

Analysis of Solar Thermal Power Plant in Algeria

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Abstract : The present work has for objective the simulation of a hybrid solar combined cycle power plant, compared with combined cycle conventional (gas turbine and steam turbine), this type of power plants disposed an solar tour (heliostat field and volumetric receiver) insurant a part of the thermal energy necessary for the functioning of the gas turbine. This solar energy serves to feed with heat the combustion air of the gas turbine when he out of the compressor and the front entered the combustion chamber. The simulation of even central and made for three zones deferential to know the zone of Hassi R' mel, Bechare, and the zone of Messaad wilaya of El djelfa. The radiometric and meteorological data arise directly from the software meteonorme 7. The simulation of the energy performances is made by the software TRNSYS 16.1.

Keywords : concentrating solar power, heliostat, thermal, Algeria

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