Pengaruh Penambahan Reflektor Terhadap Karakteristik Arus,Tegangan dan Efisiensi Panel Surya *Polycrystaline* 50 Wp

(The Effect of the Reflectors on Characteristic of Current, Voltage and Efficiency Polycristaline 50 Wp Solar Panel)

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ABSTRACT

Solar enrgy is a source of energy who will never run out suppy and energy can also in use as alternative energy to be converted a electrical energy, but efficiency in generate is stilllacking. Research aim to understand the influence of the addition of reflector to characteristic current, voltage and efficiency solar panels polycristaline 50 Wp. To research this will make two types of reflectors namely allumunium foil and flat mirror with variations angles 60˚, 70˚, and 80˚. The addition of reflectors on a solar panels will expand radiation in so that it can be increasing power output on the panels of solar system was added with reflectors. Bashed on the research done the addition of reflectors will increase temperature on solar panels that cause go down an out voltage solar panels, but the current generated incrased, because of the reflection of radiation from reflectors. The best result happened to solar panels are combined reflectors mirror flat at an angels 70˚, the average of power output is 9,41% and increased efficiency of 0,907%. The power of solar panels with additional reflectors allumunium foil at an angles of 80˚ go down the average is 0,41 %.

Keywords: solar panel, reflector, efficiency