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PannErgy Plc. and its subsidiaries Consolidated Financial Statements and Annual Report in conformity with the IFRS 2019

including Independent Auditor's Report

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

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Independent Auditor's Report

(Free translation)

To the Shareholders of PannErgy Nyrt.

Opinion

We have audited the consolidated financial statements of PannErgy Nyrt. and its subsidiaries (the „Group") for the year 2019 which comprise the consolidated statement of financial position as at December 31, 2019 – which shows a total assets of thHUF 25,973,783 –, and the related consolidated statement of recognized income, consolidated statement of comprehensive income – which shows a net profit for the year of thHUF 734,898 –, consolidated statement of changes in equity and consolidated statement of cash flows for the year then ended and notes to the consolidated financial statements including a summary of significant accounting policies.

In our opinion, the accompanying consolidated financial statements give a true and fair view of the consolidated financial position of the Group as at December 31, 2019 and of its consolidated financial performance and its consolidated cash flows for the year then ended in accordance with International Financial Reporting Standards as adopted by the European Union (the „EU IFRS"), and the consolidated financial statements were prepared in all material respects in accordance with the provisions of the effective Hungarian Act C of 2000 on Accounting (hereinafter: "the Accounting Act") relevant to the entities preparing consolidated financial statements in accordance with EU IFRS.

Basis for Opinion

We conducted our audit in accordance with the Hungarian National Standards on Auditing and the effective Hungarian laws and other regulations on audits. Our responsibilities under these standards are further described in the "The Auditor's Responsibilities for the Audit of the Consolidated Financial Statements" section of our report.

We are independent of the Group in compliance with the relevant effective Hungarian regulations and the "Rules of conduct (ethical rules) of the auditor profession and the disciplinary process" of the Chamber of Hungarian Auditors and, in respect of matters not regulated therein, the "Code of Ethics for Professional Accountants" (the IESBA Code) issued by the International Ethics Standards Board for Accountants, and we have fulfilled our other ethical responsibilities in accordance with the same ethical requirements.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

Key Audit Matters

Key audit matters are those matters that, in our professional judgment, were of most significance in our audit of the consolidated financial statements of the current period. These matters were addressed in the context of our audit of the consolidated financial statements as a whole, and in forming our opinion thereon, and we do not provide a separate opinion on these matters.

Key Audit matters	Related audit procedures
Recognition of subsidies development purposes	
(Details in sections 11, 29.4 and 30.1 of the Notes to the consolidated financial statements) Group recognised thHUF 241,300 as other income in 2019 and thHUF 4,251,151 reported as deferred income as at 31 December 2019. Management exercise significant judgement whether subsidies should be should be recognized as other income or deferred for the following years. Management has also assessed whether all conditions are met for compliance for conditions of subsidies and whether the deferred income covered the liabilities in case of non-compliance. Due to significant estimation by management we consider that recognised other income and deferred income relating to subsidies received for development purposes as a key audit matter.	Our audit procedures included: - we interviewed management, - we tested the design and operational effectiveness of Group's internal controls relating to other income, - we reconciled recognition of other income from subsidies received for development purposes to subledger of tangible fixed assets financed by subsidies - we performed recalculation of other income based on depreciation of tangible fixed assets financed by subisidies - we tested transactions post-balance sheet events
Revenue recognition	
(Details in sections 4.23 and 6 of the Notes to the consolidated financial statements) In 2019 the consolidated revenue of the Group is thHUF 5,647,921 and the revenue is a key performance indicator of the Group which may influence management to make sales contracts with non-ordinary, exceptional conditions and therefore we consider revenue recognition as a key audit matter.	Our audit procedures included: - considering the appropriateness of Group's revenue recognition accounting policies - we interviewed management, - we tested the design and operational effectiveness of Group's internal controls over sales cycle of the Group - we performed analytical reviews over revenue, VAT and trade accounts receivables - we gathered third party confirmations about revenue and receivables - we tested transactions post-balance sheet events

Other Information

Other information comprises the information included in the consolidated business report of the Group for 2019, which we obtained prior to the date of this auditor's report, and the consolidated annual report, which is expected to be made available to us after that date, but does not include the consolidated financial statements and our auditor's report thereon. Management is responsible for the other information and for the preparation of the consolidated business report in accordance with the relevant provisions of the Accounting Act and other regulations. Our opinion on the consolidated financial statements provided in the section of our independent auditors' report entitled "Opinion" does not apply to the other information.

Our responsibility in connection with our audit of the consolidated financial statements is to read the other information identified above and, in doing so, consider whether the other information is materially inconsistent with the consolidated financial statements or our knowledge obtained in the audit or otherwise appears to be materially misstated.

Furthermore, in accordance with the Accounting Act, our responsibilities regarding the consolidated business report also include reviewing the consolidated business report to assess whether the consolidated business report was prepared in accordance with the relevant provisions of the Accounting Act and other regulations, if any, including the assessment whether the consolidated business report complies with the requirements of Section 95/B (2) e) and f) of the Accounting Act. Furthermore, in accordance with the Accounting Act we shall make a statement whether the information referred to in Section 95/B. (2) a)-d), g) and h) has been provided in the consolidated business report.

In our opinion, the consolidated business report of the Group for 2019 corresponds to the consolidated financial statements of the Group for 2019 and the relevant provisions of the Accounting Act in all material respects. The information referred to in Section 95/B. (2) a)-d), g) and h) of the Accounting Act has been provided.

As the Group is not subject to additional requirements under any other regulation in connection with the consolidated business report, we have not formulated an opinion on this matter.

In addition to the above, based on the information obtained about the Group and its environment, we must report on whether we became aware of any material misstatements in the other information and, if so, on the nature of such material misstatements. We have nothing to report in this regard.

When we read the consolidated annual report, if we conclude that there is a material misstatement therein, we are required to communicate the matter to those charged with governance.

Responsibilities of management and those charged with governance for the consolidated financial statements

Management is responsible for the preparation and fair presentation of the consolidated financial statements in accordance with the International Financial Reporting Standards as adopted by the European Union, and for such internal control as management determines is necessary to enable the preparation of consolidated financial statements that are free from material misstatement, whether due to fraud or error.

In preparing the consolidated financial statements, management is responsible for assessing the Group's ability to continue as a going concern, disclosing, as applicable, matters related to going concern and using the going concern basis of accounting unless management either intends to liquidate the Group or to cease operations, or has no realistic alternative but to do so.

Those charged with governance are responsible for overseeing the Group's financial reporting process.

The auditor's responsibilities for the audit of the consolidated financial statements

Our objectives during the audit are to obtain reasonable assurance about whether the consolidated financial statements as a whole are free from material misstatement, whether due to fraud or error, and to issue, on the basis of the above, an auditor's report that includes our opinion. Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with the Hungarian National Standards on Auditing and the effective Hungarian laws and other regulations on audits will always detect a material misstatement when it exists. Misstatements can arise from fraud or error, and they are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of these consolidated financial statements.

As part of an audit in accordance with the Hungarian National Standards on Auditing and the effective Hungarian laws and other regulations on audits, we exercise professional judgment and maintain professional scepticism throughout the audit.

We also:

- ✓ Identify and assess the risks of material misstatement of the consolidated financial statements, whether due to fraud or error, design and perform audit procedures responsive to those risks, and obtain audit evidence that is sufficient and appropriate to provide a basis for our opinion. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control.
- ✓ Obtain an understanding of internal control relevant to the audit in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the Group's internal control.
- ✓ Evaluate the appropriateness of accounting policies used and the reasonableness of accounting estimates and related disclosures made by management.
- ✓ Conclude on the appropriateness of management's use of the going concern basis of accounting and, based on the audit evidence obtained, whether a material uncertainty exists related to events or conditions that may cast significant doubt on the Group's ability to continue as a going concern. If we conclude that a material uncertainty exists, we are required to draw attention in the auditor's report to the related disclosures in the consolidated financial statements or, if such disclosures are inadequate, to modify the opinion. Our conclusions are based on the audit evidence obtained up to the date of our auditor's report. However, future events or conditions may cause the Group to cease to continue as a going concern.
- ✓ Evaluate the overall presentation, structure and content of the consolidated financial statements, including the disclosures, and whether the consolidated financial statements represent the underlying transactions and events in a manner that achieves fair presentation.
- ✓ Obtain sufficient appropriate audit evidence regarding the financial information of the entities or business activities within the Group to express an opinion on the consolidated financial statements. We are responsible for the direction, supervision and performance of the group audit. We remain solely responsible for our audit opinion

We communicate with those charged with governance regarding, among other matters, the planned scope and timing of the audit and significant audit findings, including any significant deficiencies in the Group's internal control that we identify during the audit.

We also provide those charged with governance with a statement that we have complied with relevant ethical requirements regarding independence, and to communicate with them all relationships and other matters that may reasonably be thought to bear on our independence, and where applicable, related safeguards.

From the matters communicated with those charged with governance, we determine those matters that were of most significance in the audit of the consolidated financial statements of the current period and are therefore the key audit matters. We describe these matters in our auditor's report unless law or regulation precludes public disclosure about the matter or when, in extremely rare circumstances, we determine that a matter should not be communicated in our report because the adverse consequences of doing so would reasonably be expected to outweigh the public interest benefits of such communication.

Report on Other Legal and Regulatory Requirements

In compliance with Article 10 (2) of Regulation (EU) No. 537/2014 of the European Parliament and the Council, we provide the following information in our independent auditor's report, which is required in addition to the requirements of International Standards on Auditing:

Appointment of the Auditor and the Period of Engagement

We were appointed as the auditors of PannErgy Nyrt by the General Meeting of Shareholders on 27 April 2019 and our uninterrupted engagement has lasted since 28 April 2017.

Consistence with the Additional Report to the Audit Committee

We confirm that our audit opinion on the consolidated financial statements expressed herein is consistent with the additional report to the Audit Committee of the PannErgy Nyrt., which we issued on 05 March 2020 in accordance with Article 11 of Regulation (EU) No. 537/2014 of the European Parliament and the Council.

Provision of Non-audit Services

We declare that no prohibited non-audit services referred to in Article 5 (1) of Regulation (EU) No. 537/2014 of the European Parliament and the Council were provided by us to the Group. In addition, there are no other non-audit services which were provided by us to the PannErgy Nyrt. and and its controlled undertakings and which have not been disclosed in the consolidated financial statements/ in the consolidated business report.

The engagement partner on the audit resulting in this independent auditor's report is the signatory of the report.

Budapest, 27 March 2020

Free translation Hungarian version is signed

Venilia Vellum Könyvvizsgáló és Adótanácsadó Kft.
Company registration no: 01-09-566797
Auditor registration no: 000340
IFRS qualification: IFRS000115
Issuer qualification: K000045
Address: 1026 Budapest, Szilágyi Erzsébet fasor 79.
Name of Authorized representative: Bukri Rózsa
on behalf of Venilia Vellum Ltd. and as a statutory registered auditor
Registration number of statutory registered auditor: 001130
IFRS qualification: IFRS000042
Issuer qualification: K000002

This is a translation of Hungarian original – in case of any differences the Hungarian original is prevails.

PannErgy Plc. and its subsidiaries

Consolidated financial statements prepared in conformity with the IFRS

31 December 2019

Budapest, 27 March 2020

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

CONSOLIDATED STATEMENT OF FINANCIAL POSITION

	Note no.	31 December 2019	31 December 2018
		HUF Th	HUF Th
Goodwill	15	518,487	518,487
Other intangible assets	15	1,918,449	1,748,438
Tangible assets	16	19,120,564	18,705,874
Investment properties	16	113,957	-
Marketable properties	16	2,756	410,594
Other invested financial assets	17	72,949	-
Financial assets (production well established under a concession project)	18	1,183,496	1,068,432
Receivables from deferred taxes	33	242,892	229,187
Long-term receivables	19	5,318	99,095
Total fixed assets		**23,178,868**	**22,780,107**
Inventories	21	27,651	-
Trade receivables	22	1,277,883	1,513,325
Other receivables	23	144,569	405,798
Prepaid income taxes	33	-	3,201
Securities	24	24	25
Liquid assets	35	1,344,788	1,108,246
Total current assets		**2,794,915**	**3,030,594**
TOTAL ASSETS		**25,973,783**	**25,810,702**
Subscribed capital	25	421,093	421,093
Reserves without comprehensive income for the year	27	11,387,761	10,989,757
Comprehensive income for the year (attributable to the shareholders of the Company)	34	728,336	433,652
Treasury shares	26	-2,355,278	-2,003,119
Minority interest	28	32,036	25,474
Total equity		**10,213,948**	**9,866,857**
Long-term loans, leases	29	7,878,536	8,252,525
Other long-term deferred incomes	29.4	4,030,962	3,985,318
Provisions	31	-	18,449
Total long-term liabilities		**11,909,498**	**12,256,292**
Trade payables	36	900,737	1,177,750
Short-term credits	30	710,244	560,423
Short-term part of long-term credits	30	1,496,188	1,114,509
Other long-term deferred incomes	30.1	220,189	275,660
Other short-term liabilities	32	522,979	559,211
Total short-term liabilities		**3,850,337**	**3,687,553**
TOTAL LIABILITIES AND EQUITY		**25,973,783**	**25,810,702**

CONSOLIDATED STATEMENT OF PROFIT OR LOSS

	Note no.	2019	2018
		HUF Th	**HUF Th**
Revenue from sales	6	5,647,921	4,679,096
Direct cost of sales	8	-4,192,794	-3,725,708
Gross margin		**1,455,127**	**953,388**
Gross profit ratio %		**25.8%**	**20.4%**
Gross cash-flow		**2,919,836**	**2,270,174**
Gross cash flow rate %		**51.7%**	**48.5%**
Indirect costs of sales	7	-449,697	-455,860
Other incomes	11	416,251	617,797
Other expenditures	10	-224,001	-209,197
Operating profit		**1,197,680**	**906,128**
Operating profit rate %		**21.2%**	**19.4%**
EBITDA		**2,665,645**	**2,231,113**
EBITDA rate %		**47.2%**	**47.7%**
Financial profit	12-13	-415,998	-380,966
Profit before taxes		**781,682**	**525,162**
Income tax	33	-46,784	-90,526
Net profit for the year		**734,898**	**434,636**
Profit/loss, attributable to Shareholders of the Company		**728,336**	**433,652**
Share of non-controlling interests in the year's net profit	28	**6,562**	**984**
Earnings per ordinary share (HUF)			
Basic	34	40.77	23.55
Diluted	34	40.77	23.41

