Public Power Mutual Aid Playbook

Emergency Outage Response and Recovery Guide



September 2014



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The American Public Power Association (APPA) works with its utility, state association, and joint action agency members, as well as other industry associations and federal agencies, to enhance communication during preparation for and recovery from disasters. In 2013, APPA formed the Mutual Aid Working Group (MAWG) to establish a mutual aid network for the nation's public power utilities. The MAWG developed the Public Power Mutual Aid Playbook for public power utilities, network coordinators, and APPA to refer to during disasters to ensure efficient power restoration after outages.

"Most utilities are eager to provide assistance to their neighbors in their time of need. In the event of a large-scale disaster, that network of responding resources can expand exponentially, adding to the number of moving parts a utility must manage in its efforts to restore power to customers. This playbook will provide utilities with a framework to facilitate an effective, efficient, and expeditious coordination effort while maintaining control and focusing on what's important – getting the lights back on."

> Danette Scudder, Mutual Aid Working Group (MAWG) Chair, Tennessee Valley Public Power Association

"Severe storms are becoming more frequent, and the effect they have on our way of life is immense. We have devised a playbook that complements existing relationships, understandings, and abilities. It enables utilities to make the best use of available resources to safely and efficiently respond to large-scale events."

 – Gary Nieborsky, MAWG Vice Chair, Central Lincoln PUD



The American Public Power Association represents not-for-profit, community-owned electric utilities that power homes, businesses and streets in nearly 2,000 towns and cities, serving 47 million Americans. With no divided loyalties, these utilities are focused on a single mission — providing reliable electricity at a reasonable price, while protecting the environment. These public power utilities generate, or buy, electricity from diverse sources. More at www.PublicPower.org.

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About Mutual Aid

Just as firefighters, police officers, and other emergency responders combine forces to support community recovery in the wake of natural disasters, lineworkers and other electric utility personnel come together to restore power and keep people safe.

Utilities' commitment to helping each other was most evident in October 2012, when Superstorm Sandy caused widespread damage to the Northeast and Mid-Atlantic states. Public power's response was immediate and far-reaching. After Sandy made landfall, more than 1,000 electric crews, with three to four individuals per crew, came from more than 20 states — as far away as California — to rebuild the electric system in affected areas. The crews worked for weeks to ensure that devastated communities could begin to rebuild quickly and safely.

The American Public Power Association (APPA) works with its utility, state association, and joint action agency members, as well as other industry associations and federal agencies, to enhance communication during preparation for and recovery from disasters. In 2013, APPA formed the Mutual Aid Working Group (MAWG) to establish a mutual aid network for the nation's public power utilities.

The MAWG developed the *Public Power Mutual Aid Playbook* to outline the step-by-step plan for public power utilities, network coordinators, and APPA to refer to before and during a disaster to ensure an expeditious and organized response. The plan provides a framework for mutual aid coordinators to develop a "battle rhythm" and become familiar with a routine to follow during emergencies.

Every emergency brings new challenges, and large-scale mutual aid within the electric power industry is just beginning to evolve. APPA's *Public Power Mutual Aid Playbook* will be updated based on user experiences and feedback.

The public power mutual aid network includes three key resources:

- APPA mutual aid agreement: Facilitates rapid, short-term deployment of emergency support prior to, during, and after an incident or disaster and fulfills a federal policy for reimbursement of presidentially declared disaster expenses. To date, more than 2,000 utilities have signed the APPA mutual aid agreement (see Appendix A).
- Online repository: APPA maintains <u>www.PublicPower.org/MutualAid</u>, a central repository of expert perspectives and best practices that public power utilities can use to continuously evaluate and improve disaster preparedness.
- Network Coordinator List: APPA maintains the most up-to-date list of public power mutual aid network coordinators at <u>www.publicpower.org/MutualAid/Coordination</u>. Public power utilities are encouraged to download the latest the list on a regular basis.

The National Mutual Aid Network

The *Public Power Mutual Aid Playbook* provides a protocol to coordinate dialogue and actions across a three-tiered national communications network, without impinging on one-on-one mutual aid agreements between utilities. Utility coordinators communicate with local and county partners; network coordinators correspond with state and regional partners; and the national coordinator collaborates with the Edison Electric Institute (EEI), National Rural Electric Cooperative Association (NRECA), and emergency management agencies.

The playbook aims to:

- *Improve communication among utilities and with network coordinators:* By providing the point of contact for utilities to obtain or provide emergency assistance in the form of personnel, equipment, materials, and other services from outside the area of impact.
- *Ensure an expeditious and organized response to requests for assistance:* By providing step-by-step plans and standard communication forms for utilities requiring and providing assistance and mutual aid coordinators.
- Assist in the navigation of administrative obstacles to procure assistance during and after a major storm/event: By identifying the central point of contact for utilities to file timely situation reports with federal agencies, through APPA

Figure 1.1 illustrates the different levels of coordination needed in the event of a disaster. Figure 1.2 guides the three tiers of communication networks through five thresholds of engagement.

