION	MARKET SEGMENT	PRIMARY PARENT CUSTOMER	CUSTOMER NAME	CAS ADDRESS	CAS TOWN, STATE
[redacted]					

CF DESCRIPTION	MARKET SEGMENT	PRIMARY PARENT CUSTOMER	CUSTOMER NAME	CAS ADDRESS	CAS TOWN, STATE
[redacted]					

CF DESCRIPTION	MARKET SEGMENT	PRIMARY PARENT CUSTOMER	CUSTOMER NAME	CAS ADDRESS	CAS TOWN, STATE
[redacted]					

CF DESCRIPTION	MARKET SEGMENT	PRIMARY PARENT CUSTOMER	CUSTOMER NAME	CAS ADDRESS	CAS TOWN, STATE
[redacted]					

CF DESCRIPTION	MARKET SEGMENT	PRIMARY PARENT CUSTOMER	CUSTOMER NAME	CAS ADDRESS	CAS TOWN, STATE
[redacted]					

CF DESCRIPTION	MARKET SEGMENT	PRIMARY PARENT CUSTOMER	CUSTOMER NAME	CAS ADDRESS	CAS TOWN, STATE
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]

CF DESCRIPTION	MARKET SEGMENT	PRIMARY PARENT CUSTOMER	CUSTOMER NAME	CAS ADDRESS	CAS TOWN, STATE
[redacted]					

CF DESCRIPTION	MARKET SEGMENT	PRIMARY PARENT CUSTOMER	CUSTOMER NAME	CAS ADDRESS	CAS TOWN, STATE
[redacted]					

CF DESCRIPTION	MARKET SEGMENT	PRIMARY PARENT CUSTOMER	CUSTOMER NAME	CAS ADDRESS	CAS TOWN, STATE
[redacted]					

CF DESCRIPTION	MARKET SEGMENT	PRIMARY PARENT CUSTOMER	CUSTOMER NAME	CAS ADDRESS	CAS TOWN, STATE
[redacted]					

CF DESCRIPTION	MARKET SEGMENT	PRIMARY PARENT CUSTOMER	CUSTOMER NAME	CAS ADDRESS	CAS TOWN, STATE
[redacted]					

CF DESCRIPTION	MARKET SEGMENT	PRIMARY PARENT CUSTOMER	CUSTOMER NAME	CAS ADDRESS	CAS TOWN, STATE
[redacted]					

CF DESCRIPTION	MARKET SEGMENT	PRIMARY PARENT CUSTOMER	CUSTOMER NAME	CAS ADDRESS	CAS TOWN, STATE
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]

CF DESCRIPTION	MARKET SEGMENT	PRIMARY PARENT CUSTOMER	CUSTOMER NAME	CAS ADDRESS	CAS TOWN, STATE
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]

CF DESCRIPTION	MARKET SEGMENT	PRIMARY PARENT CUSTOMER	CUSTOMER NAME	CAS ADDRESS	CAS TOWN, STATE
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]

CF DESCRIPTION	MARKET SEGMENT	PRIMARY PARENT CUSTOMER	CUSTOMER NAME	CAS ADDRESS	CAS TOWN, STATE
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]

CF DESCRIPTION	MARKET SEGMENT	PRIMARY PARENT CUSTOMER	CUSTOMER NAME	CAS ADDRESS	CAS TOWN, STATE
[redacted]					

CF DESCRIPTION	MARKET SEGMENT	PRIMARY PARENT CUSTOMER	CUSTOMER NAME	CAS ADDRESS	CAS TOWN, STATE
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]

CF DESCRIPTION	MARKET SEGMENT	PRIMARY PARENT CUSTOMER	CUSTOMER NAME	CAS ADDRESS	CAS TOWN, STATE
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]

CF DESCRIPTION	MARKET SEGMENT	PRIMARY PARENT CUSTOMER	CUSTOMER NAME	CAS ADDRESS	CAS TOWN, STATE
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]

CF DESCRIPTION	MARKET SEGMENT	PRIMARY PARENT CUSTOMER	CUSTOMER NAME	CAS ADDRESS	CAS TOWN, STATE
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]

CF DESCRIPTION	MARKET SEGMENT	PRIMARY PARENT CUSTOMER	CUSTOMER NAME	CAS ADDRESS	CAS TOWN, STATE
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]

CF DESCRIPTION	MARKET SEGMENT	PRIMARY PARENT CUSTOMER	CUSTOMER NAME	CAS ADDRESS	CAS TOWN, STATE
[redacted]					

CF DESCRIPTION	MARKET SEGMENT	PRIMARY PARENT CUSTOMER	CUSTOMER NAME	CAS ADDRESS	CAS TOWN, STATE
[redacted]					

CF DESCRIPTION	MARKET SEGMENT	PRIMARY PARENT CUSTOMER	CUSTOMER NAME	CAS ADDRESS	CAS TOWN, STATE
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]

CF DESCRIPTION	MARKET SEGMENT	PRIMARY PARENT CUSTOMER	CUSTOMER NAME	CAS ADDRESS	CAS TOWN, STATE
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]

CF DESCRIPTION	MARKET SEGMENT	PRIMARY PARENT CUSTOMER	CUSTOMER NAME	CAS ADDRESS	CAS TOWN, STATE
[redacted]					

CF DESCRIPTION	MARKET SEGMENT	PRIMARY PARENT CUSTOMER	CUSTOMER NAME	CAS ADDRESS	CAS TOWN, STATE
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]

CF DESCRIPTION	MARKET SEGMENT	PRIMARY PARENT CUSTOMER	CUSTOMER NAME	CAS ADDRESS	CAS TOWN, STATE
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]

CF DESCRIPTION	MARKET SEGMENT	PRIMARY PARENT CUSTOMER	CUSTOMER NAME	CAS ADDRESS	CAS TOWN, STATE
[redacted]					

CF DESCRIPTION	MARKET SEGMENT	PRIMARY PARENT CUSTOMER	CUSTOMER NAME	CAS ADDRESS	CAS TOWN, STATE
[redacted]					

CF DESCRIPTION	MARKET SEGMENT	PRIMARY PARENT CUSTOMER	CUSTOMER NAME	CAS ADDRESS	CAS TOWN, STATE
[redacted]					

CF DESCRIPTION	MARKET SEGMENT	PRIMARY PARENT CUSTOMER	CUSTOMER NAME	CAS ADDRESS	CAS TOWN, STATE
[redacted]					

CF DESCRIPTION	MARKET SEGMENT	PRIMARY PARENT CUSTOMER	CUSTOMER NAME	CAS ADDRESS	CAS TOWN, STATE
[redacted]					

CF DESCRIPTION	MARKET SEGMENT	PRIMARY PARENT CUSTOMER	CUSTOMER NAME	CAS ADDRESS	CAS TOWN, STATE
[redacted]					

CF DESCRIPTION	MARKET SEGMENT	PRIMARY PARENT CUSTOMER	CUSTOMER NAME	CAS ADDRESS	CAS TOWN, STATE
[redacted]					

CF DESCRIPTION	MARKET SEGMENT	PRIMARY PARENT CUSTOMER	CUSTOMER NAME	CAS ADDRESS	CAS TOWN, STATE
[redacted]					

CF DESCRIPTION	MARKET SEGMENT	PRIMARY PARENT CUSTOMER	CUSTOMER NAME	CAS ADDRESS	CAS TOWN, STATE
[redacted]					

CF DESCRIPTION	MARKET SEGMENT	PRIMARY PARENT CUSTOMER	CUSTOMER NAME	CAS ADDRESS	CAS TOWN, STATE
[redacted]					

CF DESCRIPTION	MARKET SEGMENT	PRIMARY PARENT CUSTOMER	CUSTOMER NAME	CAS ADDRESS	CAS TOWN, STATE
[redacted]					

CF DESCRIPTION	MARKET SEGMENT	PRIMARY PARENT CUSTOMER	CUSTOMER NAME	CAS ADDRESS	CAS TOWN, STATE

CF DESCRIPTION	MARKET SEGMENT	PRIMARY PARENT CUSTOMER	CUSTOMER NAME	CAS ADDRESS	CAS TOWN, STATE
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]

CF DESCRIPTION	MARKET SEGMENT	PRIMARY PARENT CUSTOMER	CUSTOMER NAME	CAS ADDRESS	CAS TOWN, STATE
[redacted]					

CF DESCRIPTION	MARKET SEGMENT	PRIMARY PARENT CUSTOMER	CUSTOMER NAME	CAS ADDRESS	CAS TOWN, STATE
[redacted]					

CF DESCRIPTION	MARKET SEGMENT	PRIMARY PARENT CUSTOMER	CUSTOMER NAME	CAS ADDRESS	CAS TOWN, STATE

CF DESCRIPTION	MARKET SEGMENT	PRIMARY PARENT CUSTOMER	CUSTOMER NAME	CAS ADDRESS	CAS TOWN, STATE
[redacted]					

CF DESCRIPTION	MARKET SEGMENT	PRIMARY PARENT CUSTOMER	CUSTOMER NAME	CAS ADDRESS	CAS TOWN, STATE
[redacted]					

CF DESCRIPTION	MARKET SEGMENT	PRIMARY PARENT CUSTOMER	CUSTOMER NAME	CAS ADDRESS	CAS TOWN, STATE
[redacted]					

CF DESCRIPTION	MARKET SEGMENT	PRIMARY PARENT CUSTOMER	CUSTOMER NAME	CAS ADDRESS	CAS TOWN, STATE
[redacted]					

CF DESCRIPTION	MARKET SEGMENT	PRIMARY PARENT CUSTOMER	CUSTOMER NAME	CAS ADDRESS	CAS TOWN, STATE
[redacted]					

CF DESCRIPTION	MARKET SEGMENT	PRIMARY PARENT CUSTOMER	CUSTOMER NAME	CAS ADDRESS	CAS TOWN, STATE
[redacted]					

CF DESCRIPTION	MARKET SEGMENT	PRIMARY PARENT CUSTOMER	CUSTOMER NAME	CAS ADDRESS	CAS TOWN, STATE
[redacted]					

CF DESCRIPTION	MARKET SEGMENT	PRIMARY PARENT CUSTOMER	CUSTOMER NAME	CAS ADDRESS	CAS TOWN, STATE
[redacted]					
[redacted]					
[redacted]					
[redacted]					
[redacted]					
[redacted]					
[redacted]					
[redacted]					
[redacted]					
[redacted]					
[redacted]					
[redacted]					
[redacted]					
[redacted]					
[redacted]					
[redacted]					
[redacted]					

CF DESCRIPTION	MARKET SEGMENT	PRIMARY PARENT CUSTOMER	CUSTOMER NAME	CAS ADDRESS	CAS TOWN, STATE
[redacted]					

CF DESCRIPTION	MARKET SEGMENT	PRIMARY PARENT CUSTOMER	CUSTOMER NAME	CAS ADDRESS	CAS TOWN, STATE
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]

CF DESCRIPTION	MARKET SEGMENT	PRIMARY PARENT CUSTOMER	CUSTOMER NAME	CAS ADDRESS	CAS TOWN, STATE
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]

CF DESCRIPTION	MARKET SEGMENT	PRIMARY PARENT CUSTOMER	CUSTOMER NAME	CAS ADDRESS	CAS TOWN, STATE
[redacted]					

CF DESCRIPTION	MARKET SEGMENT	PRIMARY PARENT CUSTOMER	CUSTOMER NAME	CAS ADDRESS	CAS TOWN, STATE
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]

CF DESCRIPTION	MARKET SEGMENT	PRIMARY PARENT CUSTOMER	CUSTOMER NAME	CAS ADDRESS	CAS TOWN, STATE
[redacted]					

CF DESCRIPTION	MARKET SEGMENT	PRIMARY PARENT CUSTOMER	CUSTOMER NAME	CAS ADDRESS	CAS TOWN, STATE
[redacted]					

CF DESCRIPTION	MARKET SEGMENT	PRIMARY PARENT CUSTOMER	CUSTOMER NAME	CAS ADDRESS	CAS TOWN, STATE
[redacted]					

CF DESCRIPTION	MARKET SEGMENT	PRIMARY PARENT CUSTOMER	CUSTOMER NAME	CAS ADDRESS	CAS TOWN, STATE
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]

CF DESCRIPTION	MARKET SEGMENT	PRIMARY PARENT CUSTOMER	CUSTOMER NAME	CAS ADDRESS	CAS TOWN, STATE
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]

CF DESCRIPTION	MARKET SEGMENT	PRIMARY PARENT CUSTOMER	CUSTOMER NAME	CAS ADDRESS	CAS TOWN, STATE
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]

CF DESCRIPTION	MARKET SEGMENT	PRIMARY PARENT CUSTOMER	CUSTOMER NAME	CAS ADDRESS	CAS TOWN, STATE
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]

CF DESCRIPTION	MARKET SEGMENT	PRIMARY PARENT CUSTOMER	CUSTOMER NAME	CAS ADDRESS	CAS TOWN, STATE
[redacted]					

CF DESCRIPTION	MARKET SEGMENT	PRIMARY PARENT CUSTOMER	CUSTOMER NAME	CAS ADDRESS	CAS TOWN, STATE
[redacted]					

CF DESCRIPTION	MARKET SEGMENT	PRIMARY PARENT CUSTOMER	CUSTOMER NAME	CAS ADDRESS	CAS TOWN, STATE
[redacted]					

CF DESCRIPTION	MARKET SEGMENT	PRIMARY PARENT CUSTOMER	CUSTOMER NAME	CAS ADDRESS	CAS TOWN, STATE
[redacted]					

CF DESCRIPTION	MARKET SEGMENT	PRIMARY PARENT CUSTOMER	CUSTOMER NAME	CAS ADDRESS	CAS TOWN, STATE
[redacted]					

CF DESCRIPTION	MARKET SEGMENT	PRIMARY PARENT CUSTOMER	CUSTOMER NAME	CAS ADDRESS	CAS TOWN, STATE
[redacted]					

CF DESCRIPTION	MARKET SEGMENT	PRIMARY PARENT CUSTOMER	CUSTOMER NAME	CAS ADDRESS	CAS TOWN, STATE
[redacted]					

CF DESCRIPTION	MARKET SEGMENT	PRIMARY PARENT CUSTOMER	CUSTOMER NAME	CAS ADDRESS	CAS TOWN, STATE
[redacted]					

CF DESCRIPTION	MARKET SEGMENT	PRIMARY PARENT CUSTOMER	CUSTOMER NAME	CAS ADDRESS	CAS TOWN, STATE

CF DESCRIPTION	MARKET SEGMENT	PRIMARY PARENT CUSTOMER	CUSTOMER NAME	CAS ADDRESS	CAS TOWN, STATE
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]

CF DESCRIPTION	MARKET SEGMENT	PRIMARY PARENT CUSTOMER	CUSTOMER NAME	CAS ADDRESS	CAS TOWN, STATE
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]

CF DESCRIPTION	MARKET SEGMENT	PRIMARY PARENT CUSTOMER	CUSTOMER NAME	CAS ADDRESS	CAS TOWN, STATE
[redacted]					
[redacted]					
[redacted]					
[redacted]					
[redacted]					
[redacted]					
[redacted]					
[redacted]					
[redacted]					
[redacted]					
[redacted]					
[redacted]					
[redacted]					
[redacted]					
[redacted]					
[redacted]					
[redacted]					
[redacted]					

CF DESCRIPTION	MARKET SEGMENT	PRIMARY PARENT CUSTOMER	CUSTOMER NAME	CAS ADDRESS	CAS TOWN, STATE
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]

CF DESCRIPTION	MARKET SEGMENT	PRIMARY PARENT CUSTOMER	CUSTOMER NAME	CAS ADDRESS	CAS TOWN, STATE
[redacted]					

CF DESCRIPTION	MARKET SEGMENT	PRIMARY PARENT CUSTOMER	CUSTOMER NAME	CAS ADDRESS	CAS TOWN, STATE
[redacted]					

CF DESCRIPTION	MARKET SEGMENT	PRIMARY PARENT CUSTOMER	CUSTOMER NAME	CAS ADDRESS	CAS TOWN, STATE
[redacted]					

CF DESCRIPTION	MARKET SEGMENT	PRIMARY PARENT CUSTOMER	CUSTOMER NAME	CAS ADDRESS	CAS TOWN, STATE
[redacted]					

CF DESCRIPTION	MARKET SEGMENT	PRIMARY PARENT CUSTOMER	CUSTOMER NAME	CAS ADDRESS	CAS TOWN, STATE
[redacted]					

CF DESCRIPTION	MARKET SEGMENT	PRIMARY PARENT CUSTOMER	CUSTOMER NAME	CAS ADDRESS	CAS TOWN, STATE
[redacted]					

CF DESCRIPTION	MARKET SEGMENT	PRIMARY PARENT CUSTOMER	CUSTOMER NAME	CAS ADDRESS	CAS TOWN, STATE
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]

CF DESCRIPTION	MARKET SEGMENT	PRIMARY PARENT CUSTOMER	CUSTOMER NAME	CAS ADDRESS	CAS TOWN, STATE
[redacted]					

CF DESCRIPTION	MARKET SEGMENT	PRIMARY PARENT CUSTOMER	CUSTOMER NAME	CAS ADDRESS	CAS TOWN, STATE
[redacted]					

CF DESCRIPTION	MARKET SEGMENT	PRIMARY PARENT CUSTOMER	CUSTOMER NAME	CAS ADDRESS	CAS TOWN, STATE
[redacted]					

CF DESCRIPTION	MARKET SEGMENT	PRIMARY PARENT CUSTOMER	CUSTOMER NAME	CAS ADDRESS	CAS TOWN, STATE
[redacted]					

CF DESCRIPTION	MARKET SEGMENT	PRIMARY PARENT CUSTOMER	CUSTOMER NAME	CAS ADDRESS	CAS TOWN, STATE
[redacted]					

CF DESCRIPTION	MARKET SEGMENT	PRIMARY PARENT CUSTOMER	CUSTOMER NAME	CAS ADDRESS	CAS TOWN, STATE
[redacted]					

CF DESCRIPTION	MARKET SEGMENT	PRIMARY PARENT CUSTOMER	CUSTOMER NAME	CAS ADDRESS	CAS TOWN, STATE
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]

CF DESCRIPTION	MARKET SEGMENT	PRIMARY PARENT CUSTOMER	CUSTOMER NAME	CAS ADDRESS	CAS TOWN, STATE
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]

CF DESCRIPTION	MARKET SEGMENT	PRIMARY PARENT CUSTOMER	CUSTOMER NAME	CAS ADDRESS	CAS TOWN, STATE
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]

CF DESCRIPTION	MARKET SEGMENT	PRIMARY PARENT CUSTOMER	CUSTOMER NAME	CAS ADDRESS	CAS TOWN, STATE
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]

CF DESCRIPTION	MARKET SEGMENT	PRIMARY PARENT CUSTOMER	CUSTOMER NAME	CAS ADDRESS	CAS TOWN, STATE
[redacted]					

CF DESCRIPTION	MARKET SEGMENT	PRIMARY PARENT CUSTOMER	CUSTOMER NAME	CAS ADDRESS	CAS TOWN, STATE
[redacted]					

CF DESCRIPTION	MARKET SEGMENT	PRIMARY PARENT CUSTOMER	CUSTOMER NAME	CAS ADDRESS	CAS TOWN, STATE
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]

CF DESCRIPTION	MARKET SEGMENT	PRIMARY PARENT CUSTOMER	CUSTOMER NAME	CAS ADDRESS	CAS TOWN, STATE
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]

CF DESCRIPTION	MARKET SEGMENT	PRIMARY PARENT CUSTOMER	CUSTOMER NAME	CAS ADDRESS	CAS TOWN, STATE
[redacted]					

CF DESCRIPTION	MARKET SEGMENT	PRIMARY PARENT CUSTOMER	CUSTOMER NAME	CAS ADDRESS	CAS TOWN, STATE
[redacted]					
[redacted]					
[redacted]					
[redacted]					
[redacted]					
[redacted]					
[redacted]					
[redacted]					
[redacted]					
[redacted]					
[redacted]					
[redacted]					
[redacted]					
[redacted]					
[redacted]					
[redacted]					
[redacted]					
[redacted]					
[redacted]					
[redacted]					

CF DESCRIPTION	MARKET SEGMENT	PRIMARY PARENT CUSTOMER	CUSTOMER NAME	CAS ADDRESS	CAS TOWN, STATE
[redacted]					

CF DESCRIPTION	MARKET SEGMENT	PRIMARY PARENT CUSTOMER	CUSTOMER NAME	CAS ADDRESS	CAS TOWN, STATE
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]

CF DESCRIPTION	MARKET SEGMENT	PRIMARY PARENT CUSTOMER	CUSTOMER NAME	CAS ADDRESS	CAS TOWN, STATE
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]

CF DESCRIPTION	MARKET SEGMENT	PRIMARY PARENT CUSTOMER	CUSTOMER NAME	CAS ADDRESS	CAS TOWN, STATE
[redacted]					

CF DESCRIPTION	MARKET SEGMENT	PRIMARY PARENT CUSTOMER	CUSTOMER NAME	CAS ADDRESS	CAS TOWN, STATE
[redacted]					

CF DESCRIPTION	MARKET SEGMENT	PRIMARY PARENT CUSTOMER	CUSTOMER NAME	CAS ADDRESS	CAS TOWN, STATE
[redacted]					

CF DESCRIPTION	MARKET SEGMENT	PRIMARY PARENT CUSTOMER	CUSTOMER NAME	CAS ADDRESS	CAS TOWN, STATE
[redacted]					

CF DESCRIPTION	MARKET SEGMENT	PRIMARY PARENT CUSTOMER	CUSTOMER NAME	CAS ADDRESS	CAS TOWN, STATE
[redacted]					

CF DESCRIPTION	MARKET SEGMENT	PRIMARY PARENT CUSTOMER	CUSTOMER NAME	CAS ADDRESS	CAS TOWN, STATE
[redacted]					

CF DESCRIPTION	MARKET SEGMENT	PRIMARY PARENT CUSTOMER	CUSTOMER NAME	CAS ADDRESS	CAS TOWN, STATE
[redacted]					

CF DESCRIPTION	MARKET SEGMENT	PRIMARY PARENT CUSTOMER	CUSTOMER NAME	CAS ADDRESS	CAS TOWN, STATE
[redacted]					

CF DESCRIPTION	MARKET SEGMENT	PRIMARY PARENT CUSTOMER	CUSTOMER NAME	CAS ADDRESS	CAS TOWN, STATE
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]

CF DESCRIPTION	MARKET SEGMENT	PRIMARY PARENT CUSTOMER	CUSTOMER NAME	CAS ADDRESS	CAS TOWN, STATE
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]

CF DESCRIPTION	MARKET SEGMENT	PRIMARY PARENT CUSTOMER	CUSTOMER NAME	CAS ADDRESS	CAS TOWN, STATE
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]

CF DESCRIPTION	MARKET SEGMENT	PRIMARY PARENT CUSTOMER	CUSTOMER NAME	CAS ADDRESS	CAS TOWN, STATE
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]

CF DESCRIPTION	MARKET SEGMENT	PRIMARY PARENT CUSTOMER	CUSTOMER NAME	CAS ADDRESS	CAS TOWN, STATE
[redacted]					

CF DESCRIPTION	MARKET SEGMENT	PRIMARY PARENT CUSTOMER	CUSTOMER NAME	CAS ADDRESS	CAS TOWN, STATE
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]

CF DESCRIPTION	MARKET SEGMENT	PRIMARY PARENT CUSTOMER	CUSTOMER NAME	CAS ADDRESS	CAS TOWN, STATE
[redacted]					

CF DESCRIPTION	MARKET SEGMENT	PRIMARY PARENT CUSTOMER	CUSTOMER NAME	CAS ADDRESS	CAS TOWN, STATE
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]

CF DESCRIPTION	MARKET SEGMENT	PRIMARY PARENT CUSTOMER	CUSTOMER NAME	CAS ADDRESS	CAS TOWN, STATE
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]

CF DESCRIPTION	MARKET SEGMENT	PRIMARY PARENT CUSTOMER	CUSTOMER NAME	CAS ADDRESS	CAS TOWN, STATE
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]

CF DESCRIPTION	MARKET SEGMENT	PRIMARY PARENT CUSTOMER	CUSTOMER NAME	CAS ADDRESS	CAS TOWN, STATE
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]

CF DESCRIPTION	MARKET SEGMENT	PRIMARY PARENT CUSTOMER	CUSTOMER NAME	CAS ADDRESS	CAS TOWN, STATE
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]

CF DESCRIPTION	MARKET SEGMENT	PRIMARY PARENT CUSTOMER	CUSTOMER NAME	CAS ADDRESS	CAS TOWN, STATE
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]

CF DESCRIPTION	MARKET SEGMENT	PRIMARY PARENT CUSTOMER	CUSTOMER NAME	CAS ADDRESS	CAS TOWN, STATE
[redacted]					

CF DESCRIPTION	MARKET SEGMENT	PRIMARY PARENT CUSTOMER	CUSTOMER NAME	CAS ADDRESS	CAS TOWN, STATE
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]

CF DESCRIPTION	MARKET SEGMENT	PRIMARY PARENT CUSTOMER	CUSTOMER NAME	CAS ADDRESS	CAS TOWN, STATE
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]

CF DESCRIPTION	MARKET SEGMENT	PRIMARY PARENT CUSTOMER	CUSTOMER NAME	CAS ADDRESS	CAS TOWN, STATE
[redacted]					

CF DESCRIPTION	MARKET SEGMENT	PRIMARY PARENT CUSTOMER	CUSTOMER NAME	CAS ADDRESS	CAS TOWN, STATE
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]

CF DESCRIPTION	MARKET SEGMENT	PRIMARY PARENT CUSTOMER	CUSTOMER NAME	CAS ADDRESS	CAS TOWN, STATE
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]

CF DESCRIPTION	MARKET SEGMENT	PRIMARY PARENT CUSTOMER	CUSTOMER NAME	CAS ADDRESS	CAS TOWN, STATE
[redacted]					

CF DESCRIPTION	MARKET SEGMENT	PRIMARY PARENT CUSTOMER	CUSTOMER NAME	CAS ADDRESS	CAS TOWN, STATE
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]

CF DESCRIPTION	MARKET SEGMENT	PRIMARY PARENT CUSTOMER	CUSTOMER NAME	CAS ADDRESS	CAS TOWN, STATE
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]

CF DESCRIPTION	MARKET SEGMENT	PRIMARY PARENT CUSTOMER	CUSTOMER NAME	CAS ADDRESS	CAS TOWN, STATE
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]

CF DESCRIPTION	MARKET SEGMENT	PRIMARY PARENT CUSTOMER	CUSTOMER NAME	CAS ADDRESS	CAS TOWN, STATE
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]

CF DESCRIPTION	MARKET SEGMENT	PRIMARY PARENT CUSTOMER	CUSTOMER NAME	CAS ADDRESS	CAS TOWN, STATE
[redacted]					

CF DESCRIPTION	MARKET SEGMENT	PRIMARY PARENT CUSTOMER	CUSTOMER NAME	CAS ADDRESS	CAS TOWN, STATE
[redacted]					
[redacted]					
[redacted]					
[redacted]					
[redacted]					
[redacted]					
[redacted]					
[redacted]					
[redacted]					
[redacted]					
[redacted]					
[redacted]					
[redacted]					
[redacted]					
[redacted]					
[redacted]					
[redacted]					
[redacted]					
[redacted]					
[redacted]					

CF DESCRIPTION	MARKET SEGMENT	PRIMARY PARENT CUSTOMER	CUSTOMER NAME	CAS ADDRESS	CAS TOWN, STATE
[redacted]					

CF DESCRIPTION	MARKET SEGMENT	PRIMARY PARENT CUSTOMER	CUSTOMER NAME	CAS ADDRESS	CAS TOWN, STATE
[redacted]					

CF DESCRIPTION	MARKET SEGMENT	PRIMARY PARENT CUSTOMER	CUSTOMER NAME	CAS ADDRESS	CAS TOWN, STATE
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]

CF DESCRIPTION	MARKET SEGMENT	PRIMARY PARENT CUSTOMER	CUSTOMER NAME	CAS ADDRESS	CAS TOWN, STATE
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]

CF DESCRIPTION	MARKET SEGMENT	PRIMARY PARENT CUSTOMER	CUSTOMER NAME	CAS ADDRESS	CAS TOWN, STATE
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]

Figure D.3 – Critical Facilities Listing (by Description)

Appendix E – Corporate Communications Media Contact List

As of December 1, 2020

OUTLET	REPORTER	E-MAIL	PHONE NUMBER
[redacted]			

OUTLET	REPORTER	E-MAIL	PHONE NUMBER
[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]

OUTLET	REPORTER	E-MAIL	PHONE NUMBER
[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]		
[redacted]	[redacted]	[redacted]	
[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]

OUTLET	REPORTER	E-MAIL	PHONE NUMBER
[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]

OUTLET	REPORTER	E-MAIL	PHONE NUMBER
[redacted]			

OUTLET	REPORTER	E-MAIL	PHONE NUMBER
[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]		[redacted]
[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	
[redacted]	[redacted]	[redacted]	
[redacted]	[redacted]	[redacted]	
[redacted]	[redacted]	[redacted]	
[redacted]	[redacted]	[redacted]	
[redacted]	[redacted]	[redacted]	
[redacted]	[redacted]	[redacted]	
[redacted]	[redacted]	[redacted]	
[redacted]	[redacted]	[redacted]	
[redacted]	[redacted]	[redacted]	
[redacted]	[redacted]	[redacted]	
[redacted]	[redacted]	[redacted]	
[redacted]	[redacted]	[redacted]	
[redacted]	[redacted]	[redacted]	
[redacted]	[redacted]	[redacted]	
[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]

OUTLET	REPORTER	E-MAIL	PHONE NUMBER
[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]
		[redacted]	
		[redacted]	
[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	
[redacted]	[redacted]	[redacted]	
[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	
[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	
[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]

OUTLET	REPORTER	E-MAIL	PHONE NUMBER
[redacted]			

OUTLET	REPORTER	E-MAIL	PHONE NUMBER
[redacted]			

OUTLET	REPORTER	E-MAIL	PHONE NUMBER
[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	
[redacted]	[redacted]	[redacted]	
[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	
[redacted]	[redacted]	[redacted]	
[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	
[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	
[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]

OUTLET	REPORTER	E-MAIL	PHONE NUMBER
[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	
[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	
[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	
[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	
[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	
[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]
[redacted]		[redacted]	

OUTLET	REPORTER	E-MAIL	PHONE NUMBER
[redacted]		[redacted]	
[redacted]		[redacted]	
[redacted]		[redacted]	
[redacted]		[redacted]	
[redacted]		[redacted]	
[redacted]	[redacted]	[redacted]	
[redacted]	[redacted]	[redacted]	
[redacted]	[redacted]	[redacted]	

Figure E.1 – Corporate Communications Media Contact List

Appendix F – Key Contacts

PSEG Long Island maintains multiple lists of key external contacts for daily operations and more importantly, restoration purposes. PSEG Long Island continues to update these lists semi-annually or when required due to personnel changes and/or updates.

