

ANALYSIS OF ELECTRICITY CONSUMPTION INTENSITY AT THE GRAND INNA MALIOBORO HOTEL

Airlangga Hidayatullah Sutarno Putra

Electrical Engineering Study Program, Faculty of Science & Technology

University of Technology Yogyakarta

Jl. Ringroad Utara Jombor Sleman Yogyakarta

E-mail : airlanggasutarno@gmail.com

ABSTRACT

Grand Inna Malioboro Hotel is one of the largest hotels in the Malioboro street area, Special Region of Yogyakarta. With the development of the hotel, the more electricity needs. Efficient use of electric power is something that needs to be considered in a building, especially hotel buildings. The purpose of this study was to determine the use of electrical energy and compare it with the intensity standard of electrical energy consumption to obtain the standard value of the intensity of electrical energy consumption (IKE) at the Grand Inna Malioboro Hotel. From the calculation of the IKE value with occupancy, the results were very wasteful in April 2020 and May 2020 where the electricity usage was mostly used outside of hotel room usage. While the calculation of IKE without occupancy obtained very efficient results in each month starting from February 2020 to February 2021. The Need Factor (FK) at the Grand Inna Malioboro Hotel for the northern building at the time of LWBP was 0.359 and when WBP was 0.274, while for the southern building when the LWBP is 0.464 and when the WBP is 0.355. While the Transformer Capacity Factor in the north building is 13% of 1000 kVA, while in the south building it is 21% of 800 kVA.

Keywords: Hotel, IKE, Electricity