



Power Plant Design with Two Concentrated Solar Thermal Power Sources

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Power plant design with two concentrated solar thermal power sources
Power plant design with a combined cycle and double concentrated solar thermal power sources



The demand for energy and specifically for electricity has been growing continuously. Today, the main source of energy for electricity production is based in fossil fuels. Environmental problems and mostly the growth of prize of fossil fuels has driven the electricity producers to reassess ways of power generation. One of the objectives of this study is to combine two solar thermal technologies to increase the amount of energy coming from the sun to the cycle and thus increase the solar factor to the total power output. By using central receiver technology, the gas turbine can reduce notably its fuel consumption. The possibility of implementing the gas turbine leads to the installation of a combined cycle to extract as much energy as possible to the flue gases, reaching a high efficiency power conversion. The reader will understand the general purpose of this work being a first approximation of a completely new concept in electricity production from thermo solar sources.

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