



PannErgy Nyrt.

QUARTERLY PRODUCTION REPORT

2021 Q1

15 April 2021

Introduction

PannErgy Nyrt. publishes a production report on a quarterly basis, presenting green energy production and utilisation. In the report, the Company presents the green heat sales figures of its key geothermal energy production systems in the reporting period, and additional useful information.

I. Consolidated production information

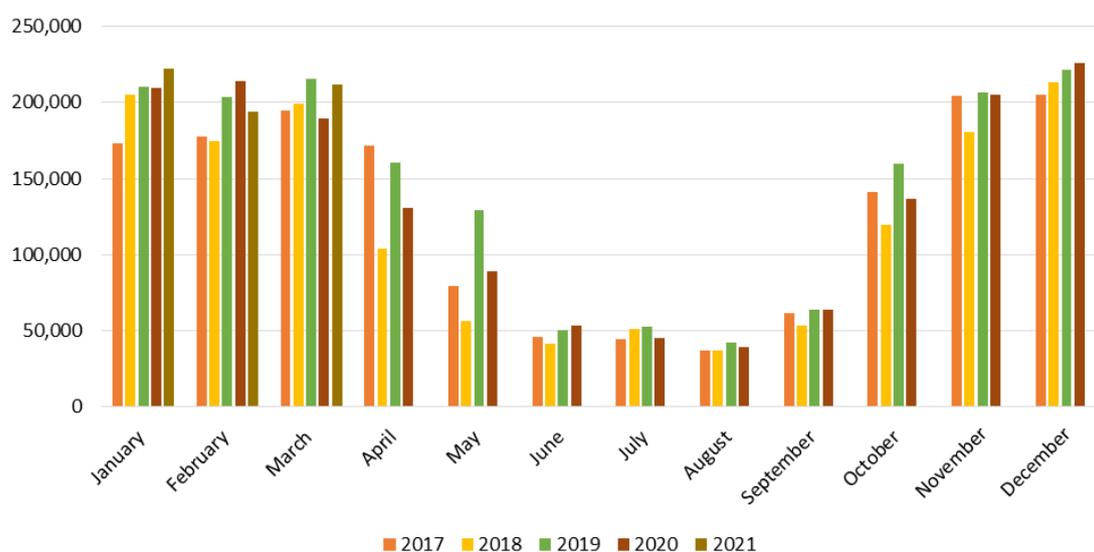


Figure 1

Consolidated volume of heat sold (GJ)

The chart presents the aggregate volume of heat sold by the Miskolc, Győr, Szentlőrinc and Berekfüdő projects, in a monthly breakdown.

	2017	2018	2019	2020	2021	2021 TARGET
January	172,758	205,199	209,999	209,678	221,966	
February	177,533	174,300	203,484	213,855	194,173	
March	194,634	199,090	215,693	189,195	211,762	
Q1	544,925	578,589	629,176	612,728	627,901	660,769
April	171,294	104,033	160,548	130,407		
May	79,700	56,758	129,300	89,190		
June	45,936	41,641	50,780	53,394		
Q2	296,930	202,432	340,628	272,991		290,438
July	44,865	51,247	52,406	45,297		
August	36,709	36,794	42,415	39,205		
September	61,502	53,650	63,731	64,096		
Q3	143,076	141,691	158,552	148,598		160,683
October	141,270	119,652	159,888	136,460		
November	204,045	180,263	206,686	205,417		
December	205,251	213,267	221,248	225,688		
Q4	550,566	513,182	587,822	567,565		620,679
Total	1,535,497	1,435,894	1,716,178	1,601,882		1,732,569

Figure 2

Consolidated volume of heat sold, in a table format (GJ)