Emergency Management Organizations:

PSEG Long Island will assign Emergency Operations Center (EOC) Liaisons to New York State, New York City, Nassau and Suffolk County Offices of Emergency Management when they are activated and electric utility representation is requested. In addition, Municipal Liaisons will be dispatched to Municipal Offices of Emergency Management (for localized events) when the need arises. The list of such agencies is included as Figure F.1.

AGENCY	ADDRESS	PHONE NUMBER
[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]

Figure F.1 – Emergency Management Organizations

Utility Contacts:

PSEG Long Island continues to coordinate restoration efforts with our utility partners in the areas of telecommunications, cable television, and natural gas. The listings of our utility partners are included as Figures F.2.1 to F.2.4.

Verizon Emergency Contacts

As of December 1, 2020

Verizon Executive Emergency Contact				
		OFFICE	**CELL**	**E-MAIL**
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
Verizon 24/7 Emergency Contact at PPM Center				
[redacted]				
Verizon Engineering Control Center (Bay Shore, NY)				
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
SUFFOLK COUNTY				
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
NASSAU COUNTY				
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
Verizon Area Operations Manager				
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
Long Island Construction Control Center (Centereach, NY)				

[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
Verizon Operations I & M - All Nassau and Suffolk (Garden City, NY)				
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
Verizon NYS PPM (Brooklyn, NY)				
		OFFICE	**CELL**	**E-MAIL**
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]

Verizon L.I. Installation and Repair Dispatch Resource Center (DRC)				
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
Verizon OEM EOC Liaisons				
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]

Note: Verizon FiOS emergency contacts are the same as Verizon Telephone emergency contacts.

Figure F.2.1 – Local Utility Contacts (Verizon)

Altice USA Emergency Contacts
As of December 1, 2020
****Alice USA is currently Working from Home****

Altice USA Executive Emergency Contacts				
	NAME	**OFFICE**	**CELL**	**E-MAIL**
[redacted]				
[redacted]				
[redacted]				
[redacted]				
Regional Operation Center (ROC)				
[redacted]				
[redacted]				
[redacted]				

Figure F.2.2 – Local Utility Contacts (Altice USA)

Spectrum Emergency Contacts
As of December 1, 2020

24/7 Spectrum Emergency Contact	
NAME	**CONTACT NUMBER**
[redacted]	[redacted]

Figure F.2.3 – Local Utility Contacts (Spectrum)

National Grid – Gas Emergency Contacts
As of December 1, 2020

National Grid Executive Emergency Contacts			
HQ: [redacted]			
TITLE	**NAME**	**PHONE #**	**E-MAIL**
[redacted]			
Downstate NY Emergency Dispatch Control Centers			
[redacted]			
National Grid DNY Emergency Planning			
[redacted]			
OEM/EOC			
[redacted]			

Figure F.2.4 – Local Utility Contacts (National Grid - Gas)

Other Municipal Electric Utility Contacts:

In addition, when necessary, PSEG Long Island may initiate a line of communications with the three (3) municipal electric utilities that operate within the PSEG Long Island service territory. The listing of these contacts is included as Figure F.2.5.

Other Municipal Electric Utilities within PSEG Long Island Service Territory:
As of December 1, 2020

Village of Rockville Center				
TITLE	**NAME**	**OFFICE**	**CELL**	**E-MAIL**
[redacted]				
[redacted]				
[redacted]				
Village of Freeport				
[redacted]				
[redacted]				
[redacted]				
Village of Greenport				
[redacted]				
[redacted]				

Figure F.2.5 – Other Municipal Electric Utility Contacts

Elected Officials, Municipal Contacts, Human Services Agencies:

PSEG Long Island's External Affairs team maintains an updated list of key contacts for Elected Officials, Municipal Contacts and Human Services Agencies. These lists (effective as of January 1, 2021) are detailed in Figures F.3 to F.8.

FIRST NAME	LAST NAME	TITLE	DISTRICT	COUNTY	WORK PHONE
[redacted]					
[redacted]					
[redacted]					
[redacted]					
[redacted]					
[redacted]					
[redacted]					

Figure F.3 – Federal Officials

FIRST NAME	LAST NAME	TITLE	DISTRICT	COUNTY	WORK PHONE
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]

Figure F.4 – State Officials

FIRST NAME	LAST NAME	TITLE	DISTRICT	COUNTY	WORK PHONE
[redacted]					

Figure F.5 – County Officials

FIRST NAME	LAST NAME	TITLE	DISTRICT	COUNTY	WORK PHONE
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]

Figure F.6 – Town Officials

FIRST NAME	LAST NAME	TITLE	DISTRICT	TOWN	COUNTY	WORK PHONE
[redacted]						

Figure F.7 – Village Officials

FIRST NAME	LAST NAME	TITLE	DISTRICT	TOWN	COUNTY	WORK PHONE
[redacted]						

Figure F.7 (continued) – Village Officials

FIRST NAME	LAST NAME	TITLE	DISTRICT	TOWN	COUNTY	WORK PHONE
[redacted]						

Figure F.7 (continued) – Village Officials

NON-PROFIT	NAME	TITLE	PHONE NUMBER	BOARD CHAIR/PRESIDENT
[redacted]				

Figure F.8 – Human Service Agencies

Appendix G – NAMAG Agreement

1. MISSION

1.1 The Mission of the North Atlantic Mutual Assistance Group is:

1.1.1 To provide a forum to ensure safe, effective and coordinated mutual assistance, regional response and service restoration for customers of member utilities.

1.1.2 To provide an enhanced line of communications between member companies to share best practices and plan for other significant events such as a work stoppage, civic unrest, or political events, and ensure that all members are communicating a unified message to both internal and external stakeholders.

1.1.3 To minimize risk to all parties by agreeing to provide assistance (personnel and equipment) on a not-for-profit basis, and agreeing that Requesting Companies will reimburse Responding Companies for all expenses incurred in providing the assistance.

1.1.4 To adhere to and operate in accordance with the procedures contained in this document (the North Atlantic Mutual Assistance Group Guidelines).

1.1.5 To interact with other Regional Mutual Assistance Groups and the Edison Electric Institute Mutual Assistance Committee

2. COMPANY INFORMATION

2.1 Member Company Information

2.1.1 Each Holding Company listed below is entitled to one (1) vote

2.1.2 Individual Operating Companies may be listed separately on the Joint Mobilization Conference Call spreadsheet

North American Company Name	States	Electric Customers	Gas Customers	EEI Signatory
Central Hudson Gas & Electric	NY	300,000	75,000	Yes
Consolidated Edison	NY, NJ, PA	3,600,000	1,200,000	Yes
Duquesne Light *	PA	580,000		Yes
Emera – (Bangor Hydro, Nova Scotia Power)	ME, NS	680,000		No
Exelon – (BGE, PECO) **	MD, PA	2,986,500	1,136,000	Yes
First Energy *,**	OH, NJ, PA,MD,WV,NY	6,000,000		Yes
Green Mountain Power	VT	256,000		Yes
Hydro-One	ON	1,300,000		Yes
Hydro Quebec	QC	4,107,400		No
Iberdrola – (Central Maine Power, NYSEG)	ME,N Y	596,000, 871,000	256,000	Yes
National Grid (NY, NE, LIPA)	MA, NY, RI	4,515,000	3,500,000	Yes
New Brunswick Power (Energie NB Power)	NB	380,000		No
New Hampshire Electric Cooperative	NH	78,750		No
Northeast Utilities	CT, MA, NH	3,090,000	484,000	Yes
Pepco Holdings, Inc. (PHI) **	DC, DE, MD, NJ,	1,960,000	123,000	Yes
PPL Electric Utilities **	PA	1,400,000		Yes
Public Service Electric & Gas (PSE&G)	NJ	2,200,000	1,800,000	Yes
South Norwalk Electric & Water	CT	14,000		No
UGI Utilities, Inc	PA	62,000	568,000	Yes
United Illuminating	CT	325,000		Yes
Unitil Corp	MA, ME, NH	104,400	70,000	Yes
TOTAL – 21 Companies	**13 states, 4 provinces, 1 district**	**35,406,050**	**9,212,000**	

Footnote:

* indicates member of GLMA **indicates member of SEE

3. GENERAL GUIDELINES

3.1 Personnel Safety

3.1.1 Whether providing or receiving assistance, personnel safety will be the preeminent objective and responsibility of all participants.

3.1.2 The Requesting Company agrees to make every effort to avoid moving Responding Company personnel into harm's way during the initial, first- wave mobilization.

3.1.3 Responding Company will follow its own safety rules, except as noted in paragraphs 3.1.6 and 3.1.7 below.

3.1.4 Responding Company is responsible for following its own personal protective grounding practices.

3.1.5 Responding Company will immediately report any and all accidents to Requesting Company (both incidence and injury).

3.1.6 Switching procedures will be handled as the Requesting Company designates, provided that the procedures do not violate the safety rules of the Responding Company.

3.1.7 Requesting Company will provide information on their switching and tagging rules. Requesting Company switching/blocking tags will be used.

3.1.8 Security personnel requirements shall be discussed and mutually agreed upon by the Requesting and Responding Companies prior to deployment of armed security personnel.

3.1.9 Any deployment of "Security Personnel" – armed or otherwise – must comply with Federal, Provincial, State, Local and Tribal regulations.

3.2 Maintenance of Contact Roster

3.2.1 In order to facilitate efficient communication and response, North Atlantic member utilities will share the following information:

- The names, contact numbers (work phone, home phone, cellular phone, and pager), and e-mail addresses for three (3) individuals authorized to participate in Joint Mobilization Conference Calls.
- If available, the telephone number for the 24-hour operations / dispatch center for the member company.
- If available, a satellite telephone number for the 24-hour storm or operations / dispatch center.
- If available, a corporate storm / emergency center 24-hour telephone number, if different from the 24-hour operations / dispatch telephone number.

3.2.2 The North Atlantic Group Secretary will be responsible for maintaining and updating the Member Company Contact Roster at least every three months.

3.3 Code of Conduct

3.3.1 Whether providing or receiving assistance, all personnel will be expected to conduct themselves in a professional and responsible manner.

3.4 Confidentiality Statement

3.4.1 Members understand and agree that participation on Joint Mobilization Conference Calls is restricted to employees of member companies of the North Atlantic Mutual Assistance Group, unless otherwise agreed to by members of the North Atlantic Group.

3.4.2 Members understand that conversations between member utilities during Joint Mobilization Conference Calls are confidential and proprietary. Therefore, with the exception of general deployment data / information, members agree not to share or release any information shared between member utilities during Joint Mobilization Conference Calls unless mutually agreed.

3.5 Communication With Contractors

3.5.1 Members understand the need for clear communication with contractors working on their systems and are encouraged to explain the joint mobilization process discussed in this document.

3.5.2 Members agree to follow the Rules of Engagement to secure contractor resources and refrain from accepting contractors directly who are working for an Investor Owned Utility (IOU) or a member company of any Regional Mutual Assistance Group (RMAG).

3.6 Definition of Emergency Assistance Period

3.6.1 Members agree that the emergency assistance period shall commence when personnel and/or equipment expenses are initially incurred by the Responding Company in response to the Requesting Company's needs. This includes any request for the Responding Company to prepare employees and/or equipment for travel to the Requesting Company's location but to await further instructions before departing. This preparation time should begin when normal work activities for Responding Company stop and preparations dedicated to supporting the off system effort begin. Except as noted in paragraph 3.6.3, the emergency assistance period shall terminate when such employees and/or equipment have returned to their point of origin and after a reasonable time required preparing the equipment for return to normal activities (e.g. cleaning trucks, restocking minor materials, etc.).

3.6.2 The length of stay by Responding Company personnel will be mutually agreed to by both companies. Generally, this period should not exceed 14 consecutive days, including travel time to the work area and return to the point of origin. When mutual assistance assignments go beyond this time frame, North Atlantic members agree that Responding Company personnel will usually be changed out (rotated) rather than take extended reset periods (days off). Responding and Requesting companies may agree upon exceptions to this procedure.

3.6.3 It is understood and agreed that if Responding Company's or its Holding Company's system is threatened during any time after it has mobilized to provide mutual assistance, any part or all of the Responding Company's native and contract workforce may be recalled. In these instances:

- It is understood and agreed that the decision to terminate assistance and recall employees lies solely with the Responding Company.
- If recall of Responding Company's workforce becomes necessary, the Requesting Company will be responsible for all expenses incurred by Responding Company until the Responding Company returns home and vehicles are cleaned and stocked for normal work activities.
- If Responding Company's workforce is recalled to another of the Responding Company's locations other than their original point of origin, the Requesting Company will be responsible for travel costs to the alternate location not to exceed that which would have been incurred had the workforce returned to their original point of origin.

4. RULES OF ENGAGEMENT

4.1 Rules of Engagement Procedures

4.1.1 Members agree to adhere to the procedures contained in Section 4 to request, identify and mobilize emergency mutual assistance resources. These procedures are intended to enhance and in no way hamper the mobilization goals of member companies during emergencies.

4.1.2 When any member company has a need for additional resources, that company will notify all members of the North Atlantic Mutual Assistance Group and schedule a Joint Mobilization Conference Call.

- Because response time is critical in emergency situations, the Joint Mobilization Conference Call provides a mechanism that allows members to quickly request assistance and identify the number and status of all available regional resources.

4.1.3 The Joint Mobilization Conference Call format should:

- Provide members with the opportunity to understand the entire scope of the emergency situation, including the number of companies expecting to be impacted and the potential damage to each.
- Allow members to discuss and evaluate weather forecasts from different sources.
- Result in the most efficient, effective and equitable allocation of available resources while mitigating the financial risk associated with early mobilization of resources.

4.1.4 The permitted exception for securing resources without scheduling a Joint Mobilization Conference Call is when an event impacts a single member utility and the impacted utility anticipates a short restoration time requiring assistance from only neighboring (adjacent) utilities.

- In this instance, the impacted member may contact neighboring utilities directly to arrange assistance.
- The impacted company agrees to notify all members of the North Atlantic Mutual

Assistance Group via email when any resources are obtained without scheduling a Joint Mobilization Conference Call.

- However, because emergency events tend to expand and impact more than one utility over time, members are encouraged to use the Joint Mobilization Conference Call procedures described below for all mutual assistance requests.

4.1.5 Since some companies are members of multiple mutual assistance groups, whenever a North Atlantic member company secures resources from another RMAG, they will notify all members of the North Atlantic Mutual Assistance group via email.

4.2 Initiation of the Joint Mobilization Conference Call

4.2.1 Typically, the member that expects to be impacted first by an event will initiate the process.

4.2.2 Members agree to initiate a conference call anytime they experience or are threatened by an event so significant that they anticipate needing resources beyond the capabilities of their neighboring (adjacent) utilities to restore their system.

4.2.3 Procedure for initiating the Joint Mobilization Conference Call:

- The initiating member will notify the Chair (or other Leadership member) of the North Atlantic Mutual Assistance Group they wish to hold a conference call. The Chair is responsible to notify the company designated to set up the call with the necessary notifications to members including the date, time, and conference call number.
- In the event the North Atlantic Leadership is unavailable, the initiating company can contact the company designated to set up the call directly and assume the Chair responsibilities.
- Conference calls will typically be scheduled for 0730 and 1800 daily or as needed by the initiating member.

4.3 Responsibilities of Company Initiating Conference Call

4.3.1 The Chairman or designee will serve as moderator for the conference call or ask another member to moderate. The moderator will:

- Call the roll of member companies.
- Present the weather forecast for his / her company service territory. At their discretion, the initiating company may have a weather consultant present the current forecast.
- Ask other members for input regarding the weather forecast / predictions.
- Present an estimate of predicted impact / damages and when these are expected to occur. If the event is large enough to impact more than one member's service territory, the moderator will ask other members for their projected damage assessments.
- Present an estimate of resources needed. If the event is large enough to impact more than one member's service territory, the moderator will ask other members for their projected resource needs.
- By roll call, ask all non-impacted members to state the numbers of resources available to assist once their territories are no longer threatened.
- When appropriate, the moderator will lead discussion of staging areas to be used by

assisting companies; transportation concerns, such as evacuation orders, fuel availability, DOT exemptions, etc.; and, the availability of non-member resources that may be available to assist impacted members.

- Keep the call moving and minimize the length of the call as much as possible.
- Set the date and time for future conference calls.

4.4 Responsibilities of Non-Initiating Members Participating In Conference Calls

4.4.1 Members agree not to release or dispatch ANY resources (contract or native) unless committed to and confirmed by a Requesting Company. It is understood that Responding Companies' territories must be free from significant threat before resources can be committed and dispatched.

4.4.2 On the first Joint Mobilization Conference Call, non-threatened / non- impacted members will be prepared to specify the numbers of their employee and contractor distribution line, transmission line, vegetation management, and damage assessment personnel available to assist impacted companies, including an estimate of when these resources can be dispatched. If Requesting Companies identify needs in other areas (such as IT, safety, etc.), assisting members will be given time (usually 24 hours) to identify available resources in these additional areas.

4.4.3 To enhance safety and flexibility, upon request non-threatened / non- impacted members will be prepared to identify staging areas available in their territories.

4.4.4 Upon request non-threatened / non-impacted members will assist with DOT exemptions for crews traveling through their service territories.

4.5 Resource Allocation and Mobilization

4.5.1 When more than one company has requested emergency assistance, all members understand and agree that it is the responsibility of the Requesting Companies to agree upon the allocation of available first wave and subsequent member company resources.

4.5.2 Members agree that, in general, resources will be allocated on the basis of severity of need, based on:

- Predicted impact – percentage / degree of system loss and estimated time customers will have been without power.
- Storm timing – which company will be first impacted.
- Travel time.
- Availability of other non-North Atlantic member controlled resources.
- The intent will be to allocate available resources to meet all member company needs in the most efficient and equitable manner possible.

4.5.3 Members agree that final dispatch of committed resources is to be coordinated directly between the Requesting Company and the Responding Company (or its contractor(s), where applicable).

4.6 Joint Mobilization Conference Call Documentation

4.6.1 The North Atlantic Emergency Call spreadsheet will be used to document each Joint Mobilization Conference Call.

4.6.2 The Secretary or a designee will take notes during the Joint Mobilization Conference Call, distribute the Emergency Call spreadsheet to all members after the call, and post the minutes to the Restore Power North Atlantic Workroom.

4.6.3 Members acknowledge that the Emergency Call spreadsheet contains confidential information and agree not to share the spreadsheet with any non-member company unless mutually agreed to on the Joint Mobilization Conference Call.

5. REQUESTING COMPANY RESPONSIBILITIES

5.1 Requesting Company – Responsibilities Prior to Mobilization

5.1.1 To the extent possible, the Requesting Company is expected to clearly communicate the degree of devastation and working conditions Responding Company personnel should expect to encounter upon arrival at the emergency restoration work area.

5.1.2 The Requesting Company is expected to inform the Responding Company if their requirements for the maintenance of receipts differ from the procedures stated in paragraph 6.2.5.

5.1.3 To facilitate communications, the Requesting Company may opt to provide a single point of contact (Coordinator) to interact with the Responding Company.

5.1.4 The Requesting Company will provide the Responding Company with the name and contact information for their "company contact" as required on the RESPONDING COMPANY INITIAL INFORMATION SHEET before Responding Company personnel leave their point of origin.

5.1.5 Requesting Company will coordinate with their state DOT officials concerning emergency exemptions and any other transportation issues that will facilitate the Responding Company's trip to and from the Requesting Company.

5.1.6 The Requesting Company is encouraged to communicate general guidelines with Responding Companies. Items covered may include labor contractual issues, safety issues, contact personnel, vehicle fueling arrangements, typical standard construction, meal and lodging arrangements, and other items that will be of benefit to the responding personnel and their supervision.

5.2 Requesting Company – Responsibilities During Emergency Assistance Period

5.2.1 The Requesting Company will establish expectations for work, including start time and duration.

5.2.2 The Requesting Company will provide materials unless specifically noted otherwise.

5.2.3 When necessary, the Requesting Company will provide a guide with communications capability, portable radios or cellular telephones to assist responding team leaders.

5.2.4 The Requesting Company will authorize Responding Company to use cellular phones as a method of communication. Where cellular service is unavailable, it is understood that satellite phones may be used until such time that cellular service is restored in the Requesting Company's area.

5.2.5 The Requesting Company will provide vehicle security for parking areas unless specifically agreed otherwise.

5.2.6 With the exception of food and lodging during travel to and from the final work site, the Requesting Company will handle all food, lodging and incidental support needed by Responding Company unless both companies agree for Responding Company to handle these logistics.

5.2.7 Requesting and Responding companies should agree on the provision of laundry services.

5.2.8 Requesting Company will make and communicate provisions for Responding Company personnel to make personal long distance telephone calls during the emergency response period. For example, the Requesting Company may authorize the Responding Company to purchase pre-paid long distance calling cards for responding crew members or authorize the use of company or employee owned cellular phones for an agreed upon maximum number of minutes. As a general rule, Requesting Company agrees to allow and reimburse a maximum of 10-minutes personal long distance telephone charges per employee per day. Any personal cellular phone charges or pre-paid calling card expenses shall be included in the supporting documentation on the company's preliminary invoice, subject to paragraph 6.2.5.

5.2.9 Requesting Company shall reimburse the Responding Company for lodging and will not pay for additional hotel-related expenses unless agreed to by the Requesting Company prior to the occurrence. Some examples of additional hotel-related expenses include phone calls made from rooms, room service, in-room movies, mini bar usage, etc.

5.3 Requesting Company – Procedures for Releasing Responding Companies

5.3.1 During emergencies impacting more than one member company simultaneously, each Requesting Company will develop a proposed "Release Schedule" 48-hours before releasing any contract or utility (members & non-member) crews. This release schedule will include: Names of utilities and contractors to be released, the numbers and specialty (distribution line, transmission line, vegetation, etc.) of workers from each utility and / or contractor being released, the on-site contact or the coordinator of the crews being released, and the date and approximate time the crews expect to be released.

5.3.2 During emergencies when Responding Company contract and / or utility resources are already deployed and working to provide restoration help to one member company and another member company (or companies) is impacted by another emergency, or, in

the case of hurricanes, a second landfall of the storm, the company that obtained help first agrees to:

- NOT retain personnel solely to perform maintenance, street lighting work, or clean up type work and will aggressively work to release personnel.
- Immediately prepare a release schedule which includes details listed in paragraph 5.3.1 above, including projected release dates.
- Provide realistic estimated restoration times and release dates to the second Requesting Company (or companies). Since this could mean the difference in going days away or waiting on resources closer that may become available, it is essential that release dates be as accurate as possible. Note: Should the emergency situation described above develop before a Responding Company personnel arrive at the initial restoration area, these resources will be reallocated to Requesting Companies in accordance with the provisions of Section 4.6 and paragraph 5.4.3 of these procedures and guidelines.

5.3.3 In the emergency situation described in paragraph 5.3.2 above, the initial and secondarily impacted companies agree to:

- Immediately hold an "impacted companies" conference call to negotiate reallocation of the resources on the release schedule developed by the first impacted company as well as any other resources not already committed.
- Regarding personnel released by the first impacted company, secondary Requesting Companies will contact the resources (companies) allocated to them to determine if those persons will agree to re-deploy or be changed out (rotated) in accordance with paragraph 3.6.2.

5.3.4 In all emergency situations, the Requesting Company will make every effort to notify each Responding Company's mutual assistance contact 24- hours in advance of the anticipated final release of their utility personnel.

5.4 Requesting Company – Responsibility for Reimbursement of Expenses

5.4.1 Members understand and agree that the provision of emergency mutual assistance is a not-for- profit endeavor for Responding Companies. Therefore, the Requesting Company will reimburse all costs and expenses incurred by the Responding Company in the provision of the emergency assistance for the entire emergency assistance period as defined in section 3.6 above.

5.4.2 If Responding Company resources are released after mobilization but before being utilized, the Requesting Company will reimburse Responding Company for all incurred preparation and travel expenses including reasonable time required to prepare the equipment for return to normal activities after returning to their point of origin.

5.4.3 During emergencies impacting more than one member, Responding Company resources may be re-assigned either: en route to the Requesting Company; at an initial staging area before reaching the Requesting Company; or at the Responding Company's final staging area.

Additionally, resources may be assigned to assist a second Requesting Company after completing work for the initial Requesting Company.

