Energy research for practical applications

Pressinformation



Bonn, 27 July 2017

Geothermal power plant starts commercial operation

Scientific measurements in Soultz-sous-Forêts continue

In central Europe, 5 % of the natural geothermal heat reserves can be found in thermal water, but 95 % is contained in deep rock. New, complex concepts and technologies are required to enable the heat in the rock to be utilised. Scientists are therefore working together in a Franco-German cooperation project in Soultz-sous-Forêts. The BINE-Projektinfo brochure entitled "German-French geothermal power plant completed" (10/2017) focuses on the newly constructed power plant. In addition to the new power plant, scientific investigations are continuing on the geothermal reservoir. The research include aspects such as corrosion and deposits, geothermal pumps and the handling of natural radionuclides.

Two power companies from France and Germany began operating a new commercial power plant in Soultz-sous-Forêts in 2016. It replaces an old research facility constructed in 2008. The new plant is better equipped to meet the local geothermal conditions than its predecessor. The plant feeds around 12 million kilowatt-hours of electricity into the French grid every year. The power plant utilises hot water at a temperature of approximately 160 °C, which reaches the surface from a depth of 5,000 m in a closed circuit via a bore well. The water with all its content matter is then injected back into the original rock unit via two other wells. The region is particularly suitable for geothermal energy generation because the temperature at a 1,000-metre depth is two and a half times the average for central European countries.

The power plant operates according to the Organic Rankine Cycle (ORC) principle and can therefore use heat at a comparatively low temperature level for generating electricity. An organic working fluid circulates in a secondary circuit and can absorb or release heat. The energy suppliers Electricité de Strasbourg (ES) and EnBW Energie Baden Württemberg AG are operating the new geothermal power plant together.

The BINE-Projektinfo brochure, which can be obtained free of charge from the BINE Information Service at FIZ Karlsruhe, is available online at www.bine.info or by calling +49 (0)228 -92379-0. The brochure cover and additional images can also be downloaded from this web portal in the press section.

Contact Uwe Milles presse@bine.info

BINE information service Kaiserstraße 185-197 53113 Bonn www.bine.info

BINE is an information service by FIZ Karlsruhe www.fiz-karlsruhe.de and supported by Federal Ministry of Economics and Technology on the basis of a decision by the German Bundestag