FirstEnergy Utilities

Emergency Plan for Service Restoration (E-Plan)

Effective as of August 10, 2012

Version 2- Revised February 1, 2013



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1. Purpose, Mission and Strategic Objectives

1.1. Purpose

1.1.1. FirstEnergy Utilities (FEU)

The purpose of this Emergency Plan for Service Restoration (E-Plan) document is to serve as the single, controlled source of information governing the FEU emergency planning and response plan. This E-Plan defines the guidelines for all of the common processes and procedures for which all of the FirstEnergy (FE) Regions conduct emergency preparedness, response and service restoration.

1.1.2. Emergency Plan Database (E-Plan Database)

FEU maintains an E-Plan Database that contains additional supporting information that is used by corporate and regional personnel during restoration events. In addition to items described in this E-Plan, the database includes, but is not limited to items such as job aides, phone listings, qualified personnel and equipment lists, vendor and supplier lists, templates, maps, contact lists for critical customers, law enforcement, emergency management agencies, medical facilities, vendors, lodging, etc., and other items of a dynamic nature that may be referenced by restoration personnel. All data in the E-Plan Database is reviewed and updated at least annually.

1.1.3. Regional E-Plan Database

In addition to the guidelines in this E-Plan, each of the Regions that comprise FEU is expected to maintain a Regional E-Plan Database. The Regional E-Plan Database contains Region-specific information such as phone listings, qualified personnel and equipment lists, vendor and supplier lists, templates, maps and other dynamic information that may be referenced by restoration personnel in that Region. In order to ensure compliance requirements during restoration events, each region will maintain in its E-Plan Database a separate schedule of applicable state-specific requirements.

1.2. Mission

FE's E-Plan must be clearly defined and scalable for all emergency response situations. Each employee with an assigned role in the E-Plan must be appropriately trained to provide safe, efficient and effective emergency response and service restoration.

1.3. Strategic Objectives

Emergency Response Organization

Ensure that the Emergency Response Organization (ERO) is clearly defined and scalable and that all ERO employees have a clear understanding of their role and responsibility in safely restoring service

Organizational Readiness

Ensure that all employees in the Emergency Response Organization (ERO) are appropriately trained via a performance role-based curriculum to perform their emergency response role safely and proficiently.

Anticipation

Utilize all monitoring tools to provide early warning of real and potential threats to the transmission and distribution system

Mobilization & Logistics

Implement defined actions and processes to ensure that safe emergency response can begin as timely as possible

Hazard

Investigate and safely isolate hazardous conditions caused by the storm from the public.

Assessment

Perform ongoing assessments associated with major outages in order to effectively manage and deploy resources and provide situational reports to government agencies, community leaders, media and senior management.

Restoration Management

To respond to and to manage all electric system disturbances, restoring service as quickly and as safely as possible, effectively using all available resources.

Continuous Learning

Systematically ensure that lessons learned from emergency response events are communicated and appropriately incorporated into the emergency response plan

Communications

Provide accurate and timely information to all internal and external stakeholders

1.4. Governance of the Emergency Response Plan

The Vice President of Distribution Support within FEU will serve as the executive sponsor of the Emergency Response Plan (E-Plan), including supporting information such as E-Plan Overview and the E-Plan Database.

The content of the E-Plan will be controlled, managed and administered by the E-Plan Steering Committee which will be comprised of representative directors from both Regional and Corporate. The E-Plan Steering Committee will ensure that all changes, including those identified in post-storm performance reviews, to the E-Plan are approved, documented and appropriately communicated throughout the organization. The Director of Performance and Process Improvement shall schedule meetings at least quarterly with the Steering Committee to discuss strategic, operational and administrative issues.

Each Region will also appoint at least one member, and no more than three members, to an E-Plan Users Group. The E-Plan Users Group will have responsibility to manage the Regional E-Plan Database in alignment with the FEU E-Plan. Furthermore, the regional appointees to the Users Group will be the only regional employees with edit access to the E-Plan Database. Each Region may elect to manage additional information within its Regional E-Plan Database, provided it is neither duplicative of nor in conflict with any material located within the FEU E-Plan. The Director of Performance and Process Improvement shall ensure that Users Group meetings are scheduled at least quarterly to discuss administrative and content topics.

1.5. Annual Review

The E-Plan Steering Committee will ensure that all content within the E-Plan Database, the E-Plan Overview and the Regional E-Plan Databases is reviewed at least once annually with all appropriate changes made and communicated throughout the ERO by April 1 of each year.

2. Emergency Response Organization

2.1. Strategic Objective

Ensure that the emergency response organization (ERO) is clearly defined and scalable and that all ERO employees have a clear understanding of their role and responsibility in safely restoring service

2.2. Normal Operations

Under normal operations, the System Control Centers (SCCs) and the Regional Dispatching Offices (RDO) are responsible for directing service restoration activities. Each group manages a full range of restoration activities that includes the following:

- Gathering and analyzing weather, outage, and system damage data
- Managing restoration activities
- Dispatching field troubleshooters and crews
- Communicating the status of trouble and outage orders

These activities contain two generic classifications: planning and action.

Planning requires a focus on strategic objectives of service restoration; action involves implementation steps such as dispatching calls.

The RDO directs restoration activities associated with the distribution systems. Servicemen/troubleshooters, assessment personnel, hazard responders and line crews operate under the jurisdiction of the RDO. The dispatcher directs crews from the line, substation maintenance and meter sections. If contractors or other utility company crews are used, the RDO will direct their restoration effort through the use of company liaisons assigned to these crews. Under normal circumstances, routine trouble calls are analyzed by the Regional Dispatcher, who assigns these orders to line servicemen/troubleshooters for restoration of service.

The SCC directs restoration of transmission lines and transmission substation component outages (including customers served directly from those systems). The field personnel normally directed by this office are from the Substation organizations, Line Servicemen/Troubleshooters, and Line Crews.

IMPORTANT

Under both normal operation and during emergency response events FE maintains a clear and consistent division of responsibilities between the SCCs and the RDOs organization. The SCC has responsibility for management of the restoration effort as it affects the transmission system. The RDO directs restoration activities associated with the distribution system. The *Regional Director of Operations Services* retains the ultimate responsibility for storm management of service restoration within their region.

2.3. Storm Categorization

FE categorizes emergency events based upon their actual or estimated severity in order to secure and mobilize appropriate resources to restore customer outages safely and timely. If conditions change, the category is upgraded or downgraded as appropriate.

The formal and official categorization of an event is made by the RDO using a variety of criteria, including but not limited to:

- Estimated Restoration Time

- Severity of Damage
- Customers Affected
- Number of Hazards
- Number of Outage / Trouble Orders
- Anticipated number / type of resources needed to restore service

While every event leaves a different damage footprint, the following table is a useful guide for the amount of damage and the staffing guidelines commensurate with each level. As a general rule, an event below Level III requires only resources native to the Region affected. Events that are categorized as Level III or IV may require internal and / or external Mutual Assistance, depending on the availability of internal resources. Events that are categorized as Level V are catastrophic events likely resulting in the declaration of a State or Federal Disaster.

CATEGORY	ESTIMATED EVENT DURATION	STAFFING GUIDELINES
Level I	Within 24 hours	Requiring local resources only (crews normally assigned to that location)
Level IIa	Exceeding 24 hours	Requiring region wide resources Substantial hazards exist Hazard coordinator reports Hazard team is mobilized Distributed Dispatching for Hazard implemented
Level IIb	Exceeding 24 hours	Substantial damage exists (If no area specified - REGION wide) Extended RDO staff to report (engineering and clerical support) Distributed Dispatching for all other functions is implemented Line, Forestry, and Substation Supervisors of area affected to report
Level IIc	Exceeding 24 hours	Major Damage All remaining Line and Substation Supervisors to report Communication liaison(s) report All area managers to report Entire regional storm team activated
Level III	Exceeding 24 hours	Requiring Internal Mutual Assistance from FE affiliates

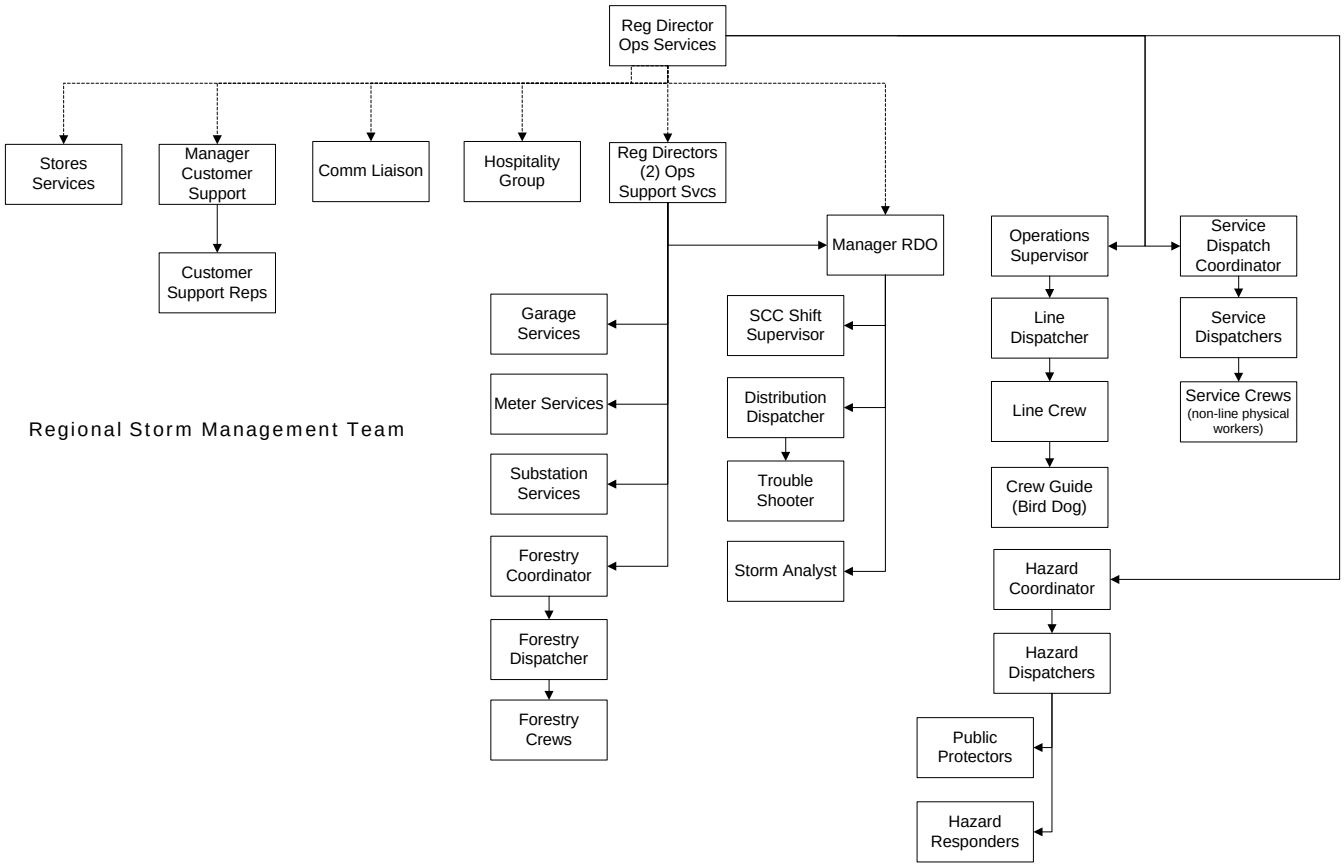
CATEGORY	ESTIMATED EVENT DURATION	STAFFING GUIDELINES
Level IV	Exceeding 48 hours	Requiring External Mutual Assistance
Level V	Exceeding 72 hours	Catastrophic Damage Requiring resources external to the System

2.4. Regional Storm Management Team

As a general rule, once an event is categorized as a Level II emergency event or higher, a Regional Storm Management Team (SMT) is mobilized commensurate with the severity of the actual or anticipated damage from the system disturbance. In very rare cases, the Storm Management Team may be mobilized for Level I events. Once established, the Regional SMT coordinates all response and restoration activities within its Region, including:

- Analyzing weather, outage and damage data
- Determining high level Estimated Time of Restoration (ETR) based on the amount of damage and number of resources available
- Formulating a strategic plan to mobilize and manage resources to effectively isolate hazards from the public and assure prompt restoration of service
- Initiating restoration activities including establishing role-based distributed dispatching (i.e. hazard, service, line and forestry), and identifying the need for internal or external mutual assistance support based on the number of outage and hazard orders and/or a preliminary assessment of the damage
- Managing high profile customer outages (via the Escalated Outage Coordinator if necessary for larger events) and providing outage related information to the Communication Liaisons
- Communicating the status of restoration activities to internal and external stakeholders

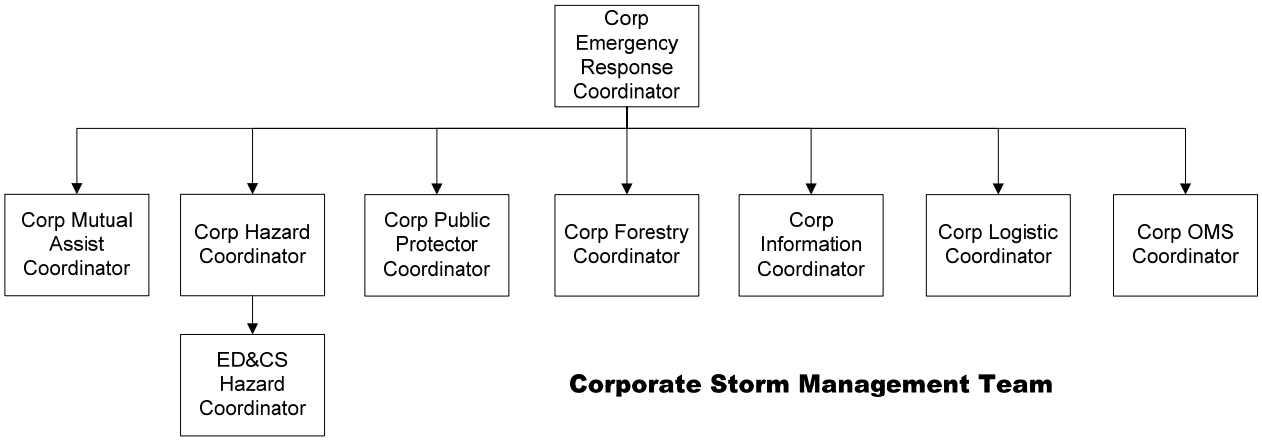
The following table 2.4.1 represents a typical organization chart for a Regional Storm Management Team. The Regional SMT organization is scalable to match the size of the emergency event. The Regional Director of Operations Services maintains responsibility and authority for determining the size of the organization that is mobilized in order to restore service to customers safely and efficiently.



As the organization chart in table 2.4.1 indicates, the Regional Director of Operations Services, or their designee, becomes the decision-making authority for all operational, response and restoration activities within the Region. All other storm organizations within the region receive strategic and operational direction from the Regional Director of Operations Services.

A summary of the roles and responsibilities for each position on the Regional Storm Management Team can be found in Appendix 2.4.1.

2.5. Corporate Storm Management Team



FE utilizes a Corporate Storm Management Team (SMT) based in the FE corporate office in Akron, Ohio to support Regional restoration efforts. A summary of the roles and responsibilities of the Corporate SMT can be found in Appendix 2.5.1

2.6. Emergency Operations Center (EOC)

The EOC is located in the lobby level of the General Office in Akron, Ohio. In the event this facility is not available, EOC operations will be relocated to the Ohio Edison RDO.

The EOC is organized and staffed by the Corporate SMT personnel and associated support staff to facilitate coordination of various resources and enable communications with internal and external stakeholders during major events affecting one or more FE operating companies. During major events, internal and external line resources, along with other storm support personnel, including hazard, service, forestry, public protectors and storm analysts, are identified and allocated by the Corporate SMT based on each operating company's needs.

Throughout the event, service restoration is monitored by the Corporate SMT personnel to assure the safe and effective execution of all facets of the FE storm process. Also, this organization will be responsible for compiling outage information for future reporting and communicating restoration progress and ETRs to internal and external stakeholders thereby enabling a consistent message for interested parties.