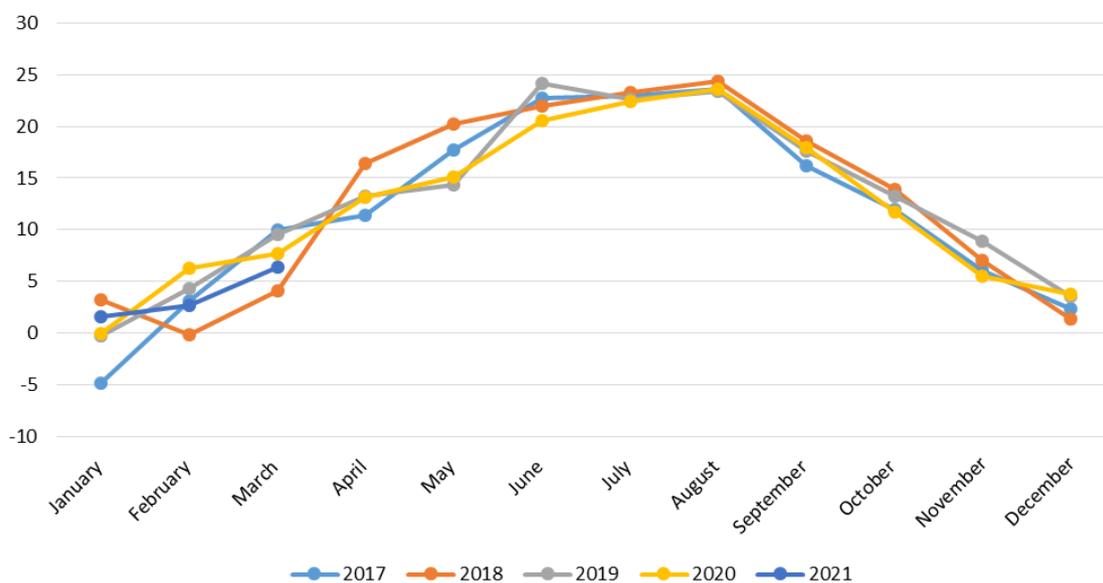


Figure 3
Average temperatures in 2017–2021

The 2–8°C ambient temperature range is ideal for daily geothermal heat sales during the heating season, especially when the difference between the daily minimum and maximum temperatures is as small as possible.

The weather yielded a lower Group-level heating potential in the period under review than in the corresponding period of 2020, primarily because of the extremely pronounced, hectic and hard-to-predict same-day temperature swings.

A comparison of the 2021 Q1 heat sales figures with average values of the same period in historical years indicates that the Company realised outstanding heat sales in the reporting period. The amount of heat sold in the quarter under review exceeded the corresponding value of the base period by 2.5%, but fell short of the quarterly target by 5.0%, primarily owing to the short-term weather anomalies described above, especially in the Miskolc region.

In consideration of the information presented in this production report, the Company confirms the foreseen achievement of the consolidated HUF 2,800–2,880 million EBITDA target range published previously for the 2021 business year.

II. Main projects

Miskolc Geothermal Project

(Miskolci Geotermia Zrt., Kuala Kft.)

