National Space Weather Partnership
Space Weather Enterprise Forum 2017
Power Outage Incident Annex
Overview

National Planning Branch
Planning and Exercise Division
Federal Emergency Management Agency

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Background

- Impacts from power outages during Superstorm Sandy and Hurricane Katrina, the Cascadia Rising exercise or a Space Weather event demonstrated the need for an annex to address response to large-scale power outages.

- FEMA and DOE are co-leading development of a Power Outage Incident Annex (POIA) to the Response and Recovery Federal Interagency Operational Plans (FIOP) Owners and operators are responsible for the restoration of power to their customers regardless of cause. Electric companies have formal agreements and regional mutual aid mechanisms with one another to share restoration resources as their capabilities are exceeded.
Background continued

- Local, state, tribal, territorial, and insular area governments coordinate directly with the electricity companies to resolve issues and prioritize the power restoration to critical facilities.

- If there is a need for Federal engagement on energy restoration efforts, the Department of Energy (DOE), as the Sector Specific Agency for the Energy Sector, leads that effort.

- FEMA leads the provision of Federal disaster response and recovery support to address the impacts from the power outage and to enable the restoration process.
Scope – FIOP POIA Annex

- For power outages where existing coordinating structures, resources, and processes are insufficient

- Scenario with some, or all, of the following characteristics:
  - Multiple States/Regions; millions of people without power for long period
  - Sufficient amount of the population warrants sustained mass care support;
  - Loss of critical lifeline functions (e.g., Energy (electricity and gas/oil); Water; Communication; and Transportation) resulting in risks to health, personal safety, national security, and economic viability;
  - Impacts to other CI sectors resulting in significant loss of services or functions
  - Need for sustained operational coordination
FIOP POIA Annex is not a restoration plan

- Strategic Annex is not restoration focused

- Assumes two independent lines of effort:
  - Line 1 – Energy restoration. This occurs for every power outage, regardless of scale or duration
  - Line 2 – Co-ordinated Emergency Management support. This is only triggered for an outage with impacts that require mass care or other sector support
    - Note: Line 2 may begin at the state or local level and expand to require Federal action

- Regional plans should consider restoration facilitation for non-catastrophic or relatively short term outages, as well as consequence management for large scale, long duration outages.
Emergency Management Concept of Support

1. Maintain infrastructure in areas where power will be restored in two weeks or less in order to:
   - Reduce cascading impacts of power loss
   - Facilitate quicker restoration of essential services
   - Prepare those regions to accept survivors self-evacuating

2. Emergency resources and services selectively delivered to areas of longest power loss that have high population density or large numbers of vulnerable survivors who are unable to self-evacuate
Support Examples

- Examples of support that may be requested to enable the restoration process include:
  - Crisis action planning;
  - Enforcement of road closures; public safety and security at access points;
  - Debris removal to enable utility companies to more quickly access damaged equipment; or
  - Provision of power generation equipment or technical assistance.
Catastrophic outage considerations

- Lessons learned, observations from developing the FIOP ANNEX

- Long term (think 2 weeks or longer) outages, particularly those impacting major urban populations, present a very different response requirement than traditional outages.

- Focus on consequences for survivors

- Outages with little or no restoration of service for an extended period changes the focus from a FEMA perspective.

- Federal capability to positively impact restoration timelines may be severely limited.
Catastrophic outage considerations continued

- Traditional concepts of generator use, restoration “prioritization”, sequential restoration with large percentages of the affected population restored in 72-96 hours are not in play.

- Generation (power plant) or upstream transmission impacts are not served by additional line crews/traditional restoration playbooks.

- Existing mutual aid compacts may be unsupportable due to wide geographic impact – with every one affected, no one has assets to spare.

- FEMA will be tasked with coordinating interagency support for consequence management for survivors – think about extent of impacts to public safety, food supplies, fuel supplies, transportation, communications and healthcare.
Support to the Energy Sector

- Restoration of power is the responsibility of electric companies.

- **Investor-Owned/For Profit Utilities**: Under the Stafford Act, the Federal Government generally does not provide support to investor-owned for-profit utilities.

- **Municipal/Cooperative/Non-Profit Utilities**: Federal assistance may be provided to public utilities through State/jurisdiction to facilitate power generation and distribution requirements and to support restoration operations. They are eligible for public assistance under the Stafford Act.

- **All Communities**: Federal Government enables support to in the restoration of power and the delivery of essential services through the facilitation of policy decisions and resource prioritization.
Critical Information Requirement Examples

- Damage assessment and estimates of duration of power outages and status of restoration
- Availability of backup power and restoration assets within the impacted area that will affect response and recovery options
- Generator/fuel status for critical assets across each of the 16 CI sectors and any additional interagency needs to support essential functions and services
- Information on actual or potential cascading impacts to the 16 critical infrastructure sectors
- Long-term evacuee/displaced persons status tracking (e.g., employment, temporary housing, preferences for permanent relocation versus return, if applicable)