3. Organizational Readiness

3.1. Strategic Objective

Ensure that all employees in the Emergency Response Organization (ERO) are appropriately trained via a performance role-based curriculum to perform their emergency response role safely and proficiently.

3.2. Training Program Overview

While actual experience provides the most valuable training for the personnel involved in storm restoration procedures, the Director of Regional Workforce Development is responsible for providing a formal training program to ensure that all ERO personnel are sufficiently trained, through simulations, practices and drills, to perform their role safely and proficiently. The following sections describe the formal FE Emergency Preparedness training program.

3.3. Initial Training

Prior to performing in a storm role, all ERO personnel are required to attend and successfully complete an initial training session that focuses on the roles and responsibilities assigned in the case of an event. The training includes clear objectives of knowledge and skills associated with the assigned activity along with the performance expectations and expected outcomes. Special attention is given to safety, identification of critical steps within a performed task and necessary communications amongst ERO personnel.

3.4. Scope

The training focuses on the roles and responsibilities of both traditional and nontraditional support roles during emergency conditions, and how to safely achieve the strategic restoration objectives. Various training methods and tools are applied to ensure the employee is equipped with the requisite knowledge and skills, regardless how frequently the task is performed.

3.5. Training Methods

Four basic methods are used for both initial and refresher training: classroom sessions and web based programs; simulated storm exercises; just-in-time training; and on-the-job training. In addition, FEU routinely participates in annual workshops and coordinated drills with governmental entities. The following is a brief description of each:

Classroom sessions and Web based programs explain the overall storm process, objectives, roles/responsibilities and interrelationships within the process. All personnel are required to attend and complete an initial training session to be qualified and eligible. Once qualified within a role, to remain eligible, personnel are required to maintain qualifications through an annual completion of classroom or virtual refresher training. In addition, there may be instances for additional training on an "as needed" basis driven by modifications resulting from storm reviews.

Simulated storm exercises evaluate the ERO's execution of the storm process and interrelationships of the storm organization. Simulations are conducted within the training itself as well as in independent storm drills. Simulation is used to imitate the operation of the real-world storm process and offer lifelike experiences. Various models are developed within training curriculums, as well as used in conducting periodic Mock Storm Drills. The drills and models test the participants understanding of the storm process by exposing them to a variety of real-world problems and decision making that could be experienced in real storm events. In the event a major storm event has not been experienced in the previous 12-month period, each region shall conduct an annual storm drill that simulates a response to either a storm, or other storm-like emergency that would be classified at the highest level of severity. Two weeks prior to the drill, the region will notify drill

participants of the date, time and location of the drill. The region will also notify Commission Staff of the drill plans at least two weeks prior to the drill.

Upon conclusion of the simulated storm exercise, a report will be compiled in order to share best practices and identify areas for improvement.

Just-in-time training provides ERO personnel with job aids designed to serve as memory guides for tasks that the employee only infrequently has to perform. The material identifies key touch points and critical steps associated with the task. All materials are available for personnel at all times.

On-the-job training may be used for those ERO personnel identified as needing experience in their assigned role. This may be accomplished having the employee shadow experienced personnel during an event. The recipient of the on-the-job training is not identified as a active participant in storm response until they are able to perform on their own.

Annual workshops: Each Region may host an emergency response workshop with subject matter experts from other Regions and the corporate office. The workshop is designed to learn from recent events, share best practices, and identify enhancements to the emergency response process.

Coordinated drills with Governmental Entities: Each Region may participate in drills, workshops or table top exercises with government entities in order to enhance coordination, communication and public safety during large restoration efforts.

3.6. Refresher Training

Refresher training is available for nontraditional roles and may be conducted via classroom or virtual training sessions. The individual qualifications are verified by successfully completing a knowledge check. A completion report is provided quarterly.

3.7. Duty Rosters

The Director of Workforce Development has primary responsibility to ensure that all corporate personnel are trained and that the corporate storm duty rosters are maintained. The Director of Operations Services at each Region has responsibility at their respective Regions. Duty Rosters of eligible personnel for each role are maintained on the E-Plan Database in the location defined as “Rosters” in the Regional Storm Organization and are updated at least annually.

3.8. Training Review

The training status of all personnel involved in storm related activities is continually reviewed and maintained to ensure that all personnel are appropriately trained to perform their emergency response role(s) safely and efficiently.

The status of each person will be determined from records of the past year's training sessions, documentation of successful "on-the job" use of restoration techniques in actual storm situations, and confirmation of all appropriate refresher training. In addition, a status review will be completed as part of the annual plan review, with results reported by the Director of Workforce Development by April 1 of each year.

4. Anticipation

4.1. Strategic Objective

Utilize all monitoring tools to provide early warning of real and potential threats to the transmission and distribution system

4.2. FE Meteorological Services

FE Meteorological Services provide Energy Delivery (ED) the following strategic and tactical decision support services from its Meteorological Operations Center in the Akron General Office:

- Advanced notice of atmospheric conditions that will cause power disruption wind, ice, snow, lightning, severe storms, solar activity
- Real time monitoring tools to track on going weather events
- Forensic analysis (e.g, typical frequency of adverse weather events)
- Special Studies (summary charts and graphics for Utility Commission filings, determining most weather sensitive assets, statistical analysis, data processing, etc.)
- Training/Education
- Data Interpretation

During large weather events FE meteorologists participate in ED pre-storm conference calls and may supplement advanced notice email alerts with short video briefings.

Meteorological Services continually advances its predictive and assessment capabilities through applied research and development efforts, often through collaborative efforts with NOAA and surrounding universities. This is accomplished through use of cutting edge science, tools, and techniques and by maintaining strong connections within the meteorological community.

In addition, the SCCs and RDO offices have continuous internal and external weather services available that provide advance information about approaching adverse weather conditions. Each office has access to a number of internal and external web-based weather sites as well. The SCCs and RDO offices will constantly monitor the weather and share any information that may be useful. To ensure advance communications with all organizations, ED Operations Services has access to these same services, and will also monitor these conditions.

4.3. Weather Reports and Tools

FE Meteorological Services utilize a variety of products and tools to monitor and communicate potential weather threats to ED. Data is pulled from NOAA National Weather Service and private vendor data servers to produce tailored products for FE stakeholders. These unique products are generated by automated methods that were developed by the FE meteorologists and fall into three categories - past, current, and future weather conditions. The products are accessed and visualized through FE's internal weather web page where training on how to interpret the information is also provided.

Additionally, alert products are generated and issued when specific weather conditions (see Section 4.4) are expected to occur within the next three days. Some alert products are generated by automated methods while the rest are manually generated by FE meteorologists.

4.4. Evaluation of Threats

The following thresholds are used as guidelines to assess the need for alerts concerning impending weather events in or near FE within the next three days:

- Ice: 0.25" or more within a 24 hour period, or 0.10" or more combined with wind gusts of at least 15 mph
- Snow: 4" snow within a 24 hour period (wet or dry)
- Wind: 40 mph gusts or higher (includes tropical systems, damaging thunderstorm winds, tornado)
- Lightning: Off-season cloud to ground lightning (October through March)
- Flooding: Rainfall amounts expected to cause wide spread flash flooding, flooding in low-lying areas, or general river flooding
- Temperature Extremes: Cold (below 5°F) or Heat (max temperature at least 87°F, or an overnight low 65°F or warmer followed by daytime high of at least 78°F)

FE meteorologists will manually generate text alerts distributed by email and page to stakeholders. During complex situations, the text alerts are supplemented by either graphical images or three to five minute video clips illustrating the timing and magnitude of the expected weather. FE stakeholders determine their next course of action based on the content of the alert material, which may include requesting participation of meteorologists on corporate, regional, or company pre-storm conference calls.

4.5. Early Warning Notifications

When severe weather is anticipated the RDO has responsibility to initiate the notification process for the following personnel:

- Regional Dispatch Manager
- Regional Director of Operations Services
- Regional Director of Operations Support Services
- Regional Hazard Coordinator
- Regional Operations Managers
- Regional Manager Engineering Services
- Regional Forestry Services
- Call Center Management
- Media Representative(s) or Communication liaisons
- Manager of Customer Services
- Director of ED Operations Services
- Manager of ED Operations Services (Mutual Assistance Coordinator)
- SCC Shift Supervisor
- Administrative/clerical support (as needed)
- Additional Line Servicemen/Troubleshooters (as needed)
- Additional Line Crews (as needed)
- Cross notifications between RDOs

4.6. Customer Storm Preparation

Throughout the year, storm preparedness information is distributed to customers via bill inserts, press releases, website and social media updates. This information includes the number to contact to report loss of power as well as preparedness and safety tips.:

4.7. Regional Anticipation Actions

The RDO manager is responsible for maintaining situational awareness of potential weather events that could impact the system. Based on this knowledge, the manager will take the appropriate action to ensure regional leadership is apprised of

the pending weather conditions to ensure appropriate measures are in place. Considerations include: staffing, materials, ability to mitigate abnormal system configuration, and potential need to suspend planned maintenance.

4.8. Corporate Anticipation Actions

The Corporate Storm Management Team (SMT) has responsibility to maintain situational awareness of all pending and actual weather events. Based on this knowledge, the Corporate SMT will take appropriate action to communicate with the regions that may potentially be affected. In addition, each member of the Corporate SMT will ensure that the support resources for which they are responsible are ready and available. Tasks include: attending Regional Mutual Assistance Group (RMAG) calls, communicating with Commissions and acquiring IT support.

4.9. Critical Care Customers

FirstEnergy will make every effort, given enough advanced notice, to notify critical care customers who could possibly be impacted by a significant weather event to advise them of the likelihood of an extended outage and to consider a back-up plan for any electrically operated life-support equipment.

5. Mobilization and Logistics

5.1. Strategic Objective

Implement defined actions and processes to ensure that safe emergency response can begin as timely as possible

5.2. Overview

Once a threat to the electric system becomes probable enough that action is required, an appropriate emergency response organization and plan must be activated, and personnel and resources mobilized and positioned, to ensure that safe and efficient response can begin as quickly as possible. The following generally describes how the various parts of the organization mobilize in response to an emergency event.

5.3. Mobilization Tools and Processes

5.3.1. RDO Communications

The RDO will initialize response for a storm event by paging personnel with the appropriate level categorization. Personnel will respond based on a pre-defined set of criteria as described in the level categorizations (Section 2.3).Each response organization will have duty rosters established and communicated prior to the event allowing employees to be ready to respond when an event occurs. During an event, the RDO will communicate changes to the storm level categorization either via pager or conference call. Personnel will again respond based on the criteria for the recently updated level. The distribution groups for storm level paging should be reviewed annually to ensure appropriate personnel are included in storm level communications.

5.3.2. Company-wide conference calls

One of the most effective tools to communicate information and mobilization plans to the diverse and widespread organization is through the use of company-wide conference calls with all Regional and support personnel. The Corporate Emergency Response Coordinator chairs these calls from the Anticipation phase through completion of an event, in order to communicate broad restoration status updates and overall resource mobilization plans.

In anticipation of an event, the company-wide calls will be used to communicate and discuss mobilization strategies, resource status updates and to lay out overall expectations. During the mobilization phase, the conference calls are used to communicate resource needs, availability, mobilization plans and deployment status. During an event, the calls are conducted twice daily to discuss restoration status, resource needs and any challenges that have arisen. All calls begin with a safety message conducted by the Director of Safety.

A copy of a typical conference call agenda and the information that is discussed can be found in Appendix 5.3.2.

5.3.3. Call-out Process

Once the RDO and Director of Operations Services (or designee) determine the size of the internal workforce needed, the Region implements a call-out process to obtain the necessary personnel. This process continues until the event is completed.

5.3.4. Other

Communication via email, phone, text message and pagers are also used to notify personnel of the need to report or mobilize to response locations. A master list of personnel with contact information is kept by each Region and corporate coordinator to ensure that emergency response personnel are reachable at all times.

5.4. Mobilization of Resources

As stated in Section 2.3 the Regional RDO communicates the event categorization using the tools described above in Section 5.3. The notification is sent by the RDO and subsequently communicated throughout the Regional and Corporate storm organizations to mobilize according to the categorization of the event. The following generally describes the Regional and Corporate resources that are mobilized as a result of the event level that is communicated by the RDO. The mobilization process is designed to be scalable either from a normal operation organization to a specific response level or to progress from normal operations through each response Level.

5.4.1. Level I Event (Within 24 hours)

A Level I event requires the normally-assigned and scheduled resources in the affected area / district to restore service to all customers in a safe and timely manner. Regional personnel prioritize work assignments based on restoring service to all customers as quickly as possible. While doing so, weather conditions and the Outage Management System (OMS) will be monitored for indications of the potential progression to a Level II event.

5.4.2. Level IIa Event (Greater than 24 hours)

Much like a Level I Event, a Level II event is generally isolated to an area / district within a Region. The differentiator is the presence of widespread hazards within that area / district. Once it becomes apparent that the event has reached this level, the RDO will send a communication to the storm organization to transition to a Level IIa response organization. Upon receiving this notice, the Regional Hazard Coordinator is called to mobilize the Regional Hazard Response team and begin implementing the Hazard Process described in Section 6.3.

5.4.3. Level IIb Event (Greater than 24 hours)

Similar to a Level IIa event, this level is characterized by the presence of a large amount of damage. The damage can be localized to an area / district or can be region-wide. Once the RDO determines and communicates that an event is Level IIb, the extended RDO staff and the supervisors of Line, Forestry and Substation in the affected areas are called to mobilize. The Regional Operations Services Director has responsibility for further determining and communicating the areas affected and the personnel that are to respond.

Once an event reaches Level IIb, the region transitions into the Distributed Dispatch mode of operations whereby each line shop / district takes responsibility for prioritizing and assigning work within its jurisdiction. A full description of the Distributed Dispatch process can be found in Section 6.3.

Also at this level, the corporate storm support team will stay in close communication with the Regional storm team to provide support or resources upon request as well as to prepare for the potential escalation to a Level IIc event.

5.4.4. Level IIc Event (Greater than 24 hours)

A Level IIc event is categorized by the presence of widespread damage throughout the Region. Once a Level IIc event is communicated by the RDO, the entire Regional storm team is mobilized. In addition to the staff mobilized at the prior event levels, the Communications Liaison, all External Affairs Managers and all remaining Supervisors of Line, Substation and Forestry report for storm duty.

As with a Level IIb event, the region will transition to the Distributed Dispatch process and the corporate storm support team will be engaged but not necessarily fully mobilized.

5.4.5. Level III Event (Greater than 24 hours)

Once the damage assessment process is complete enough to determine that the damage in a Region is so prevalent that all customers cannot be restored utilizing only the Regional resources, the RDO in conjunction with the Operations Services Director will characterize the Event as reaching a Level III. At this point, a communication will be sent by the RDO to the Regional storm team, and the Regional Director of Operations Services will notify the Corporate Emergency Response Coordinator of the need for additional resources.

The Corporate Emergency Response Coordinator will mobilize the necessary members of the Corporate Storm Team and determine if there is a need to open the EOC as described below.

Corporate Mutual Assistance Coordinator will communicate the need for additional resources to the Regional Directors of Operations Services in unaffected Regions to solicit additional resources for the affected Region. The additional resources will be assigned a reporting location and mobilized according to the Mutual Assistance Process described in Section 10.

5.4.6. Level IV Event (Greater than 48 hours)

Similar to a Level III event, a Level IV event is characterized by widespread damage that requires additional resources from outside the Region affected, specifically including external Mutual Assistance. External Mutual Assistance includes contractors and utilities from outside of the FE affiliates.

This determination will be made and communicated in the same fashion as described in a Level III event. Similarly, the Corporate Emergency Response Coordinator will mobilize the necessary members of the Corporate Storm Team and determines if there is a need to open the EOC as described below.

5.4.7. Level V Event (Greater than 72 hours)

A Level V event is characterized as having catastrophic damage that is affecting a significantly large number of customers within a Region or Regions.

At this level, the corporate EOC has been activated and all available storm response resources are called to mobilize in support of the restoration efforts. It is likely that Regional staging sites have been activated.

