



February 14, 2018

MEMORANDUM No. 2018-013

TO : **ALL ELECTRIC COOPERATIVES**

SUBJECT : **The Electric Cooperatives' Disaster Mitigation and
Emergency Restoration Plans**

This is with regard to the NEA Memorandum No. 2017-016 issued to all Electric Cooperatives otherwise known as the Implementing Rules and Regulations (IRR) on the EC's Vulnerability and Risk Assessment (VRA) and Emergency Restoration Planning (ERP). After the successful conduct of its seminar-workshop on September 2017 for the Luzon, Visayas and Mindanao ECs, it should have been expected by this time the ECs has already prepared and completed its individual disaster mitigation and emergency restoration plans.

Considering the disaster mitigation plan's implementation for the ECs' network and non-network assets cannot be done in one time but rather in phases because of the huge capital expenditures' involved, it is suggested to consider prioritizing the ECs' most vital assets such as the substations, sub-transmission and primary distribution lines wherein bulk of the conveyance of electricity to consumers' flows. Please also include the ECs' embedded power generation plants, offices and its similars so that the disasters' impact could just be minimal and the electric service interruption to the consumers would not be prolonged when calamities happened.

On the other hand, the Department of Energy (DOE) has just recently promulgated its Department Circular No. 2018-01-0001 (copy attached) known as the "Adoption of Energy Resiliency in the Planning and Programming of the Energy Sector to Mitigate the Impacts of Disasters". It is provided therein under Section 5, that all ECs are required to submit through the NEA the Resiliency Compliance Plan (template copy attached) to DOE and every year after.

While the appropriate implementing guidelines of the aforementioned Circular will still being crafted, the NEA in its aim the ECs to be always ready are hereby requested their individual disaster mitigation and emergency restoration plans subject to this office's approval. In so far as the emergency restoration plan is concerned, it is very

important for the ECs to include the organization's written system operating procedures as provided in the IRR on the EC's Vulnerability and Risk Assessment (VRA) and Emergency Restoration Planning (ERP), which will be the guidance in its implementation before, during and after every calamity.


As generally explained in this regard, may request you to please submit your individual disaster mitigation and emergency restoration plans to the NEA's (newly created and operationalized) Disaster Risk Reduction Management Department through the Office of the Deputy Administrator for Technical Services not later than March 31, 2018.

Attached herewith are the NEA's prescribed forms for uniformity of submission.

For any clarifications, you may directly contact the NEA Disaster Risk Reduction Management Department's office at telephone number (02) 9261337 and look for Engineers Enrico Velgado and Gerardo Pomoy for Vulnerability Risk Assessment and Emergency Restoration Planning concerns respectively.

We look forward to receive our request the soonest time.

Thank you for your usual support.


EDGARDO R. MASONGSONG
Administrator

NATIONAL ELECTRIFICATION
ADMINISTRATION
Office of the Administrator



NEA-OA249352

2/21/18



Republic of the Philippines
DEPARTMENT OF ENERGY
(Kagawaran ng Enerhiya)

DEPARTMENT CIRCULAR NO. DC 2018-01-0001 *rv*

**ADOPTION OF ENERGY RESILIENCY IN THE PLANNING AND PROGRAMMING
OF THE ENERGY SECTOR TO MITIGATE POTENTIAL IMPACTS OF
DISASTERS**

WHEREAS, Republic Act (R.A.) No. 7638 or the Department of Energy Act of 1992 declares the policy of the State to ensure a continuous, adequate, and economic supply of energy with the end in view of ultimately achieving self-reliance in the country's energy requirements.

WHEREAS, Section 37 of the R.A. No. 9136 or the "Electric Power Industry Reform Act of 2001" (EPIRA), mandates the Department of Energy (DOE), in addition to its powers and functions under R.A. No. 7638, to supervise the restructuring of the electricity sector, and undertake the formulation of policies for planning and implementation of a comprehensive program for the efficient supply and economical use of energy. This is consistent with the approved national economic plan and with the policies on environmental protection and conservation and maintenance of ecological balance, and provides a mechanism for the integration, rationalization, and coordination of the various energy programs of the Government.

WHEREAS, R.A. No. 8479 or the Downstream Oil Industry Deregulation Act of 1998 declares the policy of the State to liberalize and deregulate the downstream oil industry in order to ensure a truly competitive market under a regime of fair prices, adequate and continuous supply of environmentally-clean and high-quality petroleum products.