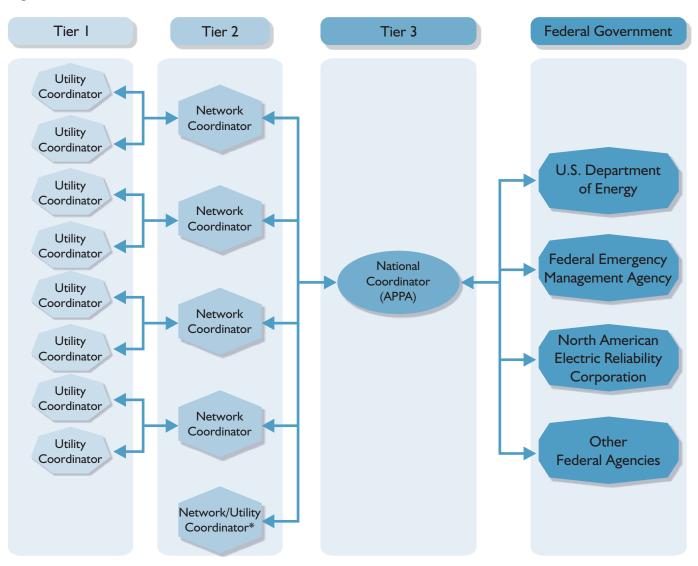


Figure 1.1 The Mutual Aid National Communications Network

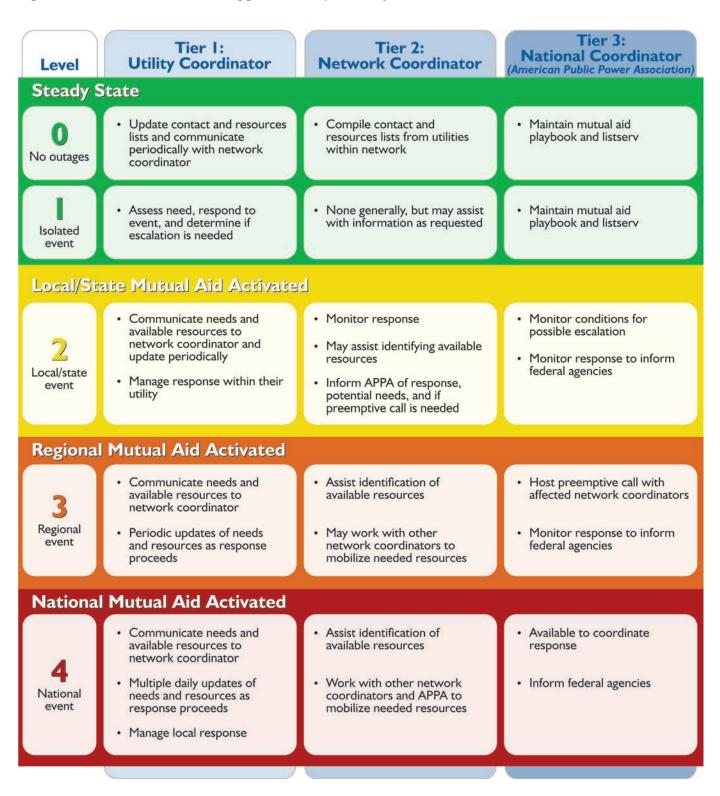
Utility Coordinator (Tier 1) - point of contact for an individual participating mutual aid utility or small group of utilities

Network Coordinator (Tier 2) - Point of contact for a group of participating mutual aid utilities

*Network/Utility Coordinator (Tier 2) – Although rare, there are situations where a utility's size, location, or other factor enables it to act as its own network coordinator.

National Coordinator (Tier 3) – Point of contact from the American Public Power Association.