5.5. Forestry

The Corporate Forestry Coordinator will be responsible for coordinating the mobilization and movement of Forestry crews during restoration events. Because each event is unique in the damage footprint it leaves, the Corporate Forestry Coordinator will be responsible for maintaining situational awareness by communicating with the affected Region in order to determine the need to mobilize local Forestry crews and / or to move external Forestry crews into the affected area, regardless of the Level of the event.

5.6. Materials Management & Logistics

5.6.1. Overview

For major events, typically Level IIc or higher, Corporate Materials Management will establish a Distribution Center Command Center (DC CC) at the central warehouse supporting the impacted FE regions. The DC CC reports up through Regional Operations Support for the duration of the restoration event. The DC CC covers all functions related to supplying materials including demand planning, procurement, warehousing, transportation, and staging site support.

The DC CC participates on all regional and Corporate storm calls to stay abreast of restoration progress and crew movements.

Appendix 5.6.1 includes an organization chart showing the typical DC CC support team structure.

5.6.2. Materials Process

Prior to an event, if extensive damage is anticipated, the DC CC team will pre-pick material for staging sites and also place orders for material with suppliers.

Once the DC CC and field support locations are established, the following five-step process cycle repeats on a daily basis:

1. Mid-morning: Receive material needs from the field
2. Mid-day: Assess on-hand quantities in warehouse and at suppliers
3. Early afternoon: Place PO's / Reservations for on-hand material
4. Afternoon & Evening: Pick stock material, Receive material from suppliers
5. Early morning: Deliver requested material to Line Shops and staging sites

At the end of the restoration, material is returned from staging sites to warehouse locations.

5.7. Hospitality

The Hospitality function in the affected regions will be mobilized as early as the Anticipation phase to help coordinate administrative (e.g. rosters) and non-technical resources. As the level of the storm increases, this function will grow in the number of resources dedicated and in the scope of responsibilities. Once mutual assistance is obtained by the region, the responsibilities of the Hospitality function expand to serving as the point of contact for all lodging and catering (including staging sites).

5.8. Regional Water and Ice

Each Region has identified coordinator(s) of their Regional Water & Ice program that maintains a list of locations that will distribute water and ice in accordance with state and local regulations or upon the request of the County OEMs within the region. The Regional Water and Ice Coordinator will work with External Affairs and the Area Managers to determine the appropriate time to mobilize this function and to communicate the mobilization / demobilization of this practice. Once activated, the Contact Center On-Call Analyst should be notified so that information can be communicated to customers, posted on IVR or the external website.

Each Region will maintain on its Regional E-Plan Database a list of primary and back-up Water & Ice Coordinators as well as the list of all water and ice locations that may be used during a restoration event.

5.9. Regional Staging Sites

5.9.1. Overview

Staging sites are established when it is determined that crews arriving to support the restoration cannot be effectively supported and dispatched from Regional Line Shops. In the interest of safety and efficiency, staging sites shall not be populated until after the storm has passed, the 'all clear' is given, and the damaged areas are known with some certainty.

If multiple regions are impacted, thought shall be given to establishing shared staging sites to leverage FE resources more efficiently.

Each Region is responsible to maintain on its Regional E-Plan Database a current list of potential staging sites within the Regional storm plans, including site layout plans. As a general guide, a staging site should be at least one acre for every 100 people it is intended to serve.

5.9.2. Site Types and Criteria for Establishing

Full – A full staging site is essentially a large field Line Shop with on-site operations management, dispatching, job packet preparation, and full logistics support including materials, environmental, catering, water, housing, toilets, transportation, shelter, security, etc. The set up of such sites is typically outsourced to a service provider.

Modified – A modified staging site is designed to support a limited function such as material provisioning near a regional Line Shop or a site set up to handle a limited scope of work. These sites shall include shelter, equipment, security and toilets as required. The set up of modified sites is typically handled by regional facilities personnel but can be outsourced to a service provider if needed.

5.10. Corporate EOC

For events less than Level III, the Corporate EOC generally is not mobilized, but some members of the Corporate SMT will be supporting regional restoration efforts remotely, including Regulatory Reporting, PowerOn Support, Mutual Assistance Coordinator and the Hazard Coordinator.

When an event reaches Level III or higher, the Corporate Emergency Response Coordinator will notify necessary members of the Corporate SMT to mobilize and report to the EOC located on the first floor of the Akron General Office.

5.11. Information Technology (IT) Resources

Once it is determined that a storm is significant, the Mutual Assistance Coordinator or the Director of ED Operations Services will call the IT Help Desk to request the number of IT resources required at each location. The IT Help Desk will in turn contact those individuals from the "OMS Storm Support". Once contacted, representatives from IT will actively monitor OMS performance.

5.12. Coordination with Other Government Plans

During a large severe weather event, certain governmental entities may become part of the restoration process or may request resources from FE to staff their emergency command centers. Examples include the National Guard and county or other disaster agencies. Coordination of the Company's E-Plan with state government plans is initiated by the Corporate Emergency Response Coordinator. The Regional Director of Operations Services or a designated regional representative has responsibility for coordination with the local emergency planning agencies.

6. Hazard

6.1. Strategic Objective

Investigate and safely isolate hazardous conditions caused by the storm from the public.

6.2. Overview

Every storm leaves a "footprint" of damage within our system. Effective and timely assessment of the damage to the system is critical to ensuring public safety, setting restoration strategy and ensuring appropriate resources are engaged. The following describes the tools and processes used to quickly and accurately assess damage within that "footprint" and restore our customers' service in a timely and safe manner.

Hazardous conditions can be encountered at any time; therefore all field FE personal are to be familiar with the principles of the hazard process. The Accident Prevention Handbook (APH) will be the governing safety principle for performing hazard work.

6.3. Hazard Process ("Wire down Process")

The FE approach is to identify and address hazardous situations as quickly as possible and make safe the area from public contact.

Hazard Responder Personnel – Hazard teams of 1 or 2 people will be used to identify, communicate and make safe all verified wire down locations. Hazard responders are qualified by successful completion of an 8 hour training program and maintain their qualified status through annual refresher training. Hazard responders may also be selected from contractor resources outside the company. These contracted hazard responders should have a minimum of three years field experience in line maintenance, engineering or design or equivalent qualified training as described above. They must be familiar with all types of construction and line configuration including: transmission, primary and secondary applications.

Hazard responders are responsible for identifying hazard situations and securing the area during emergency storm operations. The hazard responder is integral to FirstEnergy's process to address hazardous situations as quickly as possible and protect the public from danger.

Hazard responders proceed to specific, assigned locations and report their findings to the hazard dispatcher such as the number and height of poles damaged, broken crossarms, primary and secondary conductors down, etc. If no electrical hazard is found, the hazard responder reports the situation to the hazard dispatcher and proceeds to the next location as directed by the hazard dispatcher. If a hazard is found, the hazard responder notifies the hazard dispatcher of the details of the condition and safeguards the location and stands by, if necessary, until relieved by another hazard responder crew, line/service crew, or public protector.

Hazard responders provide a detailed assessment of the hazard situation to the hazard dispatcher including facilities affected, vegetation conditions, etc. using Hazard Findings Form, as a guide.

Levels of Hazard Action (See Section 2.3 for Storm Level Definitions)

Storms declared by the RDO of Level IIa and IIb or higher trigger the hazard process. The regional hazard coordinator for the event should engage enough regional support to investigate all reported hazards. These resources are to be trained in advance and equipped to begin response within 90 minutes of notification. Additional hazard resources may be assigned in order to ensure compliance with state or local requirements.

Storms declared by the RDO of Level IIc or higher trigger the hazard process and event notification to the corporate hazard coordinator to prepare for additional support, if needed. The regional hazard coordinator for the event should engage enough regional support to investigate all reported hazards. As in the Level IIb event, resources should be available within the region and ready to begin response within 90 minutes of notification. Additional hazard resources may be assigned in order to ensure compliance with state or local requirements.

Storms declared by the RDO of Level III or IV trigger active corporate engagement through the corporate hazard coordinator and request for the nearest available resources. The regional hazard coordinator for the event should request enough regional and external support to investigate all reported hazards. The corporate hazard coordinator, in communication with the regional hazard coordinator, will determine the closest resources available. The corporate Hazard Coordinator may choose to use external contractor resources to supplement FE hazard responders.

A storm declared by the RDO of level V event includes all aspects of the Level I – IV and the use of non-traditional workers which may require immediate training and materials assembly for their deployment. A training liaison will be appointed and report to the corporate hazard coordinator to facilitate any necessary orientation and training sessions.

Hazard Dispatchers and Supporting Staff – will use the OMS to direct personnel and document the findings of all hazard teams. Upon receiving the assessment information from the hazard responder, the hazard dispatcher ensures accurate and professional assessments of the damage from the hazard teams are entered into the comment field on the order. The hazard dispatchers follow PORD procedures for working, documenting, closing, creating follow-up orders. Supporting staff will generally be supplied from the home region of the employees responding. This support staff will include the regional hazard coordinator and dispatchers.

Hazard Isolation

The hazard isolation process shall be implemented during an event in which there are multiple wire-down locations where hazard responders are unable to move to the next location due to the need to stand by and protect the public from hazardous conditions. Once the hazard isolation process is implemented, a Distribution System Operator (DSO) shall be designated to oversee the process to expedite the isolation (i.e. making safe) of known hazardous wire-down conditions. Once the isolation occurs, the DSO will release the hazard responder to move to the next wire-down hazard location.

7. Assessment

7.1. Strategic Objective

Perform ongoing assessments associated with major outages in order to effectively manage and deploy resources and provide situational reports to government agencies, community leaders, media and senior management.

7.2. Overview

Information obtained through the use of various tools and resources is critical to determine the type, number and location of resources needed to assure prompt restoration of service. Hazard responders and troublemen are integral resources in providing an initial assessment of the damage in the field.

7.3. Assessment Tools and Resources

A number of tools and resources are available for determining the extent of outages and damage to our system, as well as the number of customers affected. These assessment tools and resources include:

- OMS and Associated Obvient Dashboards
- Customer Calls
- Police & Fire
- Remote Indicators
- Field Crews
- Aerial Patrols

7.3.1. Outage Management System (OMS)

The Outage Management System (OMS) is the central collection point of all relevant information concerning damage reports, assessment and configuration of the electric system.

Customer trouble calls are typically reports of "no lights," damage, and/or hazards. OMS provides outage input, assessment, assignment, tracking, and data storage. As an assessment tool, OMS performs the following functions:

- OMS automatically groups customer calls into orders which can be sorted in a wide variety of ways to aid assessment and restoration management:
  - By RDO, Line Shop, city, street, zip code, date-time, open-closed
  - Sort Code

- Substation, circuit, and device that serves the customer

- The ability to sort and assign customer outage calls by the substation, circuit, and device enables the Dispatcher to determine the most probable device that has operated, and the location, type, and size of that device. OMS automatically groups customer outage calls and predicts the most probable upstream device that resulted in an outage.
  - OMS provides the number of customers per protective device.
  - OMS provides the ability to assess crewing needs based on the number and type of orders and average estimated restoration times.
  - The estimated restoration time can be estimated based on the number of crews available.

In the event that OMS becomes unavailable – Dispatchers shall use SAP List Edit procedure found in the Learning Library. Dispatchers will print the call from SAP and document: Crew assigned, Times, Field notes including damage, need for follow-ups, and Restoration time. Once PowerOn is restored, they will enter the information on the PowerOn order and close.

In the event that OMS and SAP become unavailable - Telephone answering personnel shall complete handwritten outage data on Storm Trouble Report Form and fax the form to the appropriate RDO office.

7.3.2. Customer calls

To a large extent, accurate assessments depend initially on customer-provided information. The OMS is the primary means to process this information so that resources may be efficiently utilized.

The customer provided information is primarily obtained via the phone system, which is designed both to handle routine outage calls during normal operations as well as the more numerous outage calls received during major events. The overall objectives are to insure that customers do not receive busy signals under any circumstances and to convey the information customers provide accurately and efficiently into OMS. The call is first directed and managed in the internal phone systems. The customer will make a selection from the main menu, selecting either a complete loss of power, partial power, street light or other emergency.

If the customer chooses complete loss of power and has not yet been identified by the internal IVR phone system, they will be prompted for the phone or account number on the account. This process allows for the loss of power situation to be quickly processed and reported through the FE automated system. Should the customer indicate a “wire down” situation, the customer will be transferred to the first available Customer Service Representative (CSR). The Call Center maintains the ability to fully automate all outage and/or wire down situations during the onset of a major event. The ability to network phone calls between all FE call centers is available enabling more calls to be handled by CSR’s. Thus the automation of wire down contacts in the internal FE IVR is minimally utilized.

When the customer reports a complete loss of power through the automated system, a notification is automatically created and the notification number is provided to the customer as a confirmation number. Outage information is also provided to the customer at this point. The customer is then given an option to report additional information, and if so desired, is then transferred to a CSR unless the IVR is operating in the semi-automated mode. In semi-automated mode, wire-downs are answered by a live agent.

Indication of partial power, street light or other emergencies from the main menu are transferred to a CSR after the customer identification process has taken place. Rotary customers are transferred to a CSR.

During a major outage event, the number of calls can exceed the capacity of available trunk lines and the number of call center representatives available to respond to each call. An automated emergency mode (21st Century) is activated when necessary during a major event or briefly at the onset of an outage. This “emergency mode” is used to coordinate appropriate staffing levels in the Call Centers (which includes calling employees into the Call Center from home) or to

avoid providing busy signals to large numbers of customers (exceeding the maximum phone line capacity in the Call Center).

If for any reason, while in an automated function the caller is unable to process their information, the system captures the customer's phone number in order for the call center to perform a personal contact.

Customers can elect to receive a restoration verification call-back. The call back feature can be modified by the call center analyst to call only those customers when restoration is complete, otherwise customers will also get ETR updates.

7.3.3. Police and Fire

A dedicated 800 number is available for all 911/Emergency Dispatch Centers. This number is given priority over all other calls, is never connected to an IVR and is isolated from all other customer calls. These cases include safety forces standing by, wire down hazard calls and life and limb (entrapment) scenarios. A screening process is employed by specially trained call center employees to qualify and route critical calls expeditiously to the respective RDO.

7.3.4. Remote Indicators

Circuit lockouts, alarms, and SCADA provide remote indication of outages.

7.3.5. Field Crews

Field crews, which could include line, service, trouble, and substation personnel in addition to hazard responders will report back to the dispatcher on other cases of trouble that they encounter in the field.

7.3.6. Aerial Patrols

Under special circumstances, such as when ground crews cannot effectively patrol a circuit, it may be necessary to use aerial patrols in the assessment process. Once this determination is made, a Regional representative will contact the corporate Helicopter Coordinator(s) to schedule an aerial patrol. Information on primary and back-up Helicopter Coordinators and the eligible vendors is maintained in the E-Plan Database.

7.4. Circuit Quarantine Process

The objective of the circuit quarantine process is to safely eliminate bottlenecks, optimize response time, improve internal and external communications, maximize resource utilization and allow for improved data and information flow during any large-scale emergency restoration response within FE

Once the circuit quarantine process is activated, a designated Distribution System Operator (DSO) from either the local or an alternate RDO shall be named to control the switching and clearance control procedures in compliance with the Manual of Operations for circuits declared as quarantined. This designated DSO will be the single point of contact for all switching activities on these circuits. It shall also be the responsibility of this designated DSO to model restoration activities on the quarantined circuits through communications with the Quarantine Sub/Circuit Lead.

The Quarantine Coordinator will typically be staffed by a Regional Director, Operations Support or other designee. This role is centered on the logistical preparation and execution of the circuit quarantine process. The Quarantine Coordinator shall have the role of globally managing the required logistics and resources required for the preparation and management of the quarantine process. This role is critical during the pre-event planning and must ensure all parties have completed their appropriate assignments and training activities and records are up to date.

The Quarantine Sub/Circuit Lead serves as the single point of responsibility in the field for a quarantined substation or circuit(s). This individual is responsible for organizing an initial damage assessment, determining field resource and material requirements, and communicating critical information. This role interfaces directly with the Designated DSO to effectively coordinate switching activities related to restoration and ensure compliance to the Manual of Operations and all associated procedures. The Quarantine Sub/Circuit Lead is accountable for all aspects of safe and efficient field operations on assigned substations or circuits.