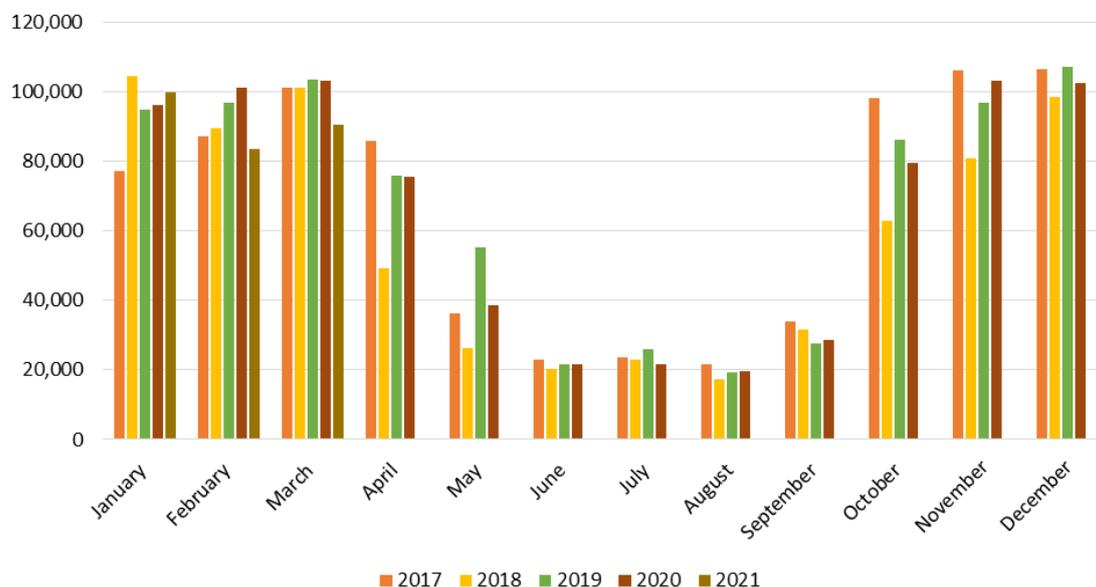


Figure 4

Volume of heat sold in Miskolc (GJ)

The Geothermal System of Miskolc sold a total of 273,892 GJ of thermal energy in 2021 Q1, down by 8.8% compared to the heat sales data of the same period in 2020, mainly because of the weather conditions detailed above.

Győr Geothermal Projects

(DD Energy Kft., Arrabona Koncessziós Kft.)

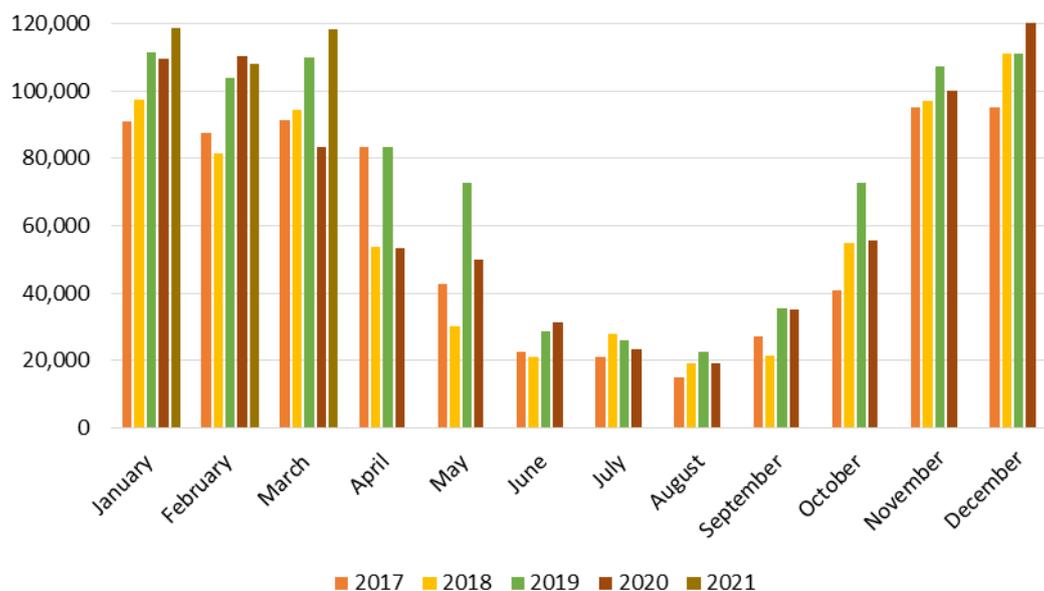


Figure 5

Volume of heat sold in Győr (GJ)

The Geothermal System of Győr sold a total of 344,891 GJ of thermal energy during 2021 Q1, up by 13.8% year-on-year. In respect of first-quarter heat sales in Győr, this is the highest periodical value achieved since the project was put into operation. The growth can be primarily attributed to the now perceivable positive effect of the capacity and efficiency improvement projects presented in the 2020 Q4 production report of the PannErgy Group and the reports prepared and published for its General Meeting.

