Low enthalpy geothermal energy utilisation schemes for greenhouse and district heating at Traianoupolis Evros, Greece

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Abstract

A socio-economic study has been made of the possible use of low enthalpy geothermal resources for district and greenhouse heating in the Traianoupolis Evros region. The thermal energy potential of the Aristino-Traianoupolis geothermal field has been estimated at 10.8 MW_{th} (discharge temperature of 25 °C). Geothermal wellhead water temperatures range from 53 to 92 °C, from 300 m deep wells yielding over 250 m^3/h. Our conclusions show, amongst the different scenarios examined and on the basis of a market study, that utilisation of this geothermal energy capacity for district heating of nearby villages, and/or greenhouse heating directed at serving local vegetable markets, would be an attractive investment.

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