Figure 1.2 Mutual Aid Network Trigger and Responsibility Matrix



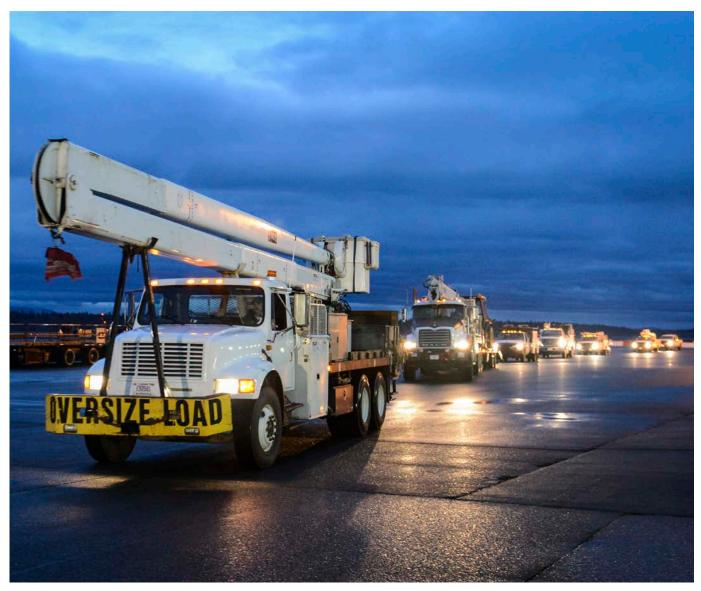


Photo courtesy of Bonneville Power Administration

Mutual Aid Network Regions

The American Public Power Association's Mutual Aid Working Group contacted public power mutual aid coordinators across the country to identify the "network coordinator" for the state(s) in each of the ten regions shown in Figure 2.1. These regions are based on the Federal Emergency Management Agency (FEMA) regions, to ensure a coordinated response with state and federal government officials.

Figure 2.1 Mutual Aid Network Regions.



Contact information for mutual aid network coordinators must regularly be updated. Please check your information at <u>www.PublicPower.org/MutualAid/Coordination</u> and email <u>MutualAid@PublicPower.org</u> with any updates.

Region I: Connecticut, Massachusetts, Maine, New Hampshire, Rhode Island, Vermont

Region II: New Jersey, New York, Puerto Rico, U.S. Virgin Islands

Region III: District of Columbia, Delaware, Maryland, Pennsylvania, Virginia, West Virginia

Region IV: Alabama, Florida, Georgia, Kentucky, Mississippi, North Carolina, South Carolina, Tennessee

Region V: Illinois, Indiana, Michigan, Minnesota, Ohio, Wisconsin

Region VI: Arkansas, Louisiana, New Mexico, Oklahoma, Texas

Region VII: Iowa, Kansas, Missouri, Nebraska

Region VIII: Colorado, Montana, North Dakota, South Dakota, Utah, Wyoming

Region IX: Arizona, California, Hawaii, Nevada, Guam, American Samoa, Northern Mariana Islands, Republic of the Marshall Islands, Federated States of Micronesia

Region X: Alaska, Idaho, Oregon, Washington

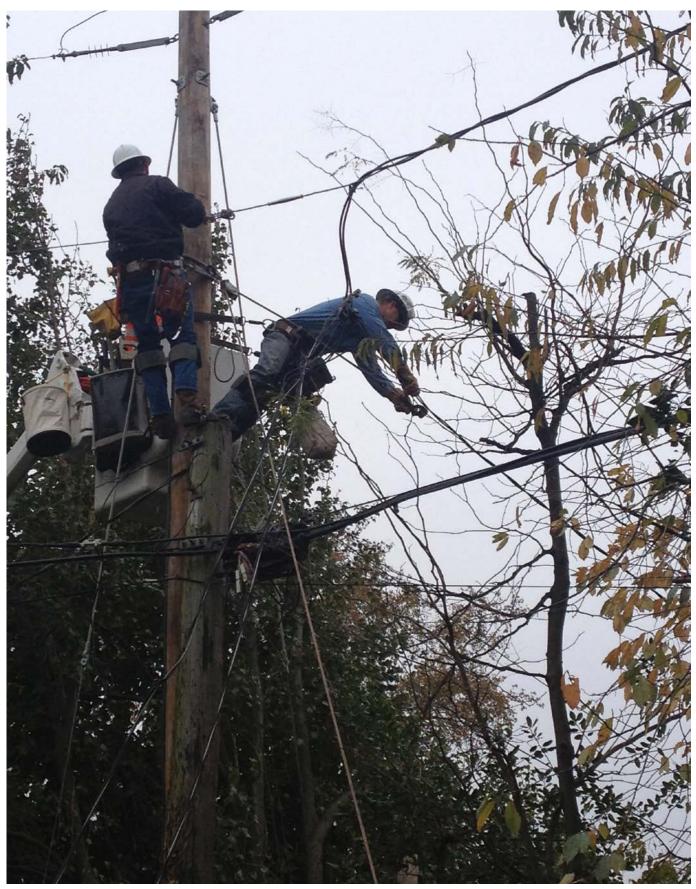


Photo courtesy of Kissimmee Utility Authority, Florida

Mutual Aid Coordinators

Utility Coordinator (Tier 1)

A utility coordinator, identified by the utility, serves as the point of contact for an individual municipal electric utility or a small group of utilities that have signed APPA's Mutual Aid Agreement (see Appendix B) and other applicable mutual aid agreements for their state or region. Sample detailed mutual aid agreements are posted on www.PublicPower.org/MutualAid.

