

**PLANNING STUDY AND TECHNO ANALYSIS  
ECONOMY OF SOLAR OFF - GRID BASED SOLAR HOME SYSTEM IN  
JAWALA HAMLET, CURAHNONGKO VILLAGE, TEMPUREJO DISTRICT,  
JEMBER REGENCY**

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***ABSTRACT***

*Energy resources in Indonesia are very abundant because Indonesia is a country located right on the equator. In the Pertamina Energi 2021 Webinar said "The potential of abundant resources can support the development of NRE, estimated at 3,686 GW of potential consisting of solar, wind, hydro, geothermal, bioenergy, and marine energy". This research is entitled "Study of Planning and Analysis of Techno-Economic Off-grid Solar Home System Based Solar Home System in Jawala Hamlet, Curahnongko Village, Tempurejo District, Jember Regency". The results obtained from this plan require components of 10 AE SMM6-72 Series 320W-350W solar panels and 1 Schneider Electric Conext-MPPT-80-600-21V inverter for 12 Rolls 12-CS-11PS batteries. The initial investment cost for this PLTS system is Rp. Rp. 98,900,731. The estimated savings obtained for 20 years amounted to Rp126,547,200. Economically, based on the feasibility analysis, an NPV value of Rp. 39,428,114 was obtained, and PP 0.236. Based on the research that has been done, the construction of PLTS in Jawala Hamlet, Curahnongko Village deserves to be realized.*

*Keywords: Off-Grid, Savings, PLTS, PVsyst, Techno- Economy*