

**STUDI POTENSI DAN KAJIAN TEKNO EKONOMI PERENCANAAN
FLOATING SOLAR PHOTOVOLTAIC DI DANAU RONGGOJALU
KABUPATEN PROBOLINGGO**

(Potential Studies and Techno-Economic Studies on Floating Solar Photovoltaic Planning in Ronggojalu Lake, Probolinggo Regency. Dosen Pembimbing (Dedy Eko Rahmanto, S.TP, M.Si)

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ABSTRACT

Solar energy can produce electrical energy with on - grid Solar Power Plant. Ronggojalu Lake can be used as land for the development of a floating PLTS. Electricity production from PLTS is used to supply part of the electricity needs of PDAM Ronggojalu Lake per day on average by 270 kwh. The technical planning of this PLTS compares the manual calculations and simulations of PVSyst software. The simulation results of the PVSyst software and manual calculations are equally good with an average electricity production of 349,33 kwh and 333,36 kwh per day. The results of the feasibility analysis of PLTS investment on Ronggojalu Lake are declared feasible in the NPV, PBP and BCR methods.

Keywords: *Benefit Cost Ratio, Net Present Value, Pay Back Periode, PVSyst, Solar Power Plant.*