CONSOLIDATED STATEMENT OF OTHER COMPREHENSIVE INCOME

	2019	2018
	HUF Th	HUF Th
Net profit for the year	**734,898**	**434,636**
Other general incomes		
Exchange difference from the HUF conversion of the reports of foreign subsidiaries	-	-
Exchange difference from the HUF conversion of affiliated companies and companies under common management	-	-
Marketable financial assets with deferred taxes	-	-
Cash flow hedging transactions with deferred taxes	-	-
Share from the comprehensive income of affiliated companies	-	-
Other comprehensive incomes in the period with tax implications	-	-
Total comprehensive income for the year / attributable to	**734,898**	**434,636**
Shareholders of the Company	**728,336**	**433,652**
Non-controlling interest	**6,562**	**984**

CONSOLIDATED STATEMENT OF CHANGES IN THE EQUITY

Description	Subscribed capital	Reserves	Treasury shares	Participation of external members	Equity
Balance as of 31 December 2017	**421,093**	**11,748,705**	**-3,169,955**	**24,540**	**9,024,383**
Profit for 2018	-	433,652	-	984	434,636
Changes in the participation of external members	-	-	-	-50	-50
Exchange rate difference from consolidation	-	-	-	-	-
Share option program	-	175,442	-	-	175,442
Treasury shares	-	-	-6,142	-	-6,142
Decrease in treasury shares	-	-934,390	1,172,978	-	238,588
Goodwill of minority-acquired shares	-	-	-	-	-
Balance as of 31 December 2018	**421,093**	**11,423,409**	**-2,003,119**	**25,474**	**9,866,857**
Profit for 2019	-	728,336	-	6,562	734,898
Changes in the participation of external members	-	-	-	-	-
Exchange rate difference from consolidation	-	23,833	-	-	23,833
Share option program	-	-	-	-	-
Treasury shares	-	-52,909	-435,515	-	-488,424
Decrease in treasury shares	-	-6,572	83,356	-	76,784
Goodwill of minority-acquired shares	-	-	-	-	-
Balance as of 31 December 2019	**421,093**	**12,116,097**	**-2,355,278**	**32,036**	**10,213,948**

CONSOLIDATED STATEMENT OF CASH FLOWS

	Note no.	2019	2018
Liquid assets from operations		**HUF Th**	**HUF Th**
Profit before taxes		**781,682**	**525,162**
Adjustments in relation to the profit before taxes and the cash flow of business operations			
Amortization and depreciation of tangible and intangible assets	15-16.	1,467,002	1,317,007
Effect of deferred taxes	33	-13,704	61,788
Income tax expenditures	33	-46,784	-90,526
Exchange gain/loss on credits	14	193,617	212,278
Impairment of tangible assets, goodwill	10.16	963	7,978
Impairment losses and shortage of inventories	10.21	-	-
Impairment losses of receivables	10.39	405	78
Reclassification of provisions	31	-18,449	18,449
Changes in the fair value of properties	11.16	-	-69,057
Interest payable/received	12-13	273,382	258,687
Profit on the sales of tangible assets	11	71,073	-317
Changes in minority participations	28	6,562	934
Changes in working capital elements			
Increase/decrease of inventories	21	-27,651	120,473
Income taxes paid	23	-	-
Increase/decrease of receivables	22-23	496,265	-158,723
Increase/decrease of payables	32.36	-313,245	303,809
Increase/decrease of prepaid income taxes	23	3,201	16,860
Interests received	12	-118	7,184
Interests paid	11	-273,264	-265,871
Net liquid assets originating/used from operations		**2,600,937**	**2,266,193**
Liquid assets from investments			
Acquisition of investments in private companies	17	-	-
Increase/decrease of existing investments	17	-	-950
Sale of investments	17	-	22,935
Acquisition of tangible and intangible assets	15-16	-2,139,374	-1,587,673
Financial assets (production well established under a concession project)	18	-27,250	-1,003,692
Sales of tangible and intangible assets	15-16	292,777	61
Other long- and short-term deferred incomes	29.4	-9,827	-301,832
Changes in long-term receivables	19	93,777	104,689
Liquid assets from investment operations		**-1,789,897**	**-2,766,462**

	Note no.	2019	2018
Financial operations			
Increase/decrease of long-term loans	14.29	-567,606	-754,508
Increase/decrease of long-term loans	30	531,500	467,298
Difference from consolidation	27	-23,833	-
Acquisition/sales of treasury shares	26	-441,612	407,221
Increase/decrease in securities	24	-72,947	200,003
Liquid assets used for financial operations		**-574,498**	**320,013**
Net increase/decrease of cash and cash equivalents		**236,542**	**-180,256**
Cash and cash equivalents as of 1 January		**1,108,246**	**1,288,502**
Cash and cash equivalents as of 31 December		**1,344,788**	**1,108,246**

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1. GENERAL BACKGROUND AND DESCRIPTION OF ACTIVITIES

PannErgy Plc. (hereinafter: "PannErgy Plc.", "PannErgy" or the "Company"), as the legal successor of Pannonplast Plc., has a history of almost one hundred years. On 31 May 1991, the Company was transformed into a public company limited by shares, in line with Act XII of 1989 on the transformation of economic organizations. In 2007, PannErgy set the goal to generate substantial volumes of thermal and electric power by exploiting the long-known geothermal resources of Hungary, thereby creating value for the population and institutions of the country as well as for PannErgy's shareholders. In line with this shift in its strategy, since 2007 its core activities have been redirected from plastic manufacturing to the utilization of renewable, and in particular geothermal energy resources. As of 31 December 2019, PannErgy Plc's subsidiaries operated projects for the utilization of geothermal resources in Miskolc, Győr, Szentlőrinc and Berekfürdő, *inter alia*.

The subsidiaries are listed in Note 42.

The registered address of the Company is: Hungary, H–1117 Budapest, Budafoki út 56.

2. BASIS OF THE COMPILATION OF THE FINANCIAL STATEMENTS

The consolidated financial statements of the PannErgy Group, comprising PannErgy Plc. and its consolidated subsidiaries (hereinafter referred to as the "PannErgy Group" or "the Group") were prepared in conformity with the International Financial Reporting Standards endorsed by the European Union (hereinafter: "IFRS" or "EU IFRS"). The consolidated financial statements have been prepared in compliance with the requirements of *Act C of 2000 on Accounting*, pertaining to the consolidated financial statements prepared in conformity with the EU IFRS.

The consolidated financial statements were compiled on a cost basis except for financial instruments, certain financial assets, liabilities and marketable assets, which are presented in the statement of financial position at fair value. PannErgy Plc. rounded up the figures in the consolidated financial statements to thousand Hungarian forints; with exceptions specifically indicated in the statements.

The accounting and other records of the members of the PannErgy Group are maintained in line with the effective Hungarian laws and accounting regulations. The members of the PannErgy Group modify the annual reports compiled on the basis of the Hungarian reporting requirements (*Act C of 2000 on Accounting*) in order to comply with the IFRS.

Since 1 January 2017 PannErgy Plc. as a company listed in a regulated market of the European Economic Area ("EEA") has had the statutory obligation to apply the EU IFRS for the purposes of its individual reporting. Pursuant to this regulation, PannErgy Plc. as a parent company compiled both its IFRS consolidated financial statements and its individual financial statements in accordance with the requirements of the EU IFRS as of 31 December 2019.
The consolidated financial statements of the PannErgy Group present the Group's consolidated financial position and the results of its operations and cash flows as well as changes in equity.

3. THE IMPACT OF COVID-19 ON THE COMPANY'S REPORT

The European Securities Market Authority (ESMA) monitors the impacts of the COVID-19 pandemic on the financial markets of the European Union (EU) in close cooperation with competent national authorities. The ESMA Supervisory Board has reviewed the market situation and the emergency actions and measures taken by the organizations under its supervision and worked out the following recommendation for market participants on the basis of its findings:

Planning of business continuity – establishment of an emergency plan:
All market participants and the infrastructure must be prepared for using their emergency plans as and when necessary. This should include taking and implementing business continuity measures to ensure to ensure operational continuity in line with regulatory obligations.

Disclosure:
In accordance with market disclosure principles securities' issuers should disclose, as quickly as possible, in accordance with their transparency obligations under the market abuse regulations, all relevant data and information on the effects and impacts of the COVID-19 pandemic on issuers' assets, income and financial position, operational activities, perspectives and plans.

Presentation in the financial statements:
Issuers should provide market participants with information on their best estimates of the actual and possible impacts of the COVID-19 pandemic according to qualitative and quantitative assessments of their own business activities, financial position and performance. Issuers that had not published their financial reports on 2019 by the date of the ESMA recommendation (13 March 2020) are required to fulfil this obligation in their annual report. Otherwise such information should be disclosed by issuing in some other way, by publishing interim financial reports.

In conformity to the ESMA recommendation PannErgy Plc. publishes the following information in its consolidated year financial report on 2019:

The COVID-19 pandemic has no significant impact on the figures presented in the Company's consolidated year financial report on 2019.

The Company has introduced and activated some emergency actions since the appearance of the COVID-19 virus in Hungary, in accordance with the latest available information to maintain business continuity. Moreover, besides the monitoring of actual pandemic events the Company has been drawing up action plans and has updated it to the new negative changes. The Company's core operation, that is, geothermal heat generation and sale, its sales revenue generating capability, is exposed to the negative impacts of the COVID-19 pandemic as detailed below:

The Company sells its output and services to a small number of customers: district heating service providers and manufacturing companies. At the time of the publication of the financial statement and annual report the Company has no information concerning some of its consumers purchasing heat making the Company's 2020 sales revenue likely to drop significantly as a consequence of the COVID-19 pandemic:

The Company's largest industrial partner purchasing heat, that is, Audit Hungaria CPlc., announced on 17 March 2020 a temporary shut-down of its plant in Győr from 23 March 2020. According to the Company's calculations this shut-down would concerns the period beyond heating season and the most of the planned capacity for AUDI would use in Geothermal System of Győr, where the ratio of geothermal energy haven't reached the half of the heat market demand until now.

The Company's other main partners, MIHŐ Ltd. (Geothermal System of Miskolc) and GYŐR-SZOL Plc. (Geothermal System of Győr) are less responsive for the negative impacts of the COVID-19 pandemic, therefore they can be regarded as a strong business partner for the Company. Moreover, the spreading of home-office working as an inverse relation has stabilized the household energy demand.

4. SUMMARY OF THE KEY ELEMENTS OF THE ACCOUNTING POLICIES

4.1. *General description*

The key accounting policies used in the course of the compilation of the consolidated financial statements are described below. The PannErgy Group applied the accounting principles described and detailed herein consistently for all the business years presented; any modifications in and deviations from the practices of previous business years are specifically indicated.

4.2. *Basis of consolidation*

The consolidated financial statements cover all the assets, liabilities, incomes and expenditures of all the subsidiaries that are in the majority ownership of the PannErgy Group. Intercompany transactions and balances have been eliminated in the course of consolidation.
The minority (external) participations in the net assets of the consolidated subsidiaries (with the exception of goodwill) are presented separately within the equity of the PannErgy Group's. Minority participations include the value of these participations at the time of acquisition or on the date of the original business combination, as well as the changes in the rates of minority participations following acquisition. Losses in excess of the value of the minority participation in the subsidiary that can be allocated to the minority participation are charged to the participation of the Group unless the minority (external) shareholder is obliged and has the option to make additional investments to cover such losses.

4.3. *Effects of the amended rules of the IFRS standards to be implemented as of 1 January 2019 an of the introduction of new standards on the financial statements*

New and amended standards and interpretations entering into force in the current reporting period as published by the IASB and endorsed by the EU:

- Amendment of *IFRS 16 "Leases"* – endorsed by the EU on 31 October 2017 (to be applied for reporting periods beginning on or after 1 January 2019)

- Amendments of *IFRS 9 Financial Instruments* – Prepayment Features with Negative Compensation – endorsed by the EU on 22 Mach 2018 (to be applied for reporting periods beginning on or after 1 January 2019),

- Amendments of *IAS 19 "Employee benefits"* – Plan Amendment, Curtailment or Settlement – endorsed by the EU on 13 March 2019 (to be applied for reporting periods beginning on or after 1 January 2019),

- *Amendments of IAS 28 "Investments in associates and joint ventures"* – Long-term interests in associates and joint ventures – endorsed by the EU on 8 February 2019 (to be applied for reporting periods beginning on or after 1 January 2019),

- Amendments of certain standards – "Annual Improvements to IFRS Standards 2015–2017 Cycle" – As a result of the IFRS Improvement Project, amendments of certain standards (*IFRS 3, IFRS 11, IAS 12 and IAS 23*) have been adopted, primarily to eliminate inconsistencies and clarify explanations, endorsed by the EU on 14 March 2019 (to be applied for reporting periods beginning on or after 1 January 2019),

- IFRIC 23 "*Uncertainty over Income Tax Treatments"* – endorsed by the EU on 23 October 2018 (to be applied for reporting periods beginning on or after 1 January 2019).

Effect of the IFRS 16 standard

The *IFRS 16* standard endorsed by the EU is to be applied on a mandatory basis for business years starting on or after 1 January 2019. Pursuant to *IFRS 1*, however, a business entity is obliged to apply the same accounting policy in its opening statement on its financial statement worked out in accordance with the applicable IFRS standards as the one used on the first period covered by financial statements worked out in accordance with IFRS standards. Accordingly, the new lease standard must be applied as of 1 January 2018 as well as the business year following that date. The preceding comparable period must be presented as if the Company had always used the *IFRS 16*, taking into account the exemptions allowed under *IFRS 1.*

The Company checked with regard to 1 January 2018 whether the contract concerned was a lease contract or contains such element under *IFRS 16*.

Upon its introduction the new lease standard superseded the preceding one (*IAS 17*) and the following interpretations: *IFRIC 4* – Determining whether an arrangement contains a lease, SIC 15 – Incentives and 27 – Evaluating the substance of transactions involving the legal form of a lease.

The use of the new lease standard *IFRS 16* removes the difference between the treatment of operating lease transactions and that of financial leases for lessees; they have to show, in their balance sheets, an asset embodying the right of use under the transaction and a lease liability, that is, the obligation to pay the lease fees. The *IFRS 16* provides that a contract is a lease contract or it includes leasing if it conveys the right to control the use of an identified asset for a period of time in exchange for consideration.

The costs relating to the use of the asset – which used to be shown in the form of operating lease fees under the Hungarian accounting standards and the former lease standard (*IAS 17*) – are shown under the new lease standard *IFRS 16* as depreciation of the right-of-use asset and as interest-type expenditure of the lease liability. Moreover, upon the occurrence of certain events (e.g. the lease term is modified, the amounts payable in the way of lease fees are modified as a result of changes in indices or interest rates affecting lease fee payments) the lessee must revaluate the lease liability. The amount by which the lease liability is modified must be presented by the lessee as a change in the right-of-use asset. The standard stipulates exceptions for presentation regarding short term leases and ones with low-value underlying assets. However, lessors still have to categorise arrangements as financial or operating leases.

