

Technical and Economic Planning Study of On – Grid Solar Power Plant as Electric Energy Supply for Information Technology Building State Polytechnic of Jember

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ABSTRACT

Solar energy can produce electrical energy with on - grid Solar Power Plant. The Information Technology building parking lot can be used as solar farm for PLTS development. Electricity production from PLTS is used to supply the electricity needs of the Information Technology building per day on average by 400 kwh. The technical planning of this PLTS compares the manual calculations and simulations of PVSyst software. The results is simulation of PVSyst software better than manual calculations, with an average electricity production of 475 kwh per day. The results of the feasibility analysis of PLTS investment in the Information Technology building are declared feasible in the NPV and PBP methods.

Keywords : PLTS, PVSyst, NPV, PBP