



# **PACIFIC POWER DISASTER RECOVERY PROGRAM**

**Pacific Power Association Annual Conference**

**1-5 July, 2019, Cook Islands**



# Outline

- Background
- What is MAS?
- Benefits of MAS
- Examples of MAS – Caribbean, Pacific
- Proposed MOU – Main Clauses
- Next Steps

# Background

- TA complementing the Sustainable Energy Industry Development Project (SEIDP) - World Bank & PPA collaboration
- Frequency of disaster and lack of power resilience in the region
- Explore the development of a mutual aid programme for power utilities, for post-disaster restoration



# What is Mutual Aid?

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- Voluntary partnerships or agreements and other types of arrangements to provide assistance before, during and after a natural disaster or emergency event.
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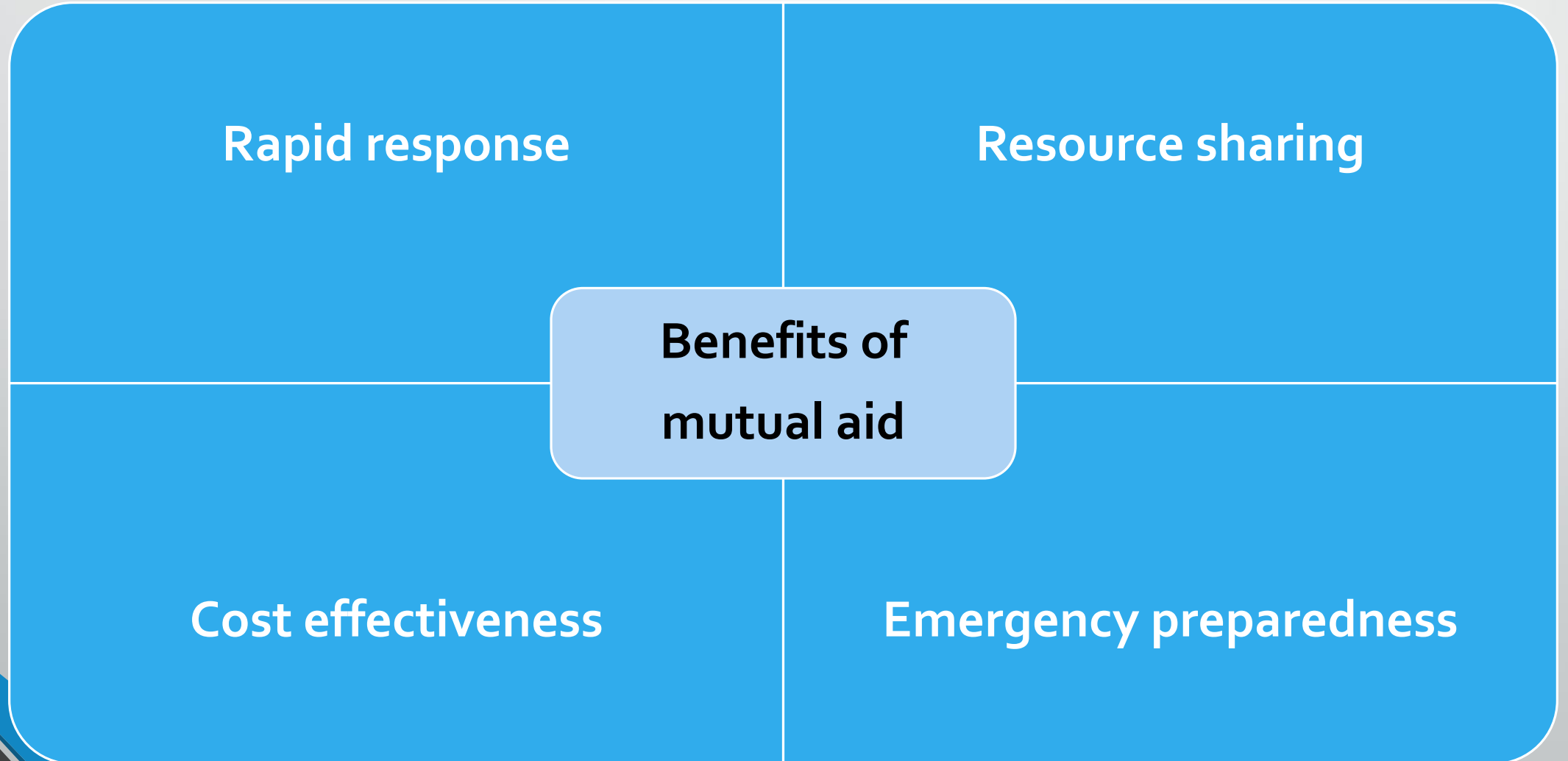
Allow companies to share resources to meet their urgent needs after disasters, facilitating recovery and restoration efforts