At the time of the adoption of the new regime the Company has no sublease or re-lease transactions. Nor does it have right-of-use assets regarded investment property.
For lessors the *IFRS 16* retains essentially the accounting requirements that used to lessors under the previous lease standard (*IAS 17*). Similarly to the previous standard the *IFRS 16* also prescribes for lessors to categorise their lease transactions as operating or financial lease. The new lease standard has no substantial impacts on the practices of the Company as a lessor, other than an increase in its disclosure obligations.
The cumulative impact of the transition to the new standard appears as an adjustment to the opening balance of accumulated profit when first applied.

The Company makes use of the following exemptions offered by *IFRS1*:

- The lease liability is valued at the present value of the remaining lease fees, discounting them with the lessee's incremental borrowing rate of interest prevailing on the day of IFRS transition, that is, 1 January 2018.
- The right-of-use asset presented upon first application is shown at a value equalling that of the lease liability adjusted with the pre-paid or deferred lease fees shown in relation to the given lease arrangement right before the date of first application in the statement pertaining to the Company's financial position. There is no difference between the opening right-of-use asset value and the lease liability value. In case the right-of-use asset value shown in the statement differs from the lease liability value, the difference is recognised in the profit or loss for the year.
- The Company uses a single discount rate to the portfolio of lease transactions of essentially similar parameters (e.g. similar remaining lease terms, underlying assets of similar categories, similar economic environment).
- The Company makes use of the simplification allowed by the standard in the case of leases with shorter than 12-month remaining terms on 1 January 2018, the day of transition. Such leases are recognised by the Company as short term leases.
- The Company applies the simplification allowed by the standard to leases with low-value underlying assets.
- When first applying the standard the Company does not factor in the initial direct costs in right-of use asset valuation.
- The Company applies retrospection, for example in determining the lease term, if the contract offers lease term extension or termination options.

New and amended standards and interpretations issued by the IASB, endorsed by the EU but not yet effective

There are no standards that have been issued by the IASB and endorsed by the EU, nor approved amendments of existing standards and interpretations, which have not entered into force as of the date of approval of these financial statements.

Standards and interpretations issued by the IASB, but not endorsed by the EU

Currently the IFRS endorsed by the EU are not substantively different from the regulations adopted by the International Accounting Standards Board (IASB), except for the following new standards, the amendments of existing standards and new interpretations, which had not been endorsed by the EU as of the date of publication of the financial statements:

- *IFRS 14 "Regulatory Deferral Accounts"* (to be applied for reporting periods beginning on or after 1 January 2016) – The European Commission adopted a decisions that it will not apply the endorsement process to the present interim standard and to wait for the final version of the standard instead.

- The *IFRS 17 "Insurance contracts"* standard (applicable to reporting periods starting on or after 1 January 2021),

- Amendments of *IFRS 3 "Business combinations"* – Definition of business activity (applicable to business combinations whose with dates of acquisition in reporting periods starting on or after 1 January 2020, as well as to asset acquisitions taking place at or after the beginning of the period concerned).

- Amendments of *IFRS9 "financial instruments"*, *IAS 39 "Financial instruments: recognition and measurement"* and *IFRS 7 "Financial instruments: disclosures"* – interest rate benchmark reform (applicable to reporting periods starting on or after 1 January 2020)

- Amendments of *IFRS 10* "*Consolidated Financial Statements*" and *IAS 28* "*Investments in associates and joint ventures*" – sale or transfer of assets between the investor and its associates and joint ventures (the effective date has been postponed for an indefinite time while the research project arrives at a conclusion regarding the equity method).

- Amendments of *IAS 1 "Presentation of financial statements"* and *IAS 8 " Accounting Policies, Changes in Accounting Estimates and Errors"* – Definition of material (applicable to reporting periods starting on or after 1 January 2020),

- Amendments to references to the conceptual framework in IFRS standards (to be applied for reporting periods beginning on or after 1 January 2020)

Hedge accounting in relation to the portfolio of financial assets and financial liabilities is not regulated yet; the EU has not adopted the relevant regulation so far.

The Company's estimates show that the application of hedge accounting as per *IAS 39 "Financial instruments: recognition and measurement"* to the portfolio of financial assets and financial liabilities would have no material impact on the Company's financial statement as of the cut-off date.

The implementation of these amendments, new standards and interpretations would have no material affect on the consolidated financial statements of the PannErgy Group.

4.4. *Functional currency*

The functional currency is the currency defined in IAS 21 "*The Effects of Changes in Foreign Exchange Rates*", i.e. the currency of the primary operational environment where the entity operates, and which may be different from the currency of presentation.
The functional currency of the Company is the Hungarian Forint, which is the currency of the primary operational environment. The Company does not engage in business operations in any other environment that would justify the use of a functional currency other than the Hungarian Forint.

Accordingly, the effects of changes in exchange rates are not discussed in the consolidated financial statements.

4.5. *Conversion of foreign currencies, foreign exchange transactions and balances*

Foreign exchange transactions are converted into HUF at the exchange rate effective on the day of the transaction or – in the case of revaluation – valuation. The exchange gains and losses originating from the year-end revaluation of the financial assets and liabilities that arise from such transactions or recorded in foreign currencies are recognized in the statement of profit or loss. Exchange gains and losses are shown in the “Financial incomes” or “Financial expenditures” line of the statement of profit or loss.

4.6. *Fair value measurement*

The Company applies fair value measurement to marketable financial assets and fixed assets held for sale (fixed assets held for the purpose of selling).

In addition, the Company recognizes its non-marketable assets and liabilities, as well as assets and liabilities not held for sale at cost less impairment and depreciation, taking into account the characteristics of valuation and recognition under the relevant IFRS.

Initially, the Company is required to measure its financial assets or liabilities at fair value, including – where such financial assets or liabilities are not recognized at fair value through profit or loss – transaction costs that are directly attributable to the issuance or acquisition of the financial asset or liability.

In the course of follow-up evaluation, the Company applies fair value measurement only to assets that are fixed assets held for sale, marketable financial assets or derivative financial assets. The Company recognizes changes in the fair value under other comprehensive income, i.e. among financial expenditures/incomes for financial assets and other expenditures/incomes for fixed assets held for sale.

4.7. *Intangible assets*

Based on the definition of assets within the conceptual framework principles of financial reporting and IAS 38 Intangible assets, the Company recognizes as intangible assets those resources coming under the Company’s control as a result of past events that are expected to generate economic profits for the Company in the future, and whose costs can be reliably measured and that originate from identifiable sources (based on contracts or other rights, or that can be separated), and are not monetary assets with respect to their physical appearance.

In the consolidated financial statements, intangible assets recognized at cost by the PannErgy Group because, due to the special nature of these assets, the notion of an active market is not applicable. These costs are reduced by accumulated amortization and, where applicable, impairment, stated in line with the useful life of the asset.

The intangible assets of the Company consist in software used for operations, valuable rights and know-how associated with geothermal activities.

Software comprises software developed by third parties; the Company is not involved in any software development activities.
Purchased software is capitalized at cost calculated based on the costs incurred in the course of acquisition and installation. These costs are written off over an estimated useful life of 3–5 years, as appropriate for the type of the software in question.

Trademarks, licenses and purchased and own-produced know-how have definite useful lives and are recognized at cost less accumulated depreciation. The cost of trademarks and licenses is amortized with the straight-line method over an estimated useful life of 15–25 years.

Certain intangible assets may be stated in the Company's books at zero value at the end of their useful lives and should be written off, yet they are continued to be used by the Company owing to changes in the fundamental assumptions regarding their useful life. To avoid such situations, the Company re-estimates useful life and depreciations annually, at the end of the reporting period. If the asset's useful life is modified after the re-estimation, the difference between the amortization charged until the end of the reporting period and the amortization appropriate for the recalculated useful life is charged to the profit or loss or the equity depending on whether the re-estimation affects depreciation in the reporting period or in the preceding period.

This re-estimation of useful life is not relevant to the purchasing of intangible assets with purchasing values under HUF 100 thousand as purchases below that ceiling are not considered to be material by the Company; therefore, purchases below that amount are not capitalized. The values of such purchases are recognized in the statement of profit or loss for the reporting year in the form of depreciation, and the Company maintains separate records of them, taking into consideration the consideration of asset management.

4.8. *Impairment of non-financial assets*

The Company does not charge any amortization to intangible assets with an indefinite useful life or not yet suitable for use, but reviews them annually to identify potential impairment.

Assets in respect of which the Company recognizes amortization are also subjected to review for impairment in each case when events or altered circumstances imply that the book value may not be fully recovered.

If the Company sees indication that the realizable value of tangible assets or intangible assets may fall below the book value, impairment losses is reconsidered. If the realizable value falls below the book value, impairment must be recognized against the profit or loss with respect to assets carried at cost. The realizable value is the higher of the value in use and market value of the asset. The market value is the amount that can be received for an asset in a transaction between unrelated parties, while the value in use is the net present value of the cash flows derived from the continuous use of the asset and its sale at the end of its useful life.

The assets used by the PannErgy Group in its geothermal projects, which have relevance only on the geothermal system as a whole but not on their own, have no active markets as defined in *IAS 36*, and therefore – in the absence of a market value – their realizable value is the net present value of the future cash flows originating from their continuous use and realized at the cash-generating unit.
As the realizable value cannot be determined individually for each asset, it is defined separately for each cash-generating unit. At the end of each reporting period the PannErgy Group examines whether the reasons for the recognized impairment still exist. Any previously recognized impairment can be reversed only if there was a change in the circumstances that were taken into consideration at the time of the last latest calculation of impairment. Impairment can be reversed to the level where the book value of the asset does not exceed its recoverable value or its book value less depreciation which would have occurred if no impairment had been charged.

4.9. *Recognition of research and development*

When looking at the recognition of self-produced intangible assets, the Company divides the process of production into research and development phases. In the course of a project for the production of any own intangible asset the Company is unable to distinguish the research phase from the development phase, the expenditures of the project are treated as if they were incurred solely in the research phase. Intangible assets originating from research (or the research phase of any internal project) cannot be recognized; therefore the Company recognizes the expenditures associated with the research as expenditures when they are incurred.

Intangible assets originating from development or from the development phase of an internal project are recognized by the Company among fixed assets provided that the Company can demonstrate the following:

- the technical feasibility of the production of the intangible asset so that it is suitable for use or sale;
- the intent of the unit to complete, use or sell the intangible asset;
- the ability of the unit to use or sell the intangible asset;
- the way the intangible asset will generate future benefits;
- among other things, the unit is required to prove the existence of the product originating from the intangible asset or the market for the intangible asset, or in case it is used internally, the usefulness of the intangible asset;
- availability of sufficient technical, financial and other resources for the completion of the development or the use or sale of the intangible asset;
- the ability of the unit to reliably measure the expenditures that can be attributed to the asset in the course of the development of the intangible asset.

4.10. *Property, plant and equipment*

In the category of properties, the consolidated financial statements of the PannErgy Group includes building-type tangible assets connected with geothermal heat generation and heat sale (thermal centers, buildings functioning as connection points to heat consumers) as well as geothermal heat transmission systems, production and re-injection thermal wells classified as civil engineering works. Additionally, the Company has office buildings not related to its core activity (and used as investment until sold) and industrial facilities (industrial halls) suitable for production.

In respect of the rating of tangible assets, the Company clearly distinguishes fixed assets intended/held for sale, investment properties, and other properties, machinery and equipment not falling into these special categories but covered by *IAS 16*.

4.10.1. Investment property

Based on *IAS 40 "Investment property"*, land, buildings (or parts thereof) and structures qualify as properties. The Company treats and carries all properties held for rental to others or speculating on a value increase, which are not held for use in the production or supply of goods or services or for administrative purposes, or for sale in the ordinary course of business, as investment properties.

4.10.2. Non-current assets held for sale

The Company classifies any fixed assets as held for sale if its book value is expected to be recovered by way of sale rather than in the course of its continuous use. In line with the requirements of *IFRS 5*, the asset has to be in a condition based on which it can be declared that it is ready for being sold, and the probability of selling needs to be high. The Company deems the probability of selling to be high and therefore it considers the following as fundamental conditions for recognizing the asset as marketable:

- if the Company's supreme body/management has confirmed its commitment to the planned sale, and based on this commitment it is confirmed that there exists a plan for the identification of a specific buyer;
- if, after its documented commitment, the Company carries out active marketing activities for selling at a realistic price that is in line with the value of the asset over the shortest period of time and under the most favorable terms possible;
- if it is unlikely that the there will be substantial changes to the selling plan and it is unlikely to be withdrawn;
- if based on the plans, the sale is expected to occur within one year of the date of classification. In certain cases the period of sale may be extended to a period exceeding one year. That is the case when events or circumstances beyond the control of the Company delay the conclusion of sale, and there is sufficient evidence that the entity continues to be committed to the plan to sell the asset.

If, based on the foregoing, the Company classifies an asset to be an asset held for sale, at the moment of such reclassification the depreciation of the asset is stopped, and revaluation is performed on the basis of the valuation at the time of the classification, at fair value less the cost of selling; this principle is also applicable to any subsequent valuations.

In its IFRS financial statements, the Company presents its fixed assets classified as held for sale separately from other assets. The Company separately presents the amounts of accumulated revenues or expenses charged against other comprehensive income which are related to reclassification or subsequent valuation.

Properties to be found in District XXI of Budapest (land, buildings, structures), acquired by the Company in the period when plastics manufacturing was its core activity before the strategic shift in the operating profile of the PannErgy Group were recognised in the Company's books as marketable items, and many of them were sold, during the reporting period. PannErgy Plc's industrial properties in the town of Debrecen, neither directly nor indirectly related to the Group's core operations of geothermal heat generation and sale, were reclassified by the Company during the reporting period from assets held for selling to investment properties because the properties concerned are leased to customers, therefore and thus are not going to be sold within a year.

4.10.3. Tangible assets under IAS 16 Property, plant and equipment

The Company treats all long-term assets that do not fall into the category of investment properties or fixed assets held for the purpose of selling in accordance with the requirements of *IAS 16 "Property, plant and equipment"*. These are long-term tangible assets (used over more than one business period) which came under the Company's control as a result of past events and are expected to generate future economic benefits for the Company, the costs of which can be measured reliably and which are used by the Company for production or the supply of services or administration.