Responsibilities

Utility coordinators are responsible for:

- Becoming familiar with the Public Power Mutual Aid Playbook.
- Maintaining and implementing a disaster management/emergency response plan as standard operating procedure; this plan should be accessible to all utility personnel, and all information should be up to date.
- Holding regular drills to ensure readiness.

Communications

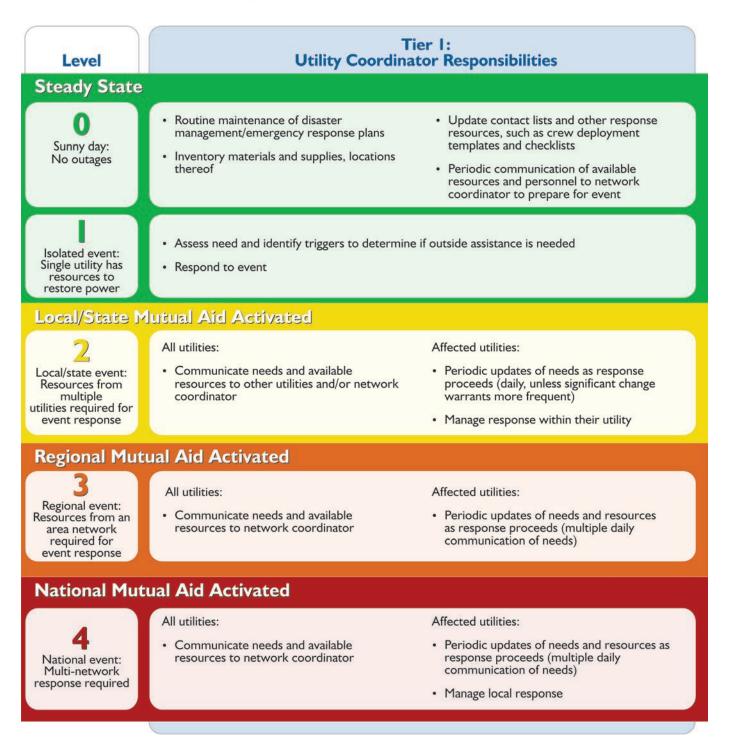
Utility coordinators must:

- Confirm that their utility contact information is accurate during the annual APPA directory update.
- Respond to information requests by their network coordinator as needed.
- Understand procedures for communicating with the network coordinator at each mutual aid level. Figure 3.1.1 provides an overview of the types of information needed, who to inform, and when to provide that information. Figure 3.1.2 provides forms to use during a level 4 event.
- Establish and/or strengthen communication channels with local and county partners.



CPS Energy crews have assisted multiple utilities over the past decade with storm restoration efforts. Hurricane Sandy marked the first trip to the East Coast in recent history. Source: CPS Energy, San Antonio, Texas

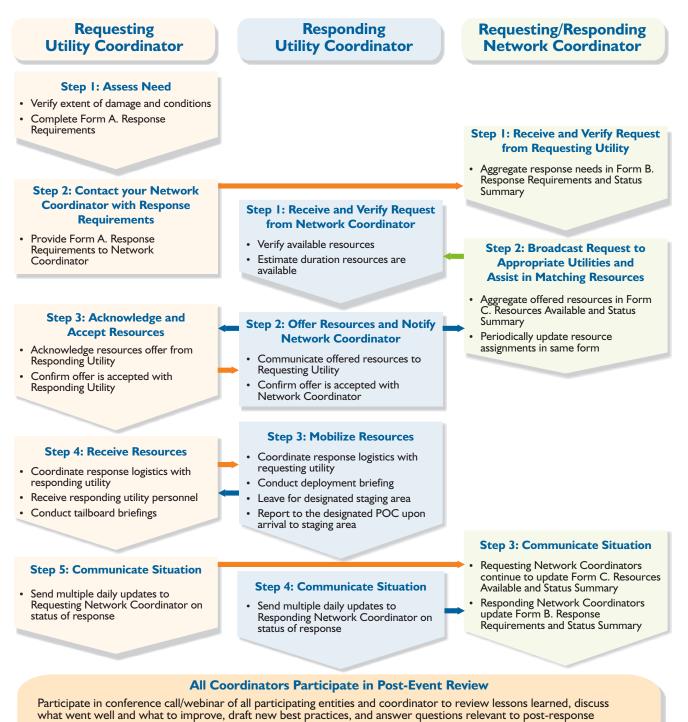
Figure 3.1.1 Utility Coordinator Trigger and Responsibility Matrix



Utility Coordinator Level 4 Communications Plan

At the onset of a level 4 disaster, coordinators from utilities requesting help and responding to the call for help must communicate with their network coordinators. Use of standard communication forms are recommended, but not necessary. Network coordinators can help utilities prepare mutual aid forms (see Appendix B) and communicate as needed.