Geothermal Facility of Szentlőrinc

(Szentlőrinci Geotermia Zrt.)

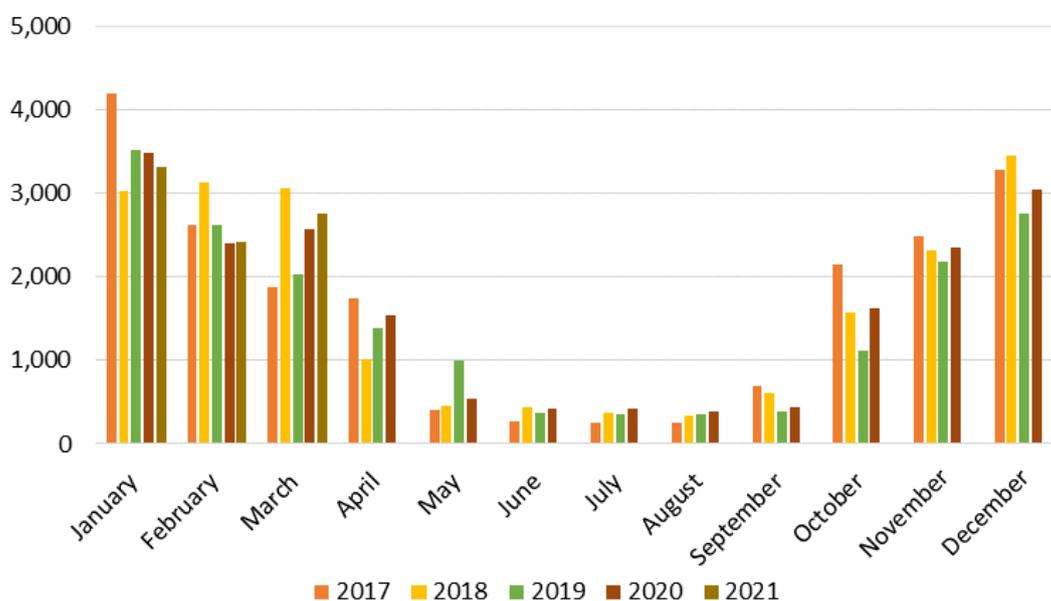


Figure 6
Volume of heat sold in Szentlőrinc (GJ)

In Szentlőrinc, the amount of heat sold was 8,500 GJ, essentially the same as in the base period. The Geothermal Facility of Szentlőrinc can fully meet the heat demand of the local district heating system on its own; thus the weather sensitivity of the geothermal heat input is significantly higher than that of district heating systems with complex heat resources, although the temperature fluctuation was typically more moderate in the southern part of the country than in the northern region.

III. Miscellaneous

PannErgy for the prevention of climate change

In line with global efforts, Hungary intends to take resolute action against climate change. The key energy sector action plan for these efforts is the new National Energy Strategy (NES) published in January 2020, which replaced a similar strategy published in 2011. The NES presents the future of the Hungarian energy sector for the period until 2030 and, at the same time, it provides an outlook for the decade after that. The NES takes into consideration the requirement of the European Union that the economies of EU Member States must become climate-neutral, overall, by 2050.

The NES is committed to decarbonisation, providing ample leeway for the further proliferation of green and other, emission-free energy production solutions. NES goals to be highlighted from the perspective of the geothermal energy production represented by PannErgy:

- reducing Hungary's gas consumption and thus, its reliance on energy imports;
- giving preference to district heating systems;
- reducing the share of natural gas sources below 50% in district heating systems;
- increasing the utilisation of geothermal sources and urban waste in district heating systems, implementation of the Green District Heating Programme.

