

OTHER INFORMATION

Budapest, 24 November 2015

Commencement Ceremony of the Győr Geothermal Project

Zoltán Németh, Chairman of Győr-Moson-Sopron County Council has opened the Ceremony of PannErgy's Geothermal Project of Győr – with total cost of HUF 10.2 billion, by the initiation of the Bőny Heating District. As per the long-term heat supply agreement between PannErgy Goup and Győr-Szol Ltd., in the heat distribution services of Győr, 24 266 households and 1 046 other customers will be supplied with geothermal energy, furthermore, minimum 60% of the AUDI Plant's heating energy will be covered by the energy supplied by the Bőny Heat Distribution Center.

Bőny Heat Distribution Center (part of the Geothermal Project of Győr) was initiated by the heat off-taker partners of Geothermal Project of Győr; Mr. Géza Sági – Chairman and CEO of Győr-Szol Ltd., Mr. Axel Schifferer - CFO of Audi Hungária, Mr. András Puskás – Deputy General Manager of Exim Bank (project financing bank) and Mr. Zoltán Németh – Chairman of Győr-Moson-Sopron County Council. Simultaneously with the ceremony, test operations at PannErgy subsidiaries' systems, Arrabona Geothermal Ltd. and DD Energy Ltd. are taking place together with heat off-taker partners, Győr-Szol Ltd. – heat distribution supplier of Győr County-City – and Audi Hungaria Motor Ltd. After few weeks of test operations, full-powered heat supply will commence.

At the beginning of 2014, DD Energy Ltd. and Arrabona Geothermal Ltd. have started the Geothermal Project of Győr by the drilling of the first wells. The investment consisting of two production wells and two reinjection wells, the Heat Distribution Center of Bőny, the geothermal heat transfer system of 17 km's pipelines, has the total investment value of HUF 10.2 billion and was partially financed by own resources and partially by non-refundable European Union grants (in the total value of HUF 2 billion) and by the financing facility provided by Eximbank. The annual transferable heat supply of the recently finished Geothermal System of Győr is expected to be 1 100 – 1 200 terajoule.

The system of Győr, commenced today, with full capacity is able to decrease the emission and so the quantity of the greenhouse gases – primarily carbon-dioxide, nitrogen-oxides - by approximately 67 000 tonnes on a yearly basis. Furthermore, geothermal energy decreases the use of natural gas, with full capacity, by 35 million m³ on an annual basis, therefore contributing to the achievement of the goals set by the National Energy Strategy.



"There is no doubt, that the best green energy is the geothermal energy, because the produced heat is constant, and to provide energy security, it does not require operation of balancing power plants, which use fossil energy. For the perspective of the air quality of the region, the start of the heat production without any pollution, is like if from now on, all cars of the City of Győr would transport without fuel consumption and with no gas emissions. I am proud to announce, that the largest climate protection investment has started its operations in the region, which contributes to the achievement of Hungary's ability to meet its proportion of 14.65% of renewable energy by 2020" - stated Mr. Zoltán Németh - Chairman of Győr-Moson-Sopron County Council.

"We are proud that thanks to the EXIM Bank financing, the Geothermal Project of Győr was established, Eximbank as solely financing partner, provided a loan in the total value of EUR 20.2 million. The long-term investment loan was provided in several tranches in line with the financing needs of the specific investment sections. We are also very happy that due to our financing, four wells were established in the Győr region – in Pér and Bőny, the heat energy, supplied solely by geothermal energy, is served to supply the heating and hot water of AUDI and furthermore, partial heat district supply of Győr." commented Mr. András Puskás, Deputy General Manager of Magyar Export-Import Bank Ltd.

"For a long time in Győr, district heating is a reliable, convenient and eco-friendly service. From now on, renewable energy will have a more significant role on our district heating, as our Company is aiming to contribute to the protection of our environment." – said Mr. Géza Sági, Chairman and CEO of Győr-Szol Ltd. We look forward to the practical application of the advanced technical solutions of the usage of geothermal energy. We are confident that the expectation set in the project agreement will be fully met and that the applied environmentally friendly technology is linked to the adequate effectively to the of the district heating system of Győr."

"We are delighted to already make use of the geothermal energy. Our Company is able to cover 60 percent of its heat energy demand." – emphasized Axel Schifferer, CFO of Audi Hungaria during his visit. "The use of energy-efficient and environmentally friendly technologies is a focus point of our corporate strategy. Currently, our Company is amongst of the most efficient companies in terms of energy consumptions in the Central and Eastern Europe.

"Not only a pleasure, but also satisfaction for us that after one and a half years of hard work, we have successfully carried out Hungary's second largest geothermal heat utilization system. I wish to thank for the State of Hungary, County-City of Győr, the assistance of the Township of Bőny and Pér, confidence of our heat off-taker partners, without their support, the Geothermal Project of Győr could not have been realized. And a special thanks to our colleagues for their constant and persistent work, which made this project successful together." — stated Dénes Gyimóthy, acting Chief Executive Officer of PannErgy Plc.



Other technical parameters:

Geothermal Project of Győri in numbers:

- -Heat capacity: 52 MW
- -Annual transferrable heat quantity: 1 100 1 200 terajoule
- -Number of production wells: 2
- -Outflow temperature: 100, 105 °C
- -Yield (by well): maximum 150 l/s
- -Start of operation: Q4 of 2015
- -Cost of investment: HUF 10.2 billion

Introduction of the Geothermal system:

The geothermal heat energy system consists of the following geographically separated parts:

- · Bőny production wells (2 pieces)
- · Production pipes between wells of Bőny and Heat Distribution Centre of Bőny
- · Heat Distribution Centre
- · Reinjection pipe system between the Heat District of Bőny and reinjection wells of Pér
- · Reinjection wells of Pér (2 pieces)
- · Secondary pipeline to Győr-Szol Heat Distribution Centre
- · Secondarypipeline to Audi Heat Distribution Centre

The full length of the network track is 17 kilometres

Parameters of the wells:

- · BONY-PE-01 productive aquifer: 2 450-2 470 m, fluid temperature 105 Celsius degree, yield: 150l/s
- · BONY-PE-02 productive aguifer: 2 430-2 450 m, fluid temperature 100 Celsius degree, yield: 128l/s
- · PER-PE-01 reinjection well depth: 2 296 m, capacity: 120l/s
- · PER-PE-02 reinjection well depth: 2324 m, capacity: 185l/s



European Union grants:

In 20 September 2013, as part of the new Széchenyi Plan Environment and Energy Operational Programme, "Local heating and / or cooling needs from renewable energy sources" KEOP-2012-4.10.0/B European Union fund utilization, the project of **Arrabona Geothermal Ltd.**, owned by PannErgy, has won an almost HUF one billion non refundable grant.

On 20 September 2013, as part of the new Széchenyi Plan Environment and Energy Operational Programme, "Local heating and / or cooling needs from renewable energy sources", **DD Energy Production and Service Ltd.** has won HUF one billion non refundable grant with its project called Geothermal expertise in environment-friendly car production.

This announcement is published in Hungarian and English languages. In case of any contradiction between these two versions, the Hungarian version shall prevail.

PannErgy Plc.

www.pannergy.com www.gyori-geotermia.hu

further information: Valéria Szabó, valeria.szabo@pannergy.com