

**Rancang Bangun Alat Monitoring Jarak Jauh Konsumsi Energi Listrik
Peralatan Rumah Tangga Berbasis *Internet Of Things* (Design of Household
Electricity Energy Consumption Long Distance Monitoring Based On Internet Of
Things)**

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ABSTRACT

The need for electrical energy in Indonesia is increasing along with the development of technology and industry. Based on data from the 2019 PLN statistics book, the amount of electrical energy sold in 2019 was 245,418 GWh, increased by 3,6 from 234,618 GWh in 2018, The number of PLN customers reached 75,71 million, growing 5.3% compared to 71,92 million in 2018. The largest additional customers occurred in the Household Segment with 3.5 million new customers, an increase of 5,4% to 69,62 million. Through this research, it tries to provide an application of information technology in the field of electrical energy, in particular, is to control and control the switch to use household electrical energy on each load based on the internet of things using Android. The monitoring data collection of electrical energy consumption through the ACS712, ZMPT101B sensors with the help of Arduino Uno, Esp8266 and the Thingspeak webserver is carried out with a usage limit of 50Wh based on the PLN kWh meter. The error between the measurement results via Android compared to the PLN kWh meter is an average of 2.78% for testing each load and 0.85% for testing simultaneously. Monitoring of internet-based electricity consumption with Android media is influenced by the quality of the internet data package used.

Keywords: *Internet Of Things, Monitoring, ACS712, ZMPT101B, Arduino UNO, Esp8266, Android*