The Quarantine Communication Liaison is the single point of contact for the timely and accurate communication of information to all applicable internal and external parties impacted by the particular substation or circuits that have been quarantined as part of the restoration process. This role is accountable for verifying all critical facilities and key customers on assigned circuits during pre-event planning activities and updating appropriate databases, spreadsheets and lists. This individual will ensure consistency of information flow to all required parties and work closely with the Quarantine Coordinator and the Quarantine Sub/Circuit Lead throughout the restoration effort.

Damage Assessors are individuals who are utilized on a quarantined circuit to perform and document an initial assessment of damage. The accuracy of the information gathered is critical and will be used to develop an initial ETR and resource plan. The goal is to mobilize this role very quickly following an event and complete a rapid assessment of the affected area. This position will also play a key role as the quarantined circuit nears full restoration, and will return to complete a final sweep prior to resource demobilization to ensure all work has been completed. Qualifications of damage assessors are five years or more of field experience including extensive experience, with line construction, design, engineering or repair.

Each Region is expected to maintain on its Regional E-Plan Database a current list of personnel that are qualified to serve as Quarantine Coordinator and Quarantine Sub / Circuit Lead.

Assessment Activities – include the documentation of the specific materials, equipment needs and challenges repair crews will face at each location of damage. The documentation will be done on maps (electronic or paper) that can be readily viewed by designers or field personnel. In addition, ingress and egress routes may need to be determined where road closures or weight limits inhibit the travel of line equipment. Assessors will document the conditions and remain available to designers, supervisors or field crews until all information has been transmitted.

Assessors may be used to guide mutual assistance crews back to affected areas and to provide job overviews. Assessors who are trained in the manual of operations may conduct switching operations or place tags.

The assessment activity should engage enough support to the timely assessment all locations Assessors are to be determined in advance of an event and a listing of these people is to be maintained in the E-Plan Database for each region. The corporate hazard coordinator will maintain a listing of external companies that can provide similar support.

8. Restoration Management

8.1. Strategic Objective

To respond to and to manage all electric system disturbances, restoring service as quickly and as safely as possible, effectively using all available resources.

8.2. Adherence to Manual of Operations (MOP) and the Accident Prevention Handbook (APH)

IMPORTANT - Storm restoration is structured to assure adherence to the Manual of Operations and the Accident Prevention Handbook at all times in order to maximize the safety and efficiency of FE personnel.

8.3. Overview

Restoration during emergency events is managed and coordinated by the local RDO. The RDO is responsible for activating the storm plan and will monitor and alert regional and corporate personnel as referenced in Section 5.3. When the emergency event is upgraded to a Level II and exceeds local RDO resources, FE utilizes the Distributed Dispatching process. This is a process by which simpler, less complex tasks, normally performed by the RDO, are assigned to other organizations. Typical tasks include dispatch of hazard, forestry, line and service. Distributed Dispatching allows hazard response and timely customer restoration to take place concurrently by utilizing employees who have been assigned a storm role which may be different from their normal job duties. Employees may work for different organizations throughout the storm based on their skill set and need by the organizations.

The RDO communicates through paging or conference calls when Distributed Dispatching is engaged. This communication will be structured by storm level and will include affected area and organizations being requested to supplement the dispatching process.

The outage management system (PowerOn) is the primary tool used during restoration events. Proper order documentation and flow between the organizations is critical for the timely restoration of customers and safety of the public and employees. Through proper documentation in PowerOn, all organizations remain aware of field personnel status at trouble locations. In addition, the customer and other interested parties depend on reporting that originates from order documentation. Movement of orders and real time modeling of the electrical system is critical to the storm process.

8.4. Sequence Of Emergency Activities

HAZARDS and 911 EMERGENCIES- Eliminating hazards is always a priority. When Distributed Dispatching is engaged, the primary purpose of the hazard organization is to respond to and stand-by identified hazards until the hazard has been made safe. 911 emergencies are monitored by the RDO and are given priority 1 classification.

SERVICE RESTORATION -In general, the process is designed to restore power to the greatest number of customers in the shortest time possible as well as to provide priority restoration to distribution customers that provide functions essential to the health and safety of the communities we serve. Good judgment and the prevailing conditions at the time may dictate variations in service restoration priorities. The Corporate and Regional SMT organizations are structured so that several of these activities may take place concurrently.

- *Transmission and Substation Outages*
  - System Security
  - Outage Restoration
- *Distribution Outages*

- Distribution Outage Restoration Priorities (in no particular order):
  - Hospitals
  - Large nursing homes with critical life support customers
  - Critical life support customers (once restoration is to the single customer level)
  - Telephone exchanges
  - Water supply and pumping stations
  - Sewage treatment system
  - Police departments
  - Fire departments
  - Correctional institutions
  - Radio & TV stations and Newspapers
  - Rural Electric Cooperatives (REC's) / Rural Electric Associations (REA's)
  - Natural Gas Company
  - Countywide 9-1-1 System (Centers and towers)
  - Military Installations
  - Schools
  - Airport control towers
  - City, village, township halls
  - Emergency Shelters

- *Other Outages:*
  - Three-phase primary circuit outages
  - Single-phase outages
  - Transformer outages - Industrial, Commercial, and Residential
  - Secondary outages
  - Service outages
  - Street light outages
  - Other Electric Companies (Foreign Companies)
  - Customer Owned Equipment

8.5. Re-centralization of Restoration

The FE restoration model is dynamic and expands from dispatch of crews by the RDO to dispatch of crews by other organizations (Hazard, Line, Service) through Distributed Dispatching. At a point in time where the majority of customers have been restored and RDO resources can effectively manage restoration, responsibility is transferred back to the RDO for dispatch of crews. Once this transfer occurs, the RDO takes responsibility for investigation of new outage and hazard calls. This transfer can occur while the line shops are still repairing and restoring customers.

8.6. Ramp-down

8.6.1. Demobilization of the Hazard Organization

Once hazard order work is complete, the Hazard Coordinator should offer resources to the RDO Manager to investigate single no-light calls or to perform sweeps of damaged areas. Upon completion of this new assignment and/or following discussion with the RDO manager indicating that Hazard resources are no longer needed, the Hazard Coordinator will release regional personnel back to their normal supervision. For other FE company personnel, the Hazard Coordinator will notify the Corporate Hazard Coordinator who will release the crews to their local field management.

8.6.1.1. Demobilization of the Forestry Organization

Once forestry order work is completed, the RDO manager will notify the Forestry Coordinators that crews can be released back to their normal supervision. Release of forestry crews outside of normal regional contractor personnel will be managed through the Corporate Forestry Coordinator.

8.6.2. Demobilization of Line and Service Organizations

Lines and Service will continue to dispatch crews until orders routed to their organization are completed. The Line and Service Managers will initiate discussion with the RDO Manager to determine if dispatch activities may then be transferred back to RDO resources. Once dispatch is transferred back to the RDO, additional line work may be assigned (i.e. follow-up work and temporary repairs). The operations manager (or designee) will notify the Regional Director of Operations that Regional line and service personnel can be released back to their normal supervision or re-assigned. The Regional Director of Operations Services will notify the Corporate Mutual Assistance Coordinator that personnel normally assigned outside of the region, foreign utility crews and contractors can be released, re-assigned or offered for mutual assistance.

8.7. Restore System to Normal Configuration

The system will typically be restored to normal configuration following restoration of customers. Any circuit not in normal configuration needs to be modeled in PowerOn and a switching control created in Energy Delivery Outage Application (EDOA). Any equipment out of service awaiting repairs needs to be modeled in EDOA's inoperable equipment log.

9. Continuous Learning

9.1. Strategic Objective

Systematically ensure that lessons learned from emergency response events are communicated and appropriately incorporated into the emergency response plan

9.2. Debriefing Sessions

Debriefing sessions should be held with all personnel supporting the storm effort.

- Individual meetings should be held with the RDO, Hazard and Forestry dispatchers following the end of the event.
- Individual meetings should be held with the Hazard, Public Protectors and Forestry crews by their normal reporting locations
- Individual line shops should hold a meeting with the crews involved with the event
- Before foreign utility crews and contractors are released, a FE representative should debrief the crews

9.3. Lessons Learned Review Meetings

The Regional Director of Operations Services is responsible for scheduling review meetings within a reasonable timeframe following major events, which should usually be no later than 30 calendar days after the conclusion of an event. This formal review should be conducted for all events that reach or exceed a categorization of Level III or above.

The attendees for the lessons learned meeting should include all key regional and corporate personnel who were involved in the event as well as the Corporate Directors of Outage Management, Operations Services, Performance and Process Improvement.

9.4. Performance Review Scope

The Lessons Learned review meetings should be conducted to evaluate the overall restoration performance of the region given the storm characteristics and its damage footprint. The main objective of the lessons learned reviews should be to identify both areas of good performance as well as areas where there are opportunities for continuous improvement. Any significant deviations from the storm process described in this E-Plan should be identified and explained. Where possible, the restoration performance evaluation should incorporate both internal and external benchmarks as well as performance against ETRs that were communicated during the event.

9.5. Performance Review Findings

Within 14 calendar days after the Lessons Learned meetings, the Regional Director of Operations Services should submit a final list of findings and actionable items to the E-Plan Steering Committee utilizing the guidelines in Appendix 9.5.

The Steering Committee shall be tasked with ensuring that all appropriate findings and action items are completed, incorporated into the E-Plan and communicated to all affected parties.

10.Communications

10.1. Strategic Objective

Provide accurate and timely information to all internal and external stakeholders

10.2. Overview

Communication of timely and accurate information is an essential element to efficient restoration of service and to keeping all stakeholders safe and informed. The following provides an overview of how FE communicates internally, externally and directly with individual customers during events.

10.3. Internal Communications

Efficient and accurate communication is a critical element to the successful planning and execution during an event. Internal communications are conducted primarily by regional personnel and the corporate storm team as described below.

10.3.1. Corporate Emergency Response Coordinator

The Corporate Emergency Response Coordinator has responsibility for oversight of all internal communications during emergency events. As described below, the purpose of the communications is to ensure proper coordination, facilitate decision-making, align resources and keep internal stakeholders informed of progress.

10.3.2. Company-wide Conference Calls

During larger events, the Corporate Emergency Response Coordinator generally conducts conference calls twice daily to get status updates from the affected regions. In general, these conference calls will be made when any region has a significant weather event that reaches Level III. Updates will continue throughout the event until final restoration is achieved.

10.3.3. Miscellaneous

In addition to the regularly scheduled calls and updates, the Corporate Emergency Response Coordinator routinely communicates with Regional and Corporate stakeholders to ensure proper coordination and to facilitate decision-making as the need arises. This may be accomplished via email, phone calls or text message.

10.4. Regional Communications

10.4.1. Communications Liaison

The Communications Liaison in each region has primary responsibility for ensuring the timely and accurate communication of information between operations groups, corporate communications, the call center and external customers. In addition, the Communications Liaison oversees the Escalated Outage Coordinator described in section 9.8.

10.4.2. Company-wide conference calls

As described above, each Region participates in the company-wide conference calls to provide status updates on restoration progress, resource needs, resource availability and estimated restoration time for their region. The regional Director of Operations Services (or their designee) is responsible for initiating and scheduling the twice daily calls.

10.4.3. Regional Planning Meetings and Calls

During an event, the affected Region(s) conduct regularly scheduled planning meetings to discuss internal plans and provide updates to stakeholders within the region. These calls often discuss details related to restoration progress, resource needs, resource availability and ETRs, at the district level within each region. Applicable information is communicated on the corporate conference calls.

10.4.4. Regional Notifications

Each region should maintain a voice mail distribution list/text pager list of key management personnel as a communication tool for the RDO (or others) to provide status updates and to communicate timely messages.

10.4.5. RDO, Communications Liaison to Contact Centers

The RDO communicates through the Contact Center On-Call Analyst regarding significant outages, restoration events, and other storm activities. Contact centers attend both regional and corporate storm conference calls to gather important updates regarding the restoration effort.

10.5. Individual Customers

FE uses a variety of methods to ensure timely and accurate communications with individual customers. The following provides an overview of the methods and process used.

10.5.1. Contact Centers

FE operates three similarly sized contact centers in Reading (PA), Akron (OH) and Fairmont (WV) with the capability to seat more than 800 CSRs utilizing approximately 1,500 inbound lines to handle customer calls. Furthermore, the outsourced credit vendors can be engaged for an additional staff of 200 agents using their inbound lines to manage overall call volumes. 21st Century is also utilized for peak outage call volumes, which includes the use of phone lines capable of handling more than 12,000 simultaneous calls.

The Contact Center will be initially staffed according to the anticipated or actual number of customer outages.

10.5.2. Interactive Voice Response (IVR)

The Contact Center has the ability to record in the IVR at the OPCo, district, or circuit level a message containing outage information for specific outages affecting a service area, which is then played for the customer in place of the estimated restoration time provided by OMS to the IVR.

The RDO, Communication Liaison or Contact Center may initiate a message such as:

... As of (X PM July 7,) (Operating Company name) is currently experiencing power outages due to the storms that recently swept across our service territory. The majority of customers can expect to have power restored by (X PM) today, with the remainder by midnight. If you have not yet reported your power being out please remain on the line and as always please treat all down wires as live and dangerous.

10.5.3. Verification of Restoration (Callbacks)

The following systematic procedures are utilized to verify that a customer's service has been restored. The callback will verify that restoration efforts have indeed resulted in restoring service to all affected customers who have contacted us and indicated a desire for a callback.

The Dispatcher initiates the process after field crews report completion of clearing actions, such as a main line fuse replacement or repair of downed lines.

The IVR will normally be used to call customers to verify that restoration has taken place. If necessary, supervision will assign staff to call back a list of customers provided by the Dispatcher. A sampling of customers should be contacted for a large group. Use a larger sample for areas with a high incidence of secondary and service problems.

The Dispatcher shall review the callbacks and create a continued case if additional restoration is required.

10.6. Critical Care Customers

Critical Care Customers can obtain information concerning their outage from the Company by calling the 888-LIGHTSS and obtaining information from the IVR, or by selecting to speak to a CSR who can communicate the estimated restoration time.

10.7. Major Customers

National and regional customer representatives shall communicate with major customers using SAP as an information source for restoration efforts and times. They should call major customers to proactively assess their needs and provide them information for planning purposes. In addition, major customers have been provided a dedicated 800 number to speak directly to a Call Center representative bypassing any IVR prompts. The CSR will review the Create Trouble Ticket (CTT) screen for the estimated restoration time, and SAP will notify the regional customer representative when an order has been created.

10.8. Escalated Outage Coordinator

During larger events, the Region may elect to appoint an Escalated Outage Coordinator to oversee and maintain a list of high priority outages and/or situations. At the direction of the coordinator, outage related information is provided by the regional Communication Liaison. This role interfaces with the Operations Services Director or their designee as necessary to allocate crews to restore these customers. A status update on the priority list will be provided every 2 hours to the Communication Liaison and regional leadership.

10.9. Estimated Time of Restoration

On “blue sky” days and in smaller events, the estimated restoration time communicated to the customer is obtained from the OMS. The OMS reflects the time that the trouble call was dispatched, the estimated restoration time, and consequently, the actual “clock time” that service is expected to be restored. The estimated restoration time is based upon an average of actual restoration times for similar work. This information is passed to SAP and the IVR and ultimately to the customer. The ETR will be updated by the dispatcher if there is indication that service will not be restored by the computer estimated time. The dispatcher will continue to update the ETR until service is restored. Customers who have indicated that they would like periodic updates when ETRs change shall receive a callback if the ETR change is manually adjusted to 90 minutes or more beyond the original ETR that was provided to the customer. However, the customer will not receive a callback if the current time is between midnight and 6 AM or if outbound ETR callbacks have been turned off.

