



Cyprus energy system and the use of renewable energy sources

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Abstract

Cyprus is an island state whose energy production is almost completely dependent on imported hydrocarbon fuels. Its electricity production sector is more than 90% dependent on oil products while the remaining 9% are covered by imports of coal (4.5%) and by solar energy (4.5%). Because Cyprus will become a full member of the European Union (EU), it becomes essential to follow the EU white paper rules and insert renewable energy sources (RES) as part of its energy production system. Solar, wind energy and biomass are the three available forms of RES. This paper will examine and analyze the energy system of Cyprus. It will examine the RES available and the extent of the energy needs could be satisfied by them.

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1. Introduction

Cyprus is situated in the north-eastern part of the Mediterranean Sea, 33° east and 35° north of the Equator. It is situated 75 km south of Turkey, 105 km west of Syria, 380 km north of Egypt, and 380 km east of Rhodes (Greece). The third largest Mediterranean island after Sicily and Sardinia, it has an area of 9251 km², of which 1733 are forested. Cyprus has a record of successful economic performance, reflected in rapid growth, full employment conditions and external and internal stability, almost throughout the post-Independence period. The underdeveloped economy, inherited from colonial rule until 1960, has been transformed into a viable economy with dynamic services, industrial and agricultural sectors and advanced physical and social infrastructure. In terms of per capita income, currently estimated at US \$13,000 (2000), it is classified as the highest income country of all entering new EU members.

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