

## ABSTRACT

Lots of people pay less attention to the use of electricity. Owned electronic items are left alone when turned on, making electricity use even more wasteful. According to data from the Ministry of Energy and Mineral Resources (Kementrian ESDM RI), the national power plant capacity in June 2020 reached 71 Giga Watt (GW). This figure is an increase of 1.3 GW compared to the end of 2019 which was 69.7 GW. Excessive use of electricity is also not good for life and the environment. Electronic items will more quickly and can overheat wear out due to excessive and continuous use.

Lights are one of the most important electronic items in everyday life. Most of the people, use lights at night. However, there are also those who keep it on until morning, or without stopping. For example, when they want to travel, many people keep their lights on until they return to their homes. With that, the Smart Switch was chosen as one of the products from S-LUCY. Smart Switch's very helpful in this problem, the user can set the timer on the lamp fitting in the home user's according to the user's wishes, so as to save electric effectively.

Performance of Smart Switch applies the Internet of Things (IoT) system to make it more effective and maximized. By combining the concept of IoT, Smart Switch product and assistance from media websites, it can make it easier users to control or manage anywhere and anytime with the condition that they have to be connected to an internet connection. This S-LUCY Smart Switch product can be declared successful after testing the accuracy of the tool, testing utility and testing Quality of Service (QoS), namely delay and throughput. The results of the test delay have an average of 58.19 ms and 1058.3 bps for the value throughput.

Keywords: *Internet of Things, Smart Switch, and Relay*