Property, plant and equipment are recognized at historical cost less depreciation. The cost of tangible assets depend on the mode of their production or acquisition. In the case of individual acquisitions, the cost of purchase is the cost itself; in the case of an acquisition through a business combination, it is the fair value, while in the case of self-manufactured assets, it is the expense that arose in the development phase.

Historical cost includes the costs directly incurred in connection with the acquisition of the items. After initial capitalization, subsequent costs are recognized as items increasing the book value of the asset or as separate assets only if the Company is likely to have a share of the future economic benefits originating from the item, and if the cost of the item can be measured reliably. The book value of the replaced components of the items are de-recognized. The costs incurred after the installation of the tangible asset, such as costs of repair and maintenance, are charged to the profit or loss in the period when they are incurred.

In the case of tangible assets measured with the cost method, depreciation and residual value are determined on the basis of cost and useful life; based on this, the cost less the residual value is depreciated over the useful life, which is recognized in the IFRS statement of profit or loss for the reporting year. The Company takes into account the amount realized at the end of the asset's useful life, after the deduction of the expected costs of disposal, as the residual value.

The annual review and, where necessary, re-estimation of the residual value and useful life (and thus, of the depreciation rate) is required for all tangible assets

A tangible asset may be included in the Company's financial statements at zero value at the end of its useful life and therefore it should be-recognized; however, the Company may continue using it due to changes in the fundamental assumptions of the estimation of the asset's useful life. To avoid such situations, the Company re-estimates useful life and depreciations annually, at the end of the reporting period. If the asset's useful life is modified after re-estimation, the difference between the depreciation charged until the end of the reporting period and the depreciation corresponding to the recalculated useful life is charged to profit or loss or equity, depending on whether the re-estimation affects the reporting period or a preceding depreciation charge.

This re-estimation of useful life is not relevant to the purchasing of intangible assets with purchasing values under HUF 100 thousand as purchases below that ceiling are not considered to be material by the Company; therefore, purchases below that amount are not capitalized. The values of such purchases are recognized in the statement of profit or loss for the reporting year in the form of depreciation, and the Company maintains separate records of them, taking into account the considerations of asset management.

The PannErgy Group does not recognize depreciation for land. The Company calculates the depreciation of properties, machinery and equipment using the straight-line method, whereby the cost or revalued amount of assets is reduced to the residual value over the following estimated useful lives:

Properties (including those belonging to geothermal projects)	20–50 years
Production machinery (including those belonging to geothe projects)	3–25 years
Other equipment	2–8 years
Vehicles	5 years

The book value of an asset is immediately depreciated to the recoverable amount if the book value is greater than the estimated recoverable amount.

The Company depreciates tangible assets acquired in the framework of a finance lease in the same manner as applied to its own tangible assets over their expected useful life, provided that there is reasonable certainty that ownership will be transferred at the end of the term.

The profit or loss generated or incurred at the time of selling the assets is determined based on the book value and sale price and recognized among other expenditures and incomes.

The Company does not charge any amortization to tangible assets with an indefinite useful life or not yet suitable for use but tests them annually for impairment. Tangible assets for which the Company recognizes depreciation are also subjected to review for impairment in all cases when events or changed circumstances indicate that the book value may not be fully recovered.
If the recoverable value is less than the respective book value, impairment has to be charged to the profit or loss in respect of assets treated at cost. The recoverable value is the higher of the asset's value in use and its fair value less costs to sell. The fair value less costs to sell is the amount that can be obtained for an asset in a transaction between unrelated parties, less the costs of disposal, while the value in use is the net present value of the cash flows derived from the continuous use of the asset and its sale at the end of its useful life. The recoverable value is determined individually for each asset, or if this is not possible, for each cash-generating unit.

At the end of each reporting period, the Company examines whether the reasons for the impairment losses recognized earlier still prevail. Any impairment loss can be reversed only if there has been a change in the circumstances that were taken into consideration at the time of the establishment of the last impairment. Impairment can be reversed only to the level where the book value of the asset does not exceed the recoverable value or – if it is lower – its book value less depreciation that would have applied had the impairment not been recognized.

4.10.4. Investments, geothermal projects

In the financial statement, the value of tangible assets includes the value of investments, which encompass the current costs of the geothermal energy and other types of tangible asset development projects in progress, where depreciation is recognized after the commissioning of the project.

During the implementation of geothermal projects, typically after a preparatory, design and permission phase, a production well is established (with a pump, a filter and a degasser) followed by an injection well that transfers the produced geothermal fluid back into the soil layer, a thermal center containing a heat exchanger and the control panel of the whole system, the consumer connection points and a transmission system connecting the above elements of the complete geothermal system.

The PannErgy Group takes the requirements of *IAS 11 "Investment contracts"* into account for projects affecting more than one reporting period, and contractual schedules are determined so that they should be in line with the occurrence of the costs of implementation and the schedule of invoicing.

4.10.5. Application of component accounting

The Company does not apply the elements of IAS 16 relating to component accounting. According to the relevant requirements of the standard, if the main components of assets of significant value feature considerably different economic characteristics, then the main components should be recorded separately, with separate depreciation periods.
Due to the special characteristics of geothermal operations, the Company regards its tangible assets to form a unit, and in technical terms it deems the economic characteristics and useful lives of the components of its tangible assets to be identical. The costs of major overhauls are not regarded as separate components and are not commissioned separately in accounting terms because these costs cannot be unambiguously estimated at the time of commissioning due to the technical factors influencing useful life (for instance, long-term effects of geodetic conditions and water quality). The Company keeps separate records of these significant, unforeseeable future costs of inspections and capacity increases as giving rise to additional capitalization.

4.11. *Investments*

From among the methods set out in *IAS 27 "Separate financial statements"* for the valuation of investments, the Company uses the cost method for all its participations.

Impairment testing at specified intervals is an important element of the valuation of participations; the Company performs impairment tests on its participations according to the requirements of *IAS 36* when compiling its IFRS financial statements. If there is any indication that a participation has suffered impairment, its recoverable amount has to be determined. The recoverable amount is the higher of value in use (typically the value determined with the discounted cash flow method based on the Company's detailed future financial plans) and fair value less costs of disposal (if it can be determined accurately based on benchmark market information). If the recoverable amount is lower than the asset's cost, impairment has to be recognized and presented in the other expenses line of the statement of profit or loss for the reporting year.

Impairment has to be recognized for participations in line with the foregoing if, on the end of the reporting period for IFRS financial statements, the book value exceeds the expected recoverable amount. The Company considers it an indication of impairment if it has any information pointing to the financial difficulties of a subsidiary, the termination of customer contracts serving as the basis of its income-generating ability, the restructuring of the subsidiary that is disadvantageous for the Company, the transformation of the external financing structure that is disadvantageous for the subsidiary or any threat of bankruptcy.

4.12. *Goodwill*

The Company carries as goodwill the intangible assets that are associated with the purchasing of asset by paying for goodwill in the light of its expectations in relation to the future economic benefits from the purchased asset, and that cannot be individually identified, i.e. they cannot be unambiguously or directly connected to any of the existing tangible or intangible assets affected by the asset purchase.

The cost of the goodwill corresponds to the positive difference between the sum paid for the business combination and the part of the fair value of the identifiable assets, liabilities and pending liabilities that is attributable to the Company as the acquiring party.

Annually, the value of the goodwill has to be subjected to an impairment test, whereby the Company examines the recovery of the value of the goodwill, comparing the part of the future discounted cash flows at the Group's cash-generating units affected by the given goodwill and having a share from synergies that arise from the combinations ensured by the goodwill in excess of the assets that are linked to the cash-generating units in questions, and the value of the goodwill.

4.13. *Financial assets related to concession agreements (IFRIC 12)*

On 30 November 2006, the International Financial Reporting Interpretations Committee (IFRIC) published its interpretation for *IFRIC 12 "Service concession agreements"*; the interpretation covers service concession agreements in order to clarify how the operator of a concession is required to present the infrastructure covered by the service concession agreement, its construction and operating phases and to record the associated incomes and expenditures. *IFRIC 12* offers two methods for the accounting of the latter items based on the uncertainty of the future revenues of the concession operator: the financial asset model and the intangible asset model.

PannErgy Plc's subsidiaries within the scope of consolidation and engaging in the operation of geothermal projects have contracts with municipality-owned district heating companies that provide district heating services to households, public institutions connected to the district heat supply network and industrial consumers; however, due to the nature of such contractual relationships and the legal and economic content of the transaction these relationships do not constitute concession agreements; consequently, the Company does not apply the *IFRIC 12* interpretation. These transactions are not covered by the interpretation for the following reasons:

- Even though the heat energy supply service provided by the Company as a "supplier" affects the public utility infrastructure, the Company is not in possession of any infrastructure necessary for the supply of public services, and it has no control over the public utility infrastructure. The Company has not constructed or acquired any infrastructure that is necessary for the supply of public services; it offers services only to district heating service providers;

- The Company's contracts with the district heating service providers cover exclusively the takeover of heat energy and the relevant terms; they contain no rights and obligations regarding the provision of public services; moreover, in addition to the absence of legal prerequisites, it would be physically impossible for the Company to provide such services;
- The Company has no responsibility, even partial, for the operation of the infrastructure and services of the district heating suppliers concerned; they are completely unrelated entities;
- The Company has no control whatsoever over the rates of the public services;
- The Company has sole control over its assets;
- Under agreements covered by the *IFRIC 12* interpretation, operators are typically required, at the end of the term of the agreement, to return the infrastructure to the grantor in a specific condition and for minimal consideration; the agreements between the Company and the relevant district heat suppliers contain no such requirement.

Accordingly, the provisions of *IAS 16* are applicable to the treatment, under IFRS, of the fixed assets owned by the Company and used for the sale of heat to public sector district heat suppliers. Such assets do not constitute infrastructure for the provision of public services and have no direct effect on the direct provision of public services. The revenues realized using such assets are recognized by the Company in compliance with the requirements of *IFRS 15 Revenue from contracts with customers;* there is no construction or development service-type agreement or activity between the partners that would require the presentation of part of revenues from heat supply under the heading of financial assets or intangible assets.

There is a single exception to the above: the concession project of the Company related to the Győr Geothermal Project. PannErgy Geothermal Power Plants CPlc., a subsidiary of the Company, concluded a concession contract with the Hungarian State for the exploration, extraction and exploitation of geothermal energy in the region of Győr, for a definite period of 35 years (which may be extended once, by 17.5 years). In terms of its legal and accounting qualification, the project, implemented under, and in accordance with the terms and conditions of, the concession contract, is in line with the *IFRIC 12* interpretation; therefore, the investment implemented so far in the context of the project is recognized in the category of fixed assets, as a financial asset, in the consolidated statement of financial position, where the presented investment amount is adequate, i.e. it is covered by the value of the discounted cash flows expected for the 35-year term of the concession contract, in proportion to the degree of completion of the investment project.

4.14. *Inventories*

The overwhelming majority of the inventories recognized in the consolidated financial statements are goods as well as work-in-progress and semi-finished goods used in connection with the implementation of geothermal projects, or materials proposed to be used for maintenance in the operational phase of geothermal projects. Inventories are stated at cost or at net realizable value, whichever is lower.

The cost of inventories consists of the cost of acquisition, the cost of conversion as well as costs incurred in moving the inventories to their present location and bringing them to their present condition. Cost may not include expenses relating to warehousing, promotion and marketing or sale. The cost of acquisition consists in the costs incurred by the acquirer to purchase the inventories. The Company includes in this category the consideration paid for the inventories, charges related to imports, non-refundable taxes, the expenses of transportation and handling, and any other payments directly related to the item concerned. Discounts and rebates received are to be deducted from the cost of acquisition. The Company defines net realizable value as the expected selling price under normal business terms, minus the expenses relating to completion and sale expected to be incurred before the sale. Net realizable value must be re-estimated at the end of each reporting period and the amount of the write-off needs to be recalculated annually. If changes occurred in the net realizable value of an inventory item that necessitate the write-back of a previously recognized impairment, the Company may do so up to the amount of the previously recognized impairment. Both write-offs and write-backs need to be stated among other expenditures. The write-off (write-back) must be recognized in the period when it was determined.

From among the options listed in *IAS 2 Inventories,* the Company uses the weighted average cost method for the valuation of inventories.

4.15. *Financial instruments*

By way of its Regulation 2016/2067, on 22 November 2016 the European Union endorsed the *IFRS 9 "Financial instruments"* standard, to be applied for business years starting on 1 January 2018 or thereafter. The PannErgy Group has not made use of the option of early adoption; thus the standard has been applied since 1 January 2018.

IFRS 9 "Financial instruments" describes the classification, valuation and presentation of financial assets and financial liabilities, and replaces the sections of the former IAS 39 standard applicable to the classification and valuation of financial instruments. *IFRS 9* requires the classification of financial assets into categories measured at their fair values and depreciated cost, respectively. Financial assets need to be classified into these categories at the time of their initial recognition.

The introduction of *IFRS 9* on 1 January 2018 has not caused any material change in the principles of classification applied by the Company, including reporting period. The financial instruments that have been recognized in the Company's financial statements at fair value continue to be presented in the same manner, and the same applies to the financial instruments that are recorded at amortized cost. The Company has set up a "amortized cost" category for the assets classified into the "Held to maturity" class, essentially because its business model does not entail any receivables held for sale. The "Available for sale" category essentially pertains only to securities, and the "Held for trading" category to derivative transactions.

Financial instruments include loans provided, loans received, debt securities purchased, debt securities issued, participations in other entities, trade receivables, trade payables, forward and swap transactions as presented in the Company's consolidated IFRS financial statements.

Financial instruments (including compound financial instruments) become an asset, a liability or an equity element based on the real content of the underlying contractual obligations; initially they are recognized by the Company at fair value. The fair value of a financial instrument is the price that the Company could realize on the sale of the asset, or would pay upon the transfer of the related obligation, assuming arm's length conditions and a transaction in the normal course of business, at the time of the valuation.

Fair value can be determined on the basis of exact market prices or, in the absence of such, using valuation models. In the course of the selection and design of models, models appropriate for the characteristics of the instrument need to be applied and the general principles of fair value determination must be used.

4.15.1. Initial recognition at fair value

Pursuant to *IFRS 9*, the Company recognizes all financial instruments at fair value initially, at the time of the transaction, that is, on the day when the Company commits itself to the purchasing or selling of the instrument. The company includes in this value the transaction costs that are directly related to the acquisition or issuance of the financial instrument. Financial assets evaluated at fair value against the profit or loss are initially presented at fair value, while transaction costs are stated in the statement of profit or loss.