Figure 3.1.2 Utility Coordinator Level 4 Communications Plan



(e.g., reimbursement)



Photo courtesy of GEUS

Network Coordinator (Tier 2)

A network coordinator serves as the point of contact for a group of participating mutual aid utilities or in rare situations, a large or isolated utility (e.g., Los Angeles or Guam). Network coordinators may be part of a state association, joint action agency, or public power utility.

Responsibilities

Network coordinators are responsible for:

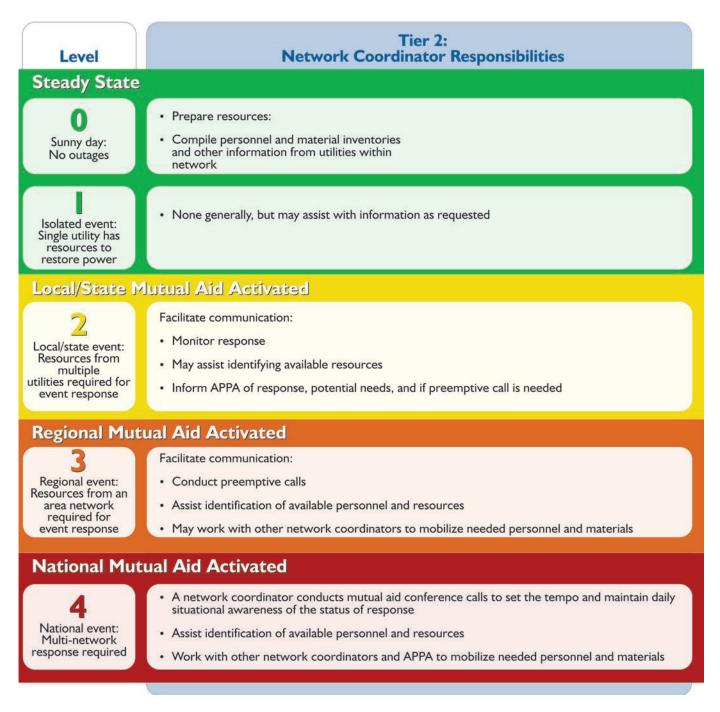
- Aggregating regional information such as resource needs and system conditions, and communicating with the national coordinator to provide consistent, accurate reporting to federal entities.
- Encouraging utilities in their network to become familiar with the *Public Power Mutual Aid Playbook*, update mutual aid agreements and disaster plans, hold regular drills, and assist other public power utilities in times of need.
- Offering mutual aid training to utilities n their region, if possible.

Communications

Network coordinators must:

- Contact <u>MutualAid@PublicPower.org</u> on a quarterly basis to refresh contact information for utility coordinators in their network.
- Maintain a contact list and make sure the backup network coordinator knows how to access it.
- Inform utility coordinators about the best ways to communicate in a disaster.
- Establish procedures for communicating with their utility coordinators at each mutual aid level.
- Brief and train their utility coordinators to share processes and templates to use during a national event.
- Establish and/or strengthen communication channels with state and regional partners.

Figure 3.2.1 Network Coordinator Trigger and Responsibility Matrix



The nature of the disaster will influence the preparedness timeline as some types of disasters allow planning and others do not. Natural disasters such as severe winter storms or hurricanes, that build up in intensity over time, allow network coordinators to anticipate the potential damage and response.

Other disasters such as tornadoes, earthquakes, and flash floods have sudden impact and do not allow time for a preemptive call. So network coordinators must conduct an initial rapid assessment after the disaster to determine if a multi-network response is warranted; and if yes, ask APPA to activate level 4 mutual aid.

Network Coordinator Level 4 Communications Plan

When mutual aid is warranted, Figure 3.2.2 illustrates how network coordinators integrate input from utility coordinators and communicate with other network coordinators and the national coordinator. The goal is to identify if needs are being matched with available resources and help in filling gaps efficiently and safely.

Figure 3.2.2 Network Coordinator Level 4 Communications Plan.

Requesting Network Coordinator

Step I: Receive and Verify Request from Requesting Utility

 Aggregate resource needs in Form B. Response Requirements and Status Summary

Step 2: Initiate Request for

- Assistance
- Request and participate in scheduled conference call with proximate network coordinators and APPA
- Report on network resource needs

Step 3: Assist in Matching Resources

- Coordinate with Responding Network Coordinator on connecting appropriate responding utilities with requesting utilities to fill gaps
- Periodically update resource assignments in Form B.

