

ABSTRACT

Nowadays human needs on energy is going high. Because of that reason another power plant for alternative energy should be established, especially eco friendly. Based on some resource such as UN conference for climate change. United Nations Framework Convention on Climate change on Bali December 2007 contain the will of development countries for getting ecology technology transfer to succeed emission decreasing and prevent global warming. One example of eco friendly electric power plant is advantaging energy source which produce by human during doing sports using static bicycle. This tool is using approximately 6 hours/day on 5 AM – 8 AM and 5 PM – 8 PM.

In this last duty the writer would plan an electric power plant by advantaging human movement energy who doing sport begin with mechanic of rolling well, generator, battery control unit, and battery. The rider could know the condition of battery based on LCD screen such as full battery, charging battery, battery without generator source, on inverter, off inverter, battery voltage, and generator voltage.

On the experiment, 14 samples the bike for 15 minutes produces electricity between 2060 until 5060 Joule, the average energy 3350 Joule, with age range 20-23 years. The energy generated can turn on the lights 10 Watt between 206-506 seconds. If cycling to exhaustion produces electricity between 4660 until 7720 Joule, the average energy 5770 Joule. The energy generated can turn on the lights 10 Watt between 466 until 772 seconds.