

ELECTRICITY SAVING ANALYSIS FOR PUBLIC STREET LIGHTING (LPJU)

(Case Study of the Kartasura-Boyolali Highway, Central Java)

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ABSTRACT

Public street lighting or often referred to as Public Street Lighting (PJU) is an important aspect in structuring an area/city. PJU has a role as a navigation guide for road users at night, increasing the security and safety of road users, adding aesthetic elements, and can also provide added economic value for an area. Public Street Lighting Current research requires a very large amount of electrical energy, so it is necessary to make savings so that electrical power is used more efficiently. This study aims to determine how much electricity efficiency PJU on the Kartasura highway by using a blackout system that is influenced by the volume of traffic density at 18.00-06.00 WIB. To save, an effort is made by operating an alternating lighting system at 22.00-04.00 and replacing the lighting from the HPL-N 125 Watt lamp with a 70 Watt LED. From this effort, more than 50% electric power efficiency will be obtained. So it is possible to save on public street lighting to be done.

Keywords: *lighting, HPL-N, LED, Power Efficiency*