As a comprehensive, quantified target, by 2030 the share of renewable energy sources in gross final energy consumption should be raised to at least 21% (compared to 13.3% in 2017), whereby greenhouse gas emissions will decline by around 40% compared to the level recorded in 1990.

The projects of the PannErgy Group have contributed to the efforts to preserve a more liveable environment and combat climate change with the CO₂ emission cuts shown in Figure 7. The estimated reduction amounted to around 36,000 tons in the review period, while the total aggregate volume of greenhouse gas emission saved by the PannErgy Group so far is estimated at around 580,000 tons.

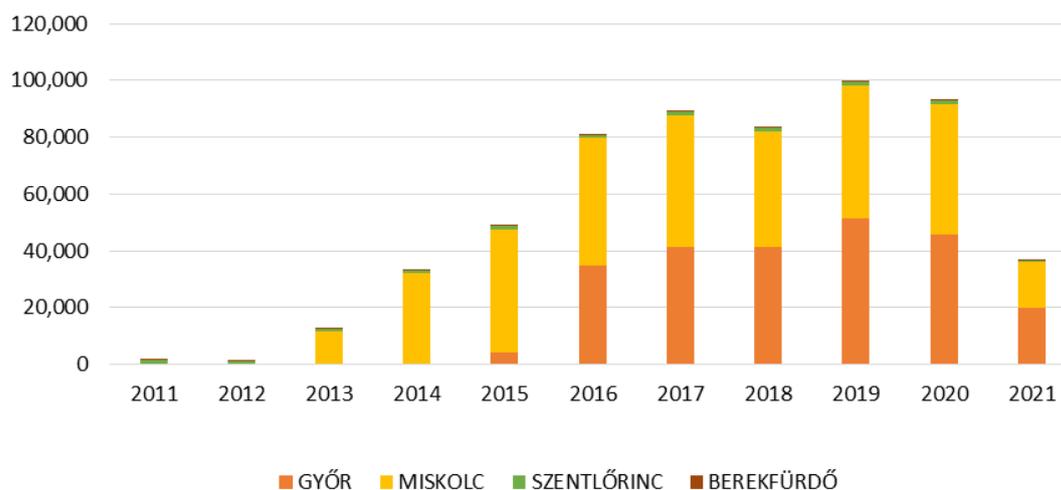


Figure 7

Volume of greenhouse CO₂ not released into the atmosphere thanks to the PannErgy Group's projects

Impact of climate change on PannErgy's heat markets

One of the tangible effects of climate change in Hungary manifests itself in the form of frequent volatile and extreme changes in weather conditions, including ambient temperatures, and a rise in the average temperature of winter months from the historically cold, steadily sub-zero range to markedly above the freezing point. These changes are not expected to have an adverse impact on the output of geothermal heat generation; in fact, the perspectives of input into district heating systems are favourable on average over a horizon of several years. The reason for this – as noted in this report – is the fact that daily geothermal heat sales are ideal in the 2–8°C ambient temperature range during the heating season. At the same time, the potential decrease in the

demand for heat during the transitional seasons may be offset or even surpassed by the growth in the potential of the increasingly mild winter periods.

The demand for energy in the large district heating systems supplied by the PannErgy Group is far greater than the amount of geothermal energy that can be fed into those systems. Accordingly, any change in the demand for heat in those heating systems stemming from climate change has no perceivable effect on PannErgy Group, and the Company does not expect any trend-like negative effects in the future either.

The primary goal of PannErgy is to utilise its substantial uncommitted available thermal capacities, in addition to the capacities being utilised now, which is expected to further reduce sensitivity to ambient temperature changes. The most important possible areas for utilising free thermal capacities include:

- implementation of energy efficiency and optimisation projects with existing customers;
- cold energy projects for the utilisation of the so-called 'summer' heat;
- connection of new customers indirectly through district heating systems or directly to the geothermal systems on the primary or the secondary (return) sides;
- technical, energy and R&D projects aimed at the improvement of heat production efficiency.

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