

# KEY TAKEAWAYS

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The study, **“Electricity Supply Interruptions in the Philippines: Characteristics, Trends, Causes”**, analyzed the monthly interruption reports of electric cooperatives submitted to the National Electrification Administration to uncover interesting trends related to electricity supply interruptions in the Philippines. Authored by PIDS Research Fellow Kris A. Francisco, it presented the fundamental landscape for understanding the intricacies of supply interruptions to allow stakeholders and policymakers to provide appropriate and realistic policy recommendations and solutions for the power sector.


## Why there are supply interruptions?

Firstly, the power system is a complex system, an interconnection of hundreds of networks, including loads such as everything powered by electricity. It starts from a generation system to a distribution system via a transmission system. The power generation, which is the supply, can be connected not only to a typical grid but embedded in the distribution system. When we are talking of a distribution system, it comprises the sub-transmission line to the secondary line. Therefore, any failure from the three systems will cause an interruption of power.

The way we look at, for example, the power generation on an island (in Occidental Mindoro, for example), where the supply and demand are nearly equal. Hence, should there be one largest plant out from the power system, the next thing that would happen is the reduction of demand, usually through a rotational power interruption to consumers. This means the demand is dropped either automatically or manually, similar to the Luzon, Visayas, and Mindanao grids' operations.

For power systems operations that are yet to be enhanced, supply interruption will likely happen. For example, in a power system (again, in Occidental Mindoro), the supply dispatch should be automated. There should be enough capacity running (operating margin), is another, to compensate for any untoward incident that might happen.

In this connection, let us look at the interruption reports of Electric Cooperatives (ECs) submitted to the National Electrification Administration. There are four types of interruption NEA is monitoring. These are the Unscheduled, Scheduled, Major Storm, and Power Provider. The Unscheduled is being used by NEA to measure the ECs' (annual) reliability performance in accordance with the guidelines as provided for in the ERC Resolution 16, Series of 2006. While the rest of the types are monitored.



**NATIONAL ELECTRIFICATION ADMINISTRATION**  
 "The 1st Performance Governance System-Institutionalized National Government Agency"  
*NEA, ECs and MCOs : Partners in Rural Electrification and Development*

**UNSCHEDULED** Rated in the NEA's Annual Overall Performance Assessment of Electric Cooperatives Using the Key Performance Index

001	Human Being	007	Errors
002	Lightning (surge, not natural)	009	Equipment Failure
005	Trees	010	Others
006	Overload	011	Unknown Causes

**SCHEDULED**

004 Scheduled Activities *Ex:* maintenance work, relocation of poles due to road-widening activities

**MAJOR STORM**

003 Major Storms *Ex:* tropical cyclone

**POWER PROVIDER**

008 Power Suppliers (combination of problems in the generation and transmission sector)

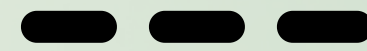
*Source : ERC Resolution 12 Series of 2006*

The NEA, in its efforts to further improve the electric service of the ECs to their consumers, called for the ERC to include the reliability standards for all types of interruptions. Based on the NEA's communication to ERC dated March 27, 2023, the data for their reference provided based on NEA records (through NEA Portal) on the actual and mean values of reliability indices per EC cluster for all types of interruption decreased.



In conclusion, it suggested taking into consideration the following:

1. For off-grid power systems such as in the islands of Mindoro, Catanduanes, Masbate, Palawan, and others for the grid's stability, is the provision for ancillary service.
2. For the ERC to include the reliability standards for all types of interruptions.
3. For strict implantation of RA 11363, otherwise known as the Anti-obstruction of Power Lines.



# THANK YOU!

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