

## IMPORTANT DISCLAIMER

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## PannErgy Plc

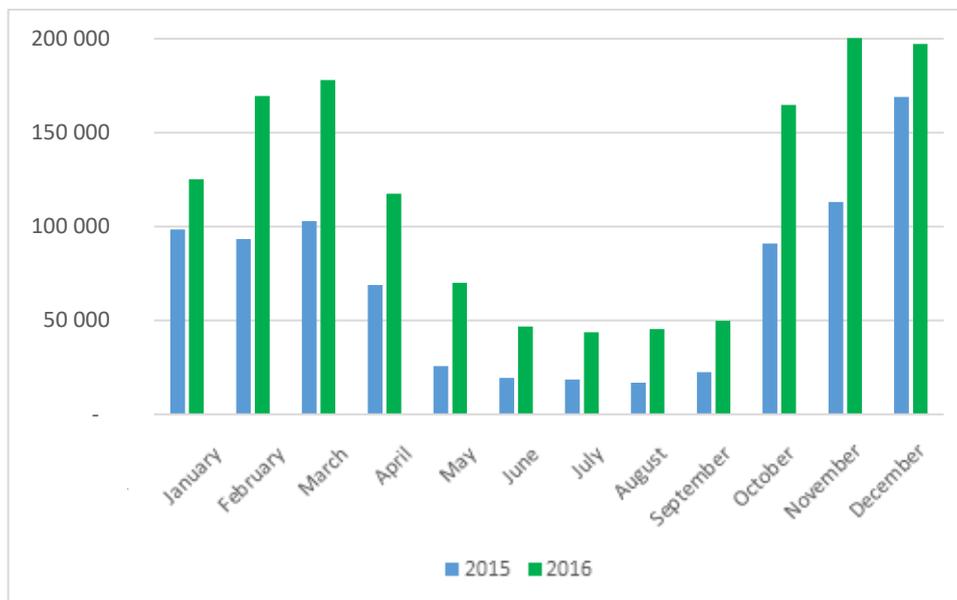
QUARTERLY PRODUCTION REPORT

for the period of Q4 of 2016

16 January 2017

**Introduction:**

PannErgy Plc publishes quarterly production reports in order to present its prevailing operations, i.e. green energy generation and utilization in Hungary. In these reports, PannErgy gives a brief description of the conditions of its geothermal energy production systems, operating experience and information in relation to the realized green heat sales.

**Consolidated quantities of sold heat (GJ):**

The graph shows the heat quantities sold in the Miskolc, Győr, Szentlőrinc and Berekfürdő projects in a monthly breakdown.

**Geothermal Project of Miskolc**

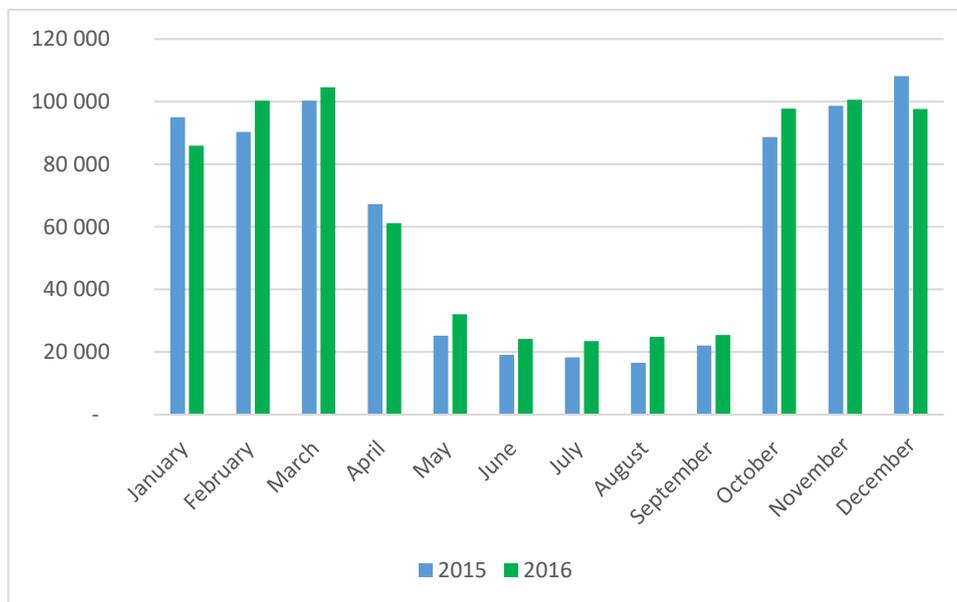
*(Miskolc Geothermal Ltd, Kuala Ltd)*

Following the comprehensive summer maintenance operations, the heating season started in the early days of October 2016. Until the end of the period under review, there was no unexpected outage in the geothermal system, which operated without faults and failures. At the beginning of the heating season, the Company performed the necessary filter cleaning activities on the thermal water side. During its continuous production operations, the Company relied on the recorded parameters of the production wells – pressure, temperature, yield – to evaluate the hydrodynamic properties in order to track the behaviour of the reservoir. The operational programming and developmental activities carried out during the period increased the production capacities of the geothermal wells, and allowed the utilization of the existing heat capacities at higher efficiencies. In October 2016 (since the startup of operations in 2013), the system reached 2,000,000 GJ heat sales, thereby reducing CO<sub>2</sub> emission with nearly 123,000 tons, meaning that the consumption of more than 69.2 million m<sup>3</sup> natural gas was replaced with green energy in Miskolc. In November, the system realized an outstanding 100,606 GJ monthly volume of heat sales, whereas the peak of the daily heat sold was brought up to 3,686 GJ.