The Dispatcher or Communication Liaison may elect to suppress this estimated restoration time during large- scale storms, when computer-estimated restoration times may be inaccurate. During these large events, the region will provide a global

ETR once a storm footprint and resource review has been conducted. This generally can occur within 12-24 hours for major storms and within 48 hours for catastrophic events. Global ETRs for catastrophic events will be reviewed and recommended by the Critical Information Team. Following the issuance of a global ETR, each region will provide updates at least once daily. The region will drill down ETR estimates to district or other smaller geographic areas as more information becomes available. Actual field estimates provided by crews should be used when available.

10.10. External Communications

During an event, status update and important messages are communicated to external stakeholders, customers, the media and public commissions. The following describes the tools, resources and processes used to communicate externally.

10.10.1. Corporate Communications Department

FE employs a corporate communications department that is responsible for all external messaging, press releases, website and social media content and other external communications during emergency events. Dependent on the size of the emergency event, corporate communications will mobilize personnel to ensure an appropriate level of support for the external communications efforts described below.

10.10.2. Media and Local Officials

Regional Management will appoint a regional Communications Liaison who must be kept apprised of the outage extent, duration and restoration efforts. The Communications Liaison shall coordinate with Corporate Communications as necessary in order to communicate with newspapers, radio, and television stations. The news media should be contacted proactively during wide spread outages to keep the public informed of anticipated restoration times. This will enable customers to make alternate plans. Safety messages are appropriate when hazardous conditions exist.

10.10.3. Public Utility Commissions

Each state has regulations that detail when the Company should initiate communications with regards to outage reporting to public utility commissions and when post-event or major-event reporting is required. It is required that the Company complies with all requirements for outage and major event reporting. A complete listing of these requirements for all states and operating companies can be found in the E-Plan Database.

10.10.4. Website

FE employs an outage website (firstenergycorp.com) where customers may view and report outages, check for ETRs and obtain other storm updates.

10.10.5. Social Media

FE also uses social media to communicate with customers including Twitter and Youtube.

10.10.6. Critical Information Team

FE has developed a Critical Information Team (CIT) and supporting processes to ensure timely, accurate and consistent information is communicated during large events. The CIT will generally be mobilized only in a Level V event, but it may be activated during smaller events.

Once mobilized, the CIT acts as a central information hub for all internal and external communications. The process is designed in a way that all information is submitted to the CIT where it is then compiled into messages, reports and updates and communicated back through the internal and external communication channels. Appendix 10.10.6 describes the CIT process.

10.10.7. Police and Fire

Police and Fire agencies have dedicated phone lines and faxes into each Contact Center. These dedicated lines are used to report police and fire concerns with electrical hazards or when police and fire crews are standing by an emergency. Police and fire agencies may obtain updates to the restoration effort through these dedicated lines or through their local area manager.

10.10.8. County and State Emergency Command Centers

Each Region will assign a person to communicate directly with County and State Emergency Command Centers during emergency events. For larger events, or upon request, consideration should be given to sending a qualified regional liaison to the County and / or State Emergency Command Center.

11. Mutual Assistance

11.1. Overview

Mutual assistance is defined throughout the electric utility industry as the procedure to provide and request assistance to aid in the restoration of electric service when it has been disrupted and cannot be restored in a safe and timely manner by the affected company. For FE operating companies, resources may be provided by other FE affiliate companies, non-FE utilities, cooperatives, contractors, or all of these if the event warrants this level of support. Once it has been determined that all service to customers cannot be restored within a twenty-four (24) hour period, Mutual Assistance should be considered. Given the size and contiguous nature of FE's footprint and the number of resources that are normally available, internal Mutual Assistance will typically be the primary source of additional resources. However, in the event internal crews are not readily available or not sufficient, due to reasons such as excessive travel constraints or perhaps due to existing or potential weather impacts elsewhere on the system, then External Mutual Assistance may be required.

11.2. Regional Mutual Aid Groups

FE is a participant in the Mid-Atlantic Mutual Assistance (MAMA) group, the New York Mutual Assistance Group (NYMAG), the Great Lakes Mutual Assistance Group (GLMA), Southeastern Electric Exchange (SEE.) and the Allegheny Managers Members Group/FE (AMMG/FE) Mutual Assistance Group. Each has pledged to assist one another to the extent possible during an emergency with construction personnel resources and equipment. Equipment includes various line trucks, construction vehicles, and specialty equipment (e.g. backhoes, cranes, etc.). A complete listing of the participating companies shall be maintained and updated annually by the Corporate Mutual Assistance Coordinator within the Mutual Assistance section of the E-Plan Database.

The requesting participant utility specifies the personnel and equipment it deems necessary to promptly restore service to its customers disrupted by emergencies. MAMA, NYMAG, GLMA and SEE will assist in locating personnel and equipment from commercial sources or from within the participant's utility organization. The participants agree that all requests for assistance will be treated with the utmost sense of urgency.

Edison Electric Institute (EEI) is a professional industry organization which maintains a website called 'Restore Power'. This website contains the names of over one hundred utilities and fifteen contractors from across the United States that can be contacted for mutual assistance. Many of these utility companies are parent companies, with numerous companies within their organizations.

11.2.1. Emergency Material

FE is a participant in the Mutual Emergency Materials Support (MEMS) group. This group of approximately 45 electric utilities throughout the United States has pledged to assist one another to the extent possible during an emergency with material.

The requesting participant utility specifies material it deems necessary to promptly restore service to its customers disrupted by emergencies. MEMS participants will assist in locating material from commercial sources or from within the participant's utility organization.

The participants agree that all requests for assistance will be treated with the utmost sense of urgency. Unless otherwise agreed at the time of contact, the participant receiving a request for aid will provide an answer or status of request within four (4) hours after receipt of request and every four (4) hours thereafter until the material is in transit or until it is determined that the material is not available. The intent of the MEMS group is to provide material within 24 hours of the request.

The websites for this organization are www.mems.org and www.mems-online.org. A complete listing of the participating companies shall be maintained by the Corporate Mutual Assistance Coordinator within the Mutual Assistance section of the E-Plan Database.

11.3. Governing Documents

FE is signatory to the EEI Mutual Assistance Agreement and complies with EEI's governing principles when mutual assistance is requested In addition, FE is also a member of industry mutual assistance organizations, including Southeastern Electric Exchange (SEE), New York Mutual Assistance Group (NYMAG), Great Lakes Mutual Assistance Group, (GLMA), and Mid Atlantic Mutual Assistance Group (MAMA) for which mutual assistance guidelines also exist with varying requirements Should there be any conflict in procedures and guidelines contained in the SEE Mutual Assistance Procedures and Guidelines and other regional or national mutual assistance agreements, guidelines, principles, or procedures, SEE members will adhere to the procedures approved by the SEE Mutual Assistance Committee when assisting or requesting assistance from fellow members.

11.4. Process for Obtaining Mutual Assistance

11.4.1. Regional Request Process

Requests for assistance should be made by the Regional Directors of Operations Services to the Corporate Mutual Assistance Coordinator who will coordinate all Mutual Assistance requests.

When Mutual Assistance is requested, the following information should be provided.

Applicable information so that the correct resources may be procured:

1) When the crews are needed
2) Number and type of crews needed
3) Where the crews should report
4) Name and title of the person they will be reporting to
5) Estimated duration of the emergency
6) Weather conditions - present and predicted
7) Equipment needed:
   - Digger - derricks
   - Bucket trucks (manlifts)
   - Bucket trucks (material handling elbows)
   - Other trucks (service trucks, stakebodies, pickup trucks)
   - Passenger cars
   - Special equipment (pole trailers, wire trailers, backyard diggers etc.)
8) Material needed (a list of commonly needed storm material should be provided based on the type of storm experienced.)
9) Tools required (including rainsuits, trouble lights, batteries, etc.)
10) Maps to the area with any pertinent restrictions/construction and detailed maps to the reporting location.
11) A copy of the Declaration of Emergency by the Governor if available.

11.4.2. Corporate Mutual Assistance Coordination

Once this information is received from the requesting regions(s), the Corporate Mutual Assistance Coordinator will determine if there are adequate internal resources (including contractors already on the property) to fulfill the request(s) or if additional resources external to the FE system may be necessary. In the event it is determined that external crews are needed, a request will be communicated to one or more of the Regional Mutual Aid Groups (RMAGs) by the Corporate Mutual Assistance Coordinator. The Corporate Mutual Assistance Coordinator must maintain a situational awareness at all times and know what areas have either been affected or are likely to be affected by a weather event in order to obtain the appropriate number of crews in a timely fashion.

Once informed of the number of crews that the RMAGs can make available the Corporate Mutual Assistance Coordinator will:

- Coordinate with Supply Chain to confirm that the contractor / utility has all required paperwork and contracts in place in the contractor database to be eligible to work for FE.
- Propose and subsequently finalize the number of crews that will be deployed to each region, if multiple regions are requesting crews.
- Communicate to both the RMAG crews and the host Region that the crews have been mobilized
- Provide contact information to both the RMAG crews and the host Region so that the Host and Assisting Crew responsibilities described below can be communicated and implemented as appropriate
- Maintain a list of all RMAG crews obtained and which Region they were deployed to, including secondary deployments
- Communicate any special provisions of the RMAG crews such as the need to be released by a certain date
- Hand off responsibility for the RMAG crews to the host region once assigned

11.4.3. Regional Responsibility of RMAG Crews

Once the RMAG crews are “handed off” to the host region, Regional personnel retain all responsibility for communicating with the RMAG crews on their work locations, lodging and release unless the Region requests the assistance of the Corporate EOC.

The host region is responsible for communicating changes in deployment or the intent to release RMAG crews to the Corporate Mutual Assistance Coordinator. The Mutual Assistance Coordinator will track such changes and inform the RMAG from which the crews originated of the intent to release the RMAG crews.

11.5. Host Responsibilities

When Mutual Assistance is obtained, the following are the expectations of the host region:

Lodging - Overnight accommodations will be arranged and paid by the host, unless otherwise agreed upon. A Hospitality Coordinator should be identified to make necessary arrangements and to record where assisting crews are staying. It may be necessary to locate crew personnel during their rest periods. Consideration should be given to placing crews in hotels with nearby restaurants.

Meals - Food will be arranged and paid by the host unless otherwise agreed upon. If impractical, the assisting crews will be reimbursed if they provide sufficient documentation.

Work Schedules - Expeditious service restoration, maximum utilization of daylight hours, (normally 6 AM to 10 PM), safety and full eight hour rest periods should be considered.

Pay Practices - The responding crews will be paid in accordance with their company practices

Crew Guides - Also known as scouts or “bird dogs”, will be provided by the host to maintain communications between the host and the assisting crews. When necessary, Crew Guides will be used who have authorization to request clearances, communicate by radio with dispatching and assure effective and safe utilization of assisting crews. In order to expedite restoration by maximizing the amount of wrench time of foreign crews, the bird dog should meet the foreign crew management team at the restaurant (or staging site if applicable) while the crews are eating breakfast. This will enable the communication/prioritization of work packages and enable the crews to leave immediately after breakfast and go directly to their assigned work locations.

Orientation - Upon arrival and before commencement of work, the host will review safety practices, protective equipment and line clearing practices. In each orientation, the host regions "Electric System Overview" (posted on their regions E-Plan Database) will be used to discuss the local electrical system and situations peculiar to the area. Preparation of materials should be completed before assisting crews arrive.

Release - Debriefing sessions should be held and thank you acknowledgments initiated.

Personal Expenses - Responding crews must be advised in advance regarding personal expenses that will not be reimbursed. Some examples of non-reimbursable expenses are:

- In room movies
- Alcoholic beverages
- Room Service
- Personal phone calls in excess of (number) or (time limit) from the room
- Personal articles of clothing

Storm Kit - Provide a storm kit for crews upon arrival, including a minimum of the following items:

1) Photocopies of appropriate information from the regional databases
   - Lodging Facilities
   - Chargeable Restaurants
   - Chargeable Gasoline and Diesel Fuel Facilities
   - Job briefing documents
2) Circuit maps
3) Geographical (County) maps
4) Clearance procedures
5) After verifying any necessary forestry work has been completed for a specific work location, work packages are provided and include the following information:
   - Circuit print overview/voltage
   - Smaller 11 x 17 maps of affected area within the circuit (i.e. job sites), order of occurrence to completion, prioritizing customer count from largest to smallest
   - PowerOn order(s) associated with the circuit
   - List of material needs such as poles, wire, etc.
   - OUPS number
   - Name of responsible crew guide
   - Work area protection needs including traffic control
   - Pre-written switching documents if needed
6) Electric System Overview described in Section 11.8 below

11.6. Assisting Crew Responsibilities

Expectations - Assisting crews should understand before they are deployed that accommodations (lodging and meals) may be less than commonly provided on short-term emergency assignments. An attempt will be made to provide an estimate of the duration of the emergency assignment. Employees should be advised that emergency assignments may result in extensions of commitments.

Confirmation - Approximate departure and arrival times and a personnel roster including name, job title / classification, and vehicle number and description should be transmitted to the host contact before departure. Primary and emergency contact telephone, pager or other means of communications should be included.

Supervision - Included in the responding contingent should be an overall person-in-charge, and an appropriate number of supervisors. The supervision to worker ratio should be approximately 1: 10. Work will be assigned through these supervisors

Vehicle Maintenance - All vehicles should be inspected and prepared for the conditions expected before departure. Consideration should be given to providing vehicle mechanics and spare tires or other equipment depending on the journey. First aid provisions should be included.

Convoys - Determination of transportation mode should be made on a case by case basis. Consider number of vehicles, ability to communicate among vehicles, permission to by-pass tolls and weigh stations and ability to repair.

Communication Equipment - Most FE field resources have been equipped with a Land based Mobile Radio System (LMR) for communications between other field resources and base station and dispatching offices. Not all Operating Companies' LMR's are compatible with other FE Operating Companies' LMR's. In these instances, visiting resources (at least at the supervisory level) are issued a compatible LMR handheld unit from a spare supply of radios. When spare radios are not available or for resources that are not typically issued a LMR, cellular telephones are supplied as a backup communications device.

Release - Each person will be expected to return with the remainder of their group to the original departure location and report to local management. All host company tools and equipment should be returned. Complete reports for lost or damaged tools and equipment should be prepared and submitted.

11.7. Lockout / Tagout Procedure

To meet the requirements of OSHA and the NESC, FE relies upon strict adherence to a tagging system and the granting of Clearances controlled though transmission and distribution dispatching offices. Placement of tags for clearances (red tag) and operating conditions (yellow tag) is directed by the dispatching offices.

NEVER assume equipment is de-energized regardless of tag placement. Any circuit or equipment shall be treated as if it were energized, unless an appropriate Clearance is obtained by the working crew and then the lines are properly grounded.

Lockout/Tagout will be performed consistent with the FE Manual of Operations and the Energy Delivery & Customer Service Accident Prevention Handbook.

11.8. Electric System Overview - System Profile

Each region (operating company) has developed a "Electric System Overview" page, which is posted on their regional E-Plan Database. This overview includes information on voltages, construction, the overall territory, as well as other electric utilities that are in the area.

