

CASE STUDY

ELHAND Transformatory for the Mining Industry

CLIENT

Geotermia Koło is a dynamically developing company that plays a crucial role in providing sustainable energy to the residents of Koło. The activities of Geotermia Koło focus on utilizing geothermal heat sources to provide a sustainable and ecological source of heat for the residents, offering a modern and environmentally friendly solution in the field of district heating.

CHALLENGE

The challenge was to ensure efficient and reliable power supply for a deep well water pump, a key component of the geothermal system. The pump, with a power of 420kW and suspended at a depth of 350 meters below the ground level, required a stable and strong source of electricity for effective operation.

SOLUTION

Specializing in electrical power solutions, we provided an ET3H-610 type transformer. This specialized transformer was designed to meet the high demands of the geothermal installation, providing reliable and efficient power supply for the deep well water pump.

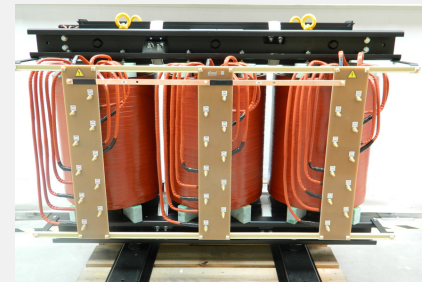
RESULTS

The application of the ET3H-610 transformer:

- Enabled heat extraction from a deep borehole with a diameter of 10 inches and a depth of 2980 meters.
- Contributed to achieving a power of approximately 11.5MW from the geothermal installation, covering about 80% of the annual heat demand for Geotermia in Koło.
- Reduced reliance on coal-fired boilers, cutting carbon dioxide emissions by about 75%.
- The high temperature of the geothermal reservoir (around 90°C) allows for heat to be obtained exclusively from geothermal energy for a significant part of the year.



Janusz Skubala Key Account Manager Elhand Transformatory



TRANSFORMER: ET3H-610



Through collaboration, one of the most ambitious geothermal projects in Poland was successfully realized, demonstrating the possibilities of using renewable energy sources in an effective and sustainable way. This project serves as a model for other cities and regions, showing how modern technologies can contribute to reducing the carbon footprint and improving the quality of life for residents.

**Przemysław Stasiak | CEO
Geotermia Koło**