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Can range from formal compacts adopted into law, to informal MOUs

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# Benefits of mutual aid

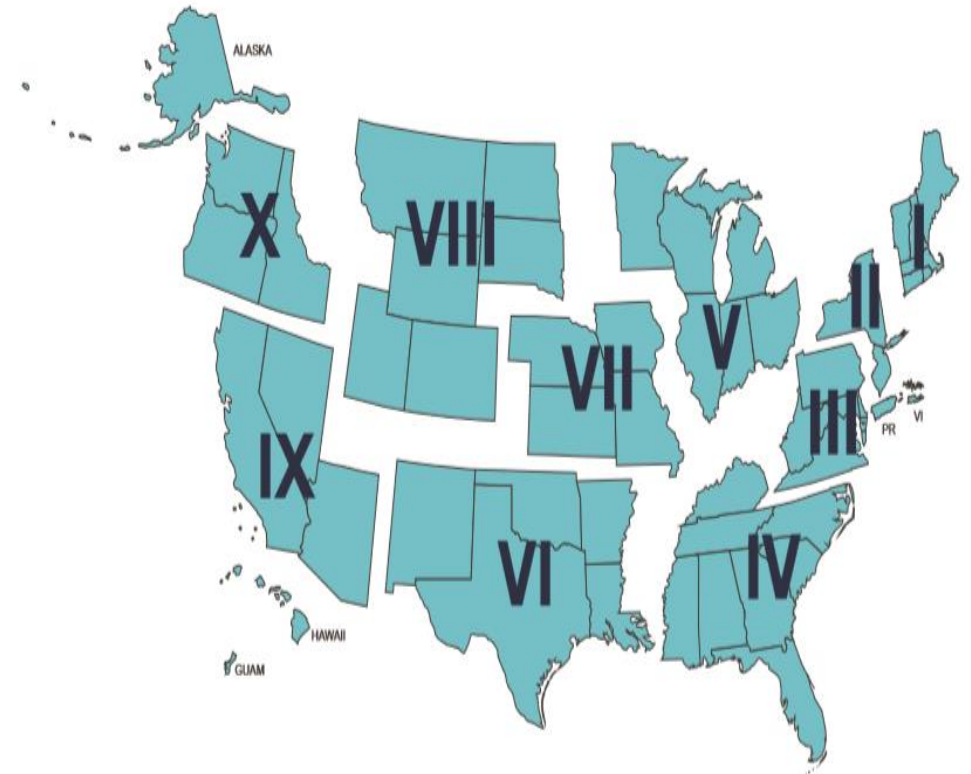




# Mutual aid - Examples

# American Public Power Association (APPA) Mutual Aid Network

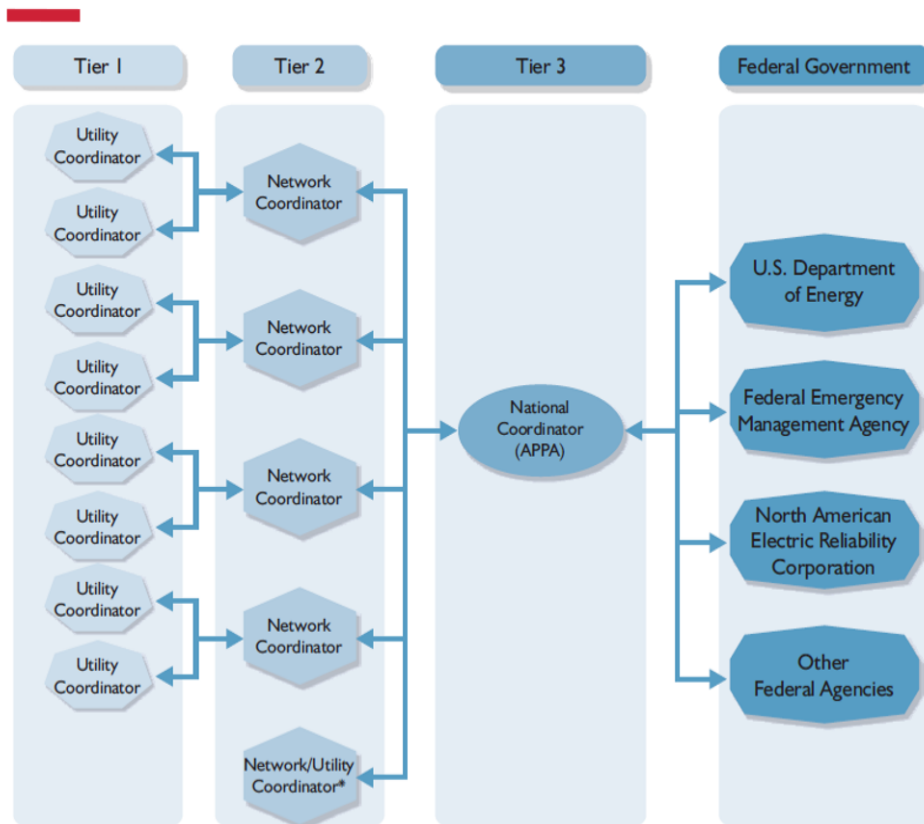
- A national mutual aid agreement signed by more than 2,000 public power and rural electric cooperatives to help each other in time of need
- Segmented into the nation's 10 public power mutual aid regions, which are based on the FEMA regions
- US territories in the Northern Pacific are part of region IX
- Ensures a coordinated response with state and federal government officials.



\*American Samoa, Commonwealth of Northern Marianas Islands, Republic of Marshall Islands, and Federated States of Micronesia are not shown.

# American Public Power Association (APPA) Mutual Aid Network

## APPA National Mutual Aid 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
- National Coordinator (Tier 3) – Point of contact from the American Public Power Association.



# American Public Power Association (APPA)

## Mutual Aid Network

Level	Tier 1: Utility Coordinator	Tier 2: Network Coordinator	Tier 3: National Coordinator (American Public Power Association)
<b>Steady State</b>			
<b>0</b> No outages	<ul style="list-style-type: none"> <li>Update contact and resources lists and communicate periodically with network coordinator</li> </ul>	<ul style="list-style-type: none"> <li>Compile contact and resources lists from utilities within network</li> </ul>	<ul style="list-style-type: none"> <li>Maintain mutual aid playbook and listserv</li> </ul>
<b>1</b> Isolated event	<ul style="list-style-type: none"> <li>Assess need, respond to event, and determine if escalation is needed</li> </ul>	<ul style="list-style-type: none"> <li>None generally, but may assist with information as requested</li> </ul>	<ul style="list-style-type: none"> <li>Maintain mutual aid playbook and listserv</li> </ul>
