



June 15, 2016

**MEMORANDUM No. 2016-007**

**TO : ALL ELECTRIC COOPERATIVES (ECs)**

**SUBJECT : Policy on ECs' Vulnerability and Risk Assessment (VRA) and  
Emergency Restoration Planning (ERP)**

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In line with the Disaster Resiliency Program, the ECs shall prepare and adopt a VRA and ERP to mitigate calamity-related damage to the EC distribution system and facilities, and to facilitate rehabilitation/restoration of identified critical assets with the end view of ensuring the EC viability through business continuity planning after the occurrence of calamities and disasters.

The VRA serves as a decision support tool for identifying, quantifying, and prioritizing the vulnerabilities associated with critical assets on an EC system in relation to identified threats. The ERP provides the most efficient means to organize and utilize its resources to restore the system in the event of either an isolated outage or a system wide outage resulting from a natural disaster or other cause.

This policy is a result of over a year consultations with the ECs and other stakeholders with the assistance provided by the National Rural Electric Cooperative Association (NRECA) of America. Based on the inputs, suggestions and comments gathered during the said consultation process, templates were also designed to guide the ECs in the conduct of VRA and preparation of ERP.

A series of seminar-workshops will be conducted to ensure that the ECs will be capacitated to undertake this project.

The ECs are enjoined to fully adhere to the policy and incorporate in its CAPEX plan the requirements for its program to protect, replace, or provide redundancy for the identified critical assets for consideration by the Energy Regulatory Commission.

*Edita S. Bueno*  
**EDITA S. BUENO**  
 Administrator

REPUBLIC OF THE PHILIPPINES  
 NATIONAL ELECTRIFICATION ADMINISTRATION  
 QUEZON CITY  
 OFFICE OF THE CORPORATE SECRETARY  
**CERTIFIED TRUE COPY**  
*[Signature]*  
 NOLLIE B. ALAMILLO



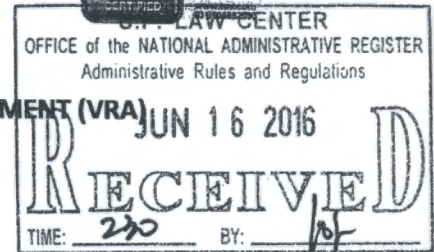
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**POLICY ON ELECTRIC COOPERATIVES' VULNERABILITY AND RISK ASSESSMENT (VRA)  
AND EMERGENCY RESTORATION PLANNING (ERP)**

**I. RATIONALE**

The frequent occurrence of natural calamities, brought by force majeure events that tend to increase in intensity, adversely affects the pursuit of total electrification in the countryside through the electric cooperatives (ECs). Man-made calamities and disasters due to fortuitous events likewise result in the destruction of EC distribution system and facilities.

Accordingly, it is important for the ECs to adopt a more proactive risk assessment process and to engage in more formal emergency management planning in an effort to protect, provide backup, and facilitate rehabilitation of damaged facilities and enhance restoration of electric service after the occurrence of force majeure and/or fortuitous events.

**II. OBJECTIVES**

1. To establish a process for the conduct of VRA and development of ERP.
2. To mitigate calamity-related damage to the EC distribution system and facilities, and to facilitate rehabilitation/restoration of identified critical assets.
3. To ensure the EC viability through business continuity planning after the occurrence of calamities and disasters.

**III. POLICY**

In line with the Policy on ECs' Resiliency Program, the EC shall prepare and adopt:

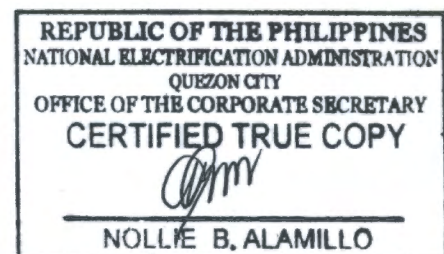
1. A VRA which identifies the EC's critical assets, determines the probable vulnerability of such critical assets in relation to natural and/or man-made calamities, and defines proactive measures for the protection, backup or replacement of those critical assets which have high probability of damage or destruction due to natural and/or man-made disasters or calamities.
2. An ERP which provides details on how to efficiently restore the EC's system in the event of an isolated or system wide outage resulting from a major disaster or calamity. It defines the chain of command and delegation of authority and responsibility of EC officers and employees before, during, and after the occurrence of a disaster or calamity.

**IV. SCOPE**

This Policy shall apply to all electric cooperatives.

**V. DEFINITION OF TERMS**

1. Force majeure - an event that is a result of elements of nature that cannot be reasonably anticipated or controlled, such as typhoon, storm, tropical depression, flood, drought, volcanic eruption, earthquake, tidal wave or landslide.