WHEREAS, the R.A. No. 10121 or the Philippine Disaster Risk Reduction and Management Act of 2010, declares among others, as the policy of the State, to institutionalize the policies, structures, coordination, mechanisms and programs with continuing budget appropriation on disaster risk reduction from national down to local levels towards building a disaster-resilient nation and communities.

WHEREAS, the country is vitally dependent on the supply of energy and any sustained failure in the energy system would have drastic consequences and impact on the country's economy and to people's daily life.

WHEREAS, the Philippines is one of the most vulnerable countries to natural and human-induced hazards.

WHEREAS, among the primordial effects of disasters is the disruption in the delivery of energy to end-users due to damaged facilities, causing serious hazard to public health and safety, huge economic and financial losses, and interruption of vital public

services. While there are efforts to address disasters at various levels, most of the resources are redirected to emergency response. In establishing concrete and sustained mechanism, it is necessary that planning and investment be required to ensure that the nation's energy infrastructure can continue to deliver high performance while anticipating and reducing vulnerabilities to adverse conditions and disruptive events.

WHEREAS, ensuring resilient energy infrastructure – the ability to restore and sustain availability and accessibility of energy in the most timely and efficient manner, in the aftermath of natural and man-made disasters – is now more pronounced and there is a need to institutionalize the development, promotion and implementation of a Resiliency Compliance Plan (RCP) to strengthen the capacity, safety culture and disaster preparedness and response capability of the energy sector.

NOW, THEREFORE, premises considered, the DOE hereby promulgates the adoption of a resiliency program in the planning, project implementation and operations of the energy supply sector.

SECTION 1: SCOPE AND APPLICATION

The policy shall apply to all energy industry participants in the energy resource, renewable energy, power, oil and energy utilization sectors.

SECTION 2: GENERAL POLICIES AND PRINCIPLES.

Adoption of resiliency planning and program in the energy industry shall:

- (a) Strengthen existing infrastructure facilities to adapt to and withstand adverse conditions and disruptive events;
- (b) Incorporate mitigation improvements into the reconstruction and rehabilitation of infrastructure damaged in accordance to the Build Back Better principle;
- (c) Improve operational and maintenance standards and practices to ensure expeditious restoration of energy supply in the aftermath of disruptive events; and
- (d) Develop resiliency standards for future construction of energy facilities to ensure minimal damage and adoption of measures in place for timely recovery and restoration of facilities for the continued delivery of supply.

SECTION 3: DEFINITION OF TERMS

- (a) "Adaptation" – the adjustment in natural or human systems in response to actual or expected climatic stimuli or their effects, which moderates harm or exploits beneficial opportunities.

- (b) "Build Back Better" – the use of the recovery, rehabilitation and reconstruction phases after a disaster to increase the resilience of nations and communities through integrating disaster risk reduction measures into the restoration of physical infrastructure and societal systems, and into the revitalization of livelihoods, economies and the environment.
- (c) "Disaster" – a serious disruption of the functioning of a community or a society involving widespread human, material, economic or environmental losses and impacts, which exceeds the ability of the affected community or society to cope using its own resources. Disasters are often described as a result of the combination of: the exposure to a hazard; the conditions of vulnerability that are present; and insufficient capacity or measures to reduce or cope with the potential negative consequences. Disaster impacts may include loss of life, injury, disease and other negative effects on human, physical, mental and social well-being, together with damage to property, destruction of assets, loss of services, social and economic disruption and environmental degradation.
- (d) "Hazard" – A process, phenomenon or human activity that may cause loss of life, injury or other health impacts, property damage, social and economic disruption or environmental degradation.
- (e) "Mitigation" – structural and non-structural measures undertaken to limit the adverse impact of natural hazards, environmental degradation, and technological hazards and to ensure the ability of at-risk communities to address vulnerabilities aimed at minimizing the impact of disasters. Such measures include, but are not limited to, hazard-resistant construction and engineering works, the formulation and implementation of plans, programs, projects and activities, awareness raising, knowledge management, policies on land-use and resource management, as well as the enforcement of comprehensive land-use planning, building and safety standards, and legislation.
- (f) "Recovery" – refers to the restoration and improvement where appropriate, of facilities, livelihood and living conditions of disaster-affected communities, including efforts to reduce disaster risk factors, in accordance with the principles of "Build Back Better"
- (g) "Resiliency" – the ability of a system, community or society exposed to hazards to resist, absorb, accommodate and recover from the effects of a hazard in a timely and efficient manner, including through the preservation and restoration of its essential basic structures and functions.
- (h) "Response" – refers to the provision of emergency services and public assistance during or immediately after a disaster in order to save lives, reduce health impacts, ensure public safety and meet the basic subsistence needs of the people affected.
- (i) "Structural and non-structural measures" - Structural measures are any physical construction to reduce or avoid possible impacts of hazards, or