Note: In any of these instances, unless otherwise mutually agreed, the utility that receives the re-assigned Responding Company resources will be responsible for all Responding Company costs from the time of re- assignment.

5.4.4 Requesting Company will reimburse members for expenses incurred in the provision and management of interim staging areas (i.e. labor and miscellaneous expenses provided by the host utility to operate the staging area, but not including any Responding Company crew costs). In emergencies involving more than one Requesting Company, staging costs will be shared by Requesting Companies on a prorated basis based on the resources committed to each entering (logged into) the staging site.

5.4.5 Provided proper supporting documentation is included, the Requesting Company should pay all (preliminary and final) invoice(s) from Responding Company within 60 calendar days after receipt of invoice(s).

6. RESPONDING COMPANY RESPONSIBILITIES

6.1 Responding Company – Responsibilities Prior to Mobilization

6.1.1 To the extent possible, the Responding Company is expected to clearly communicate the degree of devastation and working conditions that their responding employees should expect to encounter upon arrival at the emergency restoration work area.

6.1.2 To facilitate communications, the Responding Company may opt to provide a single point of contact (Coordinator) to interact with the Requesting Company.

6.1.3 Responding Company will complete and forward the RESPONDING COMPANY INITIAL INFORMATION SHEET before departing their home location.

6.1.4 If requested, Responding Company will provide a copy of completed PERSONNEL LISTING FORM as soon as the information becomes available.

6.1.5 Responding Company's telecommunications personnel shall contact Requesting Company's telecommunications personnel and local FCC authorities to make any temporary telecommunications arrangements.

6.1.6 Prior to traveling, Responding Company will reach agreement with the Requesting Company regarding the provisions for Responding Company personnel to make personal long distance telephone calls during the emergency response period as described in paragraph 5.2.8 above. This agreement should preclude any telephone charges from any lodging facility by the Responding Company personnel, except in case of emergency local 911 calls.

6.1.7 Responding Company agrees not to load extra emergency stock on trucks unless specifically requested by the Requesting Company.

6.1.8 When Responding Company's available contractor resources have been allocated to a Requesting Company through the Joint Mobilization Conference Call procedures, the Responding Company will:

- Provide Requesting Company with contact information for their on-site contractors.

- Alert their contractors that their assistance has been requested and that they will be contacted by the Requesting Company.
- Give their contractors the Requesting Company contact information.
- Encourage their contractors to respond to the North Atlantic member's request for help with all contract crews being released from the Responding Company's work site.

6.2 Responding Company – Responsibilities During Emergency Assistance Period

6.2.1 Responding Company will handle all communication needs within their teams. This could include acquiring additional communications equipment, such as portable repeaters, to ensure continuous communication capabilities.

6.2.2 The Responding Company will be responsible for performing normal maintenance on their vehicles and equipment during the emergency assistance period and this work will be covered in their standard hourly/daily rates.

6.2.3 Responding Company will maintain daily records of time and expenses for personnel and equipment. This documentation will be provided with their preliminary invoice.

6.2.4 When the Requesting Company has provided specific guidance in advance that differs from that in paragraph 6.2.5, the Responding Company will maintain and furnish the requested documentation of expenses with their preliminary invoice.

6.2.5 Unless otherwise agreed prior to mobilization, members agree that Responding companies will maintain and furnish upon request receipts for all individual expenses / purchases made during the emergency assistance period in accordance with the IRS requirements in effect at the time assistance is requested.

6.3 Responding Company – Responsibilities End Of Emergency Assistance Period

6.3.1 Responding Company should submit their "preliminary invoice" to Requesting Company within 60 calendar days from date released by the Requesting Company. Responding Company will provide supporting documentation at the time the preliminary invoice is mailed. Requesting Utility should receive final invoice within 90 calendar days from invoice date of preliminary invoice.

6.3.2 Responding Companies agree to maintain auditable records of billed expenses for emergency mutual assistance sufficient to satisfy the legal / statutory requirements and obligations incumbent upon the Requesting Company.

7. LIABILITY

7.1 Due to the compressed time frames associated with the rendering of mutual assistance, Members should ensure that liability, among other issues, be addressed in a timely manner; otherwise, the ability of one Member to respond to another could be impacted adversely, up to and including an inability to render any non-contractor assistance. When rendering mutual

assistance to one another and with specific regard to all liability for loss, damage, cost or expense, Members agree to follow Sections 11 and 12 of the "Suggested Governing Principles Covering Emergency Assistance Arrangements between Edison Electric Institute Member Companies," or an equivalent agreement executed by both Members prior to the formal start of the rendering mutual assistance.

7.2 EEI Member Companies

7.2.1 If both the Requesting and Responding Companies have signed the Edison Electric Institute Mutual Assistance Agreement, the "Suggested Governing Principles Covering Emergency Assistance Arrangements between Edison Electric Institute Member Companies" shall govern liability.

7.3 Non-EEI Member Companies

7.3.1 If either the Requesting or Responding Company have not signed the EEI Mutual Assistance Agreement, then the Responding Company may submit to the Requesting Company for execution a copy of the "North Atlantic Mutual Assistance Agreement" (see Appendix A). The terms "Responding Company" and Requesting Company" are used in this agreement in the same manner as in the "Suggested Governing Principles Covering Emergency Assistance Arrangements Between Edison Electric Institute Member Companies)."

7.3.2 Return of an executed copy of the "North Atlantic Mutual Assistance Agreement' by the Requesting Company to the Responding Company shall be construed as the formal start of the rendering of mutual assistance by all non-contractor resources. Both Members shall retain copies of the executed agreement for reference.

7.3.3 Use of an agreement other than the "North Atlantic Mutual Assistance Agreement" shall include a discussion on liabilities, among other items, and shall be agreed to and executed by both Members prior to the formal start of the rendering mutual assistance by all non-contractor resources. Both Members shall retain copies of the executed agreement for reference.

8. U.S / CANADA BORDER CROSSING

8.1 Purpose

8.1.1 As part of the Electric Sector effort to improve response and reduce delays, a procedure for crossing the US/Canada border has been documented.

8.1.2 The purpose of this procedure is to make Bi-National assistance during an event as expeditious as possible by preparing utilities workers deployed across the U.S./Canada border. The sharing of resource does not stop at the U.S. boundaries. During major events, U.S. companies need to be able to cross our northern border as effectively while maintaining the security of both Canada and the United States

8.2 Procedure Summary

8.2.1 It's important to have all information needed to cross the border completed in advance such as vehicle manifest, master roster, information from requesting company (letter of invite), and declaration, if one is available.

This is all documented in the procedure. Effective pass through requires advance notice to the specific crossing prior to resources arriving to allow both Canadian and US Border Crossing to prepare.

8.2.2 While the procedure does not specifically state an amount of time in advance, this should be a minimum of 8 hours if not more. A courtesy call to either the US Customs and Border Protection Agency or the Canadian Border Services Agency is recommended to give advance notice and confirm expectations.

8.2.3 To reference the procedure please go to one of the following;

- EEI Website (https://eei-restorepower.groupsite.com/main/summary) Select Restore Power under the Resources tab. The Roster and Border Guidance files are located in the Other Documents section.
- All Hazards Consortium website (http://www.ahcusa.org/)
- U.S. Customs (future link)

9. GOVERNANCE

9.1 Membership

9.1.1 Membership in the North Atlantic Mutual Assistance Group is comprised of those companies listed in Section 2.1

9.1.2 Membership will be open to investor owned utilities (IOU's), electrical cooperatives, and electric municipals provided such participation does not contradict or violate any internal, local, state or federal statutes or regulations.

9.1.3 Membership in the North Atlantic Mutual Assistance Group is free and members are not required to pay any dues or fees. The only financial obligation a member has to incur is the costs of hosting the semi-annual (spring or fall) North Atlantic Group meetings and reimburse responding companies for all expenses incurred when providing mutual assistance.

9.1.4 Prospective members seeking to join the North Atlantic Mutual Assistance Group must request admittance by contacting an active officer of the North Atlantic group. The prospective member may be asked to supply additional information and give a formal presentation to the group.

9.1.5 Prospective members to the North Atlantic Mutual Assistance Group must be approved for membership by a majority vote of the group.

9.1.6 All members will be required to sign the North Atlantic Mutual Assistance Group Statement of Understanding and Endorsement letter.

9.2 Officers

9.2.1 Officers shall not incur debt or costs on behalf of the committee or the North Atlantic Mutual Assistance Group and are not liable for the actions of committee members or member companies.

9.2.2 Member companies are always responsible for requesting mutual assistance to meet their requirements.

ELECTED OFFICERS

9.2.3 Chair – The Chair for the North Atlantic Group is responsible for:

- Primary representative for the North Atlantic Group with Edison Electric Institute [EEI], Regional Mutual Assistance Groups [RMAGs] and other groups. Serve as a single point of contact and keep members informed.
- Conduct semi-annual (spring and fall) or other meetings.
- Designate special working groups and committees.
- Provide guidance and direction on North Atlantic Group Guidelines.
- Serve as a Mentor and Subject Matter Expert for the Group.
- Serve for a term of one (1) year.
- Develop spring and fall meeting agendas with the Vice Chair, Secretary, and

designated host company.

9.2.4 Vice Chair – The Vice Chair for North Atlantic Group is responsible for:

- Assisting the North Atlantic Group Chair
- Secondary representative for the North Atlantic Group with Edison Electric Institute [EEI], Regional Mutual Assistance Groups [RMAGs] and other groups
- Leading special working groups or committees
- Develop spring and fall meeting agendas with the Chair, Secretary, and designated host company
- Serve as Mentor and Subject Matter Expert for the Group
- Serve for a term of one (1) year
- Succeed the North Atlantic Group Chair at the end of term.

9.2.5 Secretary – The Secretary for North Atlantic Group is responsible for:

- Maintain North Atlantic Group rosters and directories
- Maintain and distribute semi-annual (spring and fall) meeting minutes
- Maintain and distribute the Emergency Call spreadsheet used during Joint Mobilization Conference calls
- Maintain all North Atlantic Group documents
- Maintain the North Atlantic Group website
- Develop Spring & Fall Meeting Agendas with the Chair, Vice Chair and designated Host Company
- Assist the Chair and Vice Chair as requested or needed
- Serve for a one (1) year term.
- Succeed the North Atlantic Group Vice Chair at the end of term.

9.3 Elections and Voting

9.3.1 The North Atlantic Mutual Assistance group will generally come to agreement by consensus. When consensus is not possible or there is to be an election of officers the following rules shall apply.

- Each member company shall have one (1) vote.
- A simple majority will be sufficient for most actions, with a quorum consisting of one representative from at least one-half of the member companies.
- Any modifications of the North Atlantic Mutual Assistance Guidelines must be approved by ¾ of the member companies.
- Nominations for Secretary will be accepted prior to and during the Spring Meeting each year.
- Election of Secretary will occur every year at the Spring Meeting.

- If an officer vacates his/her position before fulfilling their one year term, automatic succession will occur and an election will be conducted at the next scheduled meeting to fill the Secretary position.
- If 2 or more officers vacate their positions before fulfilling their one year term, automatic succession will occur and an election will be conducted at the next scheduled meeting to fill the vacancies.
- Voting will be by voice vote. Secret ballot may be used upon a motion, seconded by a member company.
- Voting by e-mail is permissible. One vote per Member Company shall apply.

9.4 Meetings

9.4.1 The North Atlantic Group shall meet semi-annually in the spring and fall of each year.

9.4.2 Each North Atlantic member will take their turn hosting the semi-annual (spring and fall) meetings and the Host Company will rotate alphabetically.

9.4.3 The Host Company will be responsible for:

- Assist in developing the meeting agenda with the Chair, Vice Chair and Secretary including coordination with speakers and presenters
- Scheduling the dates and time for the meeting
- Coordinate lodging arrangements (i.e. reserve a block of rooms for a set time period) for overnight members
- Provide the networking dinner the night before the meeting
- Provide the meeting room and meals
- Provide audio visual equipment (i.e. laptop, projector, and white boards or equivalent)

9.4.4 At all meetings of the North Atlantic Mutual Assistance Group, “Roberts Rules of Order Newly Revised” shall be considered the authority in deciding all points of order and parliamentary law not defined by this guideline.

10. DOCUMENT REVISION HISTORY

Version	Prepared By	Summary of Changes	Date
1.0	Merger Team	Initial Guidelines created for the merger of MAMA, NEMAG, NYMAG	08/22/2013

Edison Electric Institute
Power By Association

SUGGESTED GOVERNING PRINCIPLES COVERING EMERGENCY ASSISTANCE ARRANGEMENTS BETWEEN EDISON ELECTRIC INSTITUTE MEMBER COMPANIES

Electric companies have occasion to call upon other companies for emergency assistance in the form of personnel or equipment to aid in maintaining or restoring electric utility service when such service has been disrupted by acts of the elements, equipment malfunctions, accidents, sabotage or any other occurrences where the parties deem emergency assistance to be necessary or advisable. While it is acknowledged that a company is not under any obligation to furnish such emergency assistance, experience indicates that companies are willing to furnish such assistance when personnel or equipment are available.

In the absence of a continuing formal contract between a company requesting emergency assistance ("Requesting Company") and a company willing to furnish such assistance ("Responding Company"), the following principles are suggested as the basis for a contract governing emergency assistance to be established at the time such assistance is requested:

1. The emergency assistance period shall commence when personnel and/or equipment expenses are initially incurred by the Responding Company in response to the Requesting Company's needs. (This would include any request for the Responding Company to prepare its employees and/or equipment for transport to the Requesting Company's location but to await further instructions before departing). The emergency assistance period shall terminate when such employees and/or equipment have returned to the Responding Company, and shall include any mandated DOT rest time resulting from the assistance provided and reasonable time required to prepare the equipment for return to normal activities (e.g. cleaning off trucks, restocking minor materials, etc.).

2. To the extent possible, the companies should reach a mutual understanding and agreement in advance on the anticipated length – in general – of the emergency assistance period. For extended assistance periods, the companies should agree on the process for replacing or providing extra rest for the Responding Company's employees. It is understood and agreed that if; in the Responding Company's judgment such action becomes necessary the decision to terminate the assistance and recall employees, contractors, and equipment lies solely with the Responding Company. The Requesting Company will take the necessary action to return such employees, contractors, and equipment promptly.

3. Employees of Responding Company shall at all times during the emergency assistance period continue to be employees of Responding Company and shall not be deemed employees of Requesting Company for any purpose. Responding Company shall be an independent Contractor of Requesting Company and wages, hours and other terms and conditions of employment of Responding Company shall remain applicable to its employees during the emergency assistance period.

4. Responding Company shall make available upon request supervision in addition to crew leads. All instructions for work to be done by Responding Company's crews shall be given by

5. EEI's Vice President of Energy Delivery or his/her designee who shall maintain a list of each Mutual Assistance Agreement Participating Company Signatory which shall be posted in the RestorePower Workroom as https://eei-restorepower.groupsite.com/page/mutual-assistance-agreement .

[redacted]

Officer Name:
Title:
Date:

[redacted]

Appendix H – New York Public/Private Utility Mutual Assistance Protocol

Promulgation Document

This New York Public/Private Utility Mutual Assistance Protocol ("Protocol") has been reviewed and endorsed for use by: (1) Central Hudson Gas & Electric, Consolidated Edison Company of New York, Inc., AVANGRID Networks, Inc. for New York State Electric & Gas and Rochester Gas and Electric, Niagara Mohawk Power Corporation D/B/A National Grid, Orange and Rockland Utilities, Inc. (individually, "NYS IOU" and collectively "NYS IOUs"); (2) the New York Power Authority ("NYPA"); (3) the Long Island Electric Utility Servco LLC (a wholly owned subsidiary of PSEG Long Island LLC), as agent of and acting on behalf of Long Island Lighting Company d/b/a LIPA for use in the State of New York during an emergency impacting utilities ("LIPA"); (4) the Municipal Electric Utilities Association of New York State ("MEUA"), of MEUA itself and as agent for and on behalf of its utility members identified in Appendix A ("MEUA Members"); (5) the New York Association of Public Power ("NYAPP") on behalf of NYAPP itself and as agent for and on behalf of its utility members identified in Appendix A ("NYAPP Members"); and (6) the American Public Power Association ("APPA") on behalf of itself and the APPA Mutual Aid Program ("APPA Members").

For purposes of this Protocol, the NYS IOUs, NYPA, LIPA, MEUA Members, NYAPP Members, and APPA Members are individually referred to as "Utility Party" and collectively as "Utility Parties"; MEUA, NYAPP, and APPA are individually referred to as "Association Party" and collectively as "Association Parties"; and the Utility Parties and the Association Parties are individually referred to as "Party" and collectively as "Parties".

Table of Contents

Table of Revisions

This document will be reviewed by all parties on an annual basis unless otherwise necessary. Documentation of this review and any revisions will be documented in the table below. Written updates will be distributed electronically to each party point of contact for inclusion in their appropriate policies, procedures etc.

When inserting revisions the person revising the document shall complete and *initial* the table below

Revision #	Date	Section/Page(s)	Change	Revised By
0	Oct 2015	Original Issue		N/A
1	February 2016	4-6	Formatting & Names	J.T. Flick
2	April 2017	3-6	Updated Signatories	J.T. Flick
3	June 2019	8-9, 15-16	Updated Signatories & Language to Include escalation to National Mutual Assistance programs	J.T. Flick

1. Executive Summary

This Protocol is an outline of general principles and practices for the Parties to access, coordinate and distribute critical resources to facilitate and expedite utility restoration following an emergency affecting a Utility party or its service area through mutual aid and a public/private partnership. This Protocol is intended to be flexible in every respect, since it is not possible to predict exactly what the nature or scope of an emergency will be. It allows Utility Parties to call upon other Utility Parties to voluntarily offer personnel, supplies, equipment, and space in an efficient and expeditious manner, which is organized and documented. The Protocol is not intended to be the primary means of securing assistance. Rather, this Protocol provides access to additional resources when necessary for assistance in New York.

2. Introduction

2.1 Mission Statement

To serve as a mechanism to leverage the public/private partnership among the Parties for access to critical resources to facilitate and expedite utility restoration in anticipation of and following an emergency impacting the state of New York.

2.2 Purpose

This Protocol outlines the process for Utility Parties to identify, request and share resources among one another in response to and recovery from an event that causes, or may have the potential to cause, impact to the utility infrastructure in the state of New York. In addition, it outlines the protocol to escalate outreach to the association parties for assistance in the event a resource need cannot be met after canvasing within the state of New York.

2.3 Scope

The scope of this Protocol is:

2.3.1 To provide a forum to ensure safe, effective and coordinated mutual assistance, regional response and service restoration for customers of Utility Parties in the state of New York during an emergency.

2.3.2 To provide an enhanced line of communications between the Parties in the event of emergencies impacting New York State of its resources.

2.3.3 To minimize risk to all Utility Parties by agreeing to provide assistance (material, personnel and equipment) on a not-for-profit[1] basis, and agreeing that the Utility Parties requesting assistance ("Requesting Organization") will reimburse Utility Parties providing assistance ("Responding Organizations") for all expenses incurred in providing the assistance.

2.3.4 To document the procedures to be followed during a time when mutual assistance is required by one or more of the Utility Parties.

2.3.5 To adhere to and operate in accordance with the procedures contained in this Protocol unless otherwise agreed to in writing by the Parties.

3. Organization Information

This Protocol applies to the Parties to this Protocol. The points of contact and contact information for each of the Utility Parties and the Association Parties can be found in Appendix B of this Protocol.

4. General Guidelines

4.1. Personnel Safety

4.1.1. Whether providing or receiving assistance, personnel safety will be the preeminent objective and responsibility of all Utility Parties. Any questions or concerns arising about any safety rules and/or procedures should be brought to the proper level of management for prompt resolution between management of the Requesting and Responding Organization(s).

4.1.2. The Requesting Organization agrees to make every effort to avoid moving Responding Organization personnel into harm's way during the initial, first-wave mobilization.

4.1.3. Responding Organization will follow its own safety rules, except as noted in paragraphs 4.1.6 and 4.1.7 below.

4.1.4. Responding Organization is responsible for following its own personal protective grounding practices.

4.1.5. Responding Organization will immediately report any and all accidents to Requesting Organization (both incidence and injury).

4.1.6. Switching procedures will be handled as the Requesting Organization designates, provided that the procedures do not violate the safety rules of the Responding Organization.

4.1.7. Requesting Organization will provide information on their switching and tagging rules. Requesting Organization switching/blocking tags will be used.

4.1.8. Security personnel requirements shall be discussed and mutually agreed upon by the Requesting and Responding Organizations prior to deployment of armed security personnel.

4.1.9. Any deployment of personnel who perform security functions must comply with federal, provincial, state, local and tribal regulations as applicable.

4.2. Maintenance of Contact Roster

4.2.1. In order to facilitate efficient communication and response, participating organizations will share the names, contact information (work phone, home phone, cellular phone, and e-mail addresses) for at least two (2) individuals authorized to participate in Joint Mobilization Activities on behalf of their organization.

4.2.2. Each Party Utility will be responsible for maintaining and updating the *Member Organization Contact Roster* at least every three months.

4.2.3. Association Parties are responsible for maintaining current contact rosters of their respective members and are the primary points of contact for the municipal/cooperative resources.

4.3. Code of Conduct

4.3.1. Whether providing or receiving assistance, all Utility Party personnel will be expected to conduct themselves in a professional and responsible manner.

4.4. Definition of Emergency Assistance Period

4.4.1. The Parties agree that the emergency assistance period shall commence when personnel and/or equipment expenses are initially incurred by the Responding Organization in response to the Requesting Organization's needs. This includes any request for the Responding Organization to prepare its employees and/or equipment for travel to the Requesting Organization's location but to await further instructions before departing. This preparation time should begin when normal work activities for the Responding Organization stops and preparations dedicated to supporting the off system effort begin. Except as noted in paragraph 4.4.3, the emergency assistance period shall terminate when such employees and/or materials or equipment have returned to their point of origin and after a reasonable time required preparing the equipment for return to normal activities (e.g., cleaning trucks and restocking minor materials).

4.4.2. The length of stay by Responding Organization personnel will be mutually agreed to by both the Requesting Organization and Responding Organization(s). Generally, this period should not exceed 14 consecutive days, including travel time to the work area and return to the point of origin. When mutual assistance assignments extend beyond this time frame, Parties agree that Responding Organization personnel will usually be changed out (rotated) rather than take extended reset periods (days off). Responding and Requesting Organizations may agree upon exceptions to this procedure.

4.4.3. It is understood and agreed that if Responding Organization's system or members are threatened during any time after it has mobilized to provide mutual assistance, any part or all of the Responding Organization's native and contract workforce may be recalled. In these instances:

- It is understood and agreed that the decision to terminate assistance and recall employees lies solely with the Responding Organization.
- If recall of Responding Organization's workforce becomes necessary, the Requesting Organization will be responsible for all expenses incurred by Responding Organization until the Responding Organization returns home and vehicles are cleaned and stocked for normal work activities.
- If Responding Organization's workforce is recalled to another of the Responding Organization's locations other than their original point of origin, the Requesting Organization will be responsible for travel costs to the alternate location not to exceed that which would have been incurred had the workforce returned to their original point of origin.

5. Rules of Engagement

5.1. Rules of Engagement Procedures

5.1.1. Utility Parties agree to adhere to the procedures contained in this Protocol to request, identify and mobilize emergency mutual assistance resources. Because response time is critical in emergency situations, the Joint Mobilization Conference Call provides a mechanism that allows Utility Parties to quickly request assistance and identify the number and status of all available regional resources.

5.1.2. When any Utility Party has a need for additional resources, it will utilize its primary means of securing additional assistance first.

5.1.3. If a need still exists after the response to the request under 5.1.2, one (1) representative from each of the Utility Parties (or its group representative) will convene a joint mobilization call to ascertain if Utility Parties have resources available to provide aid.

5.1.4. In the event resource requests initiated through this protocol remain unmet, Utility Parties will escalate the request to its trade association national coordinator(s). The national coordinator(s) collaborate among the APPA, EEI and national emergency management agencies. This process:

- Can be executed in parallel with the above outreach to neighboring RMAGs
- Broadens the reach to potential support resources
- Provides for a more effective and equitable allocation of resources for deployment to the requesting impacted member companies

- Should be made and coordinated following the existing North Atlantic Mutual Assistance Group (NAMAG) protocols unless there are no other Association Party resources within the NAMAG or other RMAGs that are in need of/requesting mutual Assistance.

5.1.5 In the event a resource need still exists after canvasing the Utility Parties and New York Association Parties, the Utility Parties have the ability to, and should consider, escalating the request to the national Association Parties. If resources are brought to bear through this process, the resources would be coordinated locally similar to inviting other Regional Mutual Assistance Groups (RMAGs) to the event as done under the EEI (RMAG) process

5.1.6 The Joint Mobilization Conference Call provides Utility Parties with the opportunity to understand the scope of the emergency situation, including expected impact and potential damage to organizations or systems, and also provide information as to the steps taken to secure resources. The aim of the call is to achieve efficient, effective and equitable allocation of available resources and minimize costs associated with mobilization of resources.

5.2 Responsibilities of Organization Initiating Request for Resources (for "NY Only" Events)[2]

5.2.1 The Requesting Organization[3] serves as moderator for the Joint Mobilization Conference Call or ask another Party to moderate. The moderator:

- Presents an estimate of impact to the Requesting Organization. If the incident impacts or potentially impacts more than one Utility Party's service territory, the moderator will ask other Utility Parties for their projected damage assessments.
- Presents an estimate of resources needed by the Requesting Organization. If the event impacts or potentially impacts more than one Utility Party's service territory, the moderator will ask other Utility Parties for their projected resource needs.
- Asks all non-impacted Utility Parties to state the amount of resources it has available to provide assistance and a timetable for those resources.
- Leads discussion of (1) staging areas, if needed, to be used by assisting organizations, (2) transportation concerns, such as evacuation orders, fuel availability, and DOT exemptions, and (3) the availability of non-Utility Party resources that may be available to assist impacted Utility Parties.
- Addresses, to the extent possible, the Requesting Organizations responsibilities under Section 6.1.
- Establishes a schedule for update calls.

5.3. Responsibilities of Non-Initiating Organizations

- Non-threatened and non-impacted Utility Parties should be prepared to specify the number and type of resources available to assist impacted organizations or systems, including an estimate of when these resources can be dispatched.
- To enhance safety and flexibility, upon request non-threatened/non-impacted Utility Parties will be prepared to identify staging areas available in their territories.

5.4. Resource Allocation and Mobilization[1]

5.4.1. When more than one Utility Party has requested emergency assistance, all Parties understand and agree that it is the responsibility of the Requesting Organizations to agree upon the allocation of the available resources as between themselves.

5.4.2. The Parties agree that, in general, resources will be allocated on severity of need based on:

- Impact as calculated by percentage or degree of system loss and estimated time customers will have been without power.
- Travel time.
- Resources already secured either through existing contracts and/or other mutual assistance processes
- The Intent will be to allocate available resources to meet all Utility Party utility needs in the most efficient and equitable manner possible.

5.4.3. The Parties agree that final dispatch of committed resources is to be coordinated directly between the Requesting Organization and the Responding Organization.

5.3 Joint Mobilization Call Documentation

5.3.1 During each call, a Party will be designated the responsibility for documenting resource allocations and email the minutes to the Utility Party representatives on the call.

6 Requesting Organization Responsibilities

6.1 Requesting Organization – Responsibilities Prior to Mobilization

6.1.1 To the extent possible, the Requesting Organization is to communicate the scope of impact and work conditions expected for Responding Organization personnel.

6.1.2 The Requesting Organization is to inform the Responding Organization if their requirements for the maintenance of receipts differ from the procedures stated in paragraph 7.2.4.

