

ABSTRACT

Electrical energy is the energy required. Almost all of the necessities of life require electrical energy. At this time that is widely used for plants using fossil fuels such as coal. However, most of the power plants are very high efficient, but environmentally, and the cost of manufacture is relatively expensive. For example, coal power plants that are currently used to produce 60% of world electricity. Carbon emissions from power plants could lead to acid rain and air pollution. Currently produced pollution has been linked to global warming due to the chemical composition of coal.

In this final project will be designed a power plant that is efficient and environmentally friendly power generation systems utilizing solar power. Solar power generation using a stirling engine. A machine that converts heat energy into motion. Focused sunlight is used a magnifying glass (Fresnel Lens) to the point of piston stirling engine burner. The engine will drive the DC motor generator. The electricity generated is used to charge the battery ponsel using DC to DC Converter.

Level system testing is based on the measurement of the force produced by the generator, the process of filling the battery. Revenue is expected to realize a more efficient alternative power plant

Keywords : *Generator DC, Stirling Engine, DC to DC Converter, Fresnel Lens*