Appendix 2.4.1 – Regional Storm Roles (OpCo)

Storm Process Role	Summary	Responsibilities
Regional Director of Operations	Oversees entire regional restoration effort	• Implements Emergency Checklist • Requests staging cites (when needed) through County Emergency Mgmnt Coordinators • Procures resources (personnel/equipment) • Establishes contacts with County Emergency Mgmnt Agencies and other gov't. officials regarding service restoration times • Coordinates frequent updates between op. co. and corporate representatives. • Verbal progress reports to Regional President
Regional Director of Operations Support	Ownership and direction of operational support activities for entire regional restoration effort	Ensures appropriate steps are underway to restore service in a reasonable length of time
Communications Liaison	Key role in storm restoration process. Interacts with regional storm restoration team (RDO, Call Center, Storm Mgmt, External Affairs Managers)	• Focuses on communications aspects of storm restoration • Continuous communications to customer constituents regarding outage impacts and restoration times • Proactive in keeping community leaders, media, and local government up to date • Focal point for special requests and issues • Establishes and maintains a liaison with local fire and police
Hospitality Coordinator	Responsible for managing storm related logistics for the region, which includes rosters, hotel rooms, trouble shooting hospitality needs	• Arranges for meals and lodging for crews (2 people per room) • Support staffing and logistical coordination at Staging Sites • Responsible for assuring all contractor and foreign utility responding crews are into the Crew Management Database (verify personnel, vehicles and equipment at time of arrival to enable validation of future invoices and assure accurate billing) • Coordinate with Security when needed
Manager RDO	Responsible for oversight of distribution system operations and storm restoration process	Includes responsibilities associated with job classification and is not a role designated exclusively for storm restoration.
SCC Shift Supervisor	Responsible for oversight of transmission system operations and storm restoration process	Includes responsibilities associated with job classification and is not a role designated exclusively for storm restoration.
Operating Company Hazard Team Coordinator	Coordination of the hazard process within the operating company. During storm events where mutual assistance is requested from within FE, the op.co. Hazard Team Coordinator works with the ED&CS Hazard	Ensures each Department. Manager: • Maintains E-Plan rosters • Maintains up-to-date training credentials • Maintains current listing of names and contact info for Duty Supv. • Conducts regular review of storm kits and ensures kits maintained • Conducts storm review meeting within one week of storm conclusion • Ensures back-up coordinator available, as needed

	Process Coordinator to obtain or provide resources.	• Provides briefing on hazard process execution at op. co. storm review meeting and to ED&CS Hazard Process Coordinator • Ensures implementation of best practices • Regularly ensures functionality of equipment in hazard dispatching areas During a storm event within an OpCo: • Monitors ratio of hazard responders to hazard dispatchers, and monitors the ratio of hazard responders to un-dispatched tickets, to maintain high efficiency • Monitors hazard dispatching process • Designates hazard dispatching area Works with the various departments within OpCo that provides hazard personnel to ensure: • Proper staffing levels • Crew deployment for 24-hour coverage • Shifts personnel from hazard responding to service work or trouble assessment later in storm process, as needed • Develops and ensures communication of daily safety message to all involved in hazard process, including resources from other FE areas • Determines need for and requests hazard assistance from other FE op. co.'s or corporate • Determines needs for remote dispatching • Ensures availability of maps for hazard crews • Coordinates work assignments of hazard resources from other FE areas • Provides regular mutual assistance status updates to ED&CS Hazard Process Coordinator When responding to mutual assistance requests: • Contacts appropriate Department Managers, as needed, for personnel • Creates crew rosters • Coordinates remote hazard dispatching in conjunction with requesting op. co. hazard Team Coordinator • Determines proper dispatching staffing levels • Designates hazard dispatching areas • Provides hazard team roster to ED&CS Hazard Process Coordinator • Ensures delivery of the requesting op. co.'s daily safety message to those involved in hazard process from their location • Provides regular status updates concerning hazard personnel to department managers

Hazard Dispatcher	Assigns work to hazard responders and public protectors. Responsible for managing dispatching activities in PowerOn Remote Dispatch (PORD). Provide support in investigation of outages at the request of regional dispatching office.	• Maintains fitness for duty during duty period • Monitors PORD hazard orders • Checks/sets up crew names in PORD • Delivers daily safety messages and performs pre-job briefing with each hazard responder • Assigns PORD orders • Provides support in locating assigned work locations (using tools such as GIS View or map programs on internet) • Assures personal logistic needs of crew are addressed • Maintains regular communication (at least hourly) with Responders • Coordinates movement of Hazard Responders and Public Protectors • Monitors work schedule (time on duty) • Provides instructions at end of Responder/Protector shift for following day • Processes PORD orders and maintains accurate and timely status • Communicates w/ hazard team coordinator on status of accessing assigned workload, w/est of completion times, unusual crew findings, & needs for additional crews • Assures assigned crews are assumed by another dispatcher at the end of shift • Briefs the relieving dispatcher of the status of orders in progress • Communicates change in dispatcher to hazard responders and public protectors • Prior to release of crews, discusses with Hazard Team Coordinator • Works w/Hazard Team Coordinator to facilitate cut/run activities of service crews, if appropriate. • Following storm, provides feedback on assignment to Hazard Team Coordinator. • Attends post storm review meetings, as requested
Hazard Responder	Responsible for identifying hazard situations and securing the area during emergency storm operations. Hazard responder remains on scene until relieved by another hazard responder crew, line/service crew, or public protector.	• Accessible by phone/pager and capable to report for duty promptly • Maintains fitness for duty during duty period • Participates in daily safety messages with Hazard Dispatcher • Proceeds to job site as assigned by Hazard Dispatcher • Conducts job briefings before work begins at each dispatched location • Provides detailed assessment of hazard situation to Hazard Dispatcher including facilities affected, vegetation conditions, etc. • Utilizes company radio, telephone, or cellular to receive assignments and communicate information to hazard dispatcher • Secures the area and directs public away from hazards, as necessary • Maintains regular communication (at least hourly) with Hazard Dispatcher • Does not leave assigned area until released by Hazard Dispatcher • Provides update and participates in job briefing with relief personnel • Following an event, provides feedback on assignment & processes to Hazard Team Coord or lead • Attends post storm review meetings, as requested

Public Protector	Relieves hazard responder merely to assure the site remains secure from the public. Assumes standby duty where the hazard responder has investigated and secured the area. Continues to direct the public away from the hazard(s) and provides long term surveillance at the hazard scene until the hazard is eliminated and they are released from the site.	• Accessible by phone/pager and capable to report for duty promptly • Maintains fitness for duty during duty period • Proceeds to job site as assigned by Public Protector or Hazard Dispatcher • Gathers all necessary information associated w/the job site from the relieving Hazard Responder through a thorough pre-job briefing prior to the Hazard Responder's departure from the site • Utilizes the company radio system, telephone, or cellular to receive assignments and communicate information to the Public Protector or Hazard Dispatcher • Directs the public away from hazards and provides long term surveillance at the hazard scene until the hazard is eliminated and they are released from site • If conditions change at the site, immediately reports changes to the Public Protector or Hazard Dispatcher • Does not leave assigned area until released by another Public Protector or Hazard Dispatcher • If oil spill at site, monitors and reports changes in condition to the public protector or hazard dispatcher • Provides appropriate information regarding site to relief personnel through a pre-job briefing. All parties complete a thorough job briefing prior to another taking control of the site • Submits completed pre-job briefing forms to immediate supervisor at the end of shift • Following an event, provides feedback on assignment and processes to hazard team coordinator or lead • Attends post storm review meetings, as requested
Distribution Dispatcher (DSO)	Responsible for distribution system operations. Also directs storm restoration and switching and tagging.	Includes responsibilities associated with job classification and is not a role designated exclusively for storm restoration.
Operations Supervisor	Responsible for managing their District/COC during a local, regional, system, and catastrophic emergency.	• Accountable for all roles in district (hazard coordinator, dispatcher, etc.) • Assures that line shop dispatcher is coordinating the activities for line and foreign crews, crew guides (bird dogs), and other line support personnel • Continuously evaluates district status and requests additional restoration and evaluation assistance, as needed • Accountable that all trouble locations be identified, consistent with RDO dispatcher's project assessment and projects that automatically appear in Power-On Remote. • When needed, ensures that the RDO dispatcher utilizes whatever means necessary to identify pertinent details needed (crew numbers, additional crews needed, crews on rest, etc.) • Creates visual log of crews • Assures crew management database is properly maintained and updated • Designates "ring down" phone numbers at each district • Assures district personnel hold and maintain proper training credentials • Assures duty rosters for district is maintained

Line Dispatcher	Depending on the extent of the outage and workload, this role may be carried out by more than one person in close coordination. Responsible for dispatching, communications with, and records/on-line documentation of status for their district line crews, crew guides (bird dogs), and foreign line crews during a local, regional, system, and catastrophic emergency	• Maintains accurate crew log which includes start/completion time for each trouble location, and meal periods. • Assists outage supervisor in coordinating activities for line and tree crews and bird dogs. • Coordinates with the DSO in turning over dispatching via Power-On Remote for local dispatching, both from and back to the RDO. • Updates and maintains Crew Management database for outage crews who are sent to or received from other districts, regions, contractor, or other foreign locations. • Assists crews in identifying circuit locations and sectionalizing device locations and assisting in geographical locations • Supervises spotters • Assigns trouble locations • Assists on what to look for • Provides maps and material required • Assists the field restoration work force in whatever is necessary to restore electrical system • Dispatches work assignments to line crews • Interviews visiting foremen from foreign utilities to ascertain experience in construction and maintenance of distribution and transmission lines • Ensures work practices issues (rest time, work rules, etc.) are addressed for foreign crews • Explains switching and tagging rules (through video or discussion) to foreign crews and contractors • Provides foreign crews with handbook and provide overview of company procedures and safety policies • Ensures all information pertinent to work activities provided to visiting foremen • Coordinates with hazard coordinator and hazard dispatcher • Ensures foreign crews registered in Crew Management database • Provides foreign crews with supplemental tools and equipment • Additional activities associated with reassignment or release of foreign crews
Line Crew	Repairs and restores service	• Includes responsibilities associated with job classification and is not a role designated exclusively for storm restoration.
Forestry Coordinator	Oversees the vegetation management process for the Region. Monitors and manages forestry: related tickets and coordinates forestry activities to remove vegetation	• Determines number of tree crews needed • Prioritizes tree crew assignments in conjunction with line supervisor • Coordinates the assessment process, summarizing assessment information and tree crew requirements • Ensures the tree crew management information is communicated and distributed • Coordinates dispatching of forestry crews once distributed dispatching is implemented • Coordinates forestry personnel work schedules, rest periods, meals, etc. • Interfaces with (?)DMC/Line/Hazard/Service Dispatching • Ensures all dispatch areas or staging sites input all tree crews in to the Crew Management database

Forestry Dispatcher	Actively manage the vegetation management personnel including dispatching forestry crews	• Calls out forestry contractor crews based on the work scope and need estimated by the forestry coordinator • Prioritizes projects assigned to forestry • Dispatches forestry projects to forestry crews • Closes and creates continued cases in PowerOn Remote • Coordinates with the other regional dispatchers and the Forestry Coordinator, as appropriate • Assists with assessment of progress of outage in terms of the forestry impact
Forestry Crews	Clear vegetation on the distribution system	Includes responsibilities associated with job classification and is not a role designated exclusively for storm restoration.
Storm Analyst	Primary role is to make association between outage and assessment information. Also assists the DSO in prioritizing and managing the restoration effort. The Storm Analyst will typically work within the RDO in close proximity to the DSO they are assisting.	• Monitors information flowing in to the Dispatch organization from other storm organizations, assuring that the assessment information is copied to the correct and corresponding outage orders • Creates, monitors, and maintains follow-up order information flowing out of the Dispatch organization to all other storm organizations, assuring information accurately reflects the work to be done and the customers still affected by outages • Monitors all Priority 1, 2, and 8 orders (?) • Assists in prioritizing cut & run crews to locations where fire, police, or hazard responders are standing by • Manages the “unlocated” and “unprocessed” trouble calls, assuring that the data is routed to the proper order within the outage management system (OMS). • Creates orders when there is no existing order in the system • Assists RDO manager in developing and communicating a “storm footprint” or area affected • Looks for and closes out duplicate orders • Monitors work being sent to other “buckets” to assure that the outage orders are being worked instead of trouble orders • Periodically audits the on-line WEB reports to ensure the accuracy of all reported outage data • Monitors the predicted outages within the OMS, adjusting and/or confirming outage prediction as needed • Assists the regional dispatcher in prioritizing the assessed and not yet assessed outage orders • Assists the regional dispatcher in closing outage and non-outage orders within the OMS • Maintains the Map/GIS information within the OMS to ensure model accurately reflects “as operated” electrical system throughout the storm event • Creates follow-up notifications to the Maps and Records group for data errors discovered during the storm event for correction after the storm event • Performs other administrative duties, as requested by active DSO(s) on assigned desk • Assists other organizations in PORD closeouts of tickets within the organization • Dispatches damage assessors and enter comments in PORD for dispatch outage tickets to better understand damage

Service Dispatch Coordinator	Responsible for coordinating the dispatching of service crews during distributed dispatching once decision has been made to mobilize this effort.	• Designates personnel responsible for dispatching and closing cases with backup • Ensures designated personnel understand process for creating continued cases, dispatch and close cases, as well as browse through Outage Management System. • Maintains up to date service crew lists • Responsible for training on standardized process to ensure resource sharing between regions during major events
Service Dispatchers	Responsible for dispatching projects to service restoration crews.	• Closes and creates continued cases • Documents start/stop time of service crews • Manages creation of service crews in PowerOn and maintains accuracy of active and inactive crew status • Documents appropriate remarks for communication and analysis • Ensure transfer of crew ownership at end of work shift
Service Crews	Non-line physical workers trained to reinstall residential service loops. At the start of the storm restoration process, these employees may start out in the hazard responder organization until decision is made to begin service loop restoration.	• Loop restoration, house side • Pole side restoration, from a bucket
Crew Guide (Bird - Dog)	Responsible for leading out of town crews to repair locations.	• Communicate with operations Manager/Supervisor to gain work location information • Plan out driving route to each work location, taking in to consideration bridge (overpass), road slopes, construction, etc. to identify needed detours • Lead convoy of crews to work location • When applicable, interact with customer, eliminating conversation with out- of -town crews • Provide information on area for lunch/dinner breaks
Quarantine Sub/Circuit Lead	Accountable for all field assessment and restoration activities for assigned substation or circuit(s). Safety, coordination of the initial damage assessment, responsibility for all restoration activities on the assigned circuit(s), resource/material acquisition, circuit restoration and documentation are all aspects of the role	Engage Damage Assessors • Deliver appropriate safety message • Ensure all PPE and equipment needs are met • Review job briefing expectations • Provide maps and forms required • Review expectations and completion goals Data flow requirements • Summarize initial damage assessment results o Scope of damage (poles, spans, trees, services, etc) o Initial ETR Develop and communicate resource and materials plan to Quarantine

		Coordinator • Resources and materials required to meet ETR Coordinate all field resource activities Document, assign and track all work to be done • Develop a "master plan" for circuit restoration • Follow established restoration philosophy RDO communication and coordination • Coordinate field restoration activities o Coordinate in a timely fashion the restoration of all line sections with Alternate DSO/RDO as required o Acts as Person In Charge (PIC) Communicate progress to Quarantine Coordinator and Quarantine Communication Liaison • Update ETR as appropriate Manage resource logistics with support from Quarantine Coordinator • Ensure resource rosters remain current and accurate Materials coordination Work package requirements Environmental coordination as required • Resource release/demobilization as required

Quarantine Communication Liaison	Supports efforts to optimize service restoration response time and improve communications with key internal and external stakeholders during a large-scale storm event.	• Regularly communicate with the Quarantine Coordinator • Notify FE Communications of the circuits planned to be quarantined and the footprint of communities impacted • Notify the county EMA of the plan to execute the circuit quarantine process and the footprint of the communities impacted • Notify key executive level elected officials and municipal staff of the plan to execute the circuit quarantine process and the footprint of the communities impacted • Obtain the ETR for each quarantined circuit from the Quarantine Coordinator. • Communicate the high level results of the damage assessment, crew resources deployed to make repairs and the ETR. Communication updates will be provided to FE Corporate Communications, FE Call Center, county EMA and key executive level elected officials. Also provide the information to the Manager, Customer Support for communication to major accounts. • Throughout the event, keep the Quarantine Coordinator, Quarantine Sub/Circuit Lead and Manager Customer Support informed about external communications and commitments. • At the conclusion of the event, provide official notice to external stakeholders that they are to resume reporting any outages or problems according to the usual methods Review post-event with applicable parties
Quarantine Coordinator	This position is accountable for all aspects of the process at a Regional level. This role is the single point of contact at the Regional level for the process and all high level resource decisions reside with this role.	<u>Key Responsibilities for Pre-Event</u> • Initiate annual Pre-Planning forum with Regional Management • Work with WFD to verify number of qualified Damage Assessors and training needs • Review local preparation activities with Regional management and individual roles within the process to ensure readiness • Ensure setup sites are equipped to accommodate the Sub/Circuit Leads (i.e. office space, data hookups, printers, etc) • Coordinate the compilation of a master contact and information list for all parties involved • Develop the schedule and plan for the Regional training exercise • Annually assure review of E-plan is accurate with respect to Quarantine Process, Documents and Rosters. <u>Key Responsibilities During Event</u> • Ensure Sub/Circuit Lead and Communication Liaison are engaged • Establish expectations based on event scope regarding updates from key roles • Assessment completion • Damage summary • Resource requirements • Special field conditions

		• Communicate that switching responsibility for quarantined circuits is now with the Designated DSO • Contact Corporate Operations Services to determine the preliminary availability of outside resources • Maintain an up to date contact list for assigned Sub/Circuit Leads • Communicate progress to Regional management and others as required • Coordinate with the Warehouse and other departments as required to ensure adequate support and materials for field resources <u>Key Responsibilities Post Event</u> • Gather all storm documentation for analysis • Lead a post event review meeting to discuss all aspects of the process • Document opportunities and follow up on any process adjustments • Provide an overview report to Corporate Operations Services • Ensure all departments have appropriate information • Warehouse-in order to true up materials • Engineering-in order to correct any mapping issues • Local RDO-in order to true up outage data and analyze system performance • Others as appropriate •
Damage Assessor	Responsible for the safe, accurate and timely assessment of an assigned area impacted by an event. Proper completion of damage assessment forms and clear instructions on the extent of damage, including required materials to restore, are essential to the successful execution of this role within the process	The Damage Assessor will report as instructed by the Quarantine Sub/Circuit Lead or their designee. Once on site, the Damage Assessor will be responsible for the following: ▪ Participate in a mandatory safety briefing and discussion detailing the scope of work to be performed as well as expectations for safe and efficient completion. ▪ Conduct a comprehensive damage assessment on assigned portions of the circuit. ▪ Complete appropriate forms and mark up circuit maps as instructed. ▪ Report all findings back to Sub/Circuit Lead or their designee. o Review any special conditions or hazards found. ▪ Continue conducting assessments as required and supporting the impacted area until reassigned.