6.1.3 To facilitate communications, the Requesting Organization may provide a single point of contact (Coordinator) to interact with the Responding Organization.

6.1.4 The Requesting Organization is to address inquiries from Responding Organizations about labor contractual issues, safety issues, contact personnel, vehicle fueling arrangements, typical standard construction, meal and lodging arrangements, and other items.

6.2 Requesting Organization – Responsibilities during Emergency Assistance Period

6.2.1 The Requesting Organization establishes expectations for work, including start time and duration.

6.2.2 The Requesting Organization provides materials unless specifically noted otherwise and communicated to the Responding Organization.

6.2.3 The Requesting Organization provides a personnel representative to be a guide or bird dog with communications capability to assist responding team leaders.

6.2.4 The Requesting Organization provides vehicle security for parking areas unless specifically agreed otherwise.

6.2.5 With the exception of food and lodging during travel to and from the final work site, the Requesting Organization handles all food, lodging and incidental support needed by Responding Organization unless otherwise agreed to in writing.

6.2.6 Requesting organization provides laundry services unless otherwise agreed to in writing.

6.2.7 Requesting Organization reimburses the Responding Organization for lodging and will not pay for additional hotel related or hotel billed expenses unless agreed to by the Requesting Organization prior to the occurrence.

6.3 Requesting Organization - Procedures for Releasing Responding Organization(s)

6.3.1 Each Requesting Organization provides to the Responding Organization(s) a proposed "Release Schedule" as soon as possible before mobilizing personnel and equipment ("crews"). This Release Schedule will include:

- Name(s) of the Utility Party and its personnel to be released to the request.
- The numbers of workers from each Utility Party being released to the request.
- The coordinator of the crews being released to the request.
- The date and approximate time the crews expect to be released from the request.

6.3.2 The Requesting Organization recognizes that resources under this Protocol are being provided to assist with an emergency only. After the response and restoration work has been completed, the Requesting Organization shall NOT retain Responding Organization personnel or equipment to perform routine maintenance, street lighting work, or clean up type work (unless otherwise agreed to) and will aggressively work to demobilize personnel and equipment.

6.3.3 If there are other Utility Parties that need additional resources at the time of the release, it will be the decision of the Responding Organization or members as to whether they provide resources for another Utility Party's mutual assistance request under this Protocol.

6.3.4 When resources are being released by one Requesting Organization, and the Responding Organization elects to provide assistance to another Requesting Organization, it will go through the same process as it did initially as specified in Section 5.4.

6.4 Requesting Organization – Responsibility for Reimbursement of Expenses

6.4.1 The Parties understand and agree that the provision of emergency mutual assistance is a not for profit endeavor[5] for Responding Organization(s). The Requesting Organization will reimburse all costs and expenses incurred by the Responding Organization in the provision of the emergency assistance for the entire emergency assistance period as defined in Section 4.4 above.

6.4.2 If Responding Organization resources are released during/after mobilization but before being utilized, the Requesting Organization will reimburse Responding Organization for all incurred preparation and travel expenses including reasonable time required to prepare the equipment for return to normal activities after returning to their point of origin.

6.4.3 During emergencies impacting more than one Utility Party, Responding Organization resources may be re-assigned to another Requesting Organization either: (1) en route to the Requesting Organization, (2) at an initial staging area before reaching the Requesting Organization, or (3) at the Responding Organization's final staging area. Additionally, resources may be assigned, in agreement with the Responding Organization, to assist a second Requesting Organization after completing work for the initial Requesting Organization. Note: In any of these instances, unless otherwise mutually agreed, the Requesting Organization that receives the re-assigned Responding Organization resources will be responsible for all Responding Organization costs from the time of re-assignment (including travel from demobilization point).

6.4.4 The Requesting Organization shall pay all invoice(s) from Responding Organization or members within 90 calendar days after receipt of invoice(s) with proper supporting documentation as specified by the Requesting Organization in advance.

7. Responding Organization Responsibilities

7.1 Responding Organization – Responsibilities Prior to Mobilization

7.1.1 To the extent possible, the Responding Organization is expected to clearly communicate the degree of devastation and working conditions that their responding employees should expect to encounter upon arrival at the emergency restoration work area.

7.1.2 To facilitate communications, the Responding Organization may opt to provide a single point of contact (Coordinator) to interact with the Requesting Organization.

7.1.3 Responding Organization completes and forwards a crew roster to the Requesting Organization with employee name and title, vehicle description, other equipment, and contact information, before departing their home location or current work location.

7.1.4 Responding Organization agrees not to load extra emergency stock on trucks unless specifically requested by the Requesting Organization.

7.1.5 In certain situations, the Requesting Organization may not have the capacity to effectively on-board and control small groups of resources. In these situations, every attempt will be made by the Responding Organization(s) to group the responding resources into a size that the Requesting Organization or member can effectively utilize. The Responding Organization(s) will make every attempt to assemble and arrive as a single unit and provide their own supervision incorporating a manageable span of control.

7.1.6 Upon request, the Responding Organization shall provide the Requesting Organization with a copy of associated labor contracts.

7.2 Responding Organization – Responsibilities during Emergency Assistance Period

7.2.1 Responding Organization handles all communication needs within their teams to ensure continuous communication capabilities.

7.2.2 The Responding Organization is responsible for performing normal maintenance on their vehicles and equipment during the emergency assistance period and this work will be covered in their standard hourly/daily rates.

7.2.3 Responding Organization maintains daily records of time and expenses for personnel and equipment. This documentation is provided with their invoices.

7.2.4 Unless otherwise agreed prior to mobilization, member utilities agree that Responding Organization(s) will maintain and furnish upon request receipts for all individual expenses and purchases made during the emergency assistance period in accordance with the United States Internal Revenue Service (IRS) in effect at the time assistance is requested.

7.2.5 Notwithstanding anything herein, the Requesting Organization and the Responding Organization may mutually agree to a different invoicing method than that outlined in Appendix B; however, every effort should be made to agree upon invoicing terms before mobilization begins.

7.3 Responding Organization – Responsibilities End of Emergency Assistance Period

7.3.1 Responding Organizations should submit their *preliminary invoice* to Requesting Organization *within 30 calendar days from date released* by the Requesting Organization. Responding Organization will provide supporting documentation at the time the preliminary invoice is mailed. Requesting Organization should receive *final invoice within 60 calendar days from invoice date of preliminary invoice.*

7.3.2 Utility Parties agree to maintain auditable records of billed expenses for emergency mutual assistance sufficient to satisfy the legal or statutory requirements and obligations incumbent upon the Requesting Organization.

8. Liability

8.1 Due to the compressed time frames associated with the rendering of mutual assistance, Utility Parties should ensure that liability, among other issues, be addressed in a timely manner; otherwise, the ability of one Party Utility to respond to another Party Utility could be impacted adversely, up to and including an inability to render any non-contractor assistance.

8.2 When rendering mutual assistance to one another and with specific regard to all liability for loss, damage, cost or expense, the Parties agree as follow:

8.2.1 Requesting Organization shall indemnify, hold harmless and defend Responding Organizations from, and against any and all liability for loss, damage, cost or expense which Responding Organizations may incur by reason of bodily injury, including death, to any person or persons or by reason of damage to or destruction of any property, including the loss of use thereof, which result from furnishing emergency assistance and whether or not due in whole or in part to any act, omission, or negligence of Responding Organization or except to the extent that such death or injury to person, or damage to property, is caused by the willful or wanton misconduct and/or gross negligence of the Responding Organization. Where payments are made by the Responding Organization under a workmen's compensation or disability benefits law or any similar law for bodily injury or death resulting from furnishing emergency assistance, Requesting Organization shall reimburse the Responding Organization for such payments, except to the extent that such bodily injury or death is caused by the willful or wanton misconduct and / or gross negligence of the Responding Organization.

8.2.2 In the event any claim, request for information, or demand is made or suit or action is filed against Responding Organization alleging liability for which Requesting Organization shall indemnify and hold harmless Responding Organization under paragraph 8.2.1 above, Responding Organization shall promptly notify Requesting Organization thereof, and Requesting Organization, at its sole cost and expense, shall settle, compromise or defend the same in such manner as it in its sole discretion deems necessary or prudent. Responding Organization shall cooperate with Requesting Organization's reasonable efforts to investigate, respond, defend and settle the claim request, or lawsuit.

8.2.3 In the event any claim, request for information, or demand is made or suit or action is filed against Requesting Organization alleging liability during an Emergency Assistance Period as defined in section 4.4.1 above, Requesting Organization shall promptly notify all Responding Organization. All Parties shall cooperate with reasonable efforts to investigate, respond, defend, and the settle the claim, request or lawsuit.

9. Confidentiality

9.1 Utility Parties understand and agree that invoicing details, including associated expenses and related information and conversations between member utilities during conference calls, including discussions regarding crew location and allocation are confidential and proprietary to the disclosing member utility (the "Confidential Information"). Therefore, member utilities agree not to share or release any Confirmation Information unless mutually agreed.

9.2 Utility Parties expressly acknowledge that they are subject to regulation by various state and federal regulatory agencies and that they may from time to time disclose Confidential Information to such regulatory agencies. In the event of such disclosure to regulatory agencies, the disclosing Utility Party shall seek to have the applicable regulatory agency afford confidential treatment to the Confidential Information.

10. Freedom of Information Laws

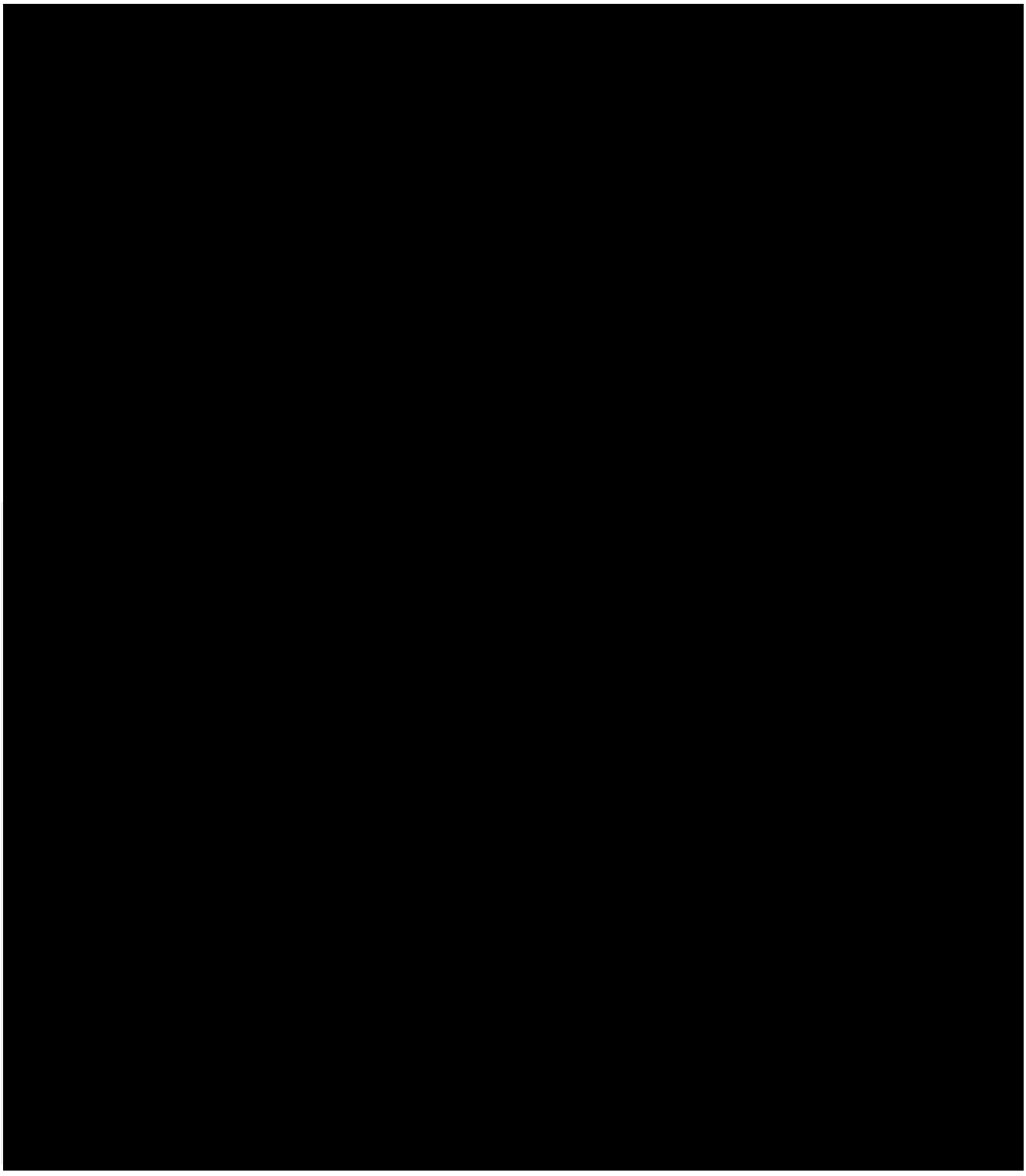
10.1 If a Party is subject to a freedom of information law that provides for public disclosure of records (collectively, a "FOIL") and such Party (the "FOIL Party") receives a request for the disclosure of potentially Confidential Information provided to it by another Party (the "Disclosing Party"), the FOIL Party, shall:

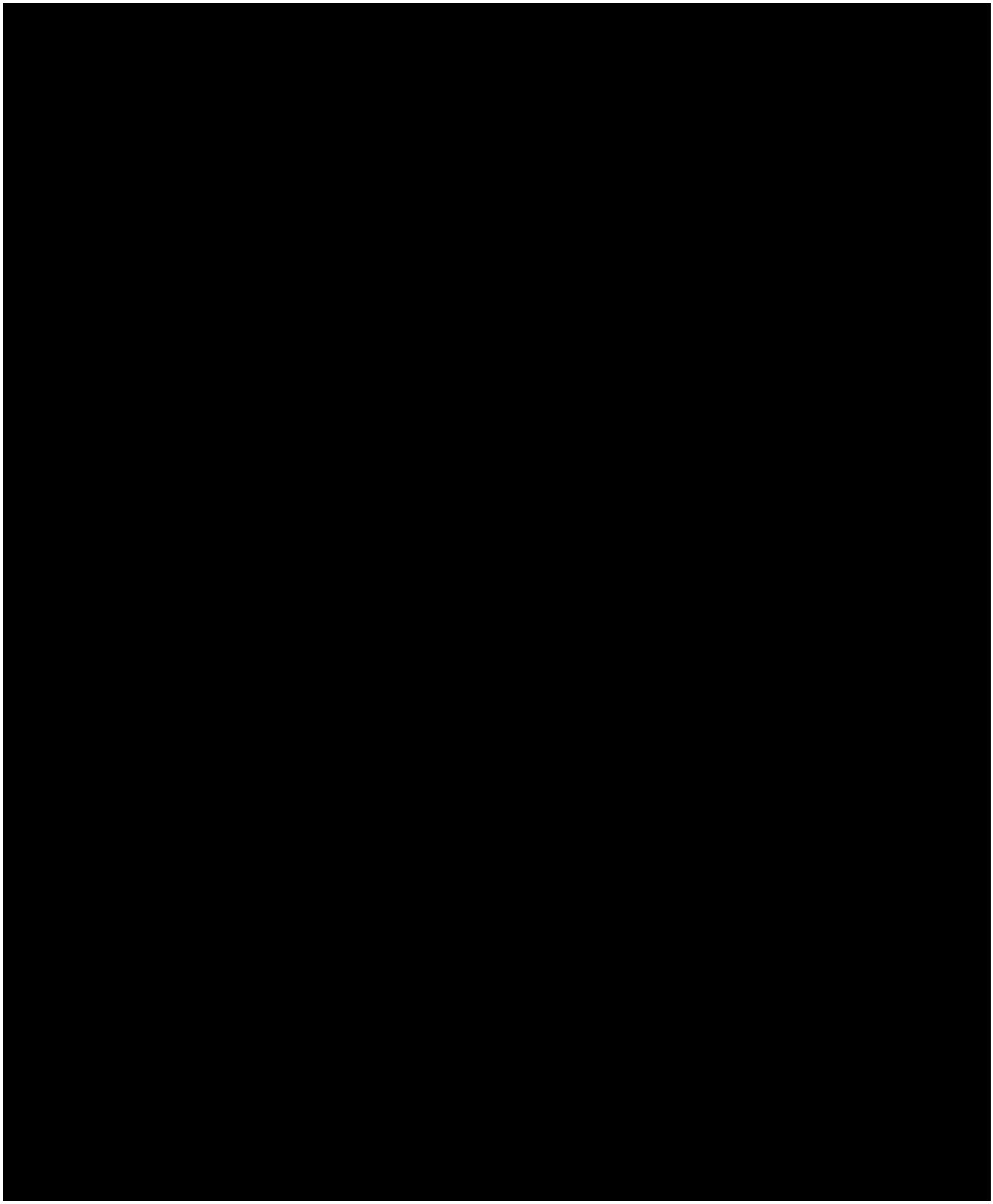
- Notify the Disclosing Party of the request;
- Provide the Disclosing Party with the information the FOIL Party intends to provide in response to the FOIL request;
- Provide the Disclosing Party the opportunity to provide information regarding the need for confidential treatment;
- Evaluate the third party's request for disclosure and the Disclosing Party's request for confidential treatment; and
- Determine if the Confidential Information is subject to disclosure under FOIL.

10.2 If the FOIL Party determines that Confidential Information is subject to disclosure under the applicable FOIL, it will provide prompt written notice of such determination to the Disclosing Party so that the Disclosing Party may seek a protective order or other appropriate remedy.

10.3. Nothing in this Protocol is intended to limit or otherwise modify a FOIL Party's obligations under any applicable FOIL.

IN WITNESS WHEREOF, by signing below, the Parties agree that they have read, understand, and agree to the terms and conditions provided for herein.

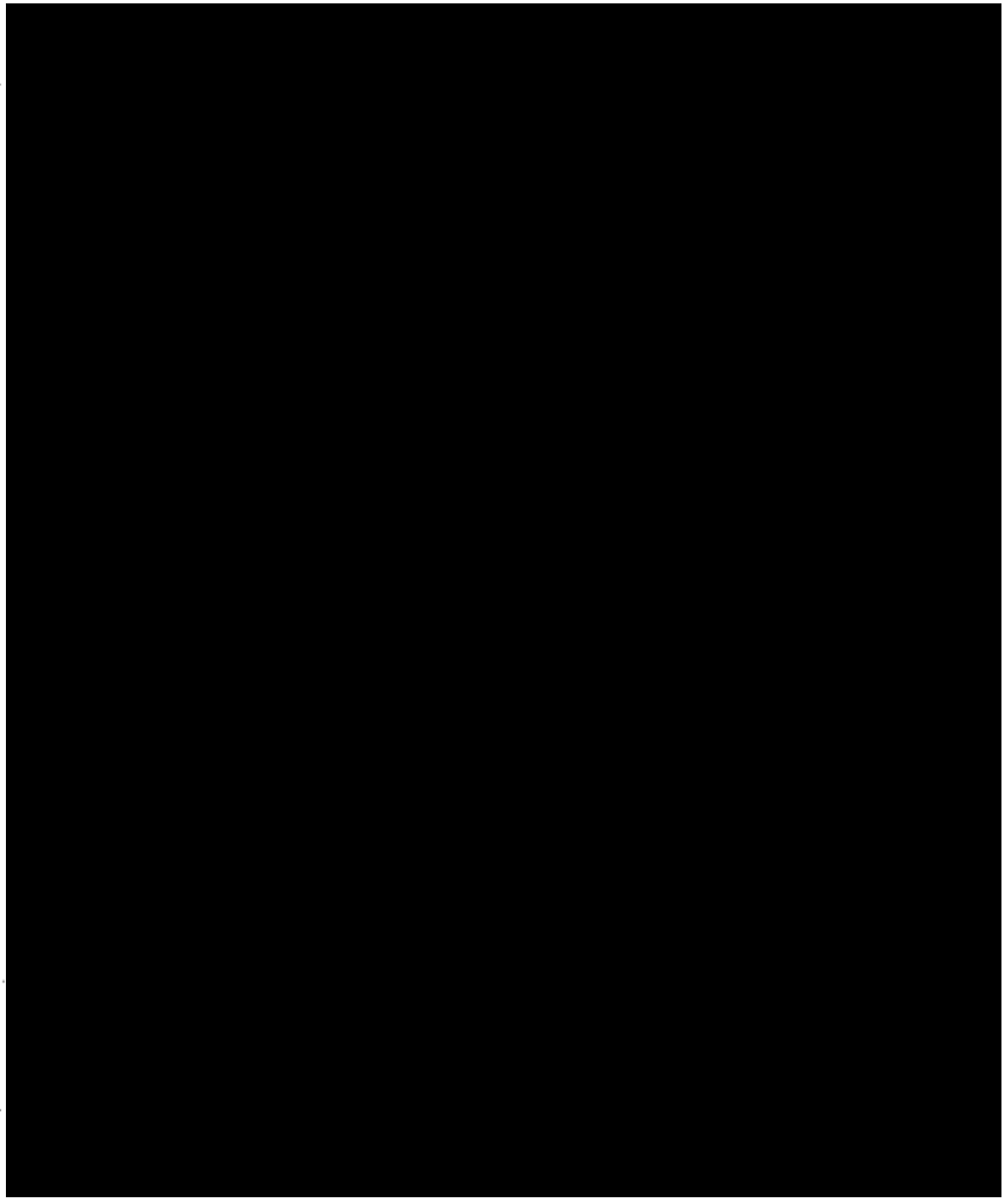




APPENDICES

APPENDIX A – ASSOCIATION PARTY/MEMBER INFORMATION

Municipal Electric Utilities Association of New York State Members



New York Association of Public Power Members

[redacted]

American Public Power Association

[redacted]

APPENDIX B – POINTS OF CONTACT/CONTACT INFORMATION

APPENDIX C – INVOICE TEMPLATE

INVOICE

Utility
New York State, NY

DATE: [CLICK TO SELECT DATE]
INVOICE #
PROJECT & TASK #

TO

FROM

JOB DESCRIPTION	PAYMENT TERMS
Emergency Restoration Work	PAYMENT DUE **/**/****. (PAYMENT DUE WITHIN 90 DAYS AFTER RECEIPT OF INVOICE.)

DESCRIPTION	TOTAL
LABOR Total labor (full) cost	
LABOR HOURS Total hours billed by function: • Line or splicing personnel • Supervisory • Safety • Other (please specify and should be pre-approved)	
MATERIALS (Total Cost) Type of material(s) Quantity	
EQUIPMENT (Total Cost) Types of vehicles/equipment Total hours billed	
FIELD AND ADMINISTRATIVE EXPENSES Includes fuel, food, lodging, tolls, administrative, communications expenses and miscellaneous costs Special requests: • Type of special request • Total cost	
TOTAL DUE	

Appendix I – Proceeding on Motion of the Commission to Consider Utility Emergency Performance Metrics

STATE OF NEW YORK PUBLIC SERVICE COMMISSION

At a session of the Public Service
Commission held in the City of Albany
on November 14, 2013

COMMISSIONERS PRESENT:

Audrey Zibelman, Chair
Patricia L. Acampora
Garry A. Brown
Gregg C. Sayre
Diane X. Burman

CASE 13–E-0140 - Proceeding on Motion of the Commission to Consider Utility Emergency Performance Metrics.

ORDER APPROVING THE SCORECARD FOR USE
BY THE COMMISSION AS A GUIDANCE DOCUMENT
TO ASSESS ELECTRIC UTILITY RESPONSE
TO SIGNIFICANT OUTAGES
(Issued and Effective December 23, 2013)

BY THE COMMISSION:

INTRODUCTION

The provision of safe and reliable electric energy is critical to the health and safety of New Yorkers and a fundamental responsibility assigned by statute to our utilities.[1] This responsibility is often most challenging during and after a major storm or an extraordinary event has resulted in significant electricity outages in the utility's service territory. Our assessment of the importance of this responsibility was reinforced by our recent experiences with Hurricane Irene, Tropical Storm Lee, and Superstorm Sandy. Each of these extreme weather events resulted in the loss of electric service for hundreds of thousands of customers over extended periods of time. We saw repeatedly the fundamental importance of an

1. Public Service Law (PSL) § 65.

Informed public and local governmental officials and safe and efficient service restoration for affected communities.

Utility performance before and during these major outage events varied greatly. While additional focus on investments that improve system resiliency are critical, it is also clear that there are a number of areas where improved performance will help reduce the impacts of the storm event and/or increase consumer safety and security. For example, significant aspects of the utility's actions prior to the outage event to prepare and plan in anticipation of its recovery efforts, the utility's operational performance as its recovery efforts proceeded, and the utility's communications with the public and with public officials during and after the storm are operational areas under the control of utilities that can directly impact storm restoration. Operational excellence in these areas will contribute greatly to the utilities' overall efforts to maintain and restore service and to reduce community anxiety when service is yet to be restored. The purpose of this proceeding was to develop a quantitative tool that the utilities and the Commission could apply to assess electric utility performance in restoring electric service during outages which result from a major storm or other outage event. The Scorecard which we adopt in this Order will support this performance based evaluation. It will provide us with a valuable guide to determine best practices during these challenging events, ensure continuous improvement and hold utilities accountable for failing to meet the legitimate requirements of their customers. Through the use of this guidance tool we come closer to our goal of performance based assessment through which deficient utility practices and decision-making can be identified and disincented and excellent utility performance can be recognized and rewarded.

BACKGROUND

In April 2013, we instituted this proceeding to consider the development of a Scorecard to serve as a tool for the quantitative assessment of New York State electric utility performance in restoring power to customers after a significant outage. In our April 24, 2013 Notice Seeking Comments we sought comments on a draft scorecard.

That draft Scorecard began our effort to establish standards that will promote effective emergency response. As we noted at that time:

> *Holding utilities accountable to such standards can help assure that they have the ability, capacity, and mindset to act quickly and effectively. While outage events can never be entirely eliminated, these*

metrics will establish minimum performance levels against which to assess restoration after significant outages.[2]

The Scorecard we adopt with this order will function as an objective tool to assess each utility's outage event response efforts, and to guide us as we seek to hold the utilities accountable for their preparations for outage events, for their actions during an outage event and their recovery programs when the outage event has passed, and for their communications programs in conjunction with the event.

The Scorecard will also provide greater guidance to utilities as to our expectations for their restoration efforts. It will better enable the utilities to assess their own performance and to concentrate resources proactively in areas where improvements are needed. Corporations use key performance indicators (KPIs) to establish performance expectations, measure their achievement and identify areas of focus for improvement. The Scorecard we are introducing today is intended to serve as a critical tool that can be similarly used by utilities and the Commission to measure performance with respect to safe and timely electric service restoration after major outages. Recent experience has shown that it is difficult to perform an assessment of the utility response to major storm events or outages without the capability to define and apply the constituent metrics for preparation prior to the event, operational response during and after the outage event, and utility communications to customers and community leaders as the event and recovery from the event are occurring. The Scorecard is a major step toward creating that capability.

The Scorecard we adopt here has been developed to work with the recent amendments to the Public Service Law (PSL), including the new provisions regarding administrative penalties[3]. These new provisions, among other things, require electric corporations to file emergency plans annually, specify subject areas to be covered in the emergency plans subject to Commission review and approval. In conjunction with these statutory provisions, the Scorecard will be a guide for assessing the performance of utilities in connection with their outage restoration efforts. Although we intend the Scorecard to apply specifically to major outages, as Staff gains experience with its use, it may make recommendations to the Commission to apply the Scorecard, or to apply a modification of the Scorecard, to other outages or for other action as may be appropriate.

