



# FACTOR - FACTOR CAUSING NON-COMPLIANCE KWH PREPAID METER ON PT PLN BATAM

## BACKGROUND

With the advancement of technology, the need for electricity is increasing to meet the needs of everyday life, both at work and at home. The existence of electricity plays a role in every society's life, everything that affects the life of society has a strong influence on electricity. Electricity is the primary need for the region whose economy is growing, the increasing need for electricity supply for the people will continue to be sought by the government to always be available. The whole of the population needs electricity either in the home, government agencies, offices and industry need electricity, so the supply of electricity is very important for the preparation of the society for economic growth.

To find out how much electricity is channelled and used by consumers, PT PLN Batam uses a device that can calculate the energy used by the consumer, namely Kilowatthours (kWh) meters. This device serves as a measure of the use of used electricity. kWh meters is a device used to measure the large amount of electricity used by customers such as housing, offices and industry. kWh meter is divided into two types: analog kWh meter and kWh Digital meter.

## LITERATURE REVIEW

### 1 DEFINITION OF KWH METERS

kWh Meter is a tool used to measure or calculate the amount of energy used by consumers such as housing, offices and industry. Initially, the function of the kWh-meter was to calculate electrical energy usage analogously, displayed in the form of digits.

### 2 DEFINITION OF PREPAID KWH METER

The working principle of prepaid kWh meters is digital, namely converting analog signals. The measured voltage and current become digital signals so that electrical energy consumption can be determined based on the pulse token on the kWh meter.

### 3 DEFINITION OF POST-PREPAID KWH METER

Postpaid kWh meters or analogs are kWh meters that work by utilizing a magnetic field that rotates an aluminum disk, the rotation speed is influenced by the size of the electric current and the bill is paid at the end of the month according to the energy used.

## Solutions

- There is an error in the electrical installation that causes a short circuit. A short circuit will not only damage electrical equipment but also damage the meter. Therefore, make sure the electrical installation at home is installed correctly and if short circuits occur repeatedly, repair them immediately.
- A normal Prepaid Meter will display the total electricity usage figures. If "Check" appears, it means that there is a component in the meter that is damaged/incongruent and must be checked immediately by a PLN officer.
- A kWh meter that doesn't turn on is an indication that the electricity meter is damaged. This condition requires the kWh meter to be replaced quickly because if the screen is blank it causes electricity to continue flowing but cannot be topped up, then there will be a usage charge which will be billed by PLN.
- One of the functions of an electricity meter is to limit the amount of power used by customers. If the capacity exceeds what it should be, this can cause overload. If the load is excessive, the meter will repeatedly disconnect and this can trigger damage/incompatibility with the kWh meter.