The classification of financial instruments is based on the purpose of the acquisition of the financial assets, the characteristics of the financial instruments and the definitions of the categories of financial instruments under the *IFRS 9* standard. The Company decides on the classification of financial assets at the time of their initial recognition. For subsequent presentation, financial instruments can be classified in the following categories:

4.15.2. Receivables

For the recognition of impairment, the PannErgy Group introduced an *IFRS 9* compatible model based on expected lending loss, to replace the incurred loss model of *IAS 39*. This change in *IFRS 9* had no effect on the financial statements of the Company in the reporting period in the field of the impairment of receivables due to the portfolio of receivables and the nature of the Company's operations and contractual relations.

Trade receivables comprise the amounts due from customers for goods sold or services rendered during the ordinary course of business. If these amounts are expected to be collected within one year, they are classified into current assets, otherwise they are recognized among non-current assets, in conformity with their maturities.

The Company's trade receivables consist almost exclusively in receivables from domestic undertakings based on long-term contractual relations. It was found during the classifications regarding the 2019 business year that there is no need to establish a standard collection process for the trade receivables of the Company as its trade debtors has always paid in time, observing the due dates of payment. Nevertheless, since 1 January 2019 the Company has determined impairment losses expected to occur based on the "expected credit loss" model, meaning that an impairment loss matrix that is designed relying on past events and also considers forward-looking information is used, broken down by type of debtor based on the nature of the relationship with the partner (term of the contract, strategic nature of the contract). For the calculation of impairment losses the Company opted for the Staging method, whereby stage ratings (1–3) are clearly defined relying on portfolio impairment loss considerations and with clear reasons to justify the classification. Furthermore, the Company's size and small number of customers facilitates the use of individual rating rules.

The Company has no retail operations that would call for the use of segment-based SPPI tests. On the other hand, the Company uses the portfolio impairment loss module, where it allocates into separate categories the ratings of receivables from district heating suppliers that are in long-term business relations with the companies operating the geothermal projects (MIHŐ Miskolc Hőszolgáltató Ltd., Győr-Szol CPlc., Szentlőrinc Közüzemi Nonprofit Ltd.) and priority strategic business partners (Audi Hungaria CPlc.), and the rating of receivables from entities outside this portfolio.
In practice, the Company does not engage in factoring; should such a situation arise, these receivables would be presented at fair value.

4.15.3. Loans provided

The Company grants loans to other enterprises only on a case-by-case basis, almost without exception to entities belonging to the scope of consolidation. Due to the affiliation and as the repayment of these loans depends on the group-level cash flow planning, the Company recognizes no impairment for these loans. These financial assets to be held to maturity are valued in the consolidated financial statements at amortized cost. Since 1 January 2019, the Company has performed and documented the so-called SPPI classification tests/benchmark tests with regard to loans provided to non-affiliated parties that do not belong to the scope of consolidation, taking into consideration whether or not these loans carry variable interest rates. The test revealed that the amortized cost of the loans was adequate.

Based on the expected lending loss model, the Company classifies loans provided and recorded at amortized cost into categories 1 to 3, and impairment is calculated accordingly. When testing impairment, the Company does not take into account particular exposures individually; they are treated in aggregate because the effect of the separate treatment of exposures on valuation is irrelevant in the case of loans to affiliates. Because of the obligation of full-scope documentation, SPPI tests were also run for affiliated undertakings in the scope of consolidation; however, due to the affiliation, they were placed in Category 1 without any further examination or impact assessment and no impairment was recognized.

The commitment fees of the credit line are recognized as a transaction cost (and thus they are to be taken into account in the calculation of the amortized cost and effective interest rates of credit) if it is likely that the given portion of the available credit will be drawn down. In this case, any fee that has already paid is accrued until draw-down. In contrast, if it is unlikely that the given portion of the available credit will be drawn down, the fee is charged to the profit or loss for the year during the commitment period of the credit line.

The general and specific costs of the use of credits that are directly connected with the acquisition, construction or production of classified assets are capitalized where considerable time is required before the asset is suitable for its intended use or sale. Such borrowing costs are added to the cost of the asset until it becomes suitable for is intended use or sale. Any income originating from the temporary investment of individual credits as yet unused in relation to the classified asset is deducted from the borrowing costs to be capitalized.
Any other borrowing cost is recognized in the profit or loss of the period when it is incurred.

4.15.4. Hedging and derivative transactions

The Company applies the rules set out in *IFRS 9* regarding hedging and derivative transactions, recognizing them at fair value, with separate documentation and administration.
In the course of the preparation of its consolidated IFRS financial statements, the PannErgy Group relies on hedge accounting. On a one-off basis certain members of the Group conclude foreign exchange forward transactions that are of hedging character as there is a direct connection between the forward transaction and the future FX purchase of the company. The Company resorts to such one-off transactions in case of high-value foreign currency purchases, applying the specific payment deadline set out in the relevant asset purchase agreement. The Group engages in no non-hedging forward transactions. For such transactions the Group applies hedge accounting as defined in *IFRS 9*, that is, on 31 December, the end of the reporting period, the fair value of the expected gain/loss on outstanding forward transactions is determined and charged against the financial instruments (assets) as other financial income/expenditure. When the transaction is closed in the following year, the difference between the actual gain/loss realized and the amount recognized on 31 December is posted taking into account the amount established at the end of the reporting period.
In addition to forward foreign exchange transactions, the Company also has interest rate swaps fixed for the long term relating to its investment loans; in this case, the amount of expected loss recorded at the end of the interest period concerned is also recognized for transactions outstanding at the end of the reporting period, based on the statement received from the relevant financial institution. In such cases there is a clear economic link between the hedge and the hedged transaction, and the hedging ratio applied is the ratio used in the past for risk management purposes; these transactions will continue to be presented at fair value.
In addition, the Company follows a natural hedge strategy to cover its foreign exchange risks: its foreign currency (typically euro) denominated revenues almost fully cover its obligations to suppliers incurred in foreign currencies and the servicing of its foreign currency borrowings in the same period.

4.15.5. Liquid assets

As liquid assets comply with the criteria of recognition at amortized cost, therefore, based on the “expected credit loss” model, the Company does not recognize any impairment because, as a general rule, it keeps its liquid assets exclusively in risk-free financial institutions with high credit ratings.

4.15.6. Marketable financial assets

The Company recognizes its participations and securities in companies listed or nor listed at stock exchanges held for sale as marketable liquid assets, and they are stated in the financial statements at fair value. For the evaluation of participations in companies not listed at any stock exchange, the Company relies on independent experts to determine fair value.
The Company presents differences arising from changes of fair value in the statement of profit or loss.

4.15.7. Credits

The Company has only investment loans and working capital loans extended by financial institutions. The credits are classified as short-term liabilities if they are due for repayment within a year. Otherwise, they are presented among long-term liabilities. Credits are initially recognized at fair value, while subsequently they are measured at amortized cost determined using the effective interest rate method.

4.15.8. Deferred income

State aid relating to the purchasing of assets are presented by the Company as deferred income and recognized in equal installments against the profit or loss over the useful life of the asset.
Any state aid that has become repayable needs to be recognized as an adjustment to the accounting estimate. Accordingly, the long-term deferred income disclosed in a separate line in the consolidated statement of financial position of the Company encompass the over-one-year part of grants awarded in application schemes for the geothermal projects. The short-term, under-one-year part of deferred income is stated among short-term liabilities, also in a separate line.
The end of the maintenance period applicable to the projects funded from application schemes and related grants does not affect the rate of write-back of grants recorded as deferred income because they are linked to the useful life of the subsidized assets; the write-back of the deferred income in the subject period among other income in the consolidated statement of profit or loss occurs during the asset's useful life based on the depreciation of the subsidized assets in the reporting period and on aid intensity.

4.15.9. Trade payables

Trade payables include the amounts payable for goods and services received from suppliers in the ordinary course of business. Trade payables are classified as short-term liabilities if their settlement is due within one year. Otherwise, they are presented among long-term liabilities. Initially, trade payables are recognized at fair value, while subsequently they are measured at amortized cost that are defined with the effective interest method.

4.15.10. Other financial liabilities

All other financial liabilities not carried at fair value through profit or loss are recorded under other financial liabilities. In its IFRS financial statements, the Company presents the value of other financial liabilities at amortized cost. The change in fair value has to be presented only in the notes to the consolidated financial statements. In the case of financial instruments of 'other financial liabilities' nature, the Company applies the effective interest rate method.
Interest, dividends, gains and losses related to financial instruments classified under liabilities are recognized as expenses on financial transactions in the statement of profit or loss as they are incurred. In the case of compound financial instruments, the liability component is measured first, and the equity component is defined as the residual value.

4.15.11. Determination of effective interest rates

The Company regards as the effective interest rate, to be used for discounting future expected cash flows, the contractual HUF- and EUR-denominated fixed interest rates for which its affiliates swapped their variable interest rates using interest rate swap transactions. Any material change in the effective interest rate results in the change of cost; no such changes have occurred.

4.15.12. Netting of financial instruments

Financial assets and liabilities are netted mandatorily and recognized in the consolidated financial statements as a net amount if the net settlement of the recognized amounts is legally permitted and the Company intends to settle the amounts on a net basis, or intends to simultaneously realize the asset and settle the liability.

4.16. *Cash and cash equivalents*

In the Company's consolidated IFRS financial statements and statement of cash flows, cash and cash equivalents comprise the amount of financial assets held at the end of the reporting period as the Company's HUF and FX petty cash assets, freely disposable bank account balances that are available in the Company's electronic accounts held with financial institutions, bank account balances for limited use that are available in the Company's earmarked accounts held with financial institutions, balances in the deposit accounts with agreed maturity held with financial institutions, as well as sight bank deposits. In the consolidated IFRS financial statements and statement of cash flows, negative balances of current accounts held with financial institutions, i.e. overdraft facilities, are presented among short-term liabilities, in the line of short-term credit.

4.17. *Equity, subscribed capital*

The equity in the Company's consolidated IFRS financial statements is the difference between total assets and total liabilities.

The IFRS subscribed capital equals the subscribed capital specified in the deed of foundation as long as it qualifies to be a capital instrument. The legal form of the Company is a public company limited by shares; PannErgy's ordinary shares listed at the Budapest Stock Exchange are recognized as subscribed capital within the meaning of the IFRS. Incremental costs directly attributable to the issuance of new ordinary shares are reported as an item decreasing the equity.

Capital reserve is the sum of all elements of equity which do not meet the definition of subscribed capital, subscribed capital not yet paid, profit reserve, revaluation reserve, after-tax profit or tied-up reserve under the IFRS.

Profit reserve is the accumulated after-tax profit of former years recognized in the IFRS financial statements and not yet distributed to the shareholders, including amounts charged to accumulated profit under IFRS, which may not contain other comprehensive income defined in *IAS 1 "Presentation of financial statements"*, except for reclassification modifications. The amount of paid-up supplementary payments recognized as assets under the IFRS and the amount of unused development reserve less the related deferred tax calculated based on *IAS 12 Income taxes* must be deducted from the resulting amount.

Revaluation reserve comprises the accumulated other comprehensive income and other comprehensive income for the reporting year indicated in the statement of comprehensive income, as defined in *IAS 1 "Presentation of financial statements"*.

After-tax profit is the aggregate amount of the net after-tax profit presented for continuing and discontinued operations and included in the profit or loss section of the statement of other comprehensive income, as defined in *IAS 1,* or in the separate statement of profit or loss.

Tied-up reserve is the amount of received supplementary payments recognized as liabilities under the IFRS plus the amount of unused development reserve less the pertaining deferred tax calculated based on *IAS 12 "Income taxes*".

4.18. *Treasury shares*

The Company has repurchased treasury shares at the stock exchange pursuant to the authorization of the General Meeting; these shares are presented in the IFRS financial statements and annual reports separately as items decreasing the equity.
The gain/loss on the sale of treasury shares and the effect of their fair valuation at the end of the reporting period is charged directly to equity, in the "reserves due to treasury shares" line.
The above procedure ensures that no gain or loss is recognized with regard to treasury shares in the profit or loss of the Company when any change occurs to own shares (purchase, sale, issue, cancellation or revaluation at the end of the reporting period).

4.19. *Earnings per share*

To determine earnings per share, the Company used the ratio of the profit or loss for the period and the average number of shares for the period less treasury shares owned by the company.

For the determination of diluted earnings per share, all diluting factors are taken into consideration. The Company reports the number of shares issued by the Company as the diluted number of shares, plus warrants (options issued by the Company), management options and convertible bonds, with the number of shares inherent in them.

Furthermore, when determining the diluted earnings per share the Company also takes into account the number of shares involved in the share option program running in the reporting period as an item decreasing the volume of own shares provided that the conditions set out in the share option program for the call-down of options are satisfied at the time of the preparation of the report and that the own shares concerned had not yet been called down.

Through that adjustment, the diluted earnings per share figure takes into account the anticipated dilution of the number of shares as evidenced by documentation, thereby decreasing the assets per share to be allocated to individual shareholders.

4.20. *Current and deferred income tax*

Pursuant to *IAS 12 "Income Taxes*", income taxes consist of current and deferred taxes. The income tax expenditure disclosed in the consolidated financial statements is the sum of the current tax liability and the deferred tax expenditure. Accordingly, in the Company's consolidated IFRS financial statements, the amount of the corporate income tax payable annually is based on the tax payment obligations stipulated in the relevant Hungarian legal regulations, which is adjusted for the amount of deferred tax expenditures.

Current tax is the income tax payable (recoverable) with regard to the taxable profit (negative tax base) for the period. Income taxes include all domestic and foreign taxes that are levied on taxable profits. The Company measures current tax liabilities (tax assets) for the current period and previous periods at the level expected to be payable to the tax authority (or expected to be reimbursed by the tax authority) using the tax rates and tax regulations that had been incorporated in legal regulations by the end of the reporting period.

Current tax (asset/liability) equals the tax payable/deductible. The actual amounts of the taxes payable/deductible may be different from the amounts stated among current taxes. These modifications reflect the changes in estimated payable/deductible taxes. Unless there is an indication that the modification arises from an error, these current tax changes are to be treated as changes in accounting estimates. These modifications are recognized under tax expenses/revenues in the period when the modification occurs.

Current tax is recognized in profit or loss or other comprehensive income (equity) depending on where the underlying transaction/event is recognized.

Pursuant to the relevant tax regulations, the Company is also required to pay local business tax and innovation contribution, which has a material impact on the Company's profit or loss. Based on the interpretation of the definition of taxable profit as per *IAS 12*, the Company does not treat local business tax and innovation contribution as income taxes but rather as operating expenses, recognizing them under other expenses.