Step 4: Communicate Situation

- Engage in daily conference calls with proximate network coordinators and APPA
- Report on status of network resource needs

Responding Network Coordinator

Step I: Assess Available Resources

- · Estimate types of needs
- Review resources database, if available
- Identify systems that could offer assistance

Step 2: Participate in Identifying Available Resources

- Participate in scheduled conference call with proximate network coordinators and APPA
- · Report on network resource availability

Step 3: Broadcast Request to Appropriate Utility Coordinators and Assist in Matching Resources

- Aggregate offered resources in Form C. Resources Available and Status Summary
- Coordinate with Requesting Network Coordinator on connecting appropriate responding utilities with requesting utilities to fill gaps
- Periodically update Resource
 Assignments in Form C.

Step 4: Communicate Situation

- Engage in daily conference calls with proximate network coordinators and APPA
- Report on status of network resource assignments

Step 3 : Communicate Situation

- Host daily conference calls with proximate network coordinators
- Available to coordinate response
- Inform federal agencies and other organizations of mutual aid status

All Coordinators Participate in Post-Event Review

Participate in conference call/webinar of all participating entities and coordinators to review lessons learned, discuss what went well and what to improve, draft new best practices, and answer questions relevant to post-response (e.g., reimbursement)

National Coordinator

American Public Power Association

Step I: Monitor Conditions

Receive request from Requesting

conference call

Network Coordinator to schedule

Inform federal agencies and other

organizations of mutual aid status

Step 2: Participate in Identifying

Available Resources

· Host conference call with proximate

Available to coordinate response

Inform federal agencies and other organizations of mutual aid status

network coordinators



Photo courtesy of Municipal Electric Utilities of Wisconsin

National Coordinator (Tier 3)

The National Coordinator serves as the central point of contact for the federal government and the Secretariat for the Mutual Aid Working Group. The national coordinator is an APPA staff member who stands ready to help when a response demands national-level coordination.

Responsibilities

The National Coordinator is responsible for:

- Working with members, the Mutual Aid Working Group, other utility associations, and federal agencies to enhance communication during preparation for and recovery from disasters.
- Educating and encouraging all APPA members to familiarize themselves with the *Public Power Mutual Aid Playbook*, annually update mutual aid agreements and disaster plans, and be ready to assist other public power utilities in times of need.

Communications

The National Coordinator communicates with the organizations shown in Figure 3.3.1 to:

- Improve preparedness, coordination, and understanding between these federal entities, other organizations, and public power utilities
- Navigate administrative obstacles to procure assistance during and after a major storm/event

Figure 3.3.1 National Coordinator Communications Network

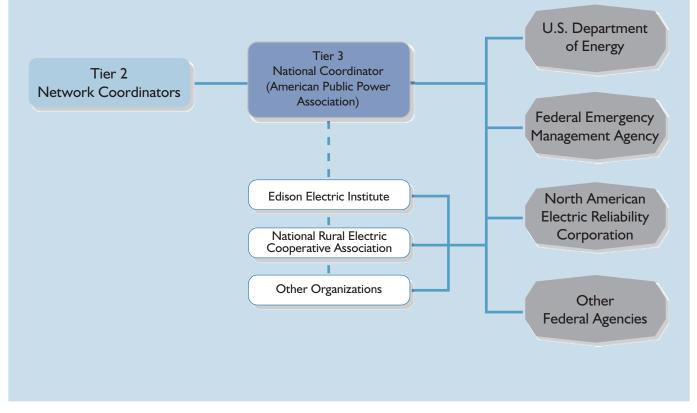
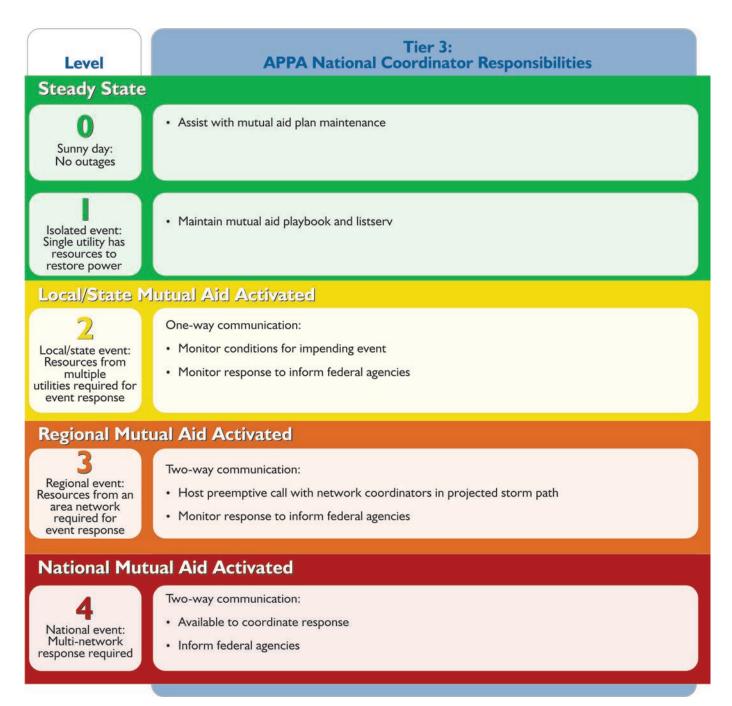