<b>Local/State Mutual Aid Activated</b>			
<b>2</b> Local/state event	<ul style="list-style-type: none"> <li>Communicate needs and available resources to network coordinator and update periodically</li> <li>Manage response within their utility</li> </ul>	<ul style="list-style-type: none"> <li>Monitor response</li> <li>May assist identifying available resources</li> <li>Inform APPA of response, potential needs, and if preemptive call is needed</li> </ul>	<ul style="list-style-type: none"> <li>Monitor conditions for possible escalation</li> <li>Monitor response to inform federal agencies</li> </ul>
<b>Regional Mutual Aid Activated</b>			
<b>3</b> Regional event	<ul style="list-style-type: none"> <li>Communicate needs and available resources to network coordinator</li> <li>Periodic updates of needs and resources as response proceeds</li> </ul>	<ul style="list-style-type: none"> <li>Assist identification of available resources</li> <li>May work with other network coordinators to mobilize needed resources</li> </ul>	<ul style="list-style-type: none"> <li>Host preemptive call with affected network coordinators</li> <li>Monitor response to inform federal agencies</li> </ul>
<b>National Mutual Aid Activated</b>			
<b>4</b> National event	<ul style="list-style-type: none"> <li>Communicate needs and available resources to network coordinator</li> <li>Multiple daily updates of needs and resources as response proceeds</li> <li>Manage local response</li> </ul>	<ul style="list-style-type: none"> <li>Assist identification of available resources</li> <li>Work with other network coordinators and APPA to mobilize needed resources</li> </ul>	<ul style="list-style-type: none"> <li>Available to coordinate response</li> <li>Inform federal agencies</li> </ul>