---

2. April 24, 2013 Notice Soliciting Comments at 2.

3. PSL § 25-a.

Up to now, the two primary metrics upon which we rely to measure reliability are the System Average Interruption Frequency Index (SAIFI) and the Customer Average Interruption Duration Index (CAIDI)[4]. We currently use the SAIFI and CAIDI metrics to establish targets for acceptable performance as part of each utility's Reliability Performance Mechanism (RPM). The utility RPM is a part of the utility's rate plan, and, when used for this purpose, the SAIDI and CAIFI metrics only measure utility performance in providing reliable electric service during normal conditions. They expressly characterize major outage events as abnormal and exclude utility performance during these major outage events. As such they were not intended to, cannot and do not provide any quantitative measurement of utility performance during a major outage event. They do not provide an objective measurement of utility performance during those periods. Finally, the RPMs measure the utility's overall reliability on an annual basis. In contrast, the Scorecard will be used as a tool to specifically measure utility performance (including preparation and communication activities) after each significant major outage.

The Scorecard we adopt today assigns metrics and points into three categories: Preparation (150 points), Operational Response (550 points), and Communications (300 points). The three categories are intended to capture the key activities associated with major storm events. The Preparation metrics focus on utility activities in anticipation of a significant outage event.[5] The second category, Operational Response, evaluates the utility's performance as a significant outage event is occurring and during the recovery period after the event until normal service is restored.[6]

---

4. SAIFI is the average number of times that a customer is interrupted during a year.
CAIDI is the average interruption duration time for those customers that experience an interruption during the year. Both of these metrics are common, industry-wide performance measures.

5. An example of a Preparation metric is Employee/Contractor Planning. This metric assesses the utility efforts to contact employees or contractors before the event occurs to review the roles they may be expected to fill if the outage event occurs. This metric is one of eight in the Preparation category and is assigned 15 points.

6. An example of an Operational Response metric is Down Wires. This metric measures, for a three to five day event, whether the utility (through utility personnel or contractors) responds to a downed wires report within 18 hours, or, for a greater than 5 day event, within 36 hours. The metric is one of 12 in the Operational Response category and is assigned 60 points.

The third category, Communications, assesses the utility's ability to receive and to disseminate information about the outage event and about the recovery process.[7] The specific metrics and point assignments under each category are set forth in the Scorecard attached to this order in Appendix A and in the accompanying Emergency Response Performance Measurement Guide (Performance Guide) which is also attached in Appendix A.

The Commission first issued a Notice Soliciting Comments on April 24, 2013 to obtain input on a draft Scorecard. Two parties submitted comments, the City of New York (City) and jointly Central Hudson Gas & Electric Corporation, Consolidated Edison Company of New York, Inc., New York State Electric & Gas Corporation, Niagara Mohawk Power Corporation d/b/a National Grid, Orange and Rockland Utilities, Inc., and Rochester Gas and Electric Corporation (Joint Utilities) (together the Parties). Based on the comments received and additional discussions and further consideration of this issue, a second draft Scorecard was developed in August 2013 (August Scorecard). The August Scorecard was released for a second round of public comment on August 19, 2013. In addition to some clarifications to the measures identified and definitions used in the first Scorecard, the August Scorecard also introduced the Performance Guide to be used in conjunction with the Scorecard, and further specified the areas that will be reviewed to assess utility performance. We are considering here the comments from the City and Joint Utilities on the August Scorecard.

7. An example of a Communications metric is Municipal Calls. This metric evaluates whether telephone conference calls are held at least daily and are effective in communicating baseline information, updates on road clearing activities, and allow for two way communications between the utility and municipal officials, including communications concerning downed wires. It also assesses whether the utility has implemented an operator assisted calling system. This metric is one of eight in the Communications category and is assigned up to 40 points.

DISCUSSION AND ANALYSIS OF COMMENTS

Discussion

As noted above, the Scorecard is intended to provide objective standards by which this and future Commissions will be able to gauge utility performance in maintaining electric service following major outage events. We adopt this measure because lack of reliable electric service during and following a major storm imposes great stress and safety risks on local communities. The establishment of these Scorecard metrics is designed to measure objectively how a utility's actions or inactions minimized or aggravated the affected communities' disruption, anxiety and stress. It also provides the further benefit of identifying the areas of storm related actions that a utility should focus on to continue to improve its performance. Moreover, in the event that we find a particular metric is not serving its intended purpose, the Scorecard design can be easily modified on a going forward basis to ensure that the right measurements are being used.

We understand the concerns expressed by some parties that the implementation of the Scorecard may have unintended consequences. For this reason, the Scorecard will be a dynamic and fluid tool subject to periodic review and improvement. Future modifications to the Scorecard may be necessary, as lessons are learned through the evaluation of restoration events, to mirror changes in utility emergency plans, or as changing circumstances warrant. By establishing metrics in the Scorecard, we are setting performance expectations. However, as in any measurement activity, the successful measurement tool is the one which focuses on the right outcome and affords appropriate weight on each measurement.

For this proceeding, Staff developed draft scorecards which could be used to evaluate utility performance, and since the inception of this proceeding we have provided two opportunities for interested parties to comment on the proposed program. Both the City of New York and the Joint Utilities provided general comments regarding the use or nature of the Scorecard and specific comments concerning the April and August Scorecard. We will consider first the parties' general comments.

General Comments

1. Application of the Scorecard to Utility Divisions or to Non-electric Services. The Joint Utilities state that the Scorecard should apply on a Companywide level, rather than to the specific division or portion of the utility service territory affected by the outage event, and they opine that a piecemeal approach does not provide an accurate overall assessment. This utility comment is directed to those instances where the utility service territory is made up of several geographically distinct areas. Because a utility's service territory is broken up in this way, different utility districts may have different storm response experiences, and Scorecards completed for each district could show very different results. The Joint Utility comment seeks to have these Scorecard results aggregated into a single Scorecard which reports the utility's performance as a whole. However, where these geographically distinct areas are separate from each other, the application of the Scorecard to the utility as a whole may mask inadequate utility performance is a specific division. For this reason, the Scorecard measurements will reflect outage and restoration times on a division wide or district basis.

2. Development of Scorecards for Gas and Steam Services. The City recommends that, for those utilities that provide multiple services, the Commission apply the Scorecard to evaluate the performance of utilities in maintaining performance in all service categories, i.e., gas and steam as well as electric. The City observes that Hurricane Sandy demonstrated a need to monitor and measure the utilities' total performance in preparing for and recovering from major storm events, and that gas and steam systems are equally or perhaps more vulnerable to disruption than the electric system. The City further comments that if the Commission utilizes the Scorecard to evaluate utilities' performance, the utilities should not be evaluated based on the totality of their performance, but that each category of the Scorecard should be assessed separately.

The Commission agrees that the concerns about electric utility performance following major storms are applicable to other essential services, including heating and water. However, at this time, we believe it is premature to expand the application of the Scorecard approach to these other services. There are several reasons that we reached this conclusion.

First, the Scorecard is specific to electric utilities because we have seen that the most comprehensive and pressing need and, hence, the greatest benefit to customers and the public is from utility performance in this area. Second, as a practical matter, electric utilities have historically been affected more by storms than other regulated services. By adopting a Scorecard for use in evaluating the outage event response of our electric utilities, the Commission will gain critical experience in determining how best to establish best practices with respect to storm related restorations.

3. Short-term events and Scorecard application. The proposed Scorecard would be applicable to events where the restoration of service requires three days or more. In its comments, however, the City recommends that the Scorecard be applied to all outages 1) lasting 24 hours or more, 2) affecting 2.5% or more of customers within an operating area, regardless of duration, or 3) disrupting service to one percent or more of customers in an operating area for at least 12 hours. The City contends that the significance of an outage should not be determined simply by the length of the outage.

Due to the smaller impact expected to result from shorter duration outages (the first of the City's three parts), and the utility's general ability to mobilize personnel to respond to shorter duration outages, we find that the completion of a Scorecard evaluation for shorter duration events would furnish insufficient additional benefit on a statewide basis.[8]

The second part of the City's proposed three-part approach calls for implementing the Scorecard if service is interrupted to 2.5 percent or more of customers within an operating area, regardless of duration. However, based on those criteria, in some operating areas in upstate New York, the Scorecard would be triggered if fewer than 1,000 customers lost service, regardless of the duration. The final part of the City's approach for an outage affecting one percent of customers for twelve hours or more, could reduce the threshold for Scorecard implementation in certain operating areas to fewer than 500 customers. Modifying the Scorecard to reflect these criteria could result in excessive Scorecard reporting.

---

8. Our use of the Scorecard data to complete a Scorecard evaluation for less severe outage events is not anticipated at this time. Such use, if undertaken, would be based on our determination at that time and on Staff's recommendation that the particular circumstances associated with that less severe event justified the completion of a Scorecard evaluation.

We understand the City's concern that an outage of shorter duration could have severe effects in New York City based on the unique nature of Con Edison's underground network in the City when compared to the rest of New York State. Because of this, we will apply the Scorecard to network outages in New York City, utilizing the definition of a network outage contained in the Con Edison Reliability Performance Mechanism which defines a network outage in New York City as the "interruption of service to 15 percent or more of the customers in any network for a period of three hours or more."[9]

4. Definition of Time Periods and Alignment with Utility Emergency Plans. The Joint Utilities and the City generally support the concept of using a scorecard to gauge utility performance as they respond to outage events and agree with the three categories contained in the Scorecard: Preparation, Operational Response, and Communication. However, they state that the metrics within these categories must be clearly defined. They also are concerned that there are disparities between the Scorecard and the utilities' emergency plans. Finally, they assert that the use of the Scorecard could have unintended adverse consequences.

---

9. We understand that application of the Scorecard to Con Edison's network outages means that some of the measures contained in the Scorecard will not apply. For example, there are no downed wires for a network outage because the network cables are located underground. In the Operations category of the Scorecard, however, we expect the utility to issue a local ETR and coordinate with appropriate New York City offices. Furthermore, we will apply the Communication metrics to a network outage.

In response to these comments, the Scorecard is accompanied by a Performance Guide to provide greater clarity and precision to the metrics being used in the Scorecard. Most notably, the Performance Guide now includes definitions for: Start of the Event[10], Customer Restoration[11], Outage Duration[12] and Start of Utility Restoration[13]. Further, to ensure clarity in understanding the specific metrics, each of the metrics that incorporate a timing component has been modified to reference one of these time definitions. For example, the Call Answer Rate metric will be measured from the "Start of the Event" to ensure customers can contact the utilities during a storm. Operational metrics, such as the Preliminary Damage Assessment measure will be measured from the Start of Utility Restoration, which corresponds to the time at which the company can dispatch field personnel without unacceptable safety risks. These changes reflect existing emergency plan practices.

The further concern expressed by the Joint Utilities is that the Scorecard does not mirror each utility's electric emergency plan. However, we find that the proposed Scorecard appropriately reflects statewide restoration expectations for the utilities, and these expectations should be reflected in the emergency plan filings. For example, the metric for Municipal Coordination within the Operational Response category explicitly incorporates the protocols for coordination with municipal officials which are or will be found in the utility's Commission approved Response Plan. The Scorecard measurements are intended to align with specific portions of the utilities' electric emergency plans which have been or will be filed with the Commission.

---

10. The Performance Guide defines the Start of the Event as the time when more than 5,000 customers are interrupted within a division for more than 30 minutes or when more than 20,000 customers are interrupted companywide for more than 30 minutes. If the event affects less than the customer counts listed, the start time shall be the earlier of the peak level of interruptions or the start of utility restoration.

11. Customer Restoration is defined in the Performance Guide as complete when for each customer, service has been restored or service is available but would be unsafe to restore due to damage with customer-owned equipment or a compromised structure.

12. Outage Duration is defined in the Performance Guide as the time period between the start of the event and customer restoration for all customers affected by the storm.

13. Start of Utility Restoration is defined in the Performance Guide as the point in time when field personnel are able to be dispatched without unacceptable safety risks from continued severe weather conditions (where adverse weather conditions are applicable) and when the potential additional damage to the electric system from the storm would be low in proportion to the expected level of damage already sustained. The start of the restoration period may be different for distinct areas where the effect of a storm limits access to facilities (e.g., severe flooding).

5. Outage Duration and Restoration Time. The Joint Utilities recommend changing the Outage Duration definition so that this period would begin at commencement of utility restoration, rather than, as proposed, at the Start of Event, and end with the completion of customer restoration. Defining Outage Duration to begin at the Start of Event rather than the start of the Utility Restoration, however, is more appropriate because customers experience an outage when they lose power, not when electric utility personnel begin restoration. Therefore, the Scorecard will retain the definition of Outage Duration as the period of time which begins with the start of the storm event. The City comments are in accordance with this definition.

In its comments, the City recommends that the definition of restoration should specify that restoration time is to be measured from when a storm ends. The City favors this measure of restoration time because it would allow the utility to wait to begin restoration until it was safe for workers to be in the field. The City also states that the appropriate pre-emptive shut down of equipment to minimize potential damage should not affect the measurement of restoration times. Our definition of utility restoration in the Performance Guide is consistent with the City's observation.

6. Metrics for Preparation Category. Both the Joint Utilities and the City suggested that the importance of preparation relative to the other two scorecard categories is significantly understated. To correct this imbalance, the Parties recommend increasing the significance of utility preparedness in the Scorecard from 10% (or 100 points, as originally proposed) to 20% (or 200) of the total points. Preparation is an essential element of the utility response to an outage event. In many cases, the public perception of an adequate storm response is based on actions the utility is able to take only because its preparations were comprehensive and timely. We agree with the City and Joint Utilities that more points should be assigned to the Preparation category of the Scorecard, and we will re-allocate 50 points from the Operational Response category for this purpose. However, reducing the Operational Response weighting further or reducing the Communications categories at all would diminish the effectiveness of the measures contained in each of these categories. Moreover, it is clear that successful utility programs for Operational Response and for Communications depend fundamentally on excellent preparation, and, in most cases, inadequate preparation cannot be overcome by excellent Operational Response or Communications. Because of this, preparation is measured in its own category and, indirectly and in part, in each of the other categories as well. Therefore in the Scorecard we adopt, the total of 1000 points will be allocated to each category as follows: Preparation 150 points, Operational Response 550 points and Communication 300 points.

7. Partial Scoring and Points for Exceeding Expectations. In the most recently proposed scorecard, certain metrics were structured to allow a utility, which does not meet the scorecard metric for

the full amount of the points associated with that metric, to win some, but not all, of the available points. In the Joint Utility comments, it is urged that such "partial scores" should be permitted for additional metrics. At the same time, some of the proposed categories allowed the utility to gain additional points under certain metrics through performance that "exceeds expectations". The Joint Utility comments also objected to these metrics urging that performance that meets expectations should be provided the full number of points available through that metric. We reject each of these comments. The instances of partial scoring as originally proposed should be continued.[14] The metrics using partial scores appropriately divide the points available under that metric to a number of submetrics. This assures that the utility response will be appropriately comprehensive and wide ranging and provides a truer picture of the elements of performance which make up that metric. Similarly, the incremental award of points for performance that exceeds expectations usefully provides a clearer picture of the evaluation which the Commission will make of the Scorecard data for that metric when it is supplied concerning these outage events. This helps the Commission to signal clearly its intent to incent "above expectation" performance under these metrics.

8. Time to Provide Scorecard Data. The Joint Utilities propose that the deadline for Scorecard data be changed from thirty to sixty days as required by Part 105 for post-storm reports. Part 105 post-event reports require data collection, analysis of the data, and the development of lessons learned. The Scorecard, however, requires the utilities to submit only the data for Staff's analysis within thirty days of customer restoration without the additional requirements of the Part 105 post-storm report. Because the degree of effort to provide data as required pursuant to the Scorecard does not rise to the level of that required for a Part 105 post-storm report, and because of the importance of acquiring the Scorecard data quickly, we will retain the thirty day filing requirement.

9. Linkage with Outage Policy Case. We recently acted in the Outage Policy Case[15] to further define the actions a utility must take to provide credits to customers who lost service when a prolonged electric or gas outage occurs. In its comments, the City and the Joint Utilities assert that there should be no linkage between the Scorecard and the policies and customer benefits being addressed in the Commission's Outage Policy Case, 13-M-0061 (Outage Policy Case).

---

14. In the Scorecard, partial points could be attached to three metrics: accuracy of Estimated Time of Restoration (ETR), call answer rates, and Life Support Equipment (LSE) customer contacts. The instances of partial scoring are outlined in the Performance Guide included in Appendix A.

15. Case 13-M-0061, Matter of Customer Outage Credit policies and Other Consumer Protection Policies Relating to Prolonged Electric or Natural Gas Outages.

We agree that the process and remedies provided through our Outage Policy Case would be unrelated to and independent of the Scorecard evaluation we describe here. Indeed, the Scorecard evaluation and the implementation of the Outage Policy Case results will not necessarily occur with respect to the same outage events. In addition, the purpose of the Scorecard is to build a performance measurement tool to guide the utility's and the Commission's evaluation of the utility's performance during outage events. The remedies defined in the Outage Policy Case do not and are not intended to address utility performance or any lack of performance. Further, the provision of benefits to customers under the Outage Policy Case does not depend on utility performance during the outage event.

Comments on Scorecard Categories

The Scorecard we adopt describes metrics in three identified categories – Preparation, Operational Response, and Communication. We address the comments for each of those categories individually below.

1. Preparation. A utility's successful response to outage events begins with planning. Effective emergency plans define roles, responsibilities, standard operating procedures, mutual assistance procedures, communications procedures, and training programs. In preparation for an event that is forecast in advance, an emergency plan provides guidance regarding the pre-event preparation. For an event with less warning, the emergency plan provides for the quick activation of resources once the event's size is established. Training ensures that employees who have responsibilities during the outage response as a secondary responsibility are capable of completing assigned restoration tasks. Training must also take into consideration staffing changes, employee turnover, and competing job priorities.

In the days leading up to storm events, the electric utilities begin implementing the guidelines contained in their emergency plans.[16] The electric utilities closely monitor the forecasts and predictions for the weather events and participate in conference calls hosted by the National Weather Service. Using the weather forecasts, the utilities make determinations about how to pre-stage crews, materials, and equipment for the areas likely to be affected by the storm. The forecasts also enable the utilities to estimate the amount of damage and develop staffing levels based on the predicted severity of the event.

The emergency plans require specific actions to be taken to prepare for a storm. Such tasks include arranging meetings and conference calls between internal company personnel, local municipal officials, Department Staff, contractors, and regional mutual assistance groups. Advance communication of predicted conditions to both internal and external stakeholders aids those involved to make decisions about preparing for the expected emergency and gives customers time to make appropriate plans. Preparation time is especially important for Life Support Equipment (LSE) customers and managers of Critical Facilities. Pre-event safety advice to customers is also important to prevent accidents involving downed wires. Early communication regarding expected weather conditions and potential damage assists local municipalities' efforts to prepare available resources to protect communities, communicate preparatory requirements to citizens, and facilitate restoration efforts.

---

16 During this time, the utility closely monitors the forecasts and predictions for the weather events and participates in conference calls hosted by the National Weather Service. Many of the utility's actions in the period before a storm event closely depend on an accurate assessment of the weather information available to it. In many respects, the adequacy of the utility's storm response will depend on the utility's ability to acquire and properly evaluate high quality weather information and forecasts and to use this information to predict system impacts and to tailor its response accordingly.

In their comments with respect to the metrics in the Preparation category, the Joint Utilities expressed concern about the use of the Scorecard for events with little or no warning, like a tornado, and in which there could be inadequate time to satisfy the measures assessed in the Preparation category.[17] We understand the Joint Utilities concern that the response to an un-forecasted extreme weather event may not include as comprehensive a preparation as would otherwise be the case. We have adjusted the Scorecard to account for this by recognizing that, for events with limited warning, some of our measures could be impractical to implement. In general, for any metric that Staff deems inapplicable, the points for those measures will be excluded and the overall score of the three categories combined will be prorated.

The Joint Utilities also request that the Training Measure in the Preparation category be removed from the Scorecard because training is an ongoing process that does not occur only when a utility is preparing for a storm. The Utilities indicate that because PSL § 105 requires utilities to perform an annual storm drill, the training required by the Scorecard is duplicative. While, as the Joint Utilities assert, each utility conducts an annual storm drill, those drills would not normally encompass training for each member of the storm response team. The training to which the Scorecard metric refers is, therefore, more comprehensive and reaches more broadly into the organization. During emergency events, many utilities utilize employees in roles outside of their normal day to day activities to aid in the restoration goals, and specific training for those storm roles is essential. Training continues to be an integral part of effective restoration and is appropriately included in the Scorecard metrics.

Finally, in their comments for the metrics in this category, the Joint Utilities state that without further clarification, the measures in the preparation category may drive up storm preparation costs by causing the utilities to "over prepare or pre-stage" in advance of a storm. As a case in point, the Joint Utilities cite Long Island Power Authority's (LIPA) experience in September 2010 where they indicate the cost of pre-staging crews to respond to a hurricane exceeded $22 million, but only minimal damage occurred, resulting in the need for fewer crews than anticipated.

---

17 There may be sudden unforecasted weather events, like a tornado, for which the time to prepare is very short or is eliminated. However, the instances of such severe weather having impacts over a wide area for three days or more are rare. In such cases, the Commission will be flexible in applying the Scorecard metrics and determining what constitutes best practices on an evolving basis.

The Joint Utilities further assert that the measures in the preparation category may cause utilities to over prepare and drive up storm preparation costs unnecessarily. In this area, as in all others, we are mindful of the possibility that utility expenditures may become uncontrolled and excessive. However, we find that the metrics in the Preparation category are fully in line with our goals for utility preparedness. Based on the weather information available to it, the utility should prepare for the storm which is forecast. If a forecast storm dissipates or changes direction before damages are done to the utility's equipment, the utility's preparation activities are not over preparation. However, were a utility to over-prepare or unnecessarily drive up preparation costs, our normal oversight mechanisms should be able to identify this and to respond appropriately.

In its comments, the City urges the addition of a new metric to the Preparation category of the Scorecard to measure system resilience. The City contends that a resilience measure is a longer term measure of storm preparedness. It also believes the scoring system should be modified to assign additional weight to resiliency and other actions taken to minimize outages.

We agree with the City that system resilience is important in minimizing damage. Because the Scorecard is intended to address the Companies' response to appropriately meet the challenge of restoring service promptly and efficiently, the Scorecard metrics should over time reflect the degree to which a utility has implemented effective resiliency measures. A company with a highly resilient system would be expected to experience less of an outage or be able to restore service more quickly than a less resilient system. We acknowledge the importance of this issue and will consider including other measures of resiliency as the Scorecard continues to be refined in the future. The Scorecard is expected to drive improvements in performance, both with regard to resiliency and to restoration. In the event that the Scorecard does not lead to the desired performance, we will re-examine the metrics.

2. Operational Response. The objective during any storm or emergency restoration effort is to make conditions safe, manage repairs efficiently and safely, and restore customers as quickly as possible. The Operational Response measures are intended to evaluate the utilities' performance toward these objectives. Operational Response measures include management of downed wires, damage assessment, crewing, mutual assistance, estimated restoration times, safety, and coordination with municipalities, emergency operations centers and other utilities. During the initial response to a large event, one of the greatest safety concerns is managing down or low hanging wires. In addition to guarding down wires, the utilities must manage its response to fix these unsafe conditions. Communication and the exchange of information with other utilities and elected and municipal officials is

essential for public safety during the initial response. Damage assessors are also dispatched to survey and document the damage. Accurate damage assessment is a critical function in the early stages of the restoration process because it provides the information that allows the companies to determine how many in-house and mutual assistance crews are needed for the restoration. A good assessment permits the utility to evaluate how much and what type of equipment and material will be needed, and refine its customer outage estimates. Damage assessment information is also used to prioritize crew assignments and to determine the appropriate Estimated Times of Restoration (ETRs).

ETRs are critical for consumers, municipal officials, and emergency support personnel to be able to plan properly for the protection of people and property. ETRs are also important to customers who have lost service so they can plan for their personal welfare. The Scorecard measures three types of ETRs: global, regional, and local (municipal). The electric utilities must refine their ETRs as the restoration progresses using the most up to date information available. By providing ETRs for smaller geographic areas, the companies can increase the accuracy of the information they present to customers. To be informative and useful, the ETRs must be timely, accurate, and made widely available. The utilities must perform well at developing each level of ETRs since they are interrelated, build on each other as the restoration progresses, affect public safety, and could delay other restoration activities.

The publication and accuracy of ETRs is one of the most important components to be evaluated when reviewing utility performance. Currently, protocols regarding the timely development and communication of ETRs are being used by all investor-owned utilities and are the basis for our ETR measures. As part of the recent emergency plan review process, the ETR protocols were modified and now, as modified, must be integrated into utilities' plans.[18] Given the importance of ETRs, the proposed metrics consist of several performance tiers and the methodology rewards utilities for performance that exceeds expectations.[19]

---

18 Case 13-E-0198, In the Matter of 2013 Electric Emergency Plan Review, Order Approving Electric Emergency Plans (issued August 16, 2013).

19 While the Joint Utilities hypothesize that a utility might "game" the Scorecard by deliberately delaying storm restoration. However, storm response is too complicated and involves too many actors working in close cooperation for actual "gaming" to the advantage of the utility to be feasible.

The Joint Utilities commented that utilities should be scored only for appropriately responding to emergencies. To encourage utilities to develop and publish ETRs, however, we believe it appropriate to maintain the tiers that reflect a utility's performance in exceeding expectations in accordance with the Scorecard. The accuracy measures, however, have been simplified. Global ETRs are the first ETR issued by a utility post-storm and are based on preliminary damage assessments, system monitoring capabilities, and initial crewing availability, which is why the utilities are only expected to meet an accuracy measure of plus or minus 24 hours. The companies, then, have an additional twelve hours to perform further damage assessments before they are required to issue regional and ultimately, local ETRs. Thus, the expectation of accuracy is more stringent with respect to the accuracy for Regional and Local ETRS because the utilities have more data and information when they issue these ETRs. Both the publication and accuracy measures also reflect different performance expectations depending on the duration of events, which is consistent with the revised ETR protocols provided in Appendix A.

The Joint Utilities' comments state that certain metrics should reflect different expectations for outages where restoration takes three to five days and for those where restoration takes longer than five days. The Joint Utilities believe that by treating these situations separately, thresholds can be set that are more reflective of appropriate response performance. We recognize the benefit of differentiating metric results for events with shorter or longer durations. Our use of the ETRs metrics reflects this and provides additional time for the release of ETRs if there is an outage where restoration takes greater than five days as compared with an outage where restoration takes less time. In response to the comments, we identified additional operational measures, such as Down Wires and Mutual Assistance requests where differentiation in time periods is also appropriate.

The Joint Utilities contend that it is impossible to predict resource requirements before any damage occurs and then to have 100 percent of the necessary crews in place. Additionally, although a utility may request crews through mutual aid, they rarely receive the number requested. The Joint Utilities are concerned that the proposed measure will place additional pressures on already scarce mutual aid resources, resulting in the unavailability of crews for utilities that truly need them. Rather than requiring the presence of all forecasted crews, as proposed in the initial request for comments, the Joint Utilities recommend modifying the crewing metric to be a percentage of forecast crewing "committed" to the restoration available to the utility for restoration. The Joint Utilities further clarify that committed should be defined as: (i) on property; (ii) in route; and/or (iii) committed through the mutual aid process and additional crews obtained after the initial forecast and/or after the start of restoration should not be considered when determining compliance. As part of the second round of

comments, the Joint Utilities did not comment on the specific definition of the crewing metric; however, they did comment that the crewing metric should not apply to large scale outages (e.g. Superstorm Sandy).