the application of engineering techniques or technology to achieve hazard resistance and resilience in structures or systems. Non-structural measures are measures not involving physical construction which use knowledge, practice or agreement to reduce disaster risks and impacts, in particular through policies and laws, public awareness raising, training and education.

- (j) "Stockpiling" – refers to the disaster mitigation process of identification and procuring essential inventory items beforehand.
- (k) "Systems" – refer to administrative directives, organizations, operational skills and capacities, policies, guidelines, plans to implement strategies and improved coping capacities to lessen the adverse impacts of hazards.

SECTION 4: RESILIENCY COMPLIANCE PLAN (RCP)

- 4.1 The Resiliency Compliance Plan (RCP), in general, shall at a minimum, contain adaptation measures, which include both structural and non-structural measures options, to gauge infrastructure and human resource preparedness during and in the aftermath of disruptive events.

The RCP shall be divided into, but not limited to, the following categories:

- (a) Systems;
 - (b) Stockpiling;
 - (c) Response and recovery; and
 - (d) Strengthening Infrastructure.
- 4.2 Pursuant to their respective mandates and functions under the energy laws, rules, and issuances, all energy industry participants are hereby enjoined to provide full cooperation, prepare and implement their respective RCPs, consistent with the category set in Section 6, and to comply such that the objectives set out in this Circular are attained.
- 4.3 The DOE in coordination with all the energy industry participants shall prepare the consolidated Energy Resiliency Plan for the Energy Sector.
- 4.4. Any resiliency programs identified in the RCP shall form part of the planning criteria and will form part of the Philippine Energy Plan to include, among others, the National Renewable Energy Plan (NREP), Power Development Plan (PDP), Transmission Development Plan (TDP), Distribution Development Plans (DDP), Missionary Electrification Development Plan (MEDP), and Energy Efficiency Development Plan (EEDP) of all energy industry participants.

SECTION 5: COMPLIANCE, MONITORING, ENFORCEMENT AND POST-EVALUATION

- 5.1 Within a period of six months upon effectivity of this Circular, all energy industry participants shall submit to the DOE their respective RCPs. In the case of Electric Cooperatives (ECs), respective RCPs shall be submitted through National Electrification Administration (NEA), for review and consolidation. The RCP shall be regularly reviewed every three (3) years, or earlier, if deemed necessary. After conducting the review, energy industry participants shall submit their revised RCP, if deemed necessary.
- 5.2 For this purpose, and for inclusion in the budgetary requirement of implementation activities, the attached template in Annex A shall be accomplished and submitted to the DOE. Thereafter, the submission shall be made on an annual basis.
- 5.3 Upon the submission of the RCPs, a post-evaluation shall be conducted to ensure its effectiveness and preparedness in implementing additional measures based on actual experiences and lessons learned.

SECTION 6: FUNDING SOURCES FOR THE IMPLEMENTATION OF RESILIENCY COMPLIANCE PLAN (RCP)

- 6.1 Private companies are encouraged to allocate funds for the implementation of the RCPs.
- 6.2 Government agencies shall allocate funds in their annual plans and budget for their facilities and other Disaster Risk Reduction and Management (DRRM) measures stipulated in the RCPs.
- 6.3 Government-Owned or Controlled Corporations shall allocate funds in their annual budget proposal subject to the existing guidelines of the Department of Budget and Management.
- 6.4 National Disaster Risk Reduction and Management Fund to finance disaster risk reduction or mitigation, prevention and preparation of activities in line with the menu of projects of National Disaster Risk Reduction and Management Council (NDRRMC).
- 6.5 Peoples' Survival Fund to finance adaptation programs in line with the objectives enumerated in Climate Change Action Plans of local government units and communities and shall be implemented in partnership with the Local Government Units and/or Local/community organization as the lead institution to access the fund.
- 6.6 Small Power Utilities Group shall source capital expense for rehabilitation and facilities for new areas of development based on the approved MEDP from its share from the Universal Charge and/or other sources as it may be obtained pursuant to Rule 13, Section 4 of Rules and Regulations to Implement Republic Act No. 9136.

