

ABSTRACT

Increasing energy needs and fossil materials will gradually thin out and run out, so to meet these needs it is necessary to utilize renewable energy, one of which is solar energy. Solar cells are devices that can convert sunlight energy into electrical energy by the process of photovoltaic effects using semi-conductors, solar panel components or solar cells that are very important for solar power generation systems that are used as electrical energy using solar panels (solar photovoltaic) panel). With the development of technology many types of solar power systems that make there are several types of PLTS installation, namely fix mounting, single axis tracker. The data used in this study is a comparison of the efficiency of daily production output data with a 15-minute data base intensity and solar irradiation data. The results of the comparison of the percentage of energy production of single axis solar tracker solar panel systems and fix mounting for 17 days, namely a single axis greater 13.171% against fix mounting. Then the PLTS system is used to better use a single axis system that produces the most energy.

Keywords: Solar Panel, PLTS, single axis, fix mounting.