- To enroll in the National Mutual Aid program, utilities must sign the agreement prior to a level 4 event.
- After a severe disaster, participating utilities inform of their needs or available resources to their Network Coordinator, who identifies and mobilizes needed resources, working with other Network Coordinators and APPA.
- A utility voluntarily sends labor force, equipment, etc., and submits to the affected utility an invoice of all charges related to the aid provided within 90 days of the return to the home work station.
- The affected utility pays the assisting utilities
- Utilities may be eligible for partial reimbursement of restoration expenses by Federal Emergency Management Agency (FEMA).

# Caribbean Electric Utility Services Corporation (CARILEC)

- Currently has 34 full members, 73 associate members and 8 affiliate members
  - **CARILEC's Disaster Assistance Programme (CDAP)**
    1. Annual contribution to CDAP Fund
    2. Coordination of regional efforts to respond to requests for assistance from disaster stricken member utilities. e.g. deployment of engineers and line crews to undertake damage assessments and network restoration
  - **Example:** over 140 linesmen from 14 utilities were deployed to support restoration efforts in Anguilla, British Virgin Islands and Dominica after Hurricanes Irma and Maria in 2017.
  - Costs reimbursed from CDAP fund
- CARILEC Disaster Response and Restoration Manual





# Mutual Aid – Pacific Examples

**Tonga Power Ltd – supported Energy Fiji Ltd (FEA), Cyclone Winston, 2016**





# Mutual Aid – Pacific examples

**Guam Power Auth. – assisted CUC (CNMI), Super Typhoon Yutu, Oct 2018**



Guam Gov. Lou Leon Guerrero joins Guam Power Authority personnel in a group photo yesterday after visiting them at their work site at the William S. Reyes Elementary School in Chalan Kanoa. (Jon Perez)





# Mutual Aid – Pacific examples

**Aust. and NZ line mechanics – supported Tonga Power Ltd , Cyclone Gita, 2018**



<https://matangitonga.to/2018/02/23/australian-linesmen-arrive-aid-electricity-restoration>



[https://m.facebook.com/nzhctonga/photos/pcb.1824241787619880/1824235027620556/?type=3&source=48&refid=52&\\_\\_tn\\_\\_=EH-R](https://m.facebook.com/nzhctonga/photos/pcb.1824241787619880/1824235027620556/?type=3&source=48&refid=52&__tn__=EH-R)

# Mutual Aid – Pacific examples

FEMA generators being unloaded, Tsunami, American Samoa, 2009



<https://nara.getarchive.net/media/earthquake-tsunami-pago-pago-american-samoa-october-2-2009-fema-generators-4bc68d?zoom=true>





# PROPOSED MOU - MAIN CLAUSES

# CLAUSE E – TERMS OF AGREEMENT

- Withdrawal from MOU
- Review and amendment
- Non-legally binding contract
- No obligation to respond
- Non-exclusivity





## CLAUSE F. ROLES AND RESPONSIBILITIES OF UTILITIES AND PPA

# F. ROLES AND RESPONSIBILITIES OF PARTIES

## Participating Utilities

### Pre-disaster

- Maintain, review and update disaster management plans
- Establish MOUs with their Immigration & Custom Authorities
- Maintain a minimum recommended disaster stock – tools, equipment and materials
- Conduct annual simulation of disaster management and response plans;
- Appoint a Mutual Aid Coordinator

### Threat Imminent

- Monitor status of impending threat
- Alert selected personnel to be on stand-by
- Check and prepare equipment to be ready for deployment;
- Keep in constant touch with PPA Secretariat and provide advance notification if mutual aid will be required based on weather reports.

### Post Disaster

- Affected utility
  - Preliminary damage assessment
  - Notify PPA secretariat of nature and type of assistance required
  - Arrangements to accommodate incoming crews
  - Brief assisting utility of restoration assistance required
- Assisting utility
  - Prepare and deploy crews
  - Travel to affected utility
  - Regular contact with PPA Secretariat
  - Submit report to PPA Sec.

