

PROTOTYPE DESIGN OF HYBRID HYDROPOWER AND SOLAR POWER PLANTS

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ABSTRACT

Hybrid Power Plant (PLTH) is a power plant that combines 2 new renewable energy (EBT). Especially in rural areas, one of the areas that requires electricity is a hybrid of PLTA (Hydroelectric Power Plant) and PLTS (Solar Power Plant) with power generation equipment that converts sunlight into electricity which is often called solar cells, or solar photovoltaic. With a simple concept of converting sunlight into electrical energy where sunlight is one of the energies from natural resources. To increase electrical power at the time needed, both PLTA and PLTS energies are combined with a hybrid concept. New renewable energy has an important role in meeting energy needs in everyday life. This is because the use of fuel for conventional power plants in the long term will drain the increasingly depleting sources of oil, coal and natural gas and can also cause environmental damage. This study will discuss what PLTA is and how it is combined with PLTS according to needs.

Keywords: *PLTA, PLTS, Hybrid Energy, Photovoltaic, Solar Cell*