

www.pannergy.com

## OTHER INFORMATION

Budapest, 20 March 2015

The Geothermal Project of Miskolc has arrived at 1 million GJ heat sales

Operated by the subsidiaries of PannErgy Plc, the Geothermal Project of Miskolc has today reached 1 million GJ heat sold based on geothermal energy production.

The Geothermal System of Miskolc, which was commissioned back in May 2013, was completed by the Tatár Street Heating Center for the heating season of 2014–2015 to ensure a high level of operating safety. Owing to the geothermal system, the largest proportion of green energy among the district heating systems of today's Hungary is used in the heating grid of Miskolc City of County Rank. Primary heat energy is transmitted towards the Avas, City Center and University District heating areas – the number of consumers using the energy generated by the system in the Avas Heat District and the City Center Heat District comprise 12,167 and 14,559 apartments, respectively –, and moreover the Geothermal System of Miskolc has sufficient capacity to continuously supply heat energy to secondary heat consumers: the Miskolc-based plants of Miskolc Agricultural Ltd (7000 sq m foil greenhouse) and Takata Safety System Hungary Ltd (industrial consumer).

The 1 million GJ of geothermal heat sold via the Geothermal System of Miskolc has allowed the reduction of CO2 emission by nearly 61,500 tons, while more than 34.6 million m3 natural gas could be spared and thus remained unconsumed.

As constituents of the geothermal system, the production wells have shown problem-free operations since the commissioning of the system, without experiencing negative changes in the hydraulic parameters. The entire volume of geothermal fluids is reinjected, and in consequence pressure conditions in the water-bearing layers can be regard to be steady. As a result of continuous operations, the temperature in the Mályi 1 production well has increased from the initial 101° Celsius to 103° Celsius, while at the Mályi 2 well a minor change, i.e. 0.3–0.4° Celsius increase has been observed. Reinjection is performed with unaltered parameters, which is a guarantee for the lack of changes caused by the Geothermal System of Miskolc in the conditions and quantities of subsurface waters, thereby preserving the natural energy resources of our Earth, geothermal energy, and at the same time providing for the sustainable operation of the geothermal system.

"Recent years have witnessed a sharp rise in the interests and demands for renewable energies, which has been justified by our geopolitical situation and the hectic price fluctuations of fossil energies. Our Company is deeply committed to environmentally conscious geothermal heat utilization that serves as the basis of the satisfaction of household and industrial consumer demands foreseen on the long term with reliance on green energy. PannErgy will continue to implement new investments in the future in the spirit of acting as a domestic pioneer of sustainable development."— said Péter Tóth, PannErgy Plc's Chief Executive Officer.

## PannErgy Plc

