The research work presented hereafter is based on real recorded database of a PV plant in production and in connection with a classical electrical grid. Datasets were processed through two types of techniques. The first one, a classical type, is based on a predictive predefined model, however, the second one is an artificial intelligent method based on neural networks. Based on the carried out experiences, we proposed a new strategy to implement the proposed techniques. The results obtained through the two methods were compared which demonstrate the superiority of the AI method in terms of precision, generalization and robustness. Obtained results for each method were recorded, analyzed and compared.