Kajian Tekno Ekonomi Perancangan PLTS *Rooftop* Di Gedung Teknik Politeknik Negeri Jember (*Techno economic study of solar power plant* (PLTS) *rooftop design at engineering department building state polytechnic Of Jember*)

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ABSTRACT

Solar energy has the potential to generate electrical energy. Utilization roof of technique department building as solar farm for solar power plants can reduce investment costs. This recent design provides an alternative way to convert to be solar power plant (PLTS) to provide weight needs at engineering building. The design use 3 module variations of polycrystalline cs6x 325p, monocrystalline cs6k-280m and thin film SF 170S. The production of electricity generated by polycrystalline module is 153,250 kwh / year, monocrystalline module of 160,070 kwh / year and thin film of 123,260 kwh / year.The design recommended to use mpnocrystalline module . The analysis of PLTS planning is technically and economically feasible.

Kata Kunci : *solar power, photovoltaic, economic technology*