In line with the requirements of *IAS 12*, the Company recognizes income taxes payable/recoverable in respect of future periods, the recovery of which is certain and which arose in connection with past transactions and events. The tax base of an asset is the amount attributed to that asset for tax purposes, which is deductible upon the recovery of the asset. If the economic benefits are not taxable, the tax base of the asset is equal to its carrying amount.
The tax base of a liability is the amount attributed to that liability for tax purposes i.e. the liability's carrying amount less any amount deducted subsequently for the purposes of taxes. The tax base for any deferred income equals the carrying value less non-taxable future incomes. Pursuant to *IAS 12*, a temporary difference is the difference between the carrying amount and the tax base which is either taxable or deductible after recovery/settlement. If the temporary difference is taxable, it is a deferred tax liability, while if it is deductible, it is a deferred tax asset.

Sources for deferred tax receivables can potentially include deductible temporary differences, unused negative tax bases and unused tax credits. Future taxable profit and taxable temporary differences may be the sources of recovery of deferred tax.

Deferred tax is required to be fully recognized in the case of deferred tax liabilities. In contrast, in the case of deferred tax assets, recognition is only possible if a future taxable profit against which the deductible temporary differences can be offset is available. Deferred tax is recognized at the same place as the underlying transaction or event (i.e. item).

Offsetting deferred tax assets and deferred tax liabilities against each other is mandatory if the Company has an enforceable right to offset the current tax assets and liabilities and if the income taxes relate to the same tax authority.

Based on the above, deferred taxes arise if there is a timing difference between the booking of an item for accounting and tax purposes. Deferred tax assets and liabilities are determined using the tax rates for the taxable income of the years when the differences derived from the timing differences are expected to be reversed. Deferred tax liabilities and assets reflect the tax implications of assets and liabilities as of the end of the reporting period, as determined by the Company. Deferred tax assets can only be included in the consolidated statement of financial position if it is probable that during its future activities, the Company will generate a profit that will form part of the tax base, against which the deferred tax asset will be offset.

As of the end of the reporting period, the Company takes into consideration its non-recovered deferred tax assets and liabilities and checks the recovery of these with a discounted cash flow calculation relevant for its future profits.
In line with the requirements of *IAS 12*, the Company does not rely on discounting in the calculation of deferred taxes.

4.21. *Provisioning*

The Company recognizes liabilities of uncertain timing or amount as provisions if:

- the related obligation arose from past events;
- they exist on the last day of the reporting period;
- they constitute legal or constructive obligations;
- their settlement is expected to result in an outflow of resources giving rise to economic benefits;
- the amount of the obligation can be estimated reliably.

The Company recognizes a contingent liability if:

- there is an obligation that arises from past events and whose existence will be confirmed only by the occurrence or non-occurrence of one or more uncertain future events not wholly within the control of the Company;
- there is an obligation that arises from past events but is not recognized because it is improbable that an outflow of resources embodying economic benefits will be required to settle the obligation; or the amount of the obligation cannot be measured with sufficient reliability.

Existence as of the end of the reporting period and connection to past events are important aspects; no provision can be allocated for costs that arise in the interest of future operations.

A past event gives rise to a constructive obligation for the Company if there is no other realistic alternative but to settle it. In the case of a legal obligation this entails the assumption that the obligation is derived from a contract, a legal regulation or other legal transactions. A constructive obligation is an obligation that derives from the Company's actions where, by an established pattern of past practice, published policies or a sufficiently specific current statement, the Company has indicated to other parties that it will accept certain responsibilities and as a result, it has created a valid expectation on the part of those other parties that it will discharge those responsibilities.

In order to decide whether the settlement of the event or obligation forming the potential basis of a provision may induce the outflow of resources embodying economic benefits, the Company examines the probability of occurrence. The Company considers the event where the probability of occurrence is higher than that of non-occurrence (i.e. it exceeds 50 %) as probable. If it is unlikely that the event occurs, the Company carries the given obligation as a contingent liability and discloses it as such in its financial statements but does not recognize it in the statement of financial position.

Provisions are recognized by the Company in the amount necessary to settle all the related obligations. This amount is the best estimate of all of the necessary expenses made based on the information available as of the end of the reporting period taking into account all risks and uncertainties which may arise in connection with the obligation.

If the time value of money significantly influences the amount that is required for the settlement of the related obligation, the provisions are recognized to the extent of the present value of the expenses necessary to settle the obligation. Through the discounting method that indicates the passing of time, the balance sheet value of the provision increases each year with the impact of the discounting and the increase is charged to the current profit or loss as an interest expense under other expenses.

The expense necessary for the settlement of the provision, or a portion of it, may be recovered. In this light, the recovery may only be recognized if it is virtually certain that amount of recovery will be received if the Company settles the obligation affected by the provision. The recovered amount may not exceed the amount of the provision. The recovered amount must be treated as a separate asset; in the statement of profit or loss, the expense related to the provision may be presented net of the amount recognized for the recovery.

With regard to its existing, operational geothermal projects, the Company has no revegetation or environmental obligations; no provisions have been set up in this context.

4.22. *Share option program, share-based payments*

The Company may operate a share option program pursuant to the authorization of the General Meeting. Under the multi-annual program, the beneficiary of the program is entitled to purchase a specific number of shares at a specific option price if the stock exchange price of PannErgy shares reaches a specified level.

The Company discloses the value of the share option program as a short-term liability against capital reserves, based on the market price of PannErgy shares at the end of the reporting period, its volatility and the probability of reaching the share price specified in the share option program, depending on the outcome of measurement using the Black-Scholes method.

The Company applies the provisions of *IFRS 2 "Share-based payments"* to the recognition of actual share-based payments in the course of the valuation of the share option program. If share-based payments are made in equity instruments, any costs arising in connection with such payments are charged to equity while in the case of settlement in liquid assets, they are charged to financial liabilities as personnel expenditures.
The Company also applies *IFRS 2 "Share-based payments"* to share-based payments outside the scope of the share option program, even though they are not common practice in the Company; no such share-based payment occurred in the period covered by these consolidated financial statements.

Accordingly, if the Company is free to choose the mode of settlement, then when an obligation arises for settlement in liquid assets at the time of conclusion of the contract, it should be treated as a transaction to be settled in liquid assets. If, however, at the time of the conclusion of the contract no obligations to settle in liquid assets arises, the agreement is to be treated as a transaction to be settled in equity instruments.

If the choice is given for the other party (typically, an employee of the Company), then the Company issues a compound financial instrument, which should be separated into a part to be settled in equity instruments and another part to be settled in liquid assets, and it should be recognized in the consolidated statement of profit or loss and the statement of financial position accordingly.

Share-based benefits offered to employees do not give rise to an obligation for the Company immediately; instead, the right to claim the benefits becomes effective if the vesting and potential non-vesting conditions are fulfilled during a specified period (the so-called vesting period). The vesting period is usually a period of several years; accordingly, the expected costs have to be charged over the vesting period on a time-proportionate basis.

The value of share-based payments can be defined using a direct or an indirect method. If the direct method is used, the amount of the share-based payment is defined based on the fair value of the product acquired or service used by the Company. When the indirect method is applied, the fair value of the equity instrument may serve as a basis for the definition of the amount of the payment. In the case of share-based payments settled in equity instruments, the fair value of the equity instrument as of the date when the share-based benefit is provided is used for the entire vesting period, while changes in fair value are charged to the equity. In the case of share-based payments settled in liquid assets, the fair value of the equity instrument as of the date when the share-based benefit is provided is re-measured at the end of each reporting period, while changes in fair value are charged to profit or loss.
The costs of share-based payments are always charged to the profit or loss of the company that is the employer of the employees entitled to such benefits. The Company may conclude contracts for share-based benefits with partners who are not employees of the Company. In this case, the principles of recognition and measurement are identical with those applied in the case of share-based employee benefits.

4.23. *Accounting for revenue from sales*

Pursuant to the framework principles governing the preparation and presentation of the financial statements, revenue is the growth of economic benefits during the reporting period resulting from either the inflow or increase of assets or the decrease of liabilities, which will result in a rise in the equity for reasons other than contributions from shareholders, is generated in the ordinary course of business (sale of goods or services, other use of assets) of the entity, the inflow of future economic benefits is probable, revenues can be measured reliably, and costs (incurred or expected) can be reliably identified and measured.

By way of its Regulation 2016/1905, on 22 September 2016 the European Union endorsed *IFRS 15 "Revenue from Contracts with Customers"*, to be applied for business years beginning on or after 1 January 2018, with the option of earlier application. The Group has not made use of the option of

earlier application and will apply the standard to its consolidated financial statements as of 1 January 2018.
Under the standard, revenue from sales is recognized as control over the goods or services is passed to the customer, i.e., the customer is able to direct their use or obtain the benefits from the goods or services.

Pursuant to the standard, the Company has devised a five-step model for the recognition of revenues:

- Identification of the sales contract
- Identification of the performance obligations
- Determination of the transaction price
- Allocation of the transaction price
- Recognition of revenues

IFRS 15 gives more detailed guidance on the distinction of goods or services: a good or service is distinct if it generates benefits on its own and if it is separately identifiable from other items. Instead of fair value measurement, consideration is defined as the amount to which an entity expects to be entitled. The Company takes the effects of variable consideration into account when determining the transaction price. If the revenue has a significant financing component, the time value of money is also taken into consideration.

Instead of a risk/reward based revenue recognition model, revenues are recognized when control over the service/good is passed to the customer. Control is passed over time if the relevant criteria are met or at a point in time if they are not.

The Company does not recognize as revenue income from the sales of tangible assets and other incomes that are not realized in the course of its ordinary activities.

In the period covered by the present consolidated financial statements, the PannErgy Group has no customer contracts to which *IFRS 15* should be applied, for the following reasons:

1) there are no customer contracts the conclusion of which would give rise to significant costs that would justify the capitalization and subsequent depreciation of such assets;
2) each customer contract meets the requirement set out in the standard that the seller may recognize the revenue only when the good or service is transferred to the customer, at an amount it considers legitimate for such good or service. The invoicing of customers is based on long-term contracts, which clearly define the price, nature, place of delivery of the goods/services. In the past five years no major delay was encountered with regard to these contracts; with the exception of a single business relationship that generated negligible sales revenues, no impairment loss needed to be recognized.
3) the recognition of sales revenues complies with the 5-step model, that is, all contracts with customers are in writing, have commercial content (provide for economic benefits for the PannErgy Group), clearly set out enforceable rights and obligations, the parties have accepted the contract and committed themselves to its performance, and there is a high probability that the Company would collect the consideration for the good/service transferred;
4) the PannErgy Group treats obligations relating to the performance of contracts separately, treating any discounts (determined ex ante or ex post) as separate obligations. The

performance obligation is always clearly set out in the contract, and revenues thus invoiced can be recognized;

5) in the customer contracts of the PannErgy Group the price of the transaction is clearly set out and allocated to specific performance periods/dates, consequently the recognition of revenues is evenly spread out. In certain heat supply contracts the Company uses performance incentives regarding the commitment of the customer to increase its heat purchases; in this case, the discount related to the period is in each case deducted from the sales revenue of the period affected by the discount. The sales revenue of all transactions is identical with the invoiced amount; no discrepancies have been found. In the case of the above discount, based on the calculation formula set out in the contract between the parties, the amount of the discount to be deducted from the revenue of the period concerned and therefore recognized in that period (or subsequently, when a correcting invoice is issued) is clearly defined, consequently no estimates or probability calculations are necessary;
6) the customer contracts of the PannErgy Group clearly match the price of a transaction and the transaction; there is no partial performance within transactions that would necessitate the allocation of prices. If the Company were to provide general discounts ex post, it would allocate it to the deliveries and transactions of the period covered by the discount, in accordance with the requirements of IFRS 15;
7) the members of the PannErgy Group recognize revenues from sales when control over the asset or service sold is passed to the customer, and the customer is able to govern the use of and collect the benefits from such asset;
8) the PannErgy Group sells no products with the right of repurchase, offers no related warranties, uses no buyer options or agency commissions.

4.24. *Interest income and dividend income*

The Company may realize interest income on the loans granted in connection with the operation and management of the holding, or dividend income on its shareholder investments; these, however, are eliminated in the course of consolidation. The Company regards such interest and dividend income as income not derived in the ordinary course of business, not treating them as sales revenues but recognizing them among revenues from financial transactions.

Interest income is recognized using the effective interest rate method. In the event of the impairment of loans and receivables, the Company reduces the book value to the recoverable amount which is the present value of the estimated future cash flows discounted with the instrument's original effective interest rate. Thereafter, the difference arising from the reversal of the discount is shown as interest income.

Interest income from impaired loans and receivables is recognized with the application of the effective interest rate used for the calculation of impairment, computed for the net value of the financial asset.

Dividend income is recognized when the Company becomes entitled to the dividend.

4.25. *Leases*

In the course of the preparation of the consolidated financial statements the Company did not make use of the option of early application of the *IFRS 16 "Leases"* standard; it started applying the provisions of the new standard as of 1 January 2019. In line with the requirements of *IFRS 1*, the comparable period for the preceding year must also be presented as if the Company had always used *IFRS 16*, taking into account the exemptions allowed under *IFRS 1*.

The Company engages does not act as lessor; consequently, it needs to apply *IFRS 16* exclusively as lessee. The use of *IFRS 16* removes the difference between the treatment of operating lease transactions and that of finance leases for the Company as lessee; lessees have to show in the balance sheet an asset embodying the right of use under the transaction and a leasing liability, that is, the obligation to make the lease payments. The *IFRS 16* provides that a contract is a lease contract or it includes leasing if it conveys the right to control the use of an identified asset for a period of time in exchange for consideration.

The costs relating to the use of the asset – which used to be shown in the form of operating lease fees under the Hungarian accounting standards and the former *IAS 17 "Leases"* – are shown under the new *IFRS 16* lease standard as depreciation of the right-of-use asset and as interest-type expenditure of the lease liability. Moreover, upon the occurrence of certain events (e.g. the lease term is modified, the amounts payable in the way of lease fees are modified as a result of changes in indices or interest rates affecting lease fee payments) the lessee must revaluate the lease liability. The amount by which the lease liability is modified must be presented by the lessee as a change in the right-of-use asset. The standard stipulates exceptions for presentation regarding short term leases and ones with low-value underlying assets.

At the time of the adoption of the new regime the Company has no sublease or re-lease transactions. Nor does it have right-of-use assets regarded investment property.