Crewing is a dynamic component of outage restoration based on damage predictions, sustained damage levels, and availability of mutual assistance. We recognize that crews can arrive at different times in the restoration process and it is not our intention to create a metric that would act as a disincentive for staffing at proper levels or limit the sharing of available resources. The intent of the measure is to assess whether the utility has secured adequate resources to perform work in the initial stage of restoration. Staff and the Joint Utilities agree that the Crewing metric is best expressed as the commitment of a percentage (80%) of the requested crews being available within forty eight hours from the start of restoration.

We disagree, however, with the Joint Utilities' suggestion to limit the measure of crewing to include only a utility's initial request. The Scorecard will evaluate performance based on responses following requests made within 48 hours from the start of restoration. By doing so, this metric will capture changes to crewing levels based on known sustained damage following completion of primary damage assessment. We believe this measure satisfies our goal while still allowing companies to freely obtain additional resources to assist in the restoration as they are released from other utilities. We disagree with the Joint Utilities recommendation that the Crewing metric not apply to large scale events like Superstorm Sandy, especially given the important lessons learned from recent severe storms. Superstorm Sandy emphasized that utilities need to plan for large scale outages and create the framework for effective restoration for all events, from small snowstorms to Superstorm Sandy level outages.

The Joint Utilities' comments further recommend the elimination of the "idle time" metric from the Operational Response category. They explain that while there are times where it may appear that crews are idle, in actuality, their appearance is fully consistent with the prompt and efficient restoration of service. The Joint Utilities also point out that utilities do not assess or track idle time and doing so would require a great effort and increase costs. In response to this comment, we believe that it is important for utilities to effectively use their resources during storm restoration, and, based on the Joint Utility comment and Staff's recommendation, we are persuaded that it would not be an efficient or effective use of resources to collect this "idle time" data during an event. For this reason, we have removed this metric from the Scorecard. Nonetheless, this is an important issue and we ask Staff,

through its continuing work on electric emergency plans, to devise other measurements to improve performance in this area.

The Joint Utilities also assert that a wire guarding metric should not be measured as initially proposed. Instead it believes the measure should be consistent with the recently amended PSL[20], which requires utilities to secure downed wires within 36 hours of notification from a municipal emergency official. The Joint Utilities also expressed concern that the wire guarding performance metric presents a challenge because their current computer systems do not record the length of time between when a downed wire is reported and when a crew arrives on scene to guard the wire.

With regard to wire guarding, because the law is intended to manage the wire guarding process with emergency officials, and because utilities will be interacting with municipalities on this basis, we believe that modifying the current Scorecard metric is appropriate to distinguish between three to five day events and events that last more than five days. We do not, however, find that a 36-hour response is indicative of adequate performance levels for events with three to five day outage durations. Therefore, we have established an 18-hour requirement for such events. Events with outage durations of more than five days will be measured using the 36-hour requirement of the PSL. With regard to the wire guarding record keeping concern expressed by the Joint Utilities, utilities already need to rectify this tracking deficiency in the short term in order to comply with the PSL.

Finally, the Joint Utilities' comments recommend utilizing a Safety metric which, for each utility would "not exceed two times the individual utility's Operations safety performance record from the prior year." However, using a utility's operational safety record from the prior year as the standard for this metric would not drive safety improvements. If, for example, a utility performed poorly in the previous year, it would only have to improve against this low standard in the subsequent year. However, we agree that the goal of the Safety metric is to measure the occurrence of serious injury. To further clarify our use and understanding of this metric, we will define "serious injury" as an injury which results in hospitalization, medical treatment beyond first aid, or death. At this time, we have not established the threshold (serious injury/employees) at which to set the Safety metric. We will, therefore, retain the metric at zero injuries, with the understanding that this metric may change as we gather more information from the utilities in future major restorations.

---

20 PSL § 66(21)(a)(xi).

3. Communication. Efficient and accurate communication is a critical component of emergency management. Important communication aspects of emergency management include informing customers about an impending outage, keeping local authorities informed of damage assessments and estimated restoration times, and informing end users of safety measures and the availability of necessary supplies in a timely manner. Communication delays and misinformation increases confusion for customers. Traditional print and electronic media will continue to serve as a useful means for utilities to communicate with the public. It is critical, however, that utilities also use other available progressive technologies. For example, social media and text messaging will play an increasingly vital role in outage communications.

An important element of effective communication is communication with elected officials and interested members of the public. It is critical that these individuals, as well as customers, receive the timely and accurate information they need in order to reduce confusion, increase confidence in their utility, and for the purpose of taking appropriate action. Elected officials in particular have broad interests in storm related information. Their concerns include public safety, damage assessments, resource availability, and regional and local ETRs, among other things.

The proposed Scorecard includes metrics related to the issuance of press releases, text messages and emails, the conduct of municipal calls and the effectiveness of the calls, the contact with LSE and other Critical Customers which includes hospitals, and police and fire departments, utility call center call answer rates, the publication of ETRs and the availability of information on utility websites and through other communication medias. The proposed Scorecard also provides points for the successful implementation of operator assisted municipal calls.

With regard to communications, we identified several areas where communication measures could be combined and evaluated as a whole rather than separately. For example, among the communication vehicles currently employed by utilities in emergency situations are the presentation of information through press releases, text messaging, emails, and social media. When multiple vehicles are used, utilities need to ensure that a consistent message is being delivered to avoid customer confusion. The Scorecard now consolidates several communication tools, including press releases, text messaging, emails, and use of social media, into a single measure. Utilities will be evaluated on whether messages are provided in a timely manner and whether messages address key components of the restoration, in consideration of the space limitations the Joint Utilities identified.

In their specific comments for the metrics in the Communications category, the Joint Utilities objected to the requirement that an outgoing message on the utility telephone line

contain the same information as the press release. They state that the information that can be included in an outgoing message is limited and messages containing too much detail will be cumbersome and will reduce the amount of time it takes for a customer to reach a service representative. We have modified the Outgoing Messages measure to require that the message be updated within one hour to ensure consistency with other information being released to customers. We believe these changes allow the utilities to customize their messaging to maximize the effectiveness of current and future communications vehicles. We expect utility communication to be up- to-date, clear, and consistent across different media.

The Joint Utilities further propose reducing the Municipal Calls Metric from three to two measurement criteria and removing subjective terms, such as highly effective and effective, from the evaluation of municipal calls. We continue to emphasize, however, the importance of the utility's municipal calls during an outage event. Therefore, Staff will continue to monitor municipal calls, which should be held at least daily, until 90% of the affected customers have been restored. In response to the Joint Utilities' comment that the criteria for measuring the effectiveness of municipal calls is subjective, it is important to note that municipal calls will be measured not only by how effectively the calls are conducted, but also, whether the calls are held at least daily in compliance with the Company's approved electric Emergency Plan. In addition, as set forth in the Scorecard, in order to determine municipal call effectiveness, consideration will be given to: 1) whether the arrangements for the municipal call were correctly communicated to stakeholders; 2) how the call was managed; 3) whether baseline information (such as the type and anticipated severity of storm or other cause of outage, geographic areas impacted, number of customers out of service, number of crews activated, ETRs per operational guidelines, and status of wires down/ road clearing activities) was provided; 4) whether the call allowed sufficient time for questions and answers; and, 5) how the Company responded to questions posed. These descriptions for the metrics to be used to evaluate Municipal Calls are sufficiently objective to provide the utilities with a clear understanding of how their performance will be evaluated.

In their comments, the Joint Utilities propose modifying the Web Availability Metric to require the availability of the website 23 hours per day rather than 24, because increased website traffic during outages will require downtime for maintenance. Further, the Joint Utilities comment that requiring hourly updates to the website is too frequent to provide customer benefits, particularly early in an event. Regarding web availability, during an emergency event, the utilities' websites must be available around the clock. Until restoration is complete, websites should be updated at least

hourly. During an event, there may be instances when no new information is available which can be reported in an update. Nevertheless, the website should indicate the time when the most recent update occurred. In the future, as Outage Management Systems are improved, we expect that the utility's outage mapping capability would enable it to indicate when, prior to the last hourly update, the most recent updating changes to the information provided by the site were made. Web sites may be off-line for short periods of maintenance during off-peak hours.

Regarding the Call Answer Rate metric, the Joint Utilities' comments object to the inclusion of a 30 point bonus for answering 90% of calls within 90 seconds. They propose instead that the metric provide 50 points, rather than 20 points, if 80% of calls are answered in 90 seconds. We will continue to emphasize, however, that the need to take information from customers cannot be understated. Therefore we will continue to base the Call Answered Measure on the utilities ability to answer 80% of calls within 90 seconds while providing additional points to utilities that achieve a call answer rate of over 90% of calls answered in 90 seconds.

The Joint Utilities' comments express concern that in some cases the Scorecard metrics do not align with approved Emergency Plans. Specifically, the LSE Customer Contact measure, according to the Joint Utilities, would require the utilities to respond differently under the Scorecard than under their Emergency Plans. For example, the Scorecard measure requires utilities to contact LSE customers within 12 hours from the start of the event. In contrast, the utilities assert that this 12 hour threshold is not currently reflected in their Emergency Plans.

LSE customers receive a higher level of communication during restoration because of their increased vulnerability during a power outage. Therefore, we will continue to evaluate utilities under the Scorecard on their ability to contact 80% of the affected LSE customers within 12 hours from the start of the event and whether, and within 24 hours of the start of the event, LSE customers were either (a) directly contacted by the utility, or (b) referred to an emergency services agency (e.g., police or fire department) for emergency assistance. While the twelve and twenty-four hour time limits may not currently be reflected in the utilities' Emergency Plans, we expect that these plans will in the future be aligned with the Scorecard on this point as well as others.

In its comments, the City of New York comments that the Communications category should be modified to treat Critical Care Facilities such as hospitals and assisted living centers in a manner similar to the treatment of LSE customers. We understand the City's concern with regard to the importance of Critical Facilities communication. In general, Critical Facilities are facilities from which essential services and functions for the continuation of public health and safety and disaster

recovery are performed or provided (e.g., hospitals, water treatment plants and fire houses). In the Preparation category of the Scorecard, we require utilities to make outbound calls to critical facilities managers prior to the onset of an outage event. Furthermore, in the Operational Response category, utilities are required to coordinate with municipalities and County Emergency Operations Centers with respect to identification of affected critical facilities and with respect to the status of restoration in accordance with approved Electric Emergency Plans. Critical Facilities such as hospitals are generally larger entities that may have personnel dedicated to communication with utilities and emergency agencies and may well have back up generation. We will require each utility's Emergency Plan to consistently define Critical Facilities as well as to maintain utility communication with such customers during an emergency.

CONCLUSION

We have examined the record in this proceeding and find that Staff's recommendations appropriately achieve the goal of developing a Scorecard for our guidance in assessing utility performance in preparation for and response to major outages. Implementation of the Scorecard will also provide greater guidance to our electric utilities as to our expectations for their major emergency response programs. We therefore direct each electric utility to provide the data described in this order and in the attached Appendix A to Staff on a per event basis within thirty days of the completion of customer restoration for that event. Staff will then use that data to determine a score for each outage for each utility. This data requirement is in addition to any reporting or other requirement, including the Part 105 outage reporting requirement that is currently in place.

The Scorecard, as described in this order, reflects, where appropriate, the concerns expressed by the Joint Utilities and the City of New York, and Staff's further consideration of these issues. The Commission adopts, in accordance with Staff's recommendations, the attached Scorecard documents as guidance for the measurement of future utility performance. It is important to note that the Scorecard will be a dynamic document, and will be refined as appropriate. To that end, Staff will monitor the extent to which the Scorecard accurately measures utility performance prior to and during emergency events and report to the Commission, as necessary, with respect to any recommended modification to further define and develop the Scorecard.

The Commission orders:

1. The Commission adopts the Scorecard in Appendix A in accordance with the foregoing Order for use as a guide in assessing each utility's service restoration programs after significant outages, to assist in holding the utilities accountable to certain performance levels, and to guide utilities as to the Commission's expectations for their restoration efforts.

2. Central Hudson Gas & Electric Corporation, Consolidated Edison Company of New York, Inc., New York State Electric & Gas Corporation, Niagara Mohawk Power corporation d/b/a National Grid, Orange and Rockland Utilities, Inc., and Rochester Gas and Electric Corporation shall submit data for the Scorecard within thirty days of the completion of customer restoration after:

a) any outage which lasts for more than three days,
b) any outage which is a network interruption as defined in Case 09-E- 0428,

as set forth in this order, or

c) any other outage for which Staff requests such data.

3. The Secretary in her sole discretion may extend the deadlines set forth in this order, provided that the request for such extension is in writing, includes a justification for the extension, and is filed on a timely basis, which should be on at least one day's notice prior to any affected deadline.

4. This proceeding is continued.

By the Commission,

KATHLEEN H. BURGESS

Secretary

DRAFT EMERGENCY RESPONSE PERFORMANCE MEASURES
PREPARATION (10% OF TOTAL)

Area of Interest	Definition of Measure	Measurement Criteria	Points
1. Event Anticipation	Complete steps to provide timely and accurate emergency event preparation in response to the NWS or the company's private weather service, in accordance with the company's PSC approved Electric Emergency Plan, for an event expected to impact the company's service territory.	1.1 Employees/Contractors planning	15
		1.2 Press Releases issued / text messages / emails sent	15
		1.3 Municipal Conference Calls held and highly effective Municipal Conference Calls held and effective	20 10
		1.4 LSE customers alerted	15
		1.5 Point of contact for Critical Facilities alerted	15
		1.6 Company compliance with Training Program as specified in Commission Approved Emergency Plan	15
		1.7 Participation in all pre-event mutual assistance group calls	15
		1.8 Verify Materials / Stockpiles level based on forecast. If materials are not on hand, correct situation within 24 hours	40

TOTAL 150

OPERATIONAL RESPONSE (60% OF TOTAL)

Area Of Interest	Definition Of Measure	Measurement Criteria	Points
2. Down Wires	Response to downed wires reported by Municipal Emergency Official	< 18 hours (3-5 day restoration) < 36 hours (> 5 day restoration)	60
3. Preliminary Damage Assessment	Completion of preliminary damage assessment	< 24 hours from start of restoration	30
4. Crewing	80% of the forecast crewing committed to the utility	< 48 hours from the start of restoration	30
5.Estimated Time of Restoration (Made available by utility on web, IVR, to CSR's, etc.)	Publication of Global ETR in accordance with ETR Protocol	Exceeds expectation: <24 hrs (3-5 day restoration) <36 hrs (> 5 day restoration)	50
		Meets expectation: <36 hrs (3-5 day restoration) <48 hrs (> 5 day restoration)	30
	Publication of Regional/County ETRs in accordance with ETR Protocol	Exceeds expectation: <24 hrs (regions with 3-5 day restoration) <36 hrs (regions with > 5 day restoration)	50
		Meets expectation: <36 hrs (regions with 3-5 day restoration) <48 hrs (regions with > 5 day restoration)	30
	Publication of Local/Municipal ETRs in accordance with ETR Protocol	Exceeds expectation: <36 hrs (3-5 day restoration) <48 hrs (> 5 day restoration)	50
		Meets expectation: <48 hrs (3-5 day restoration) <72 hrs (> 5 day restoration)	30

OPERATIONAL RESPONSE (CONTINUED)

Area of Interest	Definition of Measure	Measurement Criteria	Points
6. ETR Accuracy	Global ETR accuracy as published in accordance with ETR requirement time	Accurate within +/- 24 hours	40
	Regional ETR accuracy as published in accordance with ETR requirement time	Accurate within +/- 12 hours (3-5 day restoration) Accurate within +/- 24 hours (> 5 day restoration)	40
	Local ETR accuracy as published in accordance with ETR requirement time	Accurate within +/- 12 hours	40
7. Municipality Coordination	Coordination w/ Municipalities regarding hazards or electric utility equipment impeding road clearing, down wires, critical facilities, etc.	Execution of Coordination Protocols pursuant to Commission Approved Emergency Plan	20
8. County EOC Coordination	Coordination with County EOCs	Execution of Coordination Protocols pursuant to Commission Approved Emergency Plan	20
9. Utility Coordination	Electric Utility Coordination with other Utilities (Electric, gas, communications, water)	Execution of Coordination Protocols pursuant to Commission Approved Emergency Plan	20
10. Safety	Measure of any employee or contractor serious injury doing hazard work during storm/ outage and restoration.	Zero injuries	80
11. Mutual Assistance	Crew requests made through all sources of mutual assistance	Crew requests made within: 36 hrs (3-5 day restoration) 48 hrs (> 5 day restoration)	20
12. Restoration Times	Time it takes utility to restore power to 90% of customers affected	TBD	---
		TOTAL	550

COMMUNICATION (30% OF TOTAL)

Area of Interest	Definition of Measure	Method of Measurement Criteria	Points
13. Call Answer Rates	Customer calls answered by properly staffing call centers	90%+ calls answered within 90 sec.	30
		80% to <90% calls answered within 90 sec.	20
14. Municipal Calls	Municipal call must be properly managed and provide, at minimum, baseline information, updates on road clearing activities, and allow for Q&A.	Municipal calls held and highly effective	30
		Municipal calls held and effective	20
		Successful implementation of an operator assisted calling system	10
15. Web Availability	Company's web site must be available around the clock, and must be updated at least hourly, until restoration is complete.	Websites should include the baseline restoration information, all press releases issued during the event, a complete list of safety tips, an outage location map of affected areas, summaries of outages and ETRs by municipality and county, and the locations and times of dry ice distribution.	40
16. LSE Customers	LSE customer contact	80% affected LSE customers contacted within 12 hours	15
		LSE customers that were unable to be contacted had at least two attempts made within 12 hours	15
		100% affected LSE customers contacted or referred to an emergency services agency within 24 hours	20

COMMUNICATION (continued)

17. PSC Reporting	Provide storm event information to PSC in accordance with Electric Outage Reporting System (EORS) guideline requirements	All reporting on time, including at a minimum information required by existing EORS guidelines	40
18. Customer Communications	Press releases / text messaging / email / social media	Issue daily messages through the stated communications vehicles for each day of the utility restoration which must include information such as outages, ETRs, contact information, etc.)	60
19. Outgoing message on telephone line	Recorded message providing callers with outage information is updated within one hour of communication releases.	Message must be updated within an hour of communication releases that is consistent and coincides with the information contained in news releases	20
20. PSC Complaints	Number of storm/outage related PSC complaints received	≤ 20 per 100,000 customers affected ≤ 40 per 100,000 customers affected	20 10

TOTAL 300

EMERGENCY RESPONSE PERFORMANCE MEASUREMENT GUIDE

The residents and businesses of New York have become increasingly dependent on electricity in recent decades. When outages occur, customers want to know that the electric utility is working to restore their service and customers are best served if they receive an accurate and timely estimate of when they will have service restored. Staff developed a scorecard that will measure each utility's ability to restore power to customers after an outage.

This scorecard will be applied to any event during which the outage duration, as defined below, lasts more than three days, or to any qualifying network outage in New York City. Staff may require the scorecard to be applied to assess company performance for other outages and make a corresponding recommendation to the Commission for other action as may be appropriate.

The scorecard has been divided into three categories:

1.	Preparation	150 points
2.	Operational Response	550 points
3.	Communication	300 points
	Maximum Available Points	1000

Each utility will be required to provide data with which the scorecard can be completed on a per event basis within 30 days of the completion of customer restoration. Department of Public Service (DPS) staff (Staff) will use the information provided by the utility in its review and determine a score for each event for each utility. Electric companies will continue to be required to file a Part 105 report within 60 days as set forth in the Rules and Regulations of the State of New York (NYCRR).

For any metric that Staff deems inapplicable, the points for those measures will be excluded and the overall score of the total will be prorated.

COMMON DEFINITIONS:

Qualifying Network Outage – The interruption of service to 15 percent or more of the customers in any Consolidated Edison network for a period of three hours or more.

Start of Event – The time when more than 5,000 customers are interrupted within a division for more than 30 minutes or more than 20,000 customers are interrupted companywide for more than 30 minutes. If the event affects less than the customer counts listed, the start time shall be the earlier of the peak level of interruptions or start of utility restoration.

Customer Restoration – For the purposes of the scorecard, customer restoration will be considered complete when for each customer, service has been restored or service is available but would be unsafe to restore due to damage with customer-owned equipment or a compromised structure (e.g., condemned).

Outage Duration – The time period between the start of the event and customer restoration for all customers affected by the storm.

Start of Utility Restoration – The start of utility restoration will be considered the point in time when field personnel are able to be dispatched without unacceptable safety risks from continued severe weather conditions (where adverse weather conditions are applicable) and when the potential additional damage to the electric system from the storm would be low in proportion to the expected level of damage already sustained. The start of the restoration period may be different for distinct areas where the effect of a storm limits access to facilities (e.g., severe flooding).

Estimated Time of Restoration – The time within which the utility estimates restoration will be completed. The Department's ETR protocols are shown below.

Life Support Equipment Customers (LSE customer) – A customer who had documented their need for essential electricity for medical needs (i.e., a customer or a resident of the customer's premises who suffers from a medical condition requiring utility service to operate a life-sustaining device with certification by a medical doctor or qualified official of a local board of health). Every utility shall maintain a special file on such residential customers and an appropriate identification on the meters of such customers.

Critical Facilities – Facilities from which essential services and functions for continuation of public health and safety, and disaster recovery are performed or provided (i.e., hospitals, water treatment plants and fire houses). Critical Facilities will be consistently defined in the utilities Emergency Plans.

Baseline Information – The following list of information to be included in communications: safety tips associated with downed wires, geographic areas impacted, number of customers out of service, number of crews activated, how to report an outage and check for outage status, estimated times of restoration per operational guidelines, and means available to contact the company (phone, web, e-mail, social media, text messaging, etc.).

Electric Outage Reporting System (EORS) – EORS is a mapping and reporting system that allows DPS Staff to receive, process, analyze, and report outage data quickly and in a uniform format. EORS is used to process data automatically submitted by utility companies and generate a range of maps illustrating the geographical extent of impact and customer outages outage by municipality, county, and company boundaries. The system can also estimate the affected population for each outage level.

PREPARATION

The preparation measures are intended to score utility performance with respect to activities and communications performed prior to forecasted storms and in response to alerts from the National Weather Service or a utility's private weather service. For events with limited warnings, thereby making certain measures impractical to implement, as deemed by DPS, the 150 points for those measures will be excluded and the overall score of the total will be prorated.

EMPLOYEE CONTRACTOR PLANNING

Measure: Appropriate planning for Employees/Contractors

Criterion: Evaluation of compliance will include the review of steps taken to comply with emergency plans and communicate with employees/contractors regarding activation, including storm duty assignments and mobilization requirements.

PRESS RELEASES/TEXT MESSAGING/EMAIL/SOCIAL MEDIA

Measure: Pre-storm communications through Press Releases, Text Messaging, E-Mail, and Social Media

Criterion: Companies are required to issue pre-storm messages through the stated communications vehicles to alert customers of the potential for loss of service. Text messages and/or emails should be issued daily to all customers for whom company has customer addresses on file. Evaluation of compliance will include a review of the information contained in press releases, emails, text messages and the use of Facebook, Twitter, and other means of social media during the restoration. Contents of the communications should include the type and severity of the storm, the affect it may have on the utility, action being taken to prepare for the event, and available methods to contact the company (phone, web, e-mail, social media, text messaging, etc.). It will be acceptable to provide a link to such information on the company's website to manage character limit restrictions.

MUNICIPAL CONFERENCE CALL

Measure: Pre-storm call held and determined to be highly effective or effective

Criterion: Municipal call will be held prior to the storm and provide information relating to the type and anticipated severity of the storm, the affect it may have on the utility and expected level of system damage, activities being taken to prepare for the event, and processes for communicating with companies throughout the event. To determine call effectiveness, consideration will be given to whether the time of the municipal call was communicated to all stakeholders, whether the previously stated information was communicated, how the call was managed, and whether the call allowed for sufficient Q&A and how the Company responded to questions posed.

LSE CUSTOMERS ALERTED

Measure: All LSE customers alerted

Criterion: Utilities must make an outbound call attempt to all customers who the utility knows are LSE customers prior to the expected onset of an outage event. The companies should also use text messages/emails for those customers who have provided contact information.

CRITICAL FACILITIES NOTIFIED

Measure: All critical facilities notified

Criterion: Utilities must make an outbound call attempt with all critical facilities managers prior to the onset of an outage event. The companies should also use text messages/emails for those customers who have provided contact information.

TRAINING

Measure: Compliance with training program as specified in approved emergency plans.

Criterion: All personnel identified for use during the utility restoration must be trained in accordance with the guidelines specified within the Company's emergency plan. Training provided prior to dispatch will qualify provided it meets the normal course curriculum.

MUTUAL ASSISTANCE CALLS

Measure: Participate in all pre-event mutual assistance calls

Criterion: Utilities are required to have at least one employee participate in all pre-event mutual assistance calls.

MATERIALS/STOCKPILES

Measure: Insufficient material levels restocked within 24 hours of assessment or 36 hours of start of restoration.

Criterion: Companies must verify whether storm stocking levels exist based on forecasted level. If materials are not on hand, the company has 24 hours or until the start of customer restoration, if sooner, to correct the situation.

OPERATIONAL RESPONSE

The operational response measures are intended to score utility performance with respect to its response and ability to effectively mobilize personnel. Accurate and timely Estimated Time of Restoration (ETRs) continues to be an area in which the utilities need to improve. ETRs furnished by utilities should be appropriate to the distribution of the communication vehicle; e.g., ETRs in press releases should reflect the area where press release is distributed, ETRs on municipal calls should be appropriate to the area where municipal call is held.

DOWN WIRES

Measure: Response to downed wires that are reported by municipal emergency officials in less than 18 hours for events with 3 to 5 days customer restoration or less or in less than 36 hours for events with customer restoration over 5 days.

Criterion: For the purpose of this measure, municipal emergency officials will be defined as members of the 911 call center, police, fire, and office of emergency management (including Emergency Operations Center personnel). Response time will be measured from when the call is taken by the utility until the time it takes the utility to arrive at the location with the intent to fix, make-safe, or stand by a downed wire. Arrival of a supervisor or other personnel to assess the location and not perform one of the previous tasks does not meet these criteria unless the down wire is identified as a telecommunications, cable, or other non-utility owned equipment. In the event the call is taken before utility restoration has commenced, the start time shall be equivalent to start of the utility restoration.

DAMAGE ASSESSMENT

Measure: Completion of preliminary damage assessment completed within 24 hours of the start of utility restoration.

Criterion: For the purpose of the scorecard, preliminary damage assessment will be an initial assessment of mainline circuits considered to be heavily impacted based on SCADA readings and/or OMS predictions as well as circuits serving critical infrastructure known to be without commercial power. Evaluation will be based on the ability to mobilize and deploy assessors effectively and record findings in a manner that allows for the development of work packages and ETRs.

CREWING

Measure: 80% of the forecast crewing committed to the utility within 48 hours from the start of restoration.

Criterion: For the purpose of this measurement a committed crew will be considered to be a utility, contractor, or mutual assistance crew on property or en route. Utilities will not be penalized for acquiring additional resources to assist the restoration as they are released by other utilities.

PUBLICATION OF ESTIMATED TIMES OF RESTORATION

Measure: Publication of ETRs in accordance with the established protocols.

Criterion: Time periods for evaluation will be measured from the utility restoration start time. Publication of ETRs in advance of guideline expectations will be awarded additional points.

ACCURACY OF ESTIMATED TIMES OF RESTORATION

Measure: Accuracy of ETRs published in accordance with guidelines.

Criterion: Accuracy of ETR will be determined based on the ETRs published closest to the expectation contained in the guidelines. For regional/county ETRs an evaluation will be made for each region/county affected by the event and points will be awarded on a pro-rated basis (e.g. if five ETRs are issued and four are within a timeband, the utility will score 4/5 of the available points).

