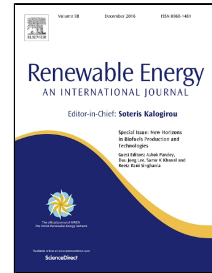


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Parametric Analysis of the Factors Affecting the Efficiency of Ground Heat Exchangers and Design Application Aspects in Cyprus

Panayiotis D. Pouloupatis, Savvas A. Tassou, Paul Christodoulides, Georgios A. Florides



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The paper examines the factors affecting the sizing and positioning of Ground Heat Exchangers (GHEs) in Cyprus.

The study investigates the influence of the temperature, thermal conductivity, specific heat and density of the ground and pipe diameter on the performance of GHEs using computer software modelling in conjunction with test data.

The long term temperature variation of the ground around the boreholes is examined as this affects the positioning of the GHEs.

The desired result of the study can be achieved in various ways by considering the specific parameters.

The results of the simulations have shown that geothermal systems are appropriate for installation in Cyprus, as they can lead to the efficient utilisation of the heat pumps.

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