The Company makes use of the following exemptions offered by *IFRS1*:

- The lease liability is valued at the present value of the remaining lease fees, discounting them with the lessee's incremental borrowing rate of interest prevailing on the day of IFRS transition, that is, 1 January 2018;
- The right-of-use asset presented upon first application is shown at a value equalling that of the lease liability adjusted with the pre-paid or deferred lease fees shown in relation to the given lease arrangement right before the date of first application in the statement pertaining to the Company's financial position;
- The Company uses a single discount rate to the portfolio of lease transactions of essentially similar parameters (e.g. similar remaining lease terms, underlying assets of similar categories, similar economic environment);
- The Company makes use of the simplification allowed by the standard in the case of leases with shorter than 12-month remaining terms on 1 January 2018, the day of transition. Such leases are recognised by the Company as short term leases;
- The Company applies the simplification allowed by the standard to leases with low-value underlying assets;
- When first applying the standard the Company does not factor in the initial direct costs in right-of use asset valuation;
- The Company applies retrospection, for example in determining the lease term, if the contract offers lease term extension or termination options.

The Company presents the cumulative impact of the transition to *IFRS 16* as an adjustment to the opening balance of accumulated profit when first applied; however, ho such adjustment was made.

4.26. *Distribution of dividends*

Dividends distributable to the shareholders of the Company are recognized in the consolidated financial statements as liabilities in the period when the owners approved the dividend. Distributable dividends are accounted for as a direct decrease in equity.

4.27. *State aid, recognition of related deferred income*

State aid is recognized at fair value if the Company is reasonably certain to receive such aid because it will satisfy the relevant criteria.

Based on the income approach accounting, the Company recognizes aid as income in the periods, based on the principle of matching, in which the related expenses were incurred.

The only exception is when the aid is based on subsequent settlement, that is, the purpose of the aid is to compensate for expenditures or losses incurred as well as immediate future financial grants given without any related costs. The Company recognizes such aid as income when it opens for draw-down.

State aid relating to the purchasing of assets are presented by the Company as deferred income, and recognized in equal installments against the profit or loss over the useful life of the asset.
Any state aid that has become repayable needs to be recognized as an adjustment to the accounting estimate.
Accordingly, the long-term deferred income disclosed in a separate line in the consolidated statement of financial position of the Company encompasses the over-one-year part of grants awarded in application schemes for geothermal projects on the level of the PannErgy Group. The short-term, under-one-year part of deferred income is stated among short-term liabilities, also in a separate line. The end of the maintenance period applicable to the projects funded from application schemes and related grants does not affect the rate of write-back of grants recorded as deferred income because they are linked to the useful life of the subsidized assets; the write-back of the deferred income in the subject period among other income in the consolidated statement of profit or loss occurs during the asset's useful life based on the depreciation of the subsidized assets in the reporting period and on aid intensity.

4.28. *Comparative information across periods*

Data for the base year and reporting year were subjected to measurement in the consolidated financial statements in the same manner, expect for reclassifications in the base data, which are explained in Note 44. In order for the Company's IFRS consolidated financial statements to comply with *IAS 1*, all the statements include a comparative period.
In the context of the financial statements of a business year, by comparative period the Company means the reporting period of the financial statements prepared for the business year preceding the business year concerned.
These comparisons have to be disclosed in sufficient detail so that the users of the financial statements are able to interpret significant modifications affecting the consolidated statement of financial position and the consolidated statement of profit or loss.

4.29. *Segment reporting*

Definition of segments, review in the business year preceding the reporting year

In line with IFRS requirements, the Company needs to present its operating segments. The Company identified a single operating segment during the reporting period, just like in the base period: Energy.
The Energy industry is the Company's main operating segment, its core operations including the generation and sale of geothermal heat as well as the implementation of related investment projects and other activities.
The PannErgy Group does not identify the utilization – in the way of property management – of industrial facilities and related office premises formerly used by Pannonplast Plc' in its plastics manufacturing operations, located in District XXI of Budapest (Csepel) and in Debrecen as a separate operating segment for the purposes of the following *IFRS 8* principles:

Presentation of operating segments, substantiation of the review of segments
It is a standard principle of *IFRS 8 "Operating segments"* that an entity must disclose information to enable users of its financial statements to evaluate the nature and financial effects of the business activities in which it engages and the economic environments in which it operates [IFRS 8.1]. The standard is to be applied to the consolidated financial statements of the group for those parent companies, and the separate and individual financial statements of those entities whose debt or equity instruments are traded in an open market [IFRS 8.2]. Consequently, PannErgy Plc. is required to present operating segments.

In practice, operating segments may be presented through the following five steps:

- Identification of chief operating decision makers;
- Identification of operating segments;
- Consolidation of operating segments;
- Definition of reportable segments;
- Disclosure of segment information.

In the course of the review of segment definition, the PannErgy Group looked at potential operating segments relying on the five step listed above. An operating segment is a component of an entity that engages in business activities from which it may earn revenues and incur expenses (including revenues and expenses relating to transactions with other components of the same entity), whose operating results are regularly reviewed by the entity's chief operating decision maker to make decisions about resources to be allocated to the segment and assess its performance based on various criteria.
The consolidated financial statements of the Company show that Energy can be clearly identified as an operating segment of the PannErgy Group. As regards the operation of the PannErgy Group, the management of the Company has adopted the approach to focus all its resources, in line with the expectations of investors, on maximizing the efficiency of the Energy segment; the utilization of property owned by the Company is in all respects an insignificant element in its operation and, based on the management's approach, cannot be considered to constitute an operating segment.

Examination of limits regarding the review of segments

In the year preceding the reporting year, the segment presented as the Asset management operating segment was not a central element in the strategy of the PannErgy Group; the assessment of the performance of the utilization of the aforesaid properties is a negligible part of the work of the operative management and supreme bodies of the Company; information regarding the utilization of properties is not specifically highlighted in the relevant internal control and reporting system; as these transactions entail constant income (re-invoiced utility charges and rent) and costs (utility charges), the overwhelming majority of the activity consists in pass-through items.

Based on the approach of PannErgy Group's management and the criteria pertaining to the presentation of operating segments, the single operating segment of Energy can be identified at the Company; consequently, the examination of the criteria applicable to reportable segments is irrelevant; nevertheless, the Company has looked at the satisfaction of such limits (Note 43 *Segments*).

The Company needs to meet the disclosure criteria applicable to the entire entity. This means that the figures of the Energy segment in the reporting year and in the previous year reconcile with the financial information pertaining to the entire entity, which was appropriately presented in these consolidated financial statements.

Presentation of geographical segments

The Company pursues its activities solely in the territory of Hungary, in a similar legal, technical, economic and demographic environment; consequently, territorial segmentation is not relevant.

Within Energy, the single operating segment defined within the Company, geographical/project location segments were identified in the reporting period based on their order of magnitude. In addition to assessing financing and other aspects the Company examines the profitability of these separately, working out specific plans concerning their operation. The geographical segments corresponding to projects are described in *Note 43.2*.

4.30. *Gross cash flow and EBITDA definition*

Definition of the gross cash flow and EBITDA categories in the consolidated statement of profit or loss:

Gross cash flow is the sum of the gross profit defined as the difference of revenue from sales and the direct cost of sales, and non-cash direct depreciation.

EBITDA (earnings before interest, taxes, depreciation and amortization) is defined by the Company as the sum of the operating profit, direct depreciation (see *Note 6. Indirect costs of sales*), indirect depreciation (see *Note 7. Direct costs of sales*), as well as the extraordinary write-off and impairment of tangible or intangible assets (see *Note 9. Other expenditures*).

5. MATERIAL/CRITICAL ACCOUNTING ASSUMPTIONS AND ESTIMATES IN THE APPLICATION OF THE ACCOUNTING POLICY

In line with the requirements of the IFRS, the preparation of the Company's IFRS consolidated financial statements requires the application of estimates and assumptions, which will affect the amounts disclosed in the financial statements. The Company continually evaluates estimates and judgments based on past experience and other factors, such as expectations related to future events considered as reasonable under the circumstances.

The Company applies the requirements of *IAS 8 "Accounting policies, changes in accounting estimates and errors"* and *IAS 10 "Events after the balance sheet date"* as appropriate to any material errors of prior periods, the modification of accounting estimates and the treatment of events after the end of the reporting period.

5.1. *Events after the end of the reporting period*

In respect of the events between the end of the reporting period and the date of the financial statements' approval, the Company reviews whether the event in question confirms the circumstances that prevailed at the end of the reporting period and if yes, the modification of the financial statements is required. If the event implies circumstances that arose after the end of the reporting period, the only requirement is a disclosure, and only in material cases.

5.2. *Material error*

During the preparation of the consolidated financial statements, an error may arise from mathematical errors made when applying the accounting policy, from the ignoring of facts or from incorrect interpretation. The Company has adopted the principle that as long as it is possible and not technically impracticable, material errors from former periods need to be corrected retrospectively in the first financial statements or annual report compiled and approved for disclosure after the detection of the error. For the Company, impracticable means that it is impossible to apply even if the Company does everything that can reasonably be expected to ensure application.

The Company defines a material error as follows: the omissions or misstatements of items are material if separately or aggregately they are able to affect the users' decisions made based on the financial statements. Materiality depends on the assessment of the extent and nature of omissions or misstatements under the given circumstances. The size and nature of an item, or a combination of the two, are the decisive factors in that assessment; as a general principle, the Company defines errors exceeding 1 percent of the total of the IFRS statement of financial position as material.

5.3. *Critical accounting estimates and assumptions*

In the course of implementation of the IFRS accounting policy, the Company relied on certain estimates and assumptions. Although the resulting accounting estimates are based on the Company's best knowledge of the current events, by definition they are rarely identical with the final results and the actual figures may be different. Estimates and assumptions that may cause the value of assets and liabilities in the statement of financial position to be significantly modified will be presented in the subsequent financial year, as shown below. These assumptions are explained in detail in the relevant notes; however, the most important ones relate to the following:

- Tax allowances in the future or the realization of a future profit that constitutes adequate taxable income against which the deferred tax assets can be set off;
- The outcome of certain pending liabilities;
- Determination of the fair value of financial instruments;
- Determination of the useful life of tangible assets;
- Determination of the impairment of tangible assets and goodwill;
- Determination of the value of provisions.

The methodology of making accounting estimates may change; in the Company's interpretation a change of accounting estimates occurs when the carrying amount of an asset or liability or the amount of the asset's use in the period needs to be modified. Accounting estimates may be changed based on the evaluation of the current position of the assets and liabilities and the assessment of the expected future benefits and obligations related to them. Changes in accounting estimates result from new information or new developments; accordingly, they do not qualify as the correction of an error.

6. Revenue from sales

6.1. *Breakdown of sales revenues by core activity*

	2019 HUF Th	2018 HUF Th
Energy	5,060,007	4,152,313
Property management *	587,914	526,783
Total	**5,647,921**	**4,679,096**

*Not defined as a separate segment, see *Note 43 Segments.*

6.2. *Breakdown of sales revenues by geographical location*

	2019 HUF Th	2018 HUF Th
Revenue from domestic sales	5,642,262	4,677,838
Revenue from sales to the EU	1,659	1,258
Revenue from sales outside the EU	-	-
Total	**5,647,921**	**4,679,096**

6.3. *Breakdown of sales revenues by activity or service*

	2019 HUF Th	2018 HUF Th
Heat sales	4,981,506	3,948,334
Electricity sales	552,316	489,557
Mediated and re-invoiced services	85,155	94,167
Sale of products	4,423	120,940
Rent for buildings and tangible assets	24,521	26,098
Total	**5,647,921**	**4,679,096**

In the reporting period the consolidated sales revenue of the Company increased by HUF 968,825 thousand, or 21%, relative to the previous period. The breakdown of sales revenue by activities and services reveals that income from the sale of heat increased by 26% on a year-on-year basis, causing a HUF 1,033,172 thousand revenue increase. This is due primarily to favourable weather conditions during the reporting period, and the later-than-expected end of the 2018/2019 heating season, which occurred later than in the previous year.

Electricity sales increased by 13% in the reporting period; within this, HUF 526,913 thousand relates to the re-invoiced electricity fees of the operation of the Company's real estates in Debrecen and in Csepel (the latter were sold during the year), which are re-invoiced to the tenants and other owners of the co-owned properties and are unrelated to the generation of geothermal heat. The additional HUF 25.403 thousand electricity sales consist in the sale of electricity relating to the project of the Company in Berekfürdő.

The rent and lease fees received for buildings and tangible assets dropped by 6% during the reporting period as a consequence of the sale of the Company's property in Csepel during the year.

6.4. *Breakdown of fixed assets related to sales revenues by geographical segment*

	31 December 2019 HUF Th	31 December 2018 HUF Th
Assets used in domestic production	23,178,868	22,780,107
Assets used in production within the EU	-	-
Assets used in production outside the EU	-	-
Total	**23,178,868**	**22,780,107**

6.5. *Concentration of sales revenue, information regarding key customers*

The PannErgy Group has three key customers, each generating at least 10% of the Company's total sales revenues:

	2019	2019. as a % of total sales	2018	2018. as a % of total sales
Total sales revenue from key customers	**4,850,033**	**85.87%**	**3,812,047**	**81.47%**
Revenue from sales	**5,647,921**	**100.00 %**	**4,679,096**	**100.00 %**

7. Indirect costs of sales

	2019 HUF Th	2018 HUF Th
Office and operating costs	103,848	121,914
Expert fees, bookkeeping, audit fees	101,998	118,444
Indirect personnel-type costs	101,443	102,848
Costs related to public and stock exchange presence and social responsibility	85,111	59,911
Banking costs	35,221	34,322
Insurance fees	11,242	10,665
Other fees payable to authorities	8,541	7,536
Indirect depreciation (property, plant and equipment)	2,293	220
Total	**449,697**	**455,860**

The PannErgy Group's indirect operating costs diminished slightly during the reporting period year-on-year.
The Company's managed to reduce during the reporting period its office and operating costs, and its consultancy costs, by 15% and 14%, respectively. Costs of experts incurred in the reporting period include legal and consulting costs relating to the financing of geothermal projects and to accounting projects, expert costs relating to application schemes as well as general consulting fees to support operations and legal fees.

Indirect personnel-type expenditures decreased by a modest 1% year-on-year. The period-end headcount of the PannErgy Group was below the corresponding figure of the previous year; on 31 December 2019 the actual number of employees was 17 persons as opposed to 18 on 31 December 2018, while the average statistical number of staff for the whole year dropped from 32 persons in the base period to 27 in the reporting period, after a base period of increased intensity in implementing development projects.
Salary-type payments are summarized on Note 9.

The increase in indirect depreciation during the reporting period is related to the reclassification of PannErgy Plc's industrial properties in the town of Debrecen into investment property and the subsequent 're-starting' of their depreciation.

