DESIGN TECNIKHAL FEASIBILITY OF GRID PLTS DEVELOPMENT IN SHRIMP PONDS

Name : Jefri Bahtiar

Nim : 2204181179

Supervisor : Alfansuri, S.T., M.Sc

Abstract

Solar energy has become a major focus for efforts to reduce dependence on dwindling fossil energy sources. In shrimp pond cultivation, a source of electrical energy is needed to meet the needs for the use of electronic equipment to assist the shrimp cultivation process. shrimp ponds. The potential for solar radiation is 4.6 kWh/m2/day and the total daily load usage is 1166 kWh. The design of this PLTS uses PVSyst 7.2. From calculations, it is known that the PLTS off grid system is planned to have a PV array capacity of 317 kWp. Batteries of 1440 units with a capacity of 2V 1000 Ah, and one unit of grid tied hybrid inverter with a capacity of 100 kw. The initial investment to build a centralized PLTS off grid system is Rp. IDR 12,865,456,000

Keyword : solar energy and PLTS off grid