

# ***ESTIMATION OF ELECTRICITY POTENTIAL FROM PLTS ROOF ON CAMPUS 1 BUILDING UNIVERSITY OF TECHNOLOGY YOGYAKARTA USING HELIOSCOPE SOFTWARE***

**Feri Ardiantoni**

*Electrical Engineering Study Program, Faculty of Science & Technology  
University of Technology Yogyakarta  
Jl. Ringroad Utara Jombor Sleman Yogyakarta  
E-mail : feriardiantoni26@gmail.com*

## ***ABSTRACT***

*In the National Energy Policy (KEN), the Government of Indonesia targets 23% to achieve renewable energy by 2025, and the Indonesian National Energy Policy states that renewable power plants will contribute about 10% of the national grid by 2025. Indonesia is located in the equatorial region so it has good intensity of sunshine throughout the year. This irradiating condition has the potential to be used in solar power generation (PLTS). This study aims to determine the potential of electrical energy from the roof of the UTU 1 campus building using helioscope software. The roof area that can be used for PLTS Roof is 4012.7 m<sup>2</sup> excluding the roof of the parking lot and mosque. From the simulation results, it is found that there are differences in the number of modules and the energy obtained per year on the roof of the campus building 1 UTU, namely for the manufacturer brand Jinko Solar JKM405N-6RL3-B, it produces energy per year of 761.2 MWh with the number of modules 1591, for Canadian solar CS3L- 380 produces 708.8 MWh of energy per year with 1591 modules, while for JA Solar JAM72S03-380/PR it produces 716.3 energy per year with 1601 modules. 6RL3-B of 761.2 MWh with a distance between rows in the m, n, q, r, s, t 0 meters segment.*

**Keywords:** *National Energy Policy (KEN), Renewable energy, Helioscope*