The costs of public and stock exchange presence – stated as indirect costs – increased during the reporting period. With regard to the latter it should be noted that, for considerations of social responsibility, the PannErgy Group continues to attach high importance to supporting the cities and regions where existing projects are located in the areas of sports activities and other social initiatives, thereby offering support to the end users of geothermal energy.

8. DIRECT COSTS OF SALES

	2019 HUF Th	2018 HUF Th
Direct depreciation (geothermal assets)	1,464,709	1,316,786
Maintenance and operating costs	846,623	626,118
Costs of goods sold, mediated services	556,548	596,206
Electricity charges	758,524	530,507
Facility maintenance costs, rental	362,618	352,985
Reinjection costs	140,816	263,637
Insurance costs (directly related to production)	29,888	23,114
Maintenance materials	1,235	824
Other direct costs	31,833	15,531
Total	**4,192,794**	**3,725,708**

The PannErgy Group's direct costs of sale increased less markedly than did its sales revenue. In the "Costs of goods sold, mediated services" category, HUF 549,717 thousand was stated as expenses of sales not related to geothermal operations; they consisted in re-invoiced services, primarily re-invoiced electricity charges, in the context the utilization of real properties owned by the Company in Debrecen and in Csepel (the latter were sold during the year).

The increase of direct depreciation reflects the effect of the commissioning of capacity expansion and additional investment projects during 2019, while in certain asset categories the period of useful life was adjusted following a technical review, resulting in a modest increase in the depreciation charge.

The growth of maintenance costs is attributable to an increase in operating and maintenance costs relating to geothermal projects – entailed by higher heat output – during the reporting period.

The costs of electricity required for generating and selling thermal energy were linked primarily to an increase in the price of power and an increase in the Company's output during the reporting period, while the decrease in reinjection costs was enabled by an acquisition in June 2019 whereby the PannErgy Group acquired ownership of the third reinjection well in Miskolc, as a result of which reinjection costs were incurred only during the first half of the year concerned at a consolidated level.

9. HEADCOUNT AND WAGE COSTS

	2019	2018
Average statistical headcount (persons)	27	32
Wage cost (HUF Th)	78,321	74,242
Other personnel-type payments (HUF Th)	6,762	11,462
Taxes and contributions on wages (HUF Th)	16,360	17,144
Total	**101,443**	**102,848**

The PannErgy Group's had an average statistical headcount of 27 in 2019, 16% down from the 32 recorded in 2018. The headcount decreased because – after a year of intensive development activities – the PannErgy Group did not implement major development projects during the reporting period. On 31 December 2019 the actual number of staff working for the PannErgy Group was 17, to be compared to the 18 recorded on 31 December 2018. The difference between the average statistical headcount and the actual number of employees is attributable to part-time employment across group members and the increased headcount during the year.

Like in 2018, the PannErgy Group made no contributions to any voluntary pension fund for its employees in 2019 either.

10. OTHER EXPENDITURES

	2019 HUF Th	2018 HUF Th
Local taxes, duties, fines	129,621	100,869
Mining fee	75,654	65,090
Fines, penalties, default interest, compensations paid	6,239	9,412
Cost relating to insurance events	2,026	2,235
Extraordinary write-off of tangible or intangible assets	963	7,978
Impairment losses of receivables	405	78
Subsidies granted to offset costs	51	1,600
Levies, contributions	24	23
Provisioning for contingent liabilities	-	18,449
Shortage and write-off of inventories	-	-
Other	9,018	3,463
Total	**224,001**	**209,197**

Within the HUF 224,001 thousand other expenses the most substantial item – of HUF 129,621 thousand – consists in local taxes, most notably the local business tax paid to the local governments at the sites of geothermal projects. Another major item is the mining fee payable relating to geothermal heat production; under this heading the Company incurred expenditures of HUF 75,654 thousand in the reporting period. HUF 963 thousand of tangible assets were written off in the context of geothermal projects.

No provisioning took place during the reporting period, the amount released during the period from the provisions set aside in the preceding year is stated among other revenues.

11. Other incomes

	2019 HUF Th	2018 HUF Th
Aid received for development purposes	241,300	299,120
Profit on the sales of tangible assets	71,073	317
Income relating to insurance events	40,257	79,276
Provisions released	18,449	-
Fines, compensation received	10,081	134,450
Fair value measurement of marketable properties	-	69,057
Other	35,091	35,577
Total	**416,251**	**617,797**

Within the HUF 416,251 thousand other income in the reporting year, the most significant item is aid received, in an amount of HUF 241,300 thousand. The income recorded in the reporting period as aid for development purposes consists in the write-back of deferred income in proportion with the depreciation charge for the reporting year. Profits from the sale of tangible assets during the reporting period make up another significant amount. The sale of PannErgy Plc's property in Csepel was the largest transaction in this category, on which the Company made a profit of HUF 71,191 thousand.

Compensations and penalties relating to insured events that occurred and projects that were implemented in earlier periods made up a smaller amount – HUF 50,338 thousand – in the category of other incomes during the reporting period than in the base period. The items in this category included penalties and compensations received from/acknowledged by suppliers in relation to machine failures and service interruptions.

During the reporting period the Company released an amount of HUF 18,449 thousand from the provisions set aside during the previous year because costs and expenditures for which provisions were made incurred during the reporting period.

12. FINANCIAL INCOMES

	2019 HUF Th	2018 HUF Th
FX gains related to receivables	59,681	12,448
FX gains related to FX accounts	11,650	12,162
FX gains related to liabilities	10,195	8,624
FX gains on FX loans	6,355	7,101
Gains on derivative transactions	2,610	14,466
Gains arising from dealing securities	1	322
Interest and interest-type income	-	7,184
Gains on the sale of participations	-	64,187
Other financial incomes	42	201
Total	**90,534**	**126,695**

Financial incomes included an amount of HUF 87,881 thousand in realised and unrealised exchange rate gains relating to various receivables and liabilities, including HUF 6,355 thousand linked to the Company's investment loans denominated in EUR. The HUF 2,610 thousand FX gain on derivative transactions in the reporting year was earned on forward FX transactions that the Company concluded in conformity with the trade payables of the PannErgy Group incurred in foreign currencies.

13. FINANCIAL EXPENDITURES

	2019 HUF Th	2018 HUF Th
Interest and interest-type expenses	273,264	265,871
FX loss on FX loans	199,972	219,379
FX loss related to receivables	8,828	5,624
FX loss related to liabilities	22,793	12,661
Loss on derivative transactions	1,504	1,268
FX loss related to FX accounts	170	312
Other financial expenditures	1	2,546
Total	**506,532**	**507,661**

In the reporting period financial expenditures amounted to HUF 506,532 thousand, nearly identical to that of the previous period (up HUF 1,129 thousand year-on-year).

Besides the HUF 273,264 thousand expenditure incurred in the way of interests paid during the reporting period in relation to credit and loan liabilities, the largest item in this category is an interest rate loss of HUF 199,972 thousand on FX credits and loans, caused by changes in the HUF/EUR rate during the period concerned. Of the financial profit/loss of the PannErgy Group during the reporting period the unrealised FX revaluation at the end of the period resulted in a loss of HUF 131,534 thousand. In accordance with the IFRS requirements, monetary items of the PannErgy Group carried in currencies other than the Forint, the functional currency, are converted into forints at the exchange rate prevailing at the end of the period, and the (financially unrealized) FX differences resulting from such conversion are recognized in the statement of profit or loss under financial transactions. The loss on the period-end revaluations is the result of a decrease of the HUF/EUR exchange rate relative to the previous periods.

Notwithstanding the momentary, unrealized effect of the aforementioned revaluation, the Company is not subject to any material exchange rate risk in the course of its operation because it has a natural hedge position considering that, annually, its income realized in foreign currencies almost entirely cover its costs (typically electricity charges) incurred in other currencies as well as its contractual FX-denominated debt servicing obligations towards financial institutions that extended investment loans. The currency of FX items mentioned above may be different from the euro.

Within interest and interest-type expenses, a HUF 1,504 thousand loss stems from interest rate swaps, whereby the PannErgy Group swapped its variable-interest loans to fixed-interest arrangements in the settlement periods of the reporting year.

As a result, in the reporting period the PannErgy Group recognized a loss of HUF 415,998 thousand as the financial profit/loss.

14. OTHER INFORMATION RELATING TO FINANCIAL TRANSACTIONS

	2019	2018
HUF/EUR exchange rate on 31 December of the previous year	321.51	310.14
HUF/EUR exchange rate on 31 December of the reporting year	330.52	321.51
HUF/EUR exchange difference	9.01	11.37

The unrealized gain/loss of the year-end FX revaluations amounted to a loss of HUF 131,534 thousand, smaller than the loss of HUF 186,132 thousand booked in the previous year. This loss resulted primarily from the revaluation of EUR-denominated investment loans at the end of the reporting period.

15. Intangible assets

Gross value

HUF Th

	Goodwill	Geoterm. know-how	Valuable rights	Purchased software	Total
1 January 2018	517,537	1,064,112	80,844	35,420	1,697,913
Purchase	950	-	24,780	-	25,730
Sale	-	-	-	-	-
Impairment, write-off	-	-	-	-	-
Reclassification	-	980,556	-	-	980,556
31 December 2018	518,487	2,044,668	105,624	35,420	2,704,199
Purchase	-	280,339	-	6,302	286,641
Sale	-	-	-	-	-
Impairment, write-off	-	-	-27	-	-27
Reclassification	-	-64,350	-	-	-64,350
31 December 2019	518,487	2,260,657	105,651	41,722	2,926,517

Accumulated depreciation

	Goodwill	Geotherm. Know-how	Valuable rights	Purchased software	Total
1 January 2018	-	270,376	68,587	30,094	369,057
Increase	-	62,158	5,873	186	68,218
Sale	-	-	-	-	-
Impairment, write-off	-	-	-	-	-
Reclassification	-	-	-	-	-
31 December 2018	-	332,534	74,460	30,280	437,275
Increase	-	41,094	8,544	2,641	52,278
Sale	-	-	-	-	-
Impairment, write-off	-	-	-27	-	-27
Reclassification	-	-	-	-	-
31 December 2019	-	373,628	83,031	32,921	489,580

Net value

1 January 2019	518,487	731,578	31,164	5,140	1,286,369
31 December 2019	518,487	1,887,029	22,620	8,801	2,436,936

The HUF 518,487 thousand of goodwill relates to the 6.91% minority participation in PannErgy Geothermal Power Plants CPlc. purchased in prior periods; in the course of the acquisition goodwill of HUF 517,537 thousand was created, while goodwill of HUF 950 thousand arose in the context of the purchase of a minority holding in Szentlőrinc Geotermia CPlc., a company covered by consolidation, in the reporting period. The value of the goodwill item remained unchanged during the reporting period. On 31 December 2019 the Company performed the impairment test of the value of the goodwill relying on the future discounted cash flow forecasts of related cash-generating units; the test proved that the HUF 518,487 thousand is the fair value of the goodwill and no impairment needs to be recognized.

In addition to goodwill, the Group discloses a number of geothermal know-how elements among intangible assets, relating to geothermal exploration and drilling projects as well as the construction and operation of an efficient geothermal system. The inclusion of these high-value intangible assets in the financial statements is justified as specific future benefits attributable to the asset concerned can be linked to it. Based on the year-end calculations prepared relying on the management of the Group, it is possible to quantify the future cash flows arising from the exploitation of developments disclosed in the consolidated statement of financial position. These cash flows, broken down by cash-generating units, were compared, after discounting, with the tangible assets and goodwill of the cash-generating units as well as the book value of geothermal know-how owned by the Group. On this basis, no impairment needs to be recognized in the reporting period regarding assets stated among intangible assets. The HUF 64,350 thousand reclassification of geothermal know-how elements during the period concerned, is related to the 'BON-PE-03' well bored in the context of a concession tender, so the item concerned was moved to the category of financial assets.

TO ensure uniform accounting treatment across the Group certain intangible assets were – after individual recategorization – reclassified from other intangible assets to tangible assets.
One modification affecting the base period is associated with the GINOP R&D project of DoverDrill Mélyfúró Ltd.: the HUF 980,556 thousand investment in progress as of 31 December 2018 was stated among tangible assets in the previous year's consolidated statement of financial position, however, since the output of the K&F project will appear in the form of a know-how type intangible asset, this amount should be presented in the base period among in the category of other intangible assets. Accordingly, the base value of other intangible assets increased from HUF 767,882 thousand to HUF 1,748,438 thousand, while the value of tangible assets dropped by the same amount. (See Chapter *44 Reclassifications relative to the base period and explanation of reclassifications during the reporting period*)

16. TANGIBLE ASSETS

HUF Th

Gross value	Marketable properties	Investment properties	Properties	Machinery and vehicles	Investment	Total
1 January 2018	343,000	-	15,478,687	7,564,082	194,555	23,580,324
Purchase	-	-	-	-	1,562,893	1,562,893
Capitalization	-	-	61,931	489,725	-551,656	-
Sale	-	-	-	-7,035	-	-7,035
Effect of fair value measurement	69,057	-	-	-	-	69,057
Reclassification to intangible assets or financial assets	-	-	-	-	-980,556	-980,556
Reclassification to/from marketable property	-1,463	-	1,463	-	-	-
Other changes, write-off	-191	-	-7,209	-25,949	-	-33,349
31 December 2018	410,403	-	15,534,872	8,020,823	225,236	24,191,334
Purchase	-	-	112,451	403,307	300	516,058
Capitalization	-	-	11,329	131,545	-142,874	-
Sale	-292,559	-	-	-218	-	-292,777
Effect of fair value measurement	-	-	-	-	-	-
Reclassification to intangible assets or financial assets	-	-	-	-	-46,650	-46,650
Reclassification to/from marketable property	-115,279	115,279	-	-	-	-
Other changes, write-off	-	-	1,274,370	62,146	-	1,336,516
31 December 2019	2,565	115,279	16,933,022	8,617,603	36,012	25,704,481

Accumulated depreciation	Marketable properties	Investment properties	Properties	Machinery and vehicles	Investment	Total
1 January 2018	-	-	1,313,791	2,544,630	-	3,858,421
Increase	-	-	452,719	796,070	-	1,248,789
Sale	-		-	-6,974	-	-6,974
Reclassification, write-off, impairment	-191		191	-25,371	-	-25,371
31 December 2018	-191		1,766,701	3,308,355	-	5,074,865
Increase	-	388	500,097	890,892	-	1,391,377
Sale	-		-	-	-	-
Reclassification, write-off, impairment	-	-934	-	