MUNICIPAL COORDINATION

Measure: Coordinate with municipalities regarding electric hazards or utility equipment impeding road clearing, down wires, critical facilities, etc. in accordance with approved emergency plans. The utilities are not expected to perform debris and/or snow removal activities that do not involve electric facilities.

Criterion: Evaluation of compliance will include the review of steps taken to communicate with municipalities, the use and the effectiveness of liaisons, and the ability to integrate concerns raised into restoration activities.[21]

[21] Integration of concerns may or may not result in the utility needing reprioritize repairs.

COUNTY EOC COORDINATION

Measure: Coordinate with County EOCs regarding electric hazards or utility equipment impeding road clearing, down wires, critical facilities, etc. in accordance with approved emergency plans. The utilities are not expected to perform debris and/or snow removal activities that do not involve electric facilities.

Criterion: Evaluation of compliance will include the review of steps taken to communicate with county emergency operation centers, the use and the effectiveness of liaisons, and the ability to integrate concerns raised into restoration activities.[1]

UTILITY COORDINATION

Measure: Coordinate with other utilities (electric, gas, communications, water) regarding critical infrastructure and efficient restoration in accordance with approved emergency plans.

Criterion: Evaluation of compliance will include the review of steps taken to communicate with other utilities, the use and the effectiveness of liaisons, and the ability to integrate concerns raised into restoration activities.[1]

SAFETY

Measure: Avoidance of any employee or contactor serious injury occurring during hazard storm/outage and restoration work.

Criterion: For the scorecard purpose, hazard work is defined as any assignments that are directly related with restoration activities. Serious injuries are defined as injuries occurring while performing hazard work which result in hospitalization, medical treatment beyond first aid, or death.

MUTUAL ASSISTANCE

Measure: Request made though all sources of mutual assistance within 36 hours from the start of utility restoration for 3 to 5 day events and 48 hours from the start of utility restoration for events over 5 days.

Criterion: Evaluation of compliance will include the review of mutual assistance request related to line workers, vegetation workers, damage assessors, wire guards in comparison to peak work levels and emergency plan requirements.

RESTORATION TIMES

Measure: Time it takes utility to restore power to 90% of customers affected

Criterion: Measurement criteria is still being determined

COMMUNICATIONS

The communications measures are intended to score utility performance with respect to its ability to receive and disseminate information related to the impact of the storm/outage and restoration activities. The need for communicating with customers, general public, news media and local officials is very important during emergency conditions, such as storms. Therefore, the sharing of information will be measured with respect to several communication vehicles (calls, press releases, social media, etc.). During an extended power outage, it is important that timely and accurate information be provided as widely as possible. Periodic reports, whether through press releases, e-mails, text messages or on social media websites should be accurate and timely, and avoid misleading the public with optimistic or unrealistic statements.

CALL ANSWER RATES

Measure: Percent of customer calls answered by a live representative within 90 seconds.

Criterion: By properly staffing call centers, utilities should be able to answer over 80 percent of calls within 90 seconds. Additional points will be given if the call answer rate is over 90 percent. The call answer time will be measured on a daily basis from the start of the event though customer restoration. Performance points will be issued on a pro-rated basis.

MUNICIPAL CALLS

Measure: Municipal calls are held at least daily in compliance with the company's approved Electric Emergency Plans and determined to be highly effective or effective.

Criterion: Municipal calls should be held daily until 90% of the affected customers have been restored. An alternative municipal contact method should be in place to respond to questions and issues from officials regarding the remaining scattered single outages once the calls are no longer required. The first municipal call can be held at the utilities discretion but must be held within the first 36 hours from the start of the utility restoration. To determine call effectiveness, consideration will be given to whether the time of the municipal call was communicated to all stakeholders, how the call was managed, if baseline information and status of road clearing activities were provided, whether the call allowed for sufficient Q&A

and how the Company responded to questions posed, and the successful use of an operator assisted calling system to assist in managing the call.

WEB AVAILABILITY

Measure: Websites are accessible and contain appropriate storm related information

Criterion: During a storm event, utilities' websites must be available around the clock, and must be updated at least hourly, until restoration is complete. Consideration will be given for maintenance resulting in individual website applications being unavailable if downtime is reasonably short in duration and is performed during off-peak hours. The websites should include the baseline restoration information, all press releases issued during the event, a complete list of safety tips, an outage location map of affected areas, summaries of outages and ETRs by municipality and county, and the locations and times of dry ice distribution.

LSE CUSTOMERS

Measure: Percent of affected LSE customers contacted within 12 hours, if at least two attempts were made within 12 hours for those unable to be contacted, and whether all of the affected LSE customers were contacted or referred to an emergency service agency within 24 hours.

Criterion: Utilities will be evaluated on their ability to contact 80% of the affected LSE customers within 12 hours from the start of the event and whether 100% of the affected LSE customers contacted or referred to an emergency service agency was done within 24 hours. Utilities must make at least one additional attempt, within the same 12 hour period, to contact any LSE customer who was not contacted on the first attempt. Partial scoring will be awarded for the initial attempt, provided all customers had received at least one phone call. Within 24 hours of the start of the event, LSE customers must have been either (a) directly contacted by the utility, or (b) referred to an emergency services agency (*e.g.*, police or fire department) for emergency assistance. Utilities must maintain records of LSE customer contacts, including any customers who the utility was unable to reach.

PSC REPORTING

Measure: Reports to the PSC are complete and submitted on time.

Criterion: Evaluation will consist of a review and the content of reports provided to staff and outage submissions. Reports are due from each utility to DPS by 7AM, 11AM, 3PM, and 7PM or as defined by Staff.[22] Based on the specific conditions of the event and the number of electric customer outages remaining, DPS Staff will notify each utility when reporting is no longer necessary. The reports should include, at a minimum, summary of outages, crewing information on site and en-route, planned crew relocation and mutual assistance activity, discussion of major damage, estimated restoration times, summaries of work plans for restoring customers, listing of critical facilities and LSE customers affected, and a summary of dry ice/bottled water distribution activities.

CUSTOMER COMMUNICATIONS

Measure: Daily communications through Press Releases, Text Messaging, E-Mail, and Social Media

Criterion: Companies are required to issue daily messages through the stated communications vehicles for each day of the utility restoration. Text messages and/or emails should be issued daily to all customers for whom company has customer addresses on file. Evaluation of compliance will include a review of the information contained in press releases, emails, text messages and the use of Facebook, Twitter and other forms of social media as applicable, during the restoration. Contents of the communications should include baseline restoration information whenever possible and the character limitations of some communication vehicles will be taken into account when reviewed for content.

[22] The utilities are reminded that Staff may request additional reporting based on the severity of the event.

OUTGOING MESSAGE

Measure: Outgoing messages on telephone line must be updated within two hours following communication releases

Criterion: Evaluation for compliance will be determined based on whether messages were updated within two hours following communication release and the new message coincides with information contained in the releases.

PSC COMPLAINTS

Measure: Number of storm/outage related complaints received by the department's call center per 100,000 customers affected.

Criterion: Data from the Department's call center will be evaluated to determine the number of storm/outage related complaints received. Storm related complaints will also reflect complaint related to improper application of customer protection measures defined under Case 13-M-0061.

ESTIMATED TIME OF RESTORATION PROTOCOL

The following ETR Protocols are activated when more than 5,000 customers are out of service in a division or more than 20,000 customers are out of service companywide for more than 30 minutes. The ETR Protocols include minimum requirements for when, and at what level of detail an ETR will be communicated to the Department of Public Service (Department or DPS Staff). The tables below clarify the necessary actions to be taken by the involved utilities before and during the outage period for the specific outage event[2]. Utility procedures and practices that require actions prior to those identified will continue to be used.

The protocols are considered minimum requirements necessary to ensure the public and the Department are adequately informed. During restoration, utilities are to continuously refine ETRs and update DPS Staff and the public, customer representatives, IVR systems, and websites. The utilities will also provide restoration information such as outage counts and ETRs to the press/media outlets and public officials in the affected areas. Additionally, utilities will issue at least one press release daily for all outage events with an expected restoration period longer than 48 hours.

Regional and local ETRs will be used and applicable to at least 95% of the affected customers in the reported level. Regional ETRs are to be provided on a county basis and local ETRs are to be provided on a town or municipal basis. Global ETRs may be used initially for outage events expected to last greater than 48 hours and applicable to at least 90% of the affected customers. Once all regional ETRs have been issued references to the global ETR will be eliminated.

When adverse weather conditions exist, the start of the restoration period is the point in time when:

- Field personnel can be dispatched without unacceptable safety risks from continued severe weather conditions and/or
- When the potential additional damage to the electric system from the storm would be low in proportion to the expected level of damage already sustained.
- The start of the restoration period may be different for specific, local areas where the effect of a storm limits access to facilities for example severe flooding.

Initial notification to the Department will follow the Event Notification Requirements issued in Appendix B of Case 04-M-0159 on December 15, 2008. Any additional information that is available will be included in the initial notification even if the notification is required prior to the start of restoration. For widespread outage events, company-wide outage statistics will also be provided as part of the initial notification.

[2] An outage event is either a major storm, as defined in 16 NYCRR §97.1(c), or another electric service interruption or electric emergency.

Reporting is required at 7:00 am, 11:00 am, 3:00 pm, and 7:00 pm unless otherwise specified. The reports will include, at a minimum:

- Utility information
- Summary of the outage event, for major storms summarize the weather and weather forecast
- Summary of outages
- Synopsis - discussion of major damage and work plans for restoring customers
- ETRs
- Resource summary - on site and en-route, planned crew relocation and mutual assistance activity
- Summary of the impacts to critical facility customers and Life Support Equipment customers
- Dry ice activities

Report submissions may qualify as a notification to DPS Staff provided they contain the required information within the appropriate timeframe. Utilities, however, may need to make notifications to DPS Staff in addition to report submissions early in an outage event to satisfy the guidelines.

OUTAGE EVENT EXPECTED TO LAST 48 HOURS OR LESS

Within the first 6 hours of the restoration period
• Notify DPS Staff that the outage event will last less than 48 hours. The notification to DPS Staff will state what the Company has defined as the start of the restoration period. For outage events expected to last less than 24 hours, notification may be via the Department's information reporting system. • Provide available information to the public. Update customer representative, IVR systems and websites. • In certain situations, such as a nighttime outage event, only limited information may be available within the initial six-hour window. In these situations, the expectation is that the companies will inform DPS Staff of the delay in determining the initial outage duration within six hours and the notification will occur in an expedited manner as information becomes known. Following a nighttime outage event, the determination of whether the restoration period will be less than 48 hours will be communicated to DPS Staff as soon as possible, but no later than noon the following day. Any delay in establishing the initial expectations will not affect the time requirements below.
Within the first 12 hours of the restoration period
• Provide DPS Staff and the public with any available regional/county ETRs and any available local/town or municipal ETRs. Update customer representatives, IVR systems, and websites. • Issue a press release that includes known ETRs for the next upcoming news cycle • Communicate with affected municipal and elected officials. This communication may or may not be by way of a municipal conference call.
Within the first 18 hours of the restoration period
• Provide DPS Staff and the public remaining regional/county ETRs. Update customer representatives, IVR systems, and websites. • Provide DPS Staff and the public with any additional local/town or municipal ETRs. Update customer representatives, IVR systems, and websites.
Within the first 24 hours of the restoration period
• Consider issuing a press release for the next upcoming news cycle based on conditions.
Reporting requirements during the outage event
• Provide restoration information updates four times daily to DPS Staff (7 am, 11 am, 3pm, and 7 pm) if requested by DPS Staff. Updates will continue until otherwise directed by DPS Staff. • Notify DPS Staff when all outage event related interruptions have been restored.

OUTAGE EVENT EXPECTED TO LAST GREATER THAN 48 HOURS

Pre-event whenever sufficient notice of an impending weather event is available

- Make pre-event outbound calls to critical facilities customers, life support equipment customers, and special needs customers.
- Complete pre-storm communications with outreach to employees, the news media, social media sites, blast emails and text messages to customers, and advisories to municipal and elected officials.
- Conduct pre-event municipal conference calls
- Issue public statement and/or press releases

Within the first 6 hours of the restoration period

- Notify DPS Staff that it will be a multi-day outage event lasting more than 48 hours. The notification to DPS Staff will state what the Company has defined as the start of the restoration period.
- Provide a public statement and/or press releases indicating the likelihood of extended outages and make this information available via customer representatives, IVR systems, and websites.
- In certain situations, such as nighttime outage event, only limited information may be available within the initial six-hour window. In these situations, the expectation is that the companies will inform DPS Staff of the delay in determining the initial outage duration within six hours and the notification will occur in an expedited manner as information becomes known. Following a nighttime outage event, the determination of whether the restoration period will be greater than 48 hours will be communicated to DPS Staff as soon as possible, but no later than noon the following day. Any delay in establishing the initial expectations will <u>not</u> affect the time requirements below.

Within the first 12 hours of the restoration period

- Issue press releases based on the predetermined time periods defined in the emergency plan.
- Communicate information such as system damage, outages, restoration status etc. with affected municipal and elected officials as appropriate.
- Schedule the first post-storm municipal conference call(s), unless an alternative municipal contact method is more appropriate. The first scheduled municipal conference call does not necessarily have to be held within the first 12 hours but will be held within the first 24 hours.
- Notify DPS Staff and the public of what areas sustained the most damage to the electric system and ETRs where known, on a county or regional basis.

Within the first 24 hours of the restoration period

- Complete the first scheduled municipal conference call.
- Provide DPS Staff and the public with a global ETR, any available regional/county ETRs, and any available local/town or municipal ETRs. Update customer representatives, IVR systems, and websites.
- Identify any heavily damaged areas where large numbers of customers are expected to remain without service for more than four days.

OUTAGE EVENT EXPECTED TO LAST GREATER THAN 48 HOURS (continued)

Within the first 48 hours of the restoration period

- Provide DPS Staff and the public remaining regional/county ETRs. Update customer representatives, IVR systems, and websites, eliminate all references to the global ETR.
- Provide DPS Staff and the public with any additional local/town or municipal ETRs. Update customer representatives, IVR systems, and websites, eliminate all references to the global ETR.

Within the first 60 hours of the restoration period

- Provide DPS Staff and the public remaining local/town or municipality ETRs. Update customer representatives, IVR systems.

Reporting requirements during the outage event

- Provide restoration information updates four times daily to DPS Staff (7 am, 11 am, 3 pm, and 7 pm), unless directed otherwise. Updates will continue until otherwise directed by DPS Staff.
- Notify DPS Staff when all outage event related interruptions have been restored.

Appendix J – National Guard Request Form

Request For Resources or Assistance
OPS 6-1

1. Event Name

2. Local Tracking #

3. Date/Time Request Needed

4. Is this request:

- ○ 1. Life Safety
- ○ 2. Priority
- ○ 3. Routine

5. Person submitting request: (name and number)

6. Requesting Individual (if different from above):

7. Requesting Entity Agency

8. Phone Number(s) they can be reached at

9. County Requesting Resource

10. BRIEF description of problem encountered:

11. Resource Requested

12. Quantity of Resource requested:

13. Current Resources committed to identified tasks / functions

14. Have all local capabilities associated with this resource been exhausted?

- ○ 1. Yes
- ○ 2. No

15. What sources/vendors has been contacted? Please list

Figure J.1 – National Guard Request Form

16. Potential Substitute (if specific resource not available)

17. Personnel Required to Operate, Support, and Maintain: (Including Shift Rotations) (include quantity and kind)

18. Support Equipment needed (i.e. fuel, water, delivery schedules, etc.)

19. Approximate length of time resource is needed. (hours, days, weeks, etc) Including shift rotations

Delivery Information:

20. Delivery Point:

21. Delivery Contact Name:

22. Delivery Phone:

23. Delivery Notes: (Transportation required, loading / unloading notes, type of hitch):

1. Advise Requestor of receipt of this request and provide the DisasterLAN Ticket Number

2. This request must be submitted with each specific resource form

Figure J.1 (con't) – National Guard Request Form

Appendix K – Tropical Cyclone Resource Matrix Guide

INFORMATION FROM TPC		HOURS FROM ARRIVAL OF TROPICAL FORCE WINDS			
HURRICANE SCALE SAFFIR-SIMPSON	**PSEG LI'S OPERATIONAL SERVICE TERRITORY - IMPACT PROBABILITY**	**96**	**72**	**48**	**24**
Tropical Storm **Wind Conditions:** **Sustained winds 39-73 MPH** **(34-63 kn or 63-118 km/hr).** **Off- system Restoration crewing:** Linemen: 250-1000 Tree trim: 200-600 Crew Guides: 70-150 Wire Guards: 50-100 Auxiliary Damage Assessment: 0 **Number of Off- system assistance can vary based on forecasted sustained wind velocities.**	High ***Centerline of cone area over, or within 30 miles of PSEG Long Island operational service territory*** ***Wind probability >80%***	Commit to available crewing: No Reserve Hotel Rooms: No Check Hotel Rooms availability: Yes Mobilize base camp sleeping arrangements: On Hold SA Mobilization: On Hold	Commit to available crewing: Yes Reserve Hotel rooms for 50% of crew target Mobilize base camp sleeping arrangements: On Hold SA Mobilization: On Hold	Commit to available crewing: Yes Reserve Hotel Rooms for 100% of crew target Mobilize base camps with sleeping arrangements for balance SA Mobilization: On Hold	Commit to available crewing: Yes Reserve / book Hotel rooms for all remaining crew target Re-evaluate and assess if decisions require escalation or de-escalation Authorize 1-2 staging area if required
	Medium ***Centerline of cone area within 100 miles of PSEG Long Island operational service territory*** ***Wind probability 40% - 80%***	Commit to available crewing: No Reserve Hotel Rooms: No Check Hotel Rooms availability: No Mobilize base camp sleeping arrangements: On Hold SA Mobilization: On Hold	Commit to available crewing: No Reserve Hotel Rooms: No Check Hotel Rooms availability: Yes Mobilize base camp sleeping arrangements: On Hold SA Mobilization: On Hold	Commit to available crewing: Yes Reserve Hotel Rooms for 50% of crew target Mobilize base camp sleeping arrangements: On Hold SA Mobilization: On Hold	Commit to available crewing: Yes Reserve Hotel Rooms for 100% of crew target Re-evaluate and assess if decisions require escalation or de-escalation
	Low ***Centerline of cone within 160 miles of PSEG Long Island operational service territory*** ***Wind probability <40%***	Commit to available crewing: No Reserve Hotel Rooms: No Check Hotel availability: No Mobilize base camp sleeping arrangements: On Hold SA Mobilization: On Hold	Commit to available crewing: No Reserve Hotel Rooms: No Check Hotel availability: No Mobilize base camp sleeping arrangements: On Hold SA Mobilization: On Hold	Commit to available crewing: No Reserve Hotel Rooms: No Check Hotel availability: Yes Mobilize base camp sleeping arrangements: On Hold SA Mobilization: On Hold	Commit to available crewing: No Reserve Hotel Rooms: No Check Hotel availability: Yes Re-evaluate and assess if decisions require escalation or de-escalation
As wind speed forecasts, duration, and probabilities increase, consideration should be given to moving to the next level matrix.					
Factors to consider: Restoration events in other parts of the country influencing availability of line workers/tree trim resources, support timeline for Logistics Contractor, and the effect of Long Island evacuations on hotel availability.					

Figure K.1 – Tropical Cyclone Resource Matrix Guide

INFORMATION FROM TPC		HOURS FROM ARRIVAL OF TROPICAL FORCE WINDS			
HURRICANE SCALE SAFFIR-SIMPSON	**PSEG LI'S OPERATIONAL SERVICE TERRITORY - IMPACT PROBABILITY**	**96**	**72**	**48**	**24**
Category One Hurricane: Winds 74-95 MPH **(64-82 kn or 119-153 km/hr).** **Off- system Restoration crewing:** Linemen: 1000-3000 Tree trim: 600-2000 Crew Guides: 150-400 Wire Guards: 100-250 Auxiliary Damage Assessment: 0 **If damage from flooding is anticipated, consider acquiring workforce to support substation equipment repairs (technicians, mechanics, etc.)**	High ***Centerline of cone area over, or within 30 miles of PSEG Long Island operational service territory*** ***Wind probability >80%***	Commit to available crewing: Yes Reserve Hotel rooms for 50% of crew target Mobilize base camp sleeping arrangements On Hold SA Mobilization: On Hold	Commit to available crewing: Yes Reserve Hotel rooms for 75% of crew target Mobilize base camps with sleeping arrangements for balance SA Mobilization: On Hold	Commit to available crewing: Yes Reserve Hotel Rooms for 100% of crew target Mobilize base camps with sleeping arrangements for balance Mobilize 2-3 staging areas total	Commit to available crewing: Yes Reserve / book Hotel rooms for all remaining crew target Re-evaluate and assess if decisions require escalation or de-escalation. Authorize 1-3 staging areas if required
	Medium ***Centerline of cone area within 100 miles of PSEG Long Island operational service territory*** ***Wind probability 40% - 80%***	Commit to available crewing: No Reserve Hotel Rooms: No Check Hotel availability: Yes Mobilize base camp sleeping arrangements: On Hold SA Mobilization: On Hold	Commit to available crewing: Yes Reserve Hotel Rooms for 50% of crew target Mobilize base camp sleeping arrangements: On Hold SA Mobilization: On Hold	Commit to available crewing: Yes Reserve Hotel Rooms for 75% of crew target Mobilize base camps with sleeping arrangements for balance Mobilize 1-2 staging areas total	Commit to available crewing: Yes Reserve Hotel Rooms for 100% of crew target Re-evaluate and assess if decisions require escalation or de-escalation
	Low ***Centerline of cone within 160 miles of PSEG Long Island operational service territory*** ***Wind probability <40%***	Commit to available crewing: No Reserve Hotel Rooms: No Check Hotel availability: No Mobilize base camp sleeping arrangements: On Hold SA Mobilization: On Hold	Commit to available crewing: No Reserve Hotel Rooms: No Check Hotel availability: Yes Mobilize base camp sleeping arrangements: On Hold SA Mobilization: On Hold	Commit to ¼ – ½ of minimum crew compliment if available Reserve Hotel Rooms for available crews Mobilize base camp sleeping arrangements: On Hold SA Mobilization: On Hold	Commit to ¼ – ½ of minimum crew compliment if available Reserve Hotel Rooms for available crews Mobilize base camp sleeping arrangements: On Hold SA Mobilization: On Hold
As wind speed forecasts, duration, and probabilities increase, consideration should be given to moving to the next level matrix.					
Factors to consider: Restoration events in other parts of the country influencing availability of line workers/tree trim resources, support timeline for Logistics Contractor, and the effect of Long Island evacuations on hotel availability.					

Figure K.1 – Tropical Cyclone Resource Matrix Guide (con't)

INFORMATION FROM TPC		HOURS FROM ARRIVAL OF TROPICAL FORCE WINDS			
HURRICANE SCALE SAFFIR-SIMPSON	**PSEG LI'S OPERATIONAL SERVICE TERRITORY - IMPACT PROBABILITY**	**96**	**72**	**48**	**24**
Category Two Hurricane: **Winds 96-110 MPH** **(83-95 kn or 154-177 km/hr).** **Off- system Restoration crewing:** Linemen: 2500-3500 Tree trim: 1500-2250 Crew Guides: 350-500 Wire Guards: 250-400 Auxiliary Damage Assessment: 0 **If damage from flooding is anticipated, consider acquiring workforce to support substation equipment repairs (technicians, mechanics, etc.)**	High ***Centerline of cone area over, or within 30 miles of PSEG Long Island operational service territory*** ***Wind probability >80%***	Commit to available crewing: Yes Reserve Hotel rooms for 50% of crew target Mobilize base camps with sleeping arrangements for balance SA Mobilization: On Hold	Commit to available crewing: Yes Reserve Hotel rooms for 75% of crew target Mobilize base camps with sleeping arrangements for balance SA Mobilization: On Hold	Commit to available crewing: Yes Reserve Hotel Rooms for 100% of crew target Mobilize base camps with sleeping arrangements for balance Mobilize 3-5 staging areas total	Reserve / book Hotel rooms for all remaining crew target Re-evaluate and assess if decisions require escalation or de-escalation
	Medium ***Centerline of cone area within 100 miles of PSEG Long Island operational service territory*** ***Wind probability 40% - 80%***	Commit to available crewing: Yes Reserve Hotel Rooms for available crews: No Check Hotel availability: Yes Mobilize base camp sleeping arrangements: On Hold SA Mobilization: On Hold	Commit to available crewing: Yes Reserve Hotel Rooms for 50% of crew target Mobilize base camps with sleeping arrangements for balance SA Mobilization: On Hold	Commit to available crewing: Yes Reserve Hotel Rooms for 100% of crew target Mobilize base camps with sleeping arrangements for balance Mobilize 2-3 staging areas total	Re-evaluate and assess if decisions require escalation or de-escalation
	Low ***Centerline of cone within 160 miles of PSEG Long Island operational service territory*** ***Wind probability <40%***	Commit to available crewing: No Reserve Hotel Rooms: No Check Hotel availability: No Mobilize base camp sleeping arrangements: On Hold SA Mobilization: On Hold	Commit to available crewing: No Reserve Hotel Rooms: No Check Hotel availability: Yes Mobilize base camp sleeping arrangements: On Hold SA Mobilization: On Hold	Commit to ¼ – ½ of minimum crew compliment if available Reserve Hotel Rooms for available crews Mobilize base camp sleeping arrangements: On Hold SA Mobilization: On Hold	Commit to ¼ – ½ of minimum crew compliment if available Reserve Hotel Rooms for available crews Mobilize base camp sleeping arrangements: On Hold SA Mobilization: On Hold
As wind speed forecasts, duration, and probabilities increase, consideration should be given to moving to the next level matrix.					
Factors to consider: Restoration events in other parts of the country influencing availability of line workers/tree trim resources, support timeline for Logistics Contractor, and the effect of Long Island evacuations on hotel availability.					

Figure K.1 – Tropical Cyclone Resource Matrix Guide (con't)

INFORMATION FROM TPC		HOURS FROM ARRIVAL OF TROPICAL FORCE WINDS			
HURRICANE SCALE SAFFIR-SIMPSON	**PSEG LI'S OPERATIONAL SERVICE TERRITORY - IMPACT PROBABILITY**	**96**	**72**	**48**	**24**
Category Three Hurricane: **Winds 111-129 MPH** **(96-112 kn or 178-208 km/hr).** **Off- system Restoration crewing:** Linemen: 3000-4000 Tree trim: 2000-2750 Crew Guides: 400-600 Wire Guards: 350-500 Auxiliary Damage Assessment: 160-320 **If damage from flooding is anticipated, consider acquiring workforce to support substation equipment repairs (technicians, mechanics, etc.)**	High ***Centerline of cone area over, or within 30 miles of PSEG Long Island operational service territory*** ***Wind probability*** ***>80%***	Commit to available crewing: Yes Reserve Hotel rooms for 75% of crew target Mobilize base camps with sleeping arrangements for balance SA Mobilization: On Hold	Commit to available crewing: Yes Reserve Hotel rooms for 100% of crew target Mobilize base camps with sleeping arrangements for balance SA Mobilization: On Hold	Commit to available crewing: Yes Reserve Hotel Rooms for 100% of crew target Mobilize base camps with sleeping arrangements for balance Mobilize 4-6 staging areas total	Book all reserved rooms Re-evaluate and assess if decisions require escalation or de-escalation
	Medium ***Centerline of cone area within 100 miles of PSEG Long Island operational service territory*** ***Wind probability*** ***40% - 80%***	Commit to available crewing: Yes Reserve Hotel Rooms for 50% of crew target Mobilize base camp sleeping arrangements: On Hold SA Mobilization: On Hold	Commit to available crewing: Yes Reserve Hotel rooms for 75% of crew target Mobilize base camps with sleeping arrangements for balance SA Mobilization: On Hold	Commit to available crewing: Yes Reserve Hotel Rooms for 100% of crew target Mobilize base camps with sleeping arrangements for balance Mobilize3-5 staging areas total	Re-evaluate and assess if decisions require escalation or de-escalation
	Low ***Centerline of cone within 160 miles of PSEG Long Island operational service territory*** ***Wind probability <40%***	Commit to available crewing: No Reserve Hotel Rooms: No Check Hotel availability: No Mobilize base camp sleeping arrangements: On Hold SA Mobilization: On Hold	Commit to available crewing: No Reserve Hotel Rooms: No Check Hotel availability: Yes Mobilize base camp sleeping arrangements: On Hold SA Mobilization: On Hold	Commit to ¼ – ½ of minimum crew compliment if available Reserve Hotel Rooms for available crews Mobilize base camp sleeping arrangements: On Hold SA Mobilization: On Hold	Commit to ¼ – ½ of minimum crew compliment if available Reserve Hotel Rooms for available crews Mobilize base camps with sleeping arrangements for balance SA Mobilization: On Hold
As wind speed forecasts, duration, and probabilities increase, consideration should be given to moving to the next level matrix.					
Factors to consider: Restoration events in other parts of the country influencing availability of line workers/tree trim resources, support timeline for Logistics Contractor, and the effect of Long Island evacuations on hotel availability.					

