

Performance Study of PV Power plants in Algeria

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Abstract : This paper aims to highlight the importance of the application of the IEC 61724 standard in the study of the performance analysis of photovoltaic power plants on a monthly and annual scale. Likewise, the comparison of two photovoltaic power plants with two different climates was carried out in order to determine the effect of climatic parameters on the analysis of photovoltaic performances. All data from the Ain Skhoune and Adrar photovoltaic power plants for 2018 and the data from the Saida1 field for one month in 2019 were used. The results of the performance analysis according to the indicated standard show that the Saida PV power plant performs better than the Adrar PV power plant, which is due to the effect of increasing the ambient temperature. Increasing ambient temperature increases losses decreases system efficiency and performance ratio. It presents a key element in the proper functioning of PV plants.

Keywords : pv power plants, IEC 61724 norm, grid connected pv, algeria

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