The development of the infrastructure in the Industrial Park of Miskolc is under way, the Company has conducted consultations with the designers with a focus on the design of roads and other engineering structures so that companies moving to the site just subsequently could be provided with green heat as soon as possible.

In the fourth quarter of the year, the Geothermal System of Miskolc sold 295,983 GJ heat energy in total, and achieved 3.73% increase in 2016 following heat sales in 2015 with an annual 777,992 GJ quantity of heat sold.

Quantity of heat sold in Miskolc (GJ):



### Geothermal projects of Győr

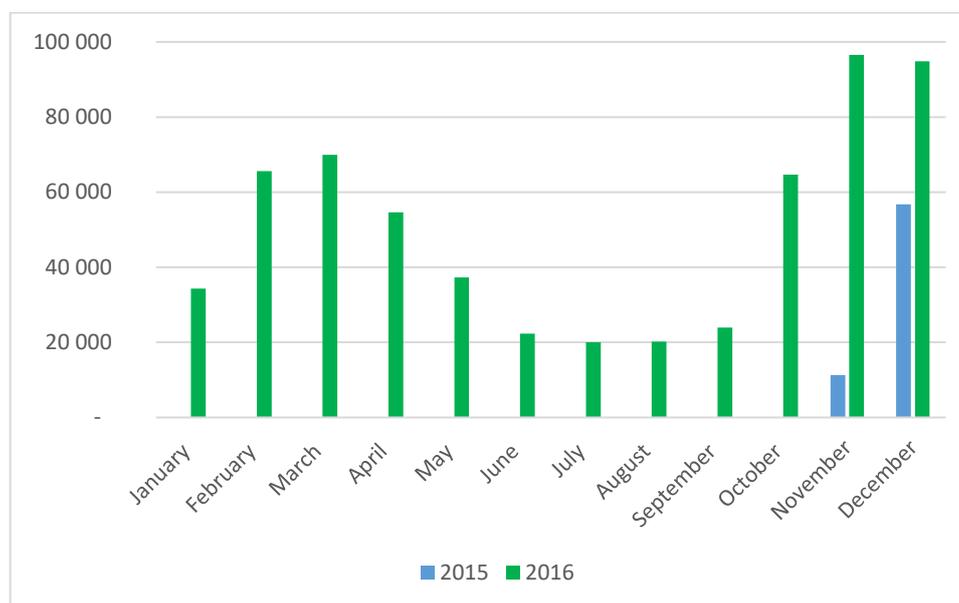
*(DD Energy Ltd, Arrabona Geothermal Ltd)*

Following the preparative works executed in the summer of 2016, the ESP pump system developed specifically for geothermal systems was successfully incorporated in the BON-PE-02 production well. In the course of the trial runs and continuous testing, the regulation program on the primary side was modified. Operations already involving the pump proved to feature proper operational safety, and with the two production wells a combined capacity of over 955 m<sup>3</sup>/h could be achieved. In November, owing to the development the Győr system produced outstanding daily and monthly heat sales figures, reaching up to 3,431 GJ and 96,565 GJ values on a daily and monthly basis, respectively. This strong performance has been notably supported by favourable weather conditions.

Based on Act CXCVI of 2011 on National Assets, Act XVI of 1991 on Concessions and Act XLVIII of 1993 on Mining, and on behalf of the State of Hungary the Minister for National Development, as the minister in charge of mining affairs, announced an open tender for certain specific, closed areas in Hungary towards the exploration, extraction and utilization of geothermal energy in the framework of concession agreements. On 6 December 2016, the concession tender relating to the area of Győr was awarded to PannErgy Geothermal Power Plants Ltd.

In the reviewed period, the system realized 256,041 GJ heat sales. The annual volume of heat sold by the Geothermal System of Győr was 604,382 GJ in 2016.

Quantity of heat sold in Győr (GJ):



#### Geothermal heating facility of Szentlőrinc

*(Szentlőrinc Geothermal Ltd)*

In the fourth quarter of 2016, the Geothermal System of Szentlőrinc mostly operated in line with the plans, with a couple of days of stoppage for a control engineering failure at the beginning of December.

#### Geothermal methane utilization facility of Berekfüdő

*(Berekfüdő Energy Ltd)*

In the last quarter of 2016, electricity production generated 544,873 kWh power with 510,168 kWh being the sold quantity in the geothermal facility of Berekfüdő. Calculated on a calendar basis, the availability of the gas engines was 99.04%. In the discussed period, the gas-engine small power plant sold 937 GJ heat power by utilizing the accompanying gas extracted from the thermal water.

**PannErgy Plc**