# F. ROLES AND RESPONSIBILITIES OF PARTIES

## PPA Secretariat

### Pre-Disaster

- Disaster preparedness planning
- Organise a Forum for Mutual Aid Coordinators & Authorised Representatives
- Establish contact and MOUs with other agencies
- Explore geographical zoning of Participating Utilities
- Explore setting up warehouses in the North & South Pacific regions

### Threat Imminent

- Monitor progress of impending threat
- Establish and maintain communication links with country threatened
- Initiate preparation of assisting utilities for possible mobilization

### Post-disaster

- Mobilise preliminary impact survey and analysis
- Disseminate request for assistance
- Coordinates with assisting utilities
- Coordinates with affected utility to on arrangements to receiving the assisting utility crew
- ☐ Establish and maintain communication with participating utilities



## CLAUSE G. PROCEDURES FOR REQUESTING AND PROVIDING MUTUAL AID

## **G. PROCEDURES FOR REQUESTING AND PROVIDING MUTUAL AID**

### **Coordination of mutual aid**

- PPA secretariat will coordinate mutual aid efforts between affected and assisting utilities

# G. PROCEDURES FOR REQUESTING AND PROVIDING MUTUAL AID

## Requests for assistance

- Only an Authorized Representative can initiate request
- Only request assistance if resources are inadequate.

## Required information

- ☐ Extent of damage to power utilities and infrastructure;
- ☐ Type of assistance required, including quantity and type of personnel, supplies and equipment needed
- ☐ Length of deployment
- ☐ The location or staging areas

## G. PROCEDURES FOR REQUESTING AND PROVIDING MUTUAL AID

### Providing assistance

- Communicate through an Authorised Representative, to the PPA secretariat and the affected utility not later than 24 hours, from the initial contact

### Supervision and control

- Assisting utility's personnel, supplies, equipment will be under the operational control of the affected utility.
- The affected utility to advise the assisting utility of the tasks to be undertaken.

# G. PROCEDURES FOR REQUESTING AND PROVIDING MUTUAL AID

## Extension of period

- Contact the assisting utility to negotiate approval for the extension
- Inform PPA secretariat

## Recording & reporting

- Assisting utility: maintain daily time records, material records, and logs of equipment hours; and report to PPA secretariat on weekly basis about progress and/or set-backs
- Affected utility: within 30 days, prepare a report summarizing the event and provide a copy to the assisting utility and PPA secretariat.





## CLAUSE H. PROCEDURES, AUTHORITIES AND RULES FOR PAYMENT AND REIMBURSEMENT

## H. PROCEDURES, AUTHORITIES AND RULES FOR PAYMENT AND REIMBURSEMENT

### Payment for disaster recovery efforts

- Labor force. The assisting utilities will be responsible for the wages (regular and overtime) of their disaster restoration team members and the basic tools and equipment to be used by linesmen.
- Equipment. The assisting utility shall charge for equipment, such as bucket trucks, crane trucks, generators and other special equipment at the normal customary rates for such equipment in the Assisting Utility's location.
- Transportation. The assisting utility shall pay for the transportation of needed personnel and equipment and shall charge the actual costs for such transportation.
- Meals, lodging and other related expenses. The assisting utility shall pay for all costs related to meals, lodging and other expenses related to the provision of aid pursuant to this MOU and shall charge the actual costs incurred. .

## H. PROCEDURES, AUTHORITIES AND RULES FOR PAYMENT AND REIMBURSEMENT

### Invoice and reimbursement procedures

- The Assisting Utility to submit to the Affected Utility an invoice of all charges related to the aid within sixty (60) days of the return to their home work station.
- The Affected Utility [with support from the PPA Secretariat if a Disaster Fund is set up] shall reimburse the Assisting Utility for all costs incurred or advise of any disputed items not later than sixty (60) days following receipt of invoice.



# CLAUSE I: PACIFIC POWER DISASTER RECOVERY FUND

# **I. PACIFIC POWER DISASTER RECOVERY FUND**

The PPA secretariat and WB will explore options for setting up a Disaster Recovery Fund to co-finance reimbursement of post-disaster recovery activities.



## CLAUSE J: WORKERS COMPENSATION

## J. WORKERS COMPENSATION

Affected utility to provide for the payment of workers' compensation, health care and life insurance benefits to assisting utility crews

# NEXT STEPS

**Consultations  
(First round -  
July)**

**August –  
utilities share  
comments on  
MOU**

**September -  
utilities which  
agree, to sign  
MOU**