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2. Fortuitous event - shall refer to an act of war (declared or undeclared), sabotage, blockage, revolution, riot, insurrection, civil commotion or any violent or threatening action.
3. Critical assets - shall include facilities, business systems, equipment, manpower, logistics and all other related EC resources that if damaged, destroyed, or otherwise made unavailable would cause significant loss of life, risk to public health, social unrest and/or inability to deliver efficient, reliable and sustainable supply of power affecting the viability of the ECs.
4. Identified threats - are those natural or man-made occurrences which have high probability of damaging or destroying EC assets or causing serious injury or loss of life.
5. Vulnerability assessment - is the process of identifying, quantifying, and prioritizing (or ranking) the vulnerabilities associated with critical assets of an EC system in relation to identified threats.

## VI. MECHANICS FOR IMPLEMENTATION

### A. Vulnerability and Risk Assessment (VRA)

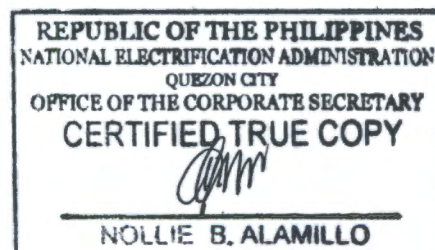
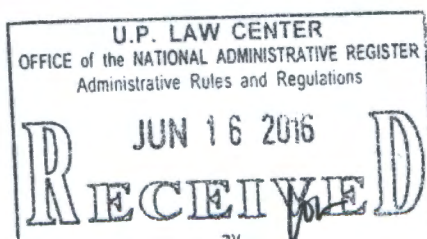
The VRA is recognized as an effective decision support tool for determining and prioritizing sites and functions within the areas covered by the ECs and developing a responsive ERP. The VRA will be organized into several sections:

1. Identifying and quantifying critical assets through the estimated number of affected consumers, loss of revenue, cost of replacing the asset and potential loss of life associated with the loss of the critical asset;
2. Analysis (or rating) of the various identified threats that may occur based on the Relative Risk Factors (Probability of Threat, Speed of Onset, Forewarning and Duration);
3. Evaluating those critical assets identified as most important in relation to the Relative Risk Factors associated with the top rated (major) identified threats and in terms of the level of concern or vulnerability; and
4. Mitigating or action plans to protect, replace, or provide redundancy for the critical assets, the costs of which should be included in the EC's capital expenditure plan.

An annual review of its VRA shall be undertaken by the EC, or when major system changes are made or a new threat to the electric system has been evaluated or discovered.

### B. Emergency Restoration Planning (ERP)

The EC shall develop the ERP based on the results of the VRA. The ERP offers the EC the opportunity to prepare a written plan detailing the most efficient means to organize and utilize its resources to restore its system in the event of either an isolated outage or a system wide outage resulting from a major natural disaster or other cause. It is a practical and functional tool which the EC can use to organize and dispatch its initial recovery efforts to restore its system while efficiently utilizing its resources.



The following shall be included in the ERP:

1. List of key contact emergency telephone numbers.
2. List of key EC officers and personnel with identified chain of command and delegation of authority and responsibility before, during, and after the occurrence of a disaster or calamity.
3. Procedures for recovery from loss of power to the headquarters, key offices and/or operation center facilities.
4. A business continuity section describing a plan to maintain or re-establish business operations including information technology and communications following an event which disrupts business systems.
5. Other items identified by the EC as essential for inclusion in the plan.

The EC shall exercise its ERP by responding to simulated system wide outages resulting from several selected major natural disasters at least annually to ensure familiarity and applicability.

The EC shall submit to NEA a Board Resolution adopting its VRA and ERP and a Certificate of Undertaking duly signed by the General Manager.

#### VII. IMPLEMENTING RULES AND REGULATIONS

The Administrator shall issue such Rules and Regulations as may be necessary to implement this Policy.

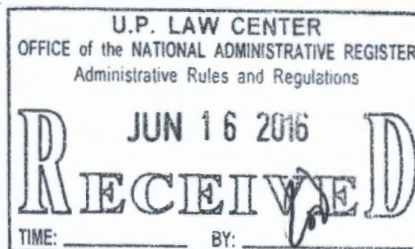
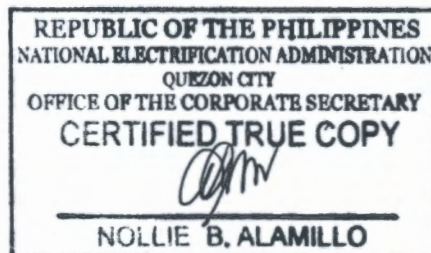
#### VIII. EFFECTIVITY

This policy shall take effect fifteen (15) days immediately following the filing of three (3) copies with the University of the Philippines (UP) Law Center pursuant to the Presidential Memorandum Circular No. 11, dated October 9, 1992.

  
**EDITA S. BUENO**  
Administrator



6/15/16



Approved by the NEA Board of Administrators through Board Resolution No. 110 in its meeting on June 14, 2016.