Appendix 2.5.1 – Corporate Storm Roles (EOC)

Storm Process Role	Summary	Responsibilities
Corporate Emergency Response Coordinator	Owns the storm process and oversees storm coordination activities	• Coordinates the allocation of resources involving multi-regional restoration activities • Chairs operational storm conference calls twice daily • Oversees and manages the corporate Emergency Operations Center (EOC) when activated • Communicates restoration status updates to internal stakeholders
Corporate Mutual Assistance Coordinator	Owns the mutual assistance process and oversees the coordination of securing necessary resources, internal and contractor	• Assists Regional Director, Operations Services in identifying resource needs/availability including labor and special equipment requirements • Represents FirstEnergy on Regional Mutual Aid Group (RMAG) calls to discuss resource needs/availability • Maintains situational awareness of mutual assistance needs/availability of other non-FE companies that could impact resource availability for FE • Coordinates acquisition and assignment of internal and external mutual assistance resources to assure balanced and cost effective response for major events impacting multiple regions and/or multiple states • Assists Regional Director, Operations Services with cost effective demobilization of external resources by identifying potential opportunities for mutual assistance in other utilities • Assists with oversight of the Mutual Assistance Rostering process
ED&CS Hazard Process Coordinator	Owns hazard process; i.e. hazard dispatcher, hazard responder, public protector, and damage assessor processes.	• Oversees maintenance of E-Plan rosters • Ensures up-to-date training credentials • Ensures hazard processes are documented and maintained in E-plan • Attends storm review meetings • Ensures consideration of and implementation of best practices • Participates in storm planning activities • Participates in mutual assistance activities • Determines need for and location of Hazard Dispatchers • Provides hazard team rosters to Hazard Team Coordinator • Confirms lodging for hazard personnel through Hospitality Coordinator or affected operating company • Coordinates with Hazard Team Coordinator the release of hazard personnel from other FE areas and provides status updates to other Hazard Team Coordinators
Corporate Hazard Coordinator	During storms, coordinates the hazard process among ED&CS and other FE organizations when mutual assistance from within FE is requested	• Oversees Hazard Process through monitoring and regular communications with the regions affected • Identifies the need for additional hazard resources from corporate • Coordinates the movement of resources between operating companies • Requests outside resources and coordinates the use of these resources • Manages EOC hazard operations throughout the event • Manages EOC staff including scheduling, work assignment, QC and hospitality, and holds regular regional conference calls
Corporate Public Protector Coordinator	During storms, coordinates the public protector process among ED&CS	• Oversee Public Protector Process • Manages Public Protector Dispatch Room • Coordinates deployment of public protector resources

Corporate Forestry Coordinator	During storms, coordinates forestry resources across ED&CS	• Assists Regional Director, Operations Support in identifying the appropriate number of additional forestry crews required to supplement the existing workforce • Maintains situational awareness of mutual assistance needs/availability of other non-FE companies through the Corporate Director, Operations Services that could impact resource availability for FE • Coordinates acquisition and assignment of forestry crews to assure coverage in all regions that are impacted • Monitors forestry orders in PowerOn to assure orders are properly processed by assuring they are: o Routed to the forestry dispatching organization with customer counts assigned to outage orders (no trouble orders) o Managed based on assigned priorities such as the total number of customers affected o Routed to Line Section with appropriate comments after tree work is completed
Corporate Information Coordinator	During storms, acts as single source of information in the EOC	• Communicates routinely with state Commissions and, as needed, with the Department of Energy and other regulatory parties, to provide status updates and respond to ad hoc requests • Communicates routinely with ED leadership to provide status updates and respond to ad hoc requests • Ensures information is aligned with post-storm regulatory reporting requirements • Ensures timely and accurate information is provided to Corporate Communications for internal and external communications • Coordinates information with the Critical Information Team, when activated
Corporate Logistics Coordinator	During storms, coordinates EOC logistics	• Oversees assembly of storm call information and provides meeting minutes • Supports mutual assistance acquisition and allocation of resources • Communicates information to internal stakeholders as requested • Provides storm restoration analytics • Oversees and manages the mutual assistance rostering process
Corporate OMS Coordinator	During storms, oversees the OMS system and team	• Oversees and manages the Outage Management System during restoration events • Oversees and manages the Outage Management team • Coordinates OMS and PORD resource acquisition and allocation • Provides storm restoration analytics

Appendix 5.3.2 – Corporate Storm Conference Call Agenda

Corporate Storm Conference Call

<Day>>; <Date>> @ <<Time>

Next Call: <Day>; <Date> @ <Time> CONF #

SAFETY MESSAGE

<Enter>

WEATHER UPDATE

<Enter>

SYSTEM CONDITIONS

<Enter>

CURRENT OUTAGE STATISTICS

<Enter>

OPERATING COMPANY UPDATES

<Enter>

IT UPDATE

<Enter>

EXTERNAL AFFAIRS UPDATES

COMMUNICATIONS

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MEDIA

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REGULATORY AFFAIRS

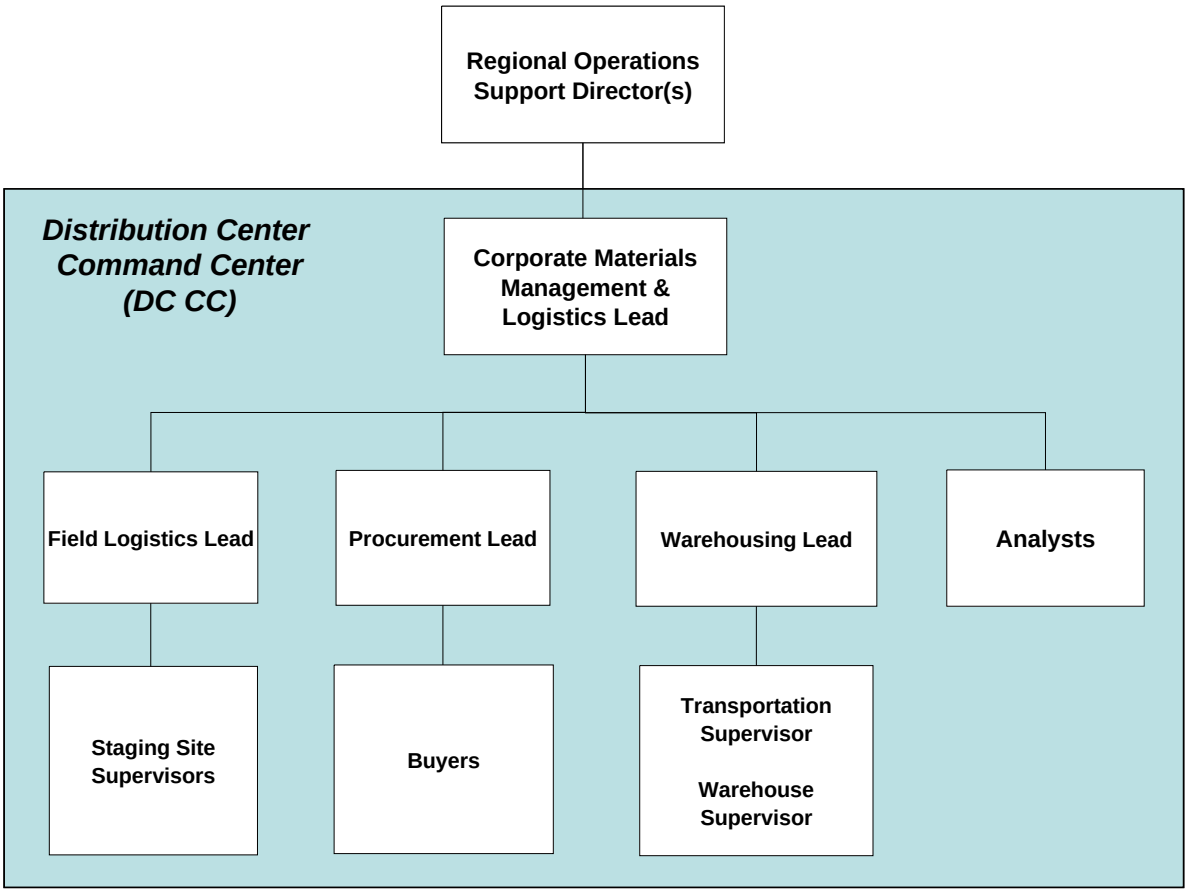
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STATE / LOCAL GOVERNMENTAL AFFAIRS

<Enter>

Appendix 5.6.1

Materials Mgt & Logistics
Storm Support



Appendix 9.5 Lessons Learned Guidelines

When a Lessons Learned session is held following an event, the following guidelines should be used to assess the performance of the storm response effort. The result should be a summary of opportunities with an actionable list of proposed recommendations to close the gaps with an owner and a timeframe. Where possible and appropriate, metrics (e.g. CAIDI, FTEs, timeframes) should be included in the performance evaluations.

Storm Organization

- Were roles and responsibilities clearly understood?
- Were there any gaps that need to be addressed?

Organizational Readiness

- Were all personnel appropriately trained and prepared?
- Were there any personnel that were ineligible due to training lapses / shortfalls?
- Were there any gaps that need to be addressed?

Anticipation

- Did the monitoring tools accurately predict the timing and severity of the weather?
- Were the communications made timely and adequately?
- What improvements would be helpful?
- Were early warning notifications sent? Were they adequate?
- What anticipatory actions were taken and when?
- Was pre-storm communications activated? Was it timely and useful?
- Were there gaps that need to be addressed?

Mobilization and Logistics

- When was communication given to mobilize? Was it timely and adequate?
- Were company-wide conference calls held timely?
- Was the call-out process effective?
- Was mobilization of resources timely and aligned with the communicated storm level? Where are there opportunities for improvement?
    - Materials and logistics
    - Staging sites, if applicable
    - Hospitality
    - Regional water and ice, if applicable
    - IT

- Corporate EOC
- Forestry

Hazard and Assessment

- How many hazard orders were encountered?
- When was the hazard organization mobilized? Was it timely and aligned with the storm level?
- Were the number of regional hazard resources (including staff support) appropriate?
- Was communication during hazard process accurate and timely?
- Was the Cut-n-Run process implemented effectively and consistently?
- Did the Assessment Tools perform adequately?
- Did the OMS perform adequately? Were there any issues?
- Did SAP perform adequately? Any issues?
- Were there enough storm analysts? Did they perform effectively?
- Was information from customer calls transferred and processed in the OMS timely and effectively?
- How many 911, police and fire calls were processed? Did the process work effectively?
- Did remote indicators provide timely and accurate information?
- Did field crews provide timely and accurate assessment information?
- Were aerial patrols used? Were they timely and effective?
- Was the circuit quarantine process used? Was it timely and effective? Were there people / communication / operational issues? Were the assessments timely and effective? Were there enough support resources? What impact did the circuit quarantine process have on overall restoration effort and time?

Restoration Management

- Was the MOP and APH adhered to at all times?
- How many customers were affected? Total and peak.
- By type: How many crews were deployed? How many FTEs? Was mutual assistance used?
- How many orders by type of order were processed during the event?
- How long did restoration take? How does that compare to internal and external benchmarks? Apply appropriate adjustment factors based on type of event damage and number of orders. Use analytics like “orders closed per crew”.
- Did restoration progress in alignment with restoration priorities? Did any deviations impact restoration?
- Was communication during restoration timely and effective?
- Was distributed dispatch used? Timely and effective?
- Was re-centralization (after distributed dispatch) timely and effective?
- Did ramp-down occur timely and efficiently?

- When was the system restored to normal configuration? Were appropriate steps taken during periods when it was not in normal configuration?

Communications

- Did the Corporate Storm Management Team provide timely and effective communications?
- Were company-wide conference calls conducted timely, efficiently and effectively?
- Were regional communications effective and timely?
- Was regional information communicated on the company-wide conference calls effectively?
- Were regional planning meetings and calls and regional notification effective and timely?
- Did the regional communications liaison perform efficiently and effectively?
- Were communications between the RDO, communications liaison and the Contact Center On Call Analyst timely and effective?
- How many calls did the Contact Centers handle? How many with CSRs? How many with IVR? How may went to 21st Century (or other)?
- How many people were staffed at the Contact Centers?
- How did the Contact Center and IVR perform? Use appropriate statistics to measure performance.
- Were external communications effective and timely?
- How did the website perform?

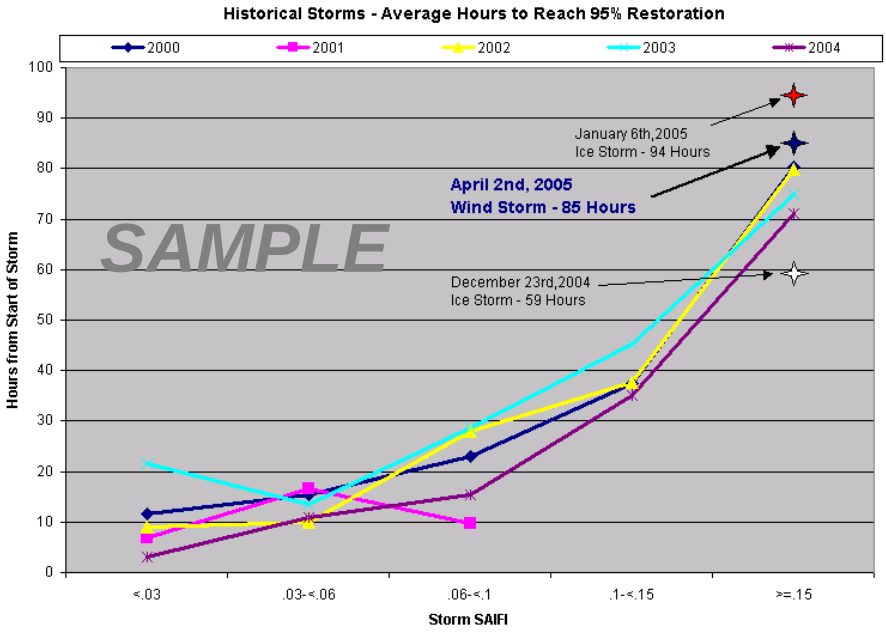
Mutual Assistance

- If Mutual Assistance was used, was the process efficient and effective?
- Are there opportunities for improvement?