- 6.7 ECs may source development programs and/or capital expenditure through disaster risk with the assistance of the NEA and Energy Regulatory Commission (ERC).
- 6.8 To ensure immediate actions during disasters and emergencies, the ECs may request assistance from NEA.

SECTION 7: TASK FORCE ON ENERGY RESILIENCY

- 7.1 In accordance with Section 2 hereof, the Task Force on Energy Resiliency (the ~~task force~~) is hereby created to oversee the implementation of this Circular and being empowered with coordination, integration, supervision, monitoring and evaluation functions related to Energy Resiliency.

The Task Force shall be headed by the Secretary of the Department of Energy or his designated Undersecretary as the Chairperson.

The members of the Task Force shall be composed of the following:

- (a) National Electrification Administration (NEA);
- (b) National Grid Corporation of the Philippines (NGCP);
- (c) National Power Corporation (NPC);
- (d) National Transmission Corporation (TransCo);
- (e) Philippine National Oil Company (PNOC); and
- (f) Power Sector Assets & Liabilities Management Corp. (PSALM);

The Task Force may invite other agencies and government instrumentalities or affected stakeholders from the agency sectors, as may be deemed necessary, to attain the objectives of this Circular.

- 7.2 The Task Force shall have the following functions:
- (a) Ensure that government agencies and private institutions are prepared for the development and adoption of their respective resiliency programs;
 - (b) Create inter-agency technical working group as may be necessary to fulfil its mandate; and
 - (c) Perform such other functions as may be necessary and incidental to attain the objectives of this Circular.
- 7.3 The Task Force shall be supported by Energy Policy and Planning Bureau of the Department of Energy, with the following functions:

- (a) Provide necessary administrative and technical support to the Task Force;
- (b) Monitor the status of the implementation of the RCP;
- (c) Prepare reports, such as progress reports and accomplishment reports for submission to the Chairperson; and
- (d) Perform other tasks and functions delegated by the Chairperson.

SECTION 8: REGULATORY SUPPORT

- 8.1 The DOE shall, within one (1) year from effectivity of this Circular, coordinate with other concerned government agencies and industry participants, for the issuance of appropriate guidelines for the implementation of this Circular. The DOE shall make further coordination for the development of relevant resiliency standards for inclusion in their respective operating manuals, related issuances, rules and regulations.
- 8.2 The concerned bureaus of DOE shall ensure the adoption of the RCP based on their respective mandates and subject to their established standards, rules and regulations. For this purpose, each of the concerned Bureaus shall develop their own guidelines, specific to the energy sector they cater to, to monitor and ensure compliance with the provisions of this Circular.
- 8.3 In the case of regulated entities, such as distribution utilities, the recovery of capital and operational expenses is subject to the approval of the ERC.

SECTION 9: REPEALING CLAUSE.

Nothing in this Circular shall be construed as to amend, supersede, or repeal any of the mechanism or institutions already existing or responsibilities already imposed and provided for under any existing law, rule, or contract.

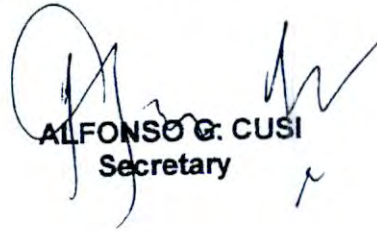
SECTION 10: SEPARABILITY CLAUSE.

If for any reason, any section or provision of this Circular is declared unconstitutional or invalid, the other parts or provisions hereof that are not affected thereby shall continue to be in full force and effect.

SECTION 11: EFFECTIVITY.

This Circular shall take effect immediately upon its publication in at least two (2) newspapers of general circulation and shall remain in effect until otherwise revoked.

Signed this _____ day of _____ 2018 at DOE, Energy Center, Rizal Drive, Bonifacio Global City, Taguig City, Metro Manila.