Figure 3.3.2 National Coordinator Trigger and Responsibility Matrix



Public Power Mutual Aid Contact Information

Mutual Aid Network Membership

For learn more about the APPA Mutual Aid Network and become a member, email <u>MutualAid@</u> <u>PublicPower.org</u>, call 202-467-2900, or visit <u>www.PublicPower.org/MutualAid</u>.

General Mutual Aid Website

APPA members can access a list of public power and cooperative utilities that are part of the national mutual aid agreement at <u>www.PublicPower.org/MutualAid</u>. This site also houses experts' perspectives and mutual aid best practices that public power utilities can use to evaluate and improve their level of preparedness for any disaster.

Mutual Aid Coordination Website

Ensure that your utility has the most up-to-date mutual aid network coordinator list by visiting <u>www.</u> <u>PublicPower.org/MutualAid/Coordination</u> on a regular basis. To update your contact information, please email <u>MutualAid@PublicPower.org</u>.

Mutual Aid Listserve

APPA hosts a mutual aid listserve for member public power utilities, public utility districts, state associations, and joint action agencies. The listserve allows organizations to communicate during natural disasters, provide restoration updates, and request aid, etc. Members can also share best practices, lessons learned, and general information on mutual aid and disaster recovery.

To join the listserve, please email your name, title, organization name, email address, and phone number to <u>MutualAid@PublicPower.org</u>.

Contact Information

General

MutualAid@PublicPower.org 202-467-2900

Individuals

Michael J. Hyland, Senior Vice President of Engineering Services, APPA <u>mhyland@PublicPower.org</u>

Puesh Kumar, Director of Engineering & Operations, APPA pkumar@PublicPower.org

Laura Cornwell, Engineering Services Specialist, APPA <u>lcornwell@PublicPower.org</u>



Photo courtesy of GEUS

Appendix A. APPA/NRECA National Mutual Aid Agreement

The American Public Power Association/ National Rural Electric Cooperative Association National Mutual Aid Agreement, approved by the Federal Emergency Management Agency (FEMA), assures that personnel and resources from other utilities can be used in a level 4 event and supports potential federal reimbursement.

To enroll in the National Mutual Aid program, utilities must sign the agreement prior to a level 4 event. FEMA requires an agreement to be in place before it considers reimbursement of expenses for outof-state utility restoration work. Enrolled utilities will make their personnel and resources available for mutual aid efforts and may draw on other utilities' resources in times of need. However, a utility is not required to assist if management determines it cannot provide that aid.

MUTUAL AID AGREEMENT

In consideration of the mutual commitments given herein, each of the Signatories to this Mutual Aid Agreement agrees to render aid to any of the other Signatories as follows:

- 1.) <u>Request for aid</u>. The Requesting Signatory agrees to make its request in writing to the Aiding Signatory within a reasonable time after aid is needed and with reasonable specificity. The Requesting Signatory agrees to compensate the Aiding Signatory as specified in this Agreement and in other agreements that may be in effect between the Requesting and Aiding Signatories.
- 2.) <u>Discretionary rendering of aid</u>. Rendering of aid is entirely at the discretion of the Aiding Signatory. The agreement to render aid is expressly not contingent upon a declaration of a major disaster or emergency by the federal government or upon receiving federal funds.
- 3.) <u>Invoice to the Requesting Signatory</u>. Within 90 days of the return to the home work station of all labor and equipment of the Aiding Signatory, the Aiding Signatory shall submit to the Requesting Signatory an invoice of all charges related to the aid provided pursuant to this Agreement. The invoice shall contain only charges related to the aid provided pursuant to this Agreement.
- 4.) <u>Charges to the Requesting Signatory</u>. Charges to the Requesting Signatory from the Aiding Signatory shall be as follows:
 - a.) <u>Labor force</u>. Charges for labor force shall be in accordance with the Aiding Signatory's standard practices.
 - b.) <u>Equipment</u>. Charges for equipment, such as bucket trucks, digger derricks, and other special equipment used by the Aiding Signatory, shall be at the reasonable and customary rates for such equipment in the Aiding Signatory's location.
 - c.) <u>Transportation</u>. The Aiding Signatory shall transport needed personnel and equipment by reasonable and customary means and shall charge reasonable and customary rates for such transportation.
 - d.) <u>Meals, lodging and other related expenses</u>. Charges for meals, lodging and other expenses related to the provision of aid pursuant to this Agreement shall be the reasonable and actual costs incurred by the Aiding Signatory.
- 5.) <u>Counterparts</u>. The Signatories may execute this Mutual Aid Agreement in one or more counterparts, with each counterpart being deemed an original Agreement, but with all counterparts being considered one Agreement.
- 6.) <u>Execution</u>. Each party hereto has read, agreed to and executed this Mutual Aid Agreement on the date indicated.