Example Report

The following represents an example of storm summary that should be used as a guide for the lessons learned meetings, along with examples of the type of agenda topics that may be included.

<insert graph that shows the number of outages and restoration time for a similar historical storm vs. the most recent storm.>



DESCRIPTION OF EVENT

EXAMPLE: On June 8, 2007, High winds and lightning passed through FirstEnergy's Ohio Edison operating area causing numerous outages in its Eastern Region.

DATE AND TIME OF EVENT

EXAMPLE: The first outages were on June 8, 2007 at 15:54 (all times in 24 hour format). The last customers restored to service were restored on June 11, 2007 at 12:40.

OUTAGE CATEGORIES

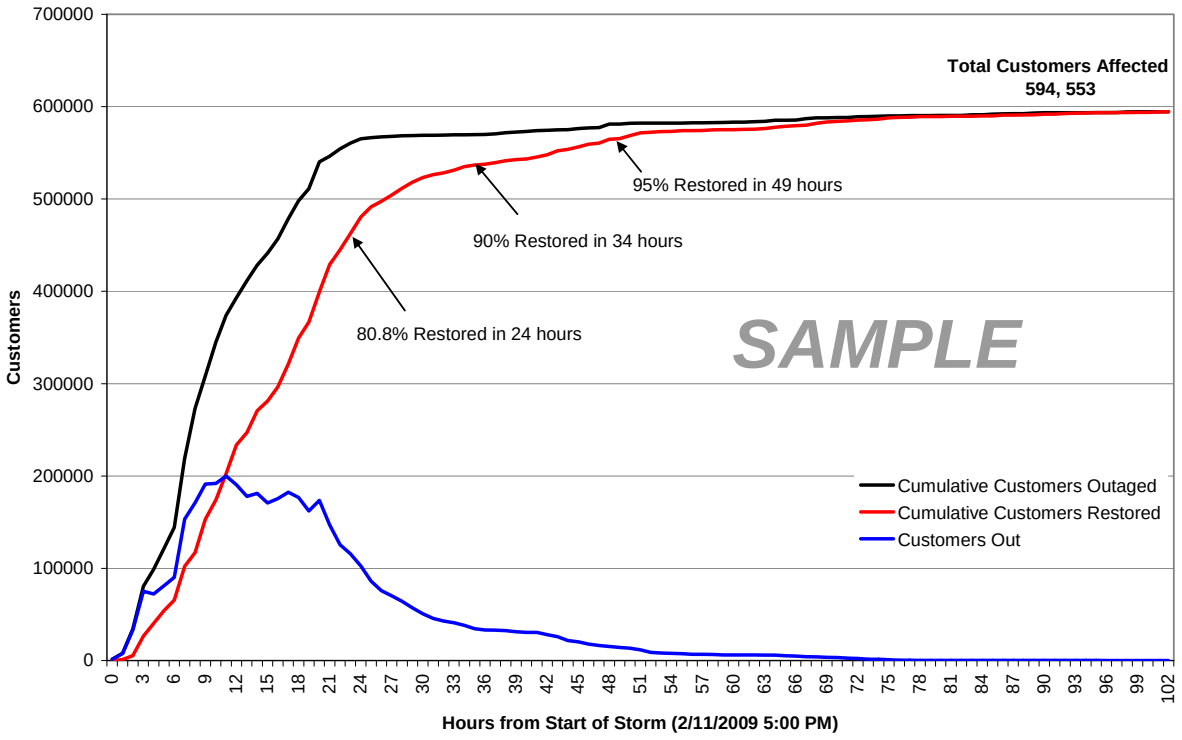
EXAMPLE: The first storm page was sent on June 8, 2007 at 13:06. This page was sent out proactively, informing Ohio Edison storm response personnel of the predicted weather event.

OUTAGE STATISTICS

EXAMPLE:
Outage Statistics:
- First customer off time – June 8, 2007 15:54.

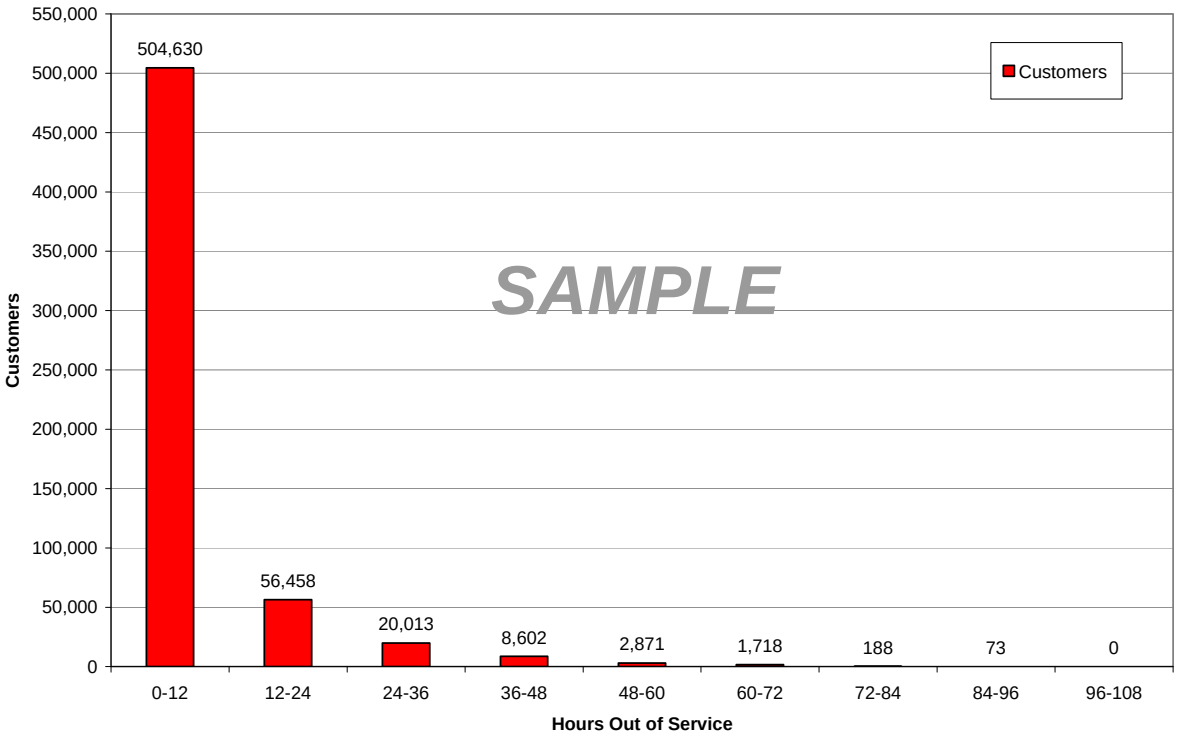
- Last customer restored time – June 11, 2007 12:40.
- Number of outages - 387.
- Customers impacted - 44,260.
- Customer*Minutes - 18,709,756.
- CAIDI - 343.19

Description of extent of damage - Broken Poles, Broken Cross Arms, Primary Down, Transformers Damaged, Secondary and Services Down.



CUSTOMER OUTAGE DURATION

Hours	Number of Customers Out of Service for Given Duration
0-12	
12-24	
24-36	
36-48	
48-60	
60-72	
72-84	



TRANSMISSION OUTAGE(S)

Transmission Outages for Event (69kV and up)	Total
Events	
Line Auto Operations	
Line Lockouts	
Excluded from TOF	

BREAKDOWN OF WORK

	Dispatch	Forestry	Hazard	Line	Meter	Service	Total
Number of Orders Worked *(obtained from PowerOn)*							

ANTICIPATION

EXAMPLE: FE Meteorological services began to track and report the potential of this weather event on <date and time>, issuing an email weather alert. In addition, 2 daily alerts were issued by email for the duration of the event. FE meteorological services attended conference calls to discuss the weather alerts with the following:

- **Company, date, time**
- **Company, date, time**

As a result of the weather alerts and the probability of a weather event, the following actions were tken

MOBILIZATION

EXAMPLE: In total, 841 employees were involved in some part of the response to this event; details on some of those directly involved in the restoration efforts, or supported those restoration efforts, are listed below.

As the weather event started at the end of a normal work day, crews did not have to be called in to respond to initial outages. To respond to this event the following Ohio Edison personnel were used:

- Line crews (from the areas impacted) - 65 crews (approximately 195 linemen);
- Ohio Edison line crews (from outside affected area) - 46 crews (138 linemen);
- Hazard teams / damage assessors – 237;
- Hazard management personnel – 64;
- Forestry teams – 50;
- Storeroom operations – 9; and
- Communications liaisons and support personnel – 15.

MUTUAL AID

EXAMPLE: At 20:00, on June 8, 2007 a request for additional line and hazard crew personnel went out. In addition to the above regional response personnel, more than 200 additional people were called into supplement restoration efforts, as follows:

- Didado line crews – 12 crews (36 linemen);
- Thompson Electric line crews – 5 crews (15 linemen);
- CEI line crews – 11 crews (33 linemen);
- CEI Hazard personnel – 91; and
- General Office personnel - 39.

The above supplemental manpower started arriving on site at 04:00 on June 9, 2007, and the last supplemental crews were released on June 10, 2007.

COMMUNICATIONS TEAM

EXAMPLE: The following personnel were involved as the Communications Team during the event. Their communications included press releases and interviews with media; contact with government officials, and the PUCO as detailed below.
- FE Communications - Ellen Raines, Director;
- FE Customer Support - Ned Kendell;
- Area Managers – including: LuAnn Koch, Tony Zucco, Denny Prough, Bart Spagnola; and
Energy Delivery, Regulatory Reporting – Dean Philips.

MEDIA COMMUNICATIONS

EXAMPLE: Media communications during the event included providing information for and participating in:
- Clearchannel Radio (13 radio stations);
- "WKBN Live Talk Show with Dan Rivers";
- numerous follow up radio interviews with reporters - Jim Michaels, Loraine Hall, John Nagy;
- NBC WFMJ TV 21, Bob Black;
- CBS WKBN TV 27, John Paul;

- ABC WYTV 33, Jerry Richutti;
- live interviews and simulcast on 6/8/07 from Ohio Edison's South Avenue Service Center in Youngstown, with follow up reports on 6/9/07, 6/10/07 and 6/11/07; and
- Youngstown Vindicator, Salem News, and the Morning Journal newspapers.

GOVERNMENT COMMUNICATIONS

EXAMPLE: During the event the following government officials were met with, or talked to regarding the Company's situation and progress:

- Government Officials
  - Youngstown Mayor Williams;
  - Youngstown City Councilwoman Carol Righetti (utility chair);
  - Campbell City Mayor Jack Dill;
  - Struthers City Mayor Dan Mamula;
  - Salem City Safety Services Director Joe Julian;
  - Austintown Township Trustee Chairman Dave Ditzler;
  - Boardman Township Trustee Cathy Miller;
  - Mahoning County Commissioner John McNally; and
  - County Juvenile Justice Center Judge Theresa Dellick.
- County or regional emergency management agencies
  - Mahoning County EMA Director Walter Duzzny; and
  - Deputy Director Clark Jones.
- Police and Fire
  - City of Youngstown Police;
  - City of Campbell Police;
  - Boardman Township Police 911 Dispatch Center; and
  - City of Youngstown Fire Chief, John O'Neil. (Delivered Extra Electrical Hazard Caution Tape).
- Public Utilities Commission of Ohio – Six e-mail updates, including number of customers predicted out of service by county and city and estimated restoration time per the following schedule.
  - Commission Notice June 8, 2007 15:15;
  - Commission Notice June 8, 2007 23:45;
  - Commission Notice June 9, 2007 08:00;
  - Commission Notice June 9, 2007 09:00;
  - Commission Notice June 9, 2007 21:00; and

Commission Notice June 10, 2007 19:00.

INTERNAL COMMUNICATIONS

EXAMPLE: Storm conference calls were held every two hours following a pre-defined storm meeting agenda and notification checklist.

STORM REVIEW

EXAMPLE:

- What worked well -

^ Dispatchers in the line shops did a great job up front setting up work packages, assigning, and closing orders. The engineering group relieved them for their rest period and also did a good job.

^ Not sending crews to the shop was a good move; the supervisor came into the shop for packages. The supervisors would take out the crews set them up and go to the next job to assess to keep the crews moving. That also helped the storm go smoothly. With that the bird dogs did a great job.

^ Dispatch moved jobs into the line responsibility area quickly.
^ Was able to work the storm in a prioritized order: Transmission, Circuits, three-phase, on down to services. Made it difficult to assess smaller outages. Cleveland helped with assessing these outages. The support group was outstanding.
^ Forestry did a good job staying ahead of the crews by using the PowerOn system for work identification and tracking.
- What did not work well -
^ The Region needs to implement the Storm Analyst position at the start of the storm.
^ Some line shops had trouble with PowerOn. (Training issue).
^ Communication problems with the Company radio system. Channels busy at times.
^ The assessment group should have started earlier. Need to be more proactive.
^ We were slow to activate the Hazard teams and dispatching, but recovered nicely.
^ Information from the Hazard Response organization provided was vague. Additional training is needed on getting the best information (i.e., damage assessment and field conditions) and putting that information in the comments of the outage orders. (The order comments are critical in making work packages).
^ The Hazard Organization was sending Outage Orders to the line department that should have gone to dispatching.
^ The hazard assessors were not in the field fast enough.
^ The company could have used additional dispatchers to get packages together for the crews that came in on Sunday. Again, those assembling work packages need good comments relative to damage assessment and field conditions.
^ The service crew organization was enacted too early.
- Changes to be implemented including who will make those changes -
^ A new radio system is being implemented by FirstEnergy.
^ Additional PowerOn training is needed for Hazard and Line personnel. This training is to be provided by FirstEnergy trainers.
^ Review of the Storm Process.
- Recommended changes to the e-plan documentation. – No changes recommended.

ADDITIONAL POST-STORM MEETING AGENDA TOPICS

1. Explain your use of the following storm positions: Also include how many were on duty during storm restoration.

   a) Priority 8 ‘Cut-n-Run’ Dispatcher

   b) Priority 8 ‘Cut-n-Run’ Crews

   c) Storm Analyst

   d) Service Coordinator

   e) Service Dispatcher

   f) Hazard Coordinator

   g) Hazard Dispatcher

2. Explain any difficulties or concerns with Hazard Responders and Public Protectors.

3. Explain any issues that occurred pertaining to any storm team roles and responsibilities.

4. Describe any oil spills that occurred and which personnel were contacted.

5. Discuss any difficulties or concerns with company radios or any other means of communication.

6. Discuss any difficulties with the Manual of Operations or switching errors.

7. Discuss usage and any concerns with the Communications Liaisons.

8. Discuss usage and any concerns with the Hospitality Coordinator.

9. Explain any issues with the following Corporate groups:

   IT Technology Systems (PowerOn, EMS, Dashboard, network)

   Call Center

   Corporate Support (Mutual Assistance, Regulatory Reporting, OMS Support)

   Corporate Communications

   System Control Center

Appendix 10.10.6 – Critical Information Team (CIT)

The Critical Information Team (CIT) is designed to provide a consistent, reliable and timely flow of information to a variety of key stakeholders during a major storm event. The CIT would be deployed at the request of the vice president of Distribution Support.

The CIT is comprised of the vice president of Communications, vice president of Local Affairs and Economic Development, executive director of State Affairs, director of the Contact Centers, and the regional president of the affected operating company. The CIT assembles at a location designated by the CIT chair (VP Communications). The CIT remains in regular contact throughout a major storm event to coordinate messaging, timing of message delivery and updating of messages as new information becomes available.

The CIT receives regular updates about the storm (weather reports, employee deployment plans, updates of outage numbers, expected times of restoration, mutual assistance deployment, etc.) from the designated operating company director. These updates are conducted to coincide with the news media cycle and occur at least four times daily.

The information provided by the operating company director to the CIT is used to develop appropriate messages for key stakeholders (customers, media, community leaders, etc.). These messages are delivered through a variety of channels as deemed appropriate. The channels include news releases, advisories, face-to-face communications, phone calls, advertisements, radio, newsletters, TV, e-mail, and social media tools such as Twitter and YouTube, etc.

The CIT is responsible for communications to the senior leadership team and employees.