Figure K.1 – Tropical Cyclone Resource Matrix Guide (con't)

INFORMATION FROM TPC		HOURS FROM ARRIVAL OF TROPICAL FORCE WINDS			
HURRICANE SCALE SAFFIR-SIMPSON	**PSEG LI'S OPERATIONAL SERVICE TERRITORY - IMPACT PROBABILITY**	**96**	**72**	**48**	**24**
Category Four Hurricane (and above): ***Catastrophic damage is likely to occur*** **Sustained winds 130-156 MPH (113-136 kn, or 209-251 km/hr**). **Off- system restoration crewing:** Linemen: 3500-4500 Tree trim: 2250-3000 Crew Guides: 500-700 Wire Guards: 400-600 Auxiliary Damage Assessment: 320-480 **Acquire workforce to support substation equipment repairs (technicians, mechanics, etc.)**	High ***Centerline of cone area over, or within 30 miles of PSEG Long Island operational service territory*** ***Wind probability >80%***	Commit to available crewing: Yes Reserve Hotel rooms for 75% of crew target Mobilize base camps with sleeping arrangements for balance SA Mobilization: On Hold	Commit to available crewing: Yes Reserve Hotel rooms for 100% of crew target Mobilize base camps with sleeping arrangements for balance SA Mobilization: On Hold	Commit to available crewing: Yes Reserve Hotel rooms for 100% of crew target Mobilize base camps with sleeping arrangements for balance Mobilize 6-8 staging areas	Book all reserved rooms Re-evaluate and assess if decisions require escalation or de-escalation
	Medium ***Centerline of cone area within 100 miles of PSEG Long Island operational service territory*** ***Wind probability 40% - 80%***	Commit to available crewing: Yes Reserve Hotel Rooms for 50% crew target Mobilize base camp sleeping arrangements: On Hold SA Mobilization: On Hold	Commit to available crewing: Yes Reserve Hotel Rooms for 75% of crew target Mobilize base camps with sleeping arrangements for balance SA Mobilization: On Hold	Commit to available crewing: Yes Reserve Hotel Rooms for 100% of crew target Mobilize base camps with sleeping arrangements for balance Mobilize 5-7 staging areas total	Re-evaluate and assess if decisions require escalation or de-escalation
	Low ***Centerline of cone within 160 miles of PSEG Long Island operational service territory*** ***Wind probability <40%***	Commit to available crewing: No Reserve Hotel Rooms: No Check Hotel availability: Yes Mobilize base camp sleeping arrangements: On Hold SA Mobilization: On Hold	Commit to available crewing: Yes Reserve Hotel Rooms for 50% crew target Mobilize base camp sleeping arrangements: On Hold SA Mobilization: On Hold	Commit to ¼ – ½ of minimum crew compliment if available Reserve Hotel Rooms for available crews Mobilize base camp sleeping arrangements: On Hold SA Mobilization: On Hold	Commit to ¼ – ½ of minimum crew compliment if available Reserve Hotel Rooms for available crews Mobilize base camps with sleeping arrangements for balance SA Mobilization: On Hold
As wind speed forecasts, duration, and probabilities increase, consideration should be given to moving to the next level matrix.					
<u>Factors to consider:</u> Restoration events in other parts of the country influencing availability of line workers/tree trim resources, support timeline for Logistics Contractor, and the effect of Long Island evacuations on hotel availability.					

Figure K.1 – Tropical Cyclone Resource Matrix Guide (con't)

Appendix L – Acronyms and Abbreviations

ACRONYM/ABBREVIATION	DEFINITION
AAR(s)	After-Action Review(s)
ACC	Alternate Control Center
ACR	Automatic Circuit Reclosers
ADA	Area Dispatch Authority
Admin	Administration
AHC	All Hazards Consortium
AMI	
ASA	Average Speed of Answer
Asst.	Assistant
ASU	Automatic Sectionalizing Units
BI	Business Intelligence
CAC	Customer Assistance Center
CAIDI	Customer Average Interruption Duration Index
CAS	Customer Accounting System
Cat.	Category
CaTVCo	Cable Television Company
CEDAR	Code Enforcement Disaster Assistance Response
CEO	Chief Executive Officer
CF	Critical Facilities
CIC	Console Information Coordinators
CNI	Critical National Infrastructure
Comms.	Communications
Conf.	Conference
COO	Chief Operating Officer
Coord(s)	Coordinator(s)
Corp.	Corporate
COTS	Commercial Off The Shelf
CSR(s)	Customer Service Representative(s)
Cust.	Customer
DA	Distribution Automation
DHS	Department of Homeland Security
DHSES	Division of Homeland Security and Emergency Services
Dir.	Director
DM	District Manager
DOT	Department of Transportation

ACRONYM/ABBREVIATION	DEFINITION
DPS	Department of Public Service
DPW	Department of Public Works
DTN	Data Transmission Network
ECNE	Energy Council of the Northeast
EEI	Edison Electric Institute
EIRS	Electric Information Reporting System
EOC(s)	Emergency Operations Center(s)
EORS	Emergency Outage Reporting System
EP	Emergency Preparedness
ERIP(s)	Emergency Response Implementation Procedure(s)
ERP	Emergency Restoration Plan
ESB	Enterprise Service Bus
ETR(s)	Estimated Time(s) of Restoration
FAQ(s)	Frequently Asked Question(s)
FCP	Foreign Crew Processing
FD	Fire Department
FEMA	Federal Emergency Management Agency
FTP	File Transfer Protocol
GasCo	Gas Company
GIS	Geographic Information System
Gov't	Government
GPS	Global Positioning System
GUI	Graphical User Interface
HSEEP	Homeland Security Exercise and Evaluation Program
HVAC	Heating, Ventilation, and Air Conditioning
HVCA	High Volume Call Application
ICS	Incident Command System
IT	Information Technology
IV	Intravenous
IVR	Interactive Voice Response
LCS	Large Customer Support
LI	Long Island
LICA	Long Island Control Area
LIPA	Long Island Power Authority
LIRR	Long Island Rail Road
LO	Lockout

ACRONYM/ABBREVIATION	DEFINITION
LSC	Logistics Support Center
LSE	Life Support Equipment
MAC(s)	Mutual Assistance Coordinator(s)
MDT(s)	Mobile Data Terminal(s)
MEUA	Muncipal Electric Utilities Association
MPH	Miles Per Hour
MSTC	Make Safe to Clear
Muni	Municipal
NAMAG	North Atlantic Mutual Assistance Group
NEPPA	New England Public Power Association
NGCS	National Guard Civil Support
NGDO	National Guard Domestic Operations
NIMS	National Incident Management System
NMART	National Mutual Assistance Resource Team
NRE	National Response Event
NREC	National Response Executive Committee
NWS	National Weather Service
NYAPP	New York Association of Public Power
NYC	New York City
NYCRR	New York Codes, Rules and Regulations
NYS	New York State
OEM(s)	Office(s) of Emergency Management
OH	Outage Historian
OH/UG	Overhead/Underground
OMS	Outage Management System
Ops	Operations
PD	Police Department
PDF	Portable Document Format
PI	Process Intelligence
PIO	Public Information Officer
PPE	Personal Protective Equipment
PRC	Primary Control
PSAP	Public Safety Access Point
PSC	Public Service Commission
PSE&G	Public Service Electric & Gas
PSL	Public Service Law

ACRONYM/ABBREVIATION	DEFINITION
R&D	Research & Development
RASIC	Responsible, Accountable, Supported, Informed, and Consulted
RCA	Remote Configuration Authority
RDA	Remote Dispatch Authority
RMAG(s)	Regional Mutual Assistance Group(s)
SAIDI	System Average Interruption Duration Index
SAIFI	System Average Interruption Frequency Index
SCADA	Supervisory Control and Data Acquisition
SHE	Safety, Health and Environmental
SLR	Snow to Liquid Ratio
SME(s)	Subject Matter Expert(s)
SOP(s)	Standard Operating Procedure(s)
SPIA	Sperry-Piltz Ice Accumulation
SPT	Substation, Protection, and Telecom
SUNY	State University of New York
SVL	Service Level
T&D	Transmission & Distribution
TelCo	Telephone Company
TSO	Transmission System Operator
TV	Television
UPS	Uninterruptible Power Source
VA	Visual Analytics
VP(s)	Vice President(s)

Figure L.1 – Acronyms and Abbreviations

Appendix M – Supplemental ERP Contact Sheet

INCIDENT COMMAND, COMMAND STAFF AND GENERAL STAFF (SHE, COMMUNICATIONS, OPERATIONS, PLANNING, AND LOGISTICS)				
ROLE	CATEGORY	RESPONSIBILITY	E-MAIL ADDRESS	PHONE NUMBER*
[redacted]				

Figure M.1 – Supplemental ERP Contact Sheet

***Phone numbers are available for 24/7 contact in the case of a restoration emergency**

Appendix N – NYS DPS Electric Utility's Emergency Outage Reporting System (EORS) Data

SUBMISSION BY LOCALITY UTILITY CODE: Choose an item.

Report Date Utility Name **PSEG Long Island**

Report Time

OUTAGE INFORMATION

Outage information is also available through 30-min data feed by all utilities to State-Wide Outage Map

Company Division	Total Customers in the Division	Current Outages	Customers Restored to Date *(Note-1)	Customers Impacted Overall *(Note-2)
Division – 1				
Division – 2				
Division – 3				
Division – 4				
Total				

*customize table to reflect your Company Divisions / Area / Etc.

Note 1 - Customers that have been interrupted and restored more than one time during the period are counted for each time they have been interrupted and restored. This amount is an estimate based on data from the outage management system and is subject to change.
Note 2 - Customers Impacted Overall is the total of Current Outages and Customers Restored to Date. Based on Note 1, this number may exceed the Total Customers in the Division Customize the Company Division to represent the Utilities geographic area

SYNOPSIS

Summary / Discussion of Major Damage and Plans for Restoration

ETRs

Follow / Report on ETRs consistent with protocol as detailed by NYS DPS

Company Resource Summary

Crewing Information (All data in FTEs)
Note: Attached is the NY-PSC Resource Summary Spreadsheet
Information on any crew movement (Requests/Releases)

LISTING – AFFECTED CUSTOMERS

CRITICAL FACILITY CUSTOMERS	Division 1	Division 2	Division 3	Division 4
Critical Facilities				
Company Total				

LIFE SUPPORT EQUIPMENT CUSTOMERS	Division 1	Division 2	Division 3	Division 4
Critical Facilities				
Company Total				

DRY ICE DISTRIBUTION ACTIVITIES

The PSEG Long Island Company Storm Room is: Choose an item.

The next report is scheduled for: Click here to enter a date.
Choose an item.

**Providing a telephone number for a System Storm Room is Optional*

Attached to E-Mail for this EORS submission are the Following Documents (*check those that apply*)

☐ NY-PSC Resource Summary Spreadsheet ①

☐ Critical Facility Report / Spreadsheets ②

☐ Life Support Equipment Customer Spreadsheet sent under separate cover / E-Mail ②

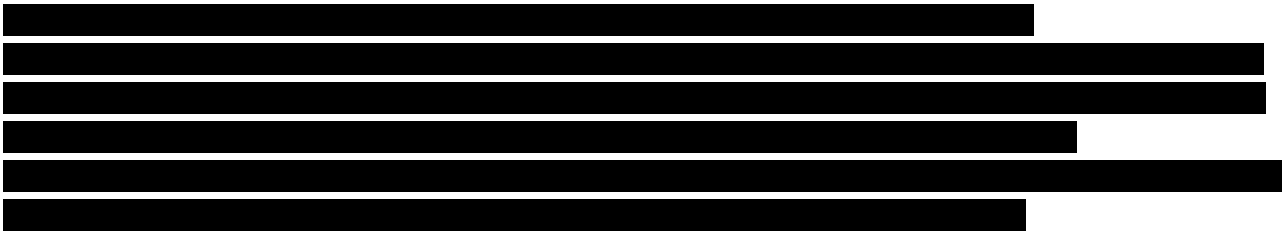


Figure N.1 - NYS DPS Electric Utility's Emergency Outage Reporting System (EORS) Data

Appendix O – PSEG Long Island Informative Educational Videos

Figure O.1 – Our Storm Restoration Process

Figure O.2 – Evacuating

Figure O.3 – Prepare Your Home and Family

Figure O.4 – Stay in Touch with PSEG Long Island

Figure O.5 – Indoor Electric Safety

Figure O.6 – Generator Safety

Figure O.7 – Hazards & Safety

Figure O.8 – Trees and the Electric Grid

Appendix P – Exercise and Training Schedules

EXERCISE	DESCRIPTION	TARGET AUDIENCE	TARGETED TIME FRAME
Alternate Control Center (ACC) Drill	Drill activation of the ACC in response to an emergency at main Control Center	Transmission Control Center personnel	2nd Quarter
Annual Hurricane Tabletop Exercise	Simulate PSEG Long Island's response to an incident and demonstrate effectiveness of the restoration plans and command structure	PSEG Long Island Command and General Staff with additional participation from external utilities, emergency response organizations, NYS DPS, LIPA, etc.	2nd Quarter
Communications Exercise	Exercise activities related to the activation of the Communications Organization and its supporting units	Communications personnel	2nd Quarter
Divisional Operations Exercise	Simulate the activities performed at the division level related to the activation, preparation and implementation of Divisional Damage Assessment and Primary Control functions as they correspond to the collection and reporting of damage information. Validate divisional plans and procedures, assess the adequacy of the process, verify resource and staffing capabilities, clarify roles and responsibilities, and evaluate the effectiveness of training while reinforcing best practices in an operational environment.	Division Restoration Task Force Leaders & Assistant Leaders Division Primary Router/Gaters Division ETR Coordinators Division T&D Damage Assessment Coordinators & Operators Division PRC Coordinators Division Secondary Router/Gaters	2nd Quarter
Dispatch Area Operations Exercise	Simulate the activities performed at the dispatch area level related to the activation, preparation and implementation of Mutual Assist Decentralized Dispatching sites as they correspond to the collection and reporting of repair information. Validate dispatch area plans and procedures, assess the adequacy of the process, verify resource and staffing capabilities, clarify roles and responsibilities, and evaluate the effectiveness of training while reinforcing best practices in an operational environment.	Division Restoration Task Force Leaders Division Mutual Assistance Coordinators Dispatch Area Coordinators Alt Dispatch Area Coordinators Dispatch Area Operators	2nd Quarter
Make Safe to Clear (MSTC) / Road Debris Clearing Task Force Exercise	Exercise activities and coordination of plans related to clearing critical roadways of electrical hazards.	MSTC Unit personnel with additional participation from emergency response organizations (i.e., OEM & DPW) and partner utilities	2nd Quarter

EXERCISE	DESCRIPTION	TARGET AUDIENCE	TARGETED TIME FRAME
Logistics Section Exercise	Exercise and/or review activities related to the activation of Logistic Section support functions.	Logistics Section personnel	3rd Quarter Every other year
Crew Processing Area Exercise	Exercise and/or review activities related to the processing of Foreign Crews.	Foreign Crew Processing Area personnel	3rd Quarter
Planning Section Exercise	Exercise activities related to the activation of Planning Section support functions.	Planning Section personnel	4th Quarter Every other year
Restoration Contingency Plan Exercise – Company Level	Exercise activities related to a critical system failure at a company level, during a restoration event	PSEG Long Island Command and General Staff with additional participation from contingency plan process leads and supporting personnel.	2nd Quarter
Restoration Contingency Plan Exercises – Process Level	Exercise activities at a process level (i.e., Call Center Operation, Damage Assessment, etc.) to ensure awareness and readiness to contingency plan protocols	Contingency Plan process owners and supporting staff	3rd – 4th Quarter

Figure P.1 – 2021 Exercise Schedule

TRAINING	DESCRIPTION	TARGET AUDIENCE	TRAINING METHOD / PLATFORM	FREQUENCY
T&D Damage Assessment Operations	Initial/Refresher	T&D Damage Assessment Coordination Personnel	Instructor-Led / Classroom *Virtual*	Annually
Transmission Survey	Initial	New Transmission Survey Personnel	Instructor-Led / Classroom and Field	Once
Transmission Survey	Refresher	Incumbent Transmission Survey Personnel	Instructor-Led / Classroom	Every 3 Years
Distribution Survey	Initial	New Distribution Survey Personnel	Instructor-Led / Classroom and Field	Once
Distribution Survey	Refresher	Incumbent Distribution Survey Personnel	Instructor-Led / Classroom	Every 3 Years
PRC Operations	Initial/Refresher	PRC Coordination Personnel	Instructor-Led / Classroom *Virtual*	Annually
MAC Operations	Initial/Refresher	MAC Personnel	Instructor-Led / Classroom *Virtual*	Annually
Dispatch Area Operations	Initial/Refresher	Dispatch Area Personnel	Instructor-Led / Classroom *Virtual*	Twice Annually
Tag Holder/Local Circuit Control	Initial/Refresher	Tag Holder Personnel	Instructor-Led / Classroom *Virtual*	Annually
Restoration Field Coordinator/Local Circuit Control	Initial/Refresher	Restoration Field Coordinators	Instructor-Led / Classroom	Annually
Foreign Crew Processing	Combined Initial and Refresher	Foreign Crew Processing Personnel	Instructor-Led / Classroom *Virtual*	Annually
Crew Guide	Combined Initial and Refresher	Crew Guides	Instructor-Led / Classroom *Virtual*	Annually

TRAINING	DESCRIPTION	TARGET AUDIENCE	TRAINING METHOD / PLATFORM	FREQUENCY
2-Person Restoration	Initial	New 2-Person Crews	Instructor-Led / Classroom and Field	Once
2-Person Restoration	Refresher	Incumbent 2-Person Crews	Instructor-Led / Classroom	Every 2 Years
Customer Service Operations	Combined Initial and Refresher	Communications/Escalation Personnel	Instructor-Led / Classroom	Annually
CIC/Escalation Processing & OMS Reporting	Initial/Refresher	CIC and Escalation Personnel	Instructor-Led / Classroom *Virtual*	Annually
EOC & Municipal Liaison	Initial/Refresher	EOC & Municipal Liaisons	Instructor-Led / Classroom *Virtual*	Annually
Outage Management System PragmaLINE (Incident Management)	Initial	Multiple	Instructor-Led / Classroom	Once
Outage Management System PragmaCAD	Initial	Multiple	Instructor-Led / Classroom	Once
Outage Management System PragmaCAD	Refresher	Multiple	Instructor-Led / Classroom *Virtual*	Annually
Incident Command System (ICS) and Emergency Restoration Plan (ERP) Strategies at PSEG Long Island	Initial	All Employees	Self-Study / Online via Learning Management System (LMS)	Annually
Restoration Contingency Plan Training	Initial	Command and General Staff, Branch Directors, Contingency Plan Process Leads and Supporting Staff	Instructor-Led / Classroom Virtual	Annually
ICS & Mission Critical System Monitoring	Initial	IT Organization Leadership, Managers and Key Support Personnel	Instructor – Led / Classroom Virtual	Annually

Figure P.2 – 2021 Training Schedule (Non-Traditional Roles)

Appendix Q – Crew Transfer (RoD) Sheet [Electric and Damage Assessor]

PSEG LI- Electric Crew Transfer Sheet

RoD Team # _____

Number of Qualified Crews _____ Today's Date: _____

Number of Hotel Rooms _____ Singles
Number of Hotel Rooms _____ Doubles
Single Room Eligibility: GF/Supervisor, Safety

FROM

Team/Contractor Co. _____
HQ, Yard, Barn _____
HQ/District Contact Name _____
Telephone # _____
GF/Superintendent _____
Telephone # _____
Incident Commander (if assigned): _____
Telephone # _____

DEPARTURE *(From Home HQ)*
Date/Time _____ MM/DD/YY hh:mm (Military)

ESTIMATED ARRIVAL *(BETHPAGE STAGING AREA)*
Date/Time _____ MM/DD/YY hh:mm (Military)

CREW AVAILABILITY
☐ Available to Work on Arrival
☐ Requires Rest on Arrival

Notes: Complete All Fields Shaded in Yellow - Others are Optional
* Select Field to Reveal Drop-Down List Fields shaded in **Blue** to be completed by PSEGLI

CREW CAPABILITIES(Qualified/Rated)
☐ Transmission ☐ Rear Property
☐ OH Distribution ☐ Forestry
☐ Underground ☐ Other

CREW GUIDE: _____
CREW GUIDE: _____
RDA: _____

		Last Name	First Name	*Gender	Storm Role	Cell #	Home HQ	*Require Lodging?	Vehicle ID	Vehicle Description	Tow Behind Equipment	Hotel Room #
General Foreman - Safety - Mechanic - Misc. Support												
Crew 1	Foreman											
	Crew Members - Lineman / Apprentice											
Crew 2	Foreman											
	Crew Members - Lineman / Apprentice											
Crew 3	Foreman											
	Crew Members - Lineman / Apprentice											
Crew 4	Foreman											
	Crew Members - Lineman / Apprentice											
Crew 5	Foreman											
	Crew Members - Lineman / Apprentice											
Crew 6	Foreman											
	Crew Members - Lineman / Apprentice											

Daily Crew Authorization

All crew & vehicles accounted for: _____ Yes/No
Crew Start Time: _____ AM/PM
Crew End Time: _____ AM/PM

Crew Guide Signature: _____
Crew Supervisor Signature: _____
Date/Time: _____

Figure Q.1 – Electric Crew Transfer (RoD) Sheet

PSEG LI- Damage Assessor Crew Transfer Sheet

RoD Team #

Number of Qualified Crews | Today's Date: | Number of Hotel Rooms (Singles) | Number of Hotel Rooms (Doubles)

Single Room Eligibility: GF/Supervisor, Safety

FROM

Team/Contractor Co.
HQ, Yard, Barn
HQ/District Contact Name
Telephone #
GF/Superintendent
Telephone #
Incident Commander (If assigned):
Telephone #

DEPARTURE (From Home HQ)

Date/Time — MM/DD/YY hh:mm (Military)

ESTIMATED ARRIVAL (999 Stewart Avenue, Bethpage NY 11714)

Date/Time — MM/DD/YY hh:mm (Military)

CREW AVAILABILITY

- ☐ Available to Work on Arrival
- ☐ Requires Rest on Arrival

CREW CAPABILITIES(Qualified/Rated)

- ☐ Highway
- ☐ Rear Property
- ☐ ROW
- ☐ Other

Notes: Complete All Fields Shaded in Yellow - Others are Optional

* Select Field to Reveal Drop-Down List

Fields shaded in Blue to be completed by PSEGLI

Damage Assessment Processing: PSEG Hicksville - Bill Moir

		Last Name	First Name	*Gender	Storm Role	Cell #	Home HQ	*Require Lodging?	Vehicle ID	Vehicle Description	Tow Behind Equipment	Hotel Room #
Supervisors - Misc. Support												
Crew 1	Damage Assessment Team											
Crew 2	Damage Assessment Team											
Crew 3	Damage Assessment Team											
Crew 4	Damage Assessment Team											
Crew 5	Damage Assessment Team											
Crew 6	Damage Assessment Team											
Crew 7	Damage Assessment Team											
Crew 8	Damage Assessment Team											
Crew 9	Damage Assessment Team											
Crew 10	Damage Assessment Team											
Crew 11	Damage Assessment Team											
Crew 12	Damage Assessment Team											
Crew 13	Damage Assessment Team											
Crew 14	Damage Assessment Team											
Crew 15	Damage Assessment Team											
Crew 16	Damage Assessment Team											

Daily Crew Authorization

All crew & vehicles accounted for: _____ Yes/No

Crew Start Time: _____ AM/PM

Crew End Time: _____ AM/PM

Crew Guide Signature: _____

Crew Supervisor Signature: _____

Date/Time: _____

Figure Q.2 – Damage Assessor Crew Transfer (RoD) Sheet

Appendix R – List of Contracted Damage Assessors

- Asplundh Construction Corporation
- Haugland Energy Group, LLC
- Elecnor Hawkeye LLC

Appendix S – NYS Border Crossing Protocols

Figure T.1 shows screenshots of the CBP Pre-Arrival Name Spreadsheet for New York. The spreadsheet also consists of tabs listing ISO Country Codes, State Codes, and Visa Site Codes. Figure T.2 is a sample letter to be sent by the Utility to DHSES requesting their assistance in facilitating border crossing.

First Name	Middle Name	Last Name	DOB	Citizenship Country	Place of Birth Country	Place of Birth City	Gender	Passport Country Code	Passport Number	Passport Issue Date	Passport Expiration Date	Notes

Utility Company	Contact Person	Contact Phone #	Event Reason	Date Crossing	Time Crossing	Port Crossing At

Figure S.1 – CBP Pre-Arrival Name Spreadsheet

[Company Letterhead]

[Date]

Nikhil Natarajan, Deputy Director
New York State Office of Emergency Management
1220 Washington Avenue
Building 22, Suite 101
Albany, NY 12226-2251

(*via electronic mail*)

Re: Request for Assistance in Facilitating Border Crossing

Dear Deputy Director Natarajan,

EXAMPLE:
[Utility] is currently preparing for the [Type of event] expected to begin, [Month Day, 202X]. As part of our preparation efforts to ensure we are able to quickly address anticipated power outages, we are seeking the assistance of electrical workers from Canada. [Contractor] is crossing at the [Point of Entry] on the [State] border and will be working in [Utility]'s [Identify service location or divisions]. We have determined that the nearest available US electrical workers reside in states further away and/or are not readily available to support the power restoration effort.

[Utility] requests the New York Emergency Management Agency to contact US Customs and Border Protection and request they allow entry of these Canadian electrical workers into the US for the mutual assistance support of [Utility] in New York. Attach is the CBP Pre-Arrival spreadsheet. It is expected that the electrical workers will be crossing the border between [Time and Time] on [Month Day, 202X]. It is also our expectation that the Canadian electrical workers will assist in storm restoration efforts, ending their assignment by [Month Day, 202X], or earlier.

Sincerely,

[Name and title of signatory]

CC: Kevin Wisely New York State Department of Public Service
Christian Bonvin New York State Department of Public Service
[Point Of Entry]

Figure S.2 – Facilitation of Border Crossing Letter to DHSES

Appendix T – Table of Figures