Please print	
Date	(Name/Title)
	(Organization)
	(City, State, Zip)
	(Office Phone, Mobile Phone)
	(Email)
Please send signed agreement to:	
Michael Hyland	
Senior Vice President, Engineering Services	
American Public Power Association	
2451 Crystal Dr. Suite 1000 Arlington VA 22202	

2451 Crystal Dr., Suite 1000 | Arlington, VA 22202 E-mail: <u>MutualAid@PublicPower.org</u> | Fax: 202/467-2932

Questions about this agreement should be directed to <u>MutualAid@PublicPower.org</u> or 202/467-2900.

Appendix B. Mutual Aid Forms

The Mutual Aid Working Group considers the following forms, which facilitate standardized communication, essential to the success of a level 4 response. Coordinators may augment these forms according to their network's unique needs and can assist utilities that may not have the resources to complete all items on their own.

These forms can be downloaded in Microsoft Excel <u>www.publicpower.org/MutualAid/Coordination</u>.

Sample Form A. Response Requirements: This form helps requesting utility coordinators communicate to their network coordinator their system's status and the quantity, type, and duration of the resources needed.

Sample Form B. Response Requirements and Status Summary: This form helps requesting network coordinators aggregate information from Form A and communicate to other network coordinators and the national coordinator during mutual aid conference calls. Requesting network coordinators will update this form to track and report response status throughout the event.

Sample Form C. Resources Available and Status Summary: This form helps responding network coordinators aggregate resources.

Sample Form A. Response Requirements

Sample Form A: Response Requirements (Completed by *Requesting Utility Coordinator*)

		Date/Time (time	zone):
Requesting Utility Coordinator Name:			
Requesting Utility Coordinator Organizatio	on:		
	Number	r of Customers Without Power (#):	
System Conditions:	Percentage	e of Customers Without Power (%):	
Special Conditions (e.g.	, union, equipn	nent height limitations, weather, w	ater and road hazards):
с	rews, Equip	ment, and/or Other Resource	95
Needed			
Туре	Number	Please Describe Equipment and/or Other Resources Needed	Estimated Time to Release
Distribution			
Transmission	7		
Substation			
Service Line			
Tree			
Fuel			
Debris Removal			
Water			
Other			

Sample Form B. Response Requirements and Status Summary (Completed by *Requesting Network Coordinator*)

Date/Time (time zone):

Responding Utility Coordinator Organization Resource Status Responding Utility Coordinator Name Deployment - inservice - released - in route Status: Number of Customers Without Power (#): Percentage of Customers Without Power (%): Estimated Release Time to Please Describe Equipment and/or Other **Resources Needed** Requesting Utility Crews, Equipment, and/or Other Resources Needed Number **Debris Removal Fransmission** Service Line Type Distribution Substation Water Other Tree Fuel Percentage of Customers Without Power (%) Requesting Utility Coordinator Organization **Requesting Network Coordinator Name: Requesting Network Coordinator** System Conditions Network Conditions: Requesting Utility Coordinator Name Customers Without Power (#) Organization: lumber of

Sample Form B. Response Requirements and Status Summary

Sample Form C. Resources Available and Status Summary (Completed by **Responding Network Coordinator**)

Date/Time (time zone):

Responding Network Coordinator Name:	:oordinator Name:								
Responding Network Coordinator Organization:	coordinator								
Total Number of Individuals Deployed:	duals Deployed:					\mathbf{i}			
Respon	Responding Utility Crews, Equipment, and/or Other Resources Available	uipment, and/or Ot	her Resour	ces Available			-	Resource Status	
Responding Utility Coordinator Name	Responding Utility Coordinator Organization	Type	Number	Please Describe Equipment and/or Other Resources	Maximum Deployment Time	Deployment Status: - unassigned - in route - inservice - released	Estimated Time to Release	Requesting Utility Coordinator Name	Requesting Utility Coordinator Organization
		Distribution Transmission							
		Substation	4						
		Service Line Tree							
		Fuel Debris Removal							
		Water							
		Other							

Sample Form C. Resources Available and Status Summary

American Public Power Asociation 2451 Crystal Drive Suite 1000 Arlington, VA 22202