ALFONSO G. CUSI
Secretary



JAN 17 2018

Annex A: Resiliency Compliance Plan Template

Categories	Project Name	Project Description	Project Benefit	Project Start Date	Project Completion Date	Total Project Cost	Status (P, OG, PL, C)*	Yearly Disbursement			
								2017	2018	2019	2020 and Beyond
Systems <ul style="list-style-type: none"> ➤ Persons ➤ Facilities ➤ Standard Operating Procedures (SOPs) ➤ Product / Content 											
Stockpiling <ul style="list-style-type: none"> ➤ Inventory 											
Response and Recovery <ul style="list-style-type: none"> ➤ Pre ➤ During ➤ Post 											
Strengthening Infrastructure											
Others											

*P- Proposed, OL- On-Going, PL-Pipeline, C-Completed

Table No. 1: NEA-DRRMD (Sample)					
Priority No	Mitigation Project	Description	Location	Estimated Cost (PHP,000)	Estimated Duration (count, in year)
1 (indicate the year will be implemented starting the year 2018)	Re-routing of the 2 kMs line section of the 11 kMs of three 3 phase, 13.2/7.62 kV primary distribution line	The re-routing of the 2 kMs line section of the 11 kMs three (3) phase, 13.2/7.62 kV primary distribution line serving 99% residential and 1% commercial consumers including a Public Hospital located at the end of the line is prone to landslide whenever there is a heavy rain in the area. The re-routing will traverse to the east direction of the hazard area and to its north above the hills until to the connection point of the distribution line.	Sitio Gitna, Brgy Hagonoy, Municipality of Rizal Coordinates: 14°38'15.1"N 121°02'42.0"E	1.732	1.5
2					
3					
Electric Cooperative: <u>Ilocos Norte Electric Cooperative, Inc. (INEC)</u> Address: <u>Suyo, Dingras, Ilocos Norte</u>		Mitigation Plan Revision: <u>1</u> Date: <u>March 5, 2018</u>	Submitted by: <u>General Manager</u>	Date Submitted: <u>March 7, 2018</u>	Page <u>1</u> of <u>1</u>

Instructions No. 1:

1. In column 1, the proposed Mitigation Projects should be listed in priority order based on the results of the vulnerability risk assessment consistent to its implementing rules and regulations. Indicate the year it will be implemented.
2. In column 2 requires the abstract of the proposed mitigation measures based on the results of the vulnerability risk assessment;
3. In column 3 requires the specific location and/or the longitudinal and latitudinal coordinates (if any) of the project in particular to the ECs' asset/s that is/are going to be mitigated based on the results of the vulnerability risk assessment;
4. In column 4 requires the estimated cost (in millions, peso) of all equipment, devices, materials, labors and others associated to the proposed Mitigation Projects; and
5. In column 5 requires the estimated duration (in year period, as the unit) of the proposed Mitigation Projects that includes the procurement activities and others associated to the implementation period.

Documents to support the submission of the proposed Mitigation Plan:

1. Vulnerability risk assessment of all EC's critical assets provided in the implementing rules and regulations;
2. Pictures for each critical assets subjected to vulnerability risk assessment;
3. Scope of work, gantt chart (consistent to the estimated duration);
4. Estimated risk reduction (RR) or the Vulnerability Risk Assessment (VRA) level if mitigation measures are implemented;
5. Source of fund; and
6. Others.

Prepared by:


NEA-Disaster Risk Reduction Management Department


NEA-Engineering Department

Figure No. 1 Emergency Restoration Organizational Structure (Sample)

