

Simulation and Optimization of Hybrid Energy System Autonomous PV-Diesel-Wind Power with Battery Storage for Relay Antenna Telecommunication

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Abstract : The objective of this work is the design and optimization of a hybrid PV-Diesel-Wind power system with storage in order to power a relay antenna telecommunication isolated in Chlef region. The aim of the simulation of this hybrid system by the HOMER software is to determine the size and the number of each element of the system and to determine the optimal technical and economic configuration using monthly average values per year for a fixed charge antenna relay telecommunication of 22kWh/d.

Keywords : HOMER, hybrid, PV-diesel-wind system, relay antenna telecommunication

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