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FEASIBILITY STUDY AND ENERGY EFFICIENCY ESTIMATION OF GEOTHERMAL POWER STATION BASED ON MEDIUM ENTHALPY WATER

ABSTRACT

In the work presented are the results of investigations regarding the effectiveness of operation of power plant fed by geothermal water with the flow rate of 100, 150, and 200 m³/h and temperatures of 70, 80, and 90 °C, i. e. geothermal water with the parameters available in some towns of West Pomeranian region as well as in Stargard Szczecinski (86.4 °C), Poland. The results of calculations regard the system of geothermal power plant with possibility of utilization of heat for technological purposes. Analysed are possibilities of application of different working fluids with respect to the most efficient utilization of geothermal energy.

KEYWORDS

[geothermal power plant](#), [low-temperature power plant](#), [organic Rankine cycle](#), [organic working fluid](#)

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