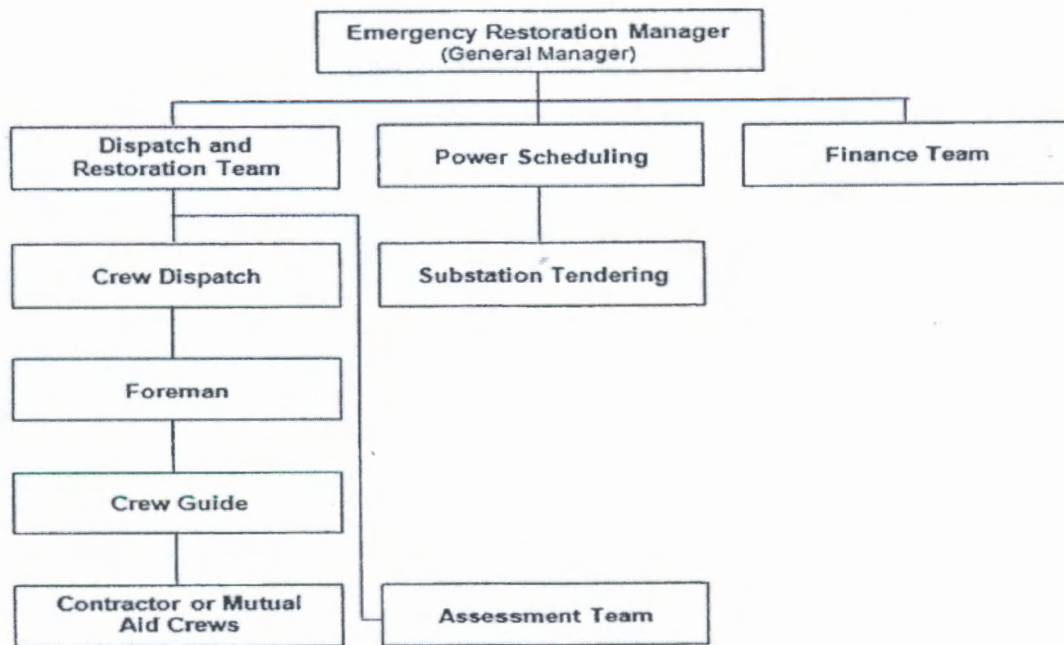


Table No. 2: NEA-DRRMD (Sample)

Office		Organizational Functions		
Assessment Office		Responsible for the assessment of the extent of damaged on the (EC's) assets particularly the critical assets (brought about by the calamity,		
Emergency Restoration Office		Responsible for planning, organizing, leading and controlling of the various emergency restoration plans for any kind of calamities, whether it is natural or man-made.		
Electric Cooperative: <u>Ilocos Norte Electric Cooperative, Inc. (INEC)</u> Address: <u>Suyo, Dingras, Ilocos Norte</u>	Emergency Restoration Plan Typhoon (Sample):	Submitted by: <u>General Manager</u>	Dated Submitted: <u>March 7, 2018</u>	Page <u>1</u> of <u>1</u>

Table No. 3 NEA-DRRMD (Sample)					
Designation	Office	Designated to	Position to EC	Rank to EC	Contacts
Commander	Emergency Restoration	Federico P. Villar, Jr.	General Manger	4	Landline/ Mobile/ E-mail
Electric Cooperative: <u>Ilocos Norte Electric Cooperative, Inc. (INEC)</u> Address: <u>Suyo, Dingras, Ilocos Norte</u>		Emergency Restoration Plan Typhoon (Sample):	Submitted by: <hr/> General Manager	Date Submitted: <u>March 7, 2018</u>	Page 1 of 1

Table No.4: NEA-DRRMD (Sample)					
Pre Calamity Activity		Step by step procedures (mandatory) and activity flow chart (if any)			
During Calamity Activity		Step by step procedures (mandatory) and activity flow chart (if any)			
Post Calamity Activity		Step by step procedures (mandatory) and activity flow chart (if any)			
Electric Cooperative: <u>Ilocos Norte Electric Cooperative, Inc. (INEC)</u> Address: <u>Suyo, Dingras, Ilocos Norte</u>		Emergency Restoration Plan Typhoon (Sample):	Submitted by: <hr/> General Manager	Date Submitted: <u>March 7, 2018</u>	Page 1 of 1

Instructions No. 2 NEA-DRRMD

For Table No. 2 NEA DRRMD, this contains all offices' defined functions based on the established Emergency Restoration Organizational Structure consistent that is to the IRR of VRA and ERP.


For Table No. 3 NEA DRRMD, this contains the employees' individual task in the Emergency Restoration Organization. Their duties and responsibilities should be defined.

For Table No. 4 NEA DRRMD, this contains the step by step procedures on all the types of calamities. Therefore, several tables should be prepared accordingly for the various types of (natural and man-made) calamities.

Prepared by:



NEA-Disaster Risk Reduction Management Department



NEA-Engineering Department