



Analysis of the electricity demand of Greece for optimal planning of a large-scale hybrid renewable energy system

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The Greek electricity system is examined for the period 2002-2014. The demand load data are analysed at various time scales (hourly, daily, seasonal and annual) and they are related to the mean daily temperature and the gross domestic product (GDP) of Greece for the same time period. The prediction of energy demand, a product of the Greek Independent Power Transmission Operator, is also compared with the demand load. Interesting results about the change of the electricity demand scheme after the year 2010 are derived. This change is related to the decrease of the GDP, during the period 2010-2014. The results of the analysis will be used in the development of an energy forecasting system which will be a part of a framework for optimal planning of a large-scale hybrid renewable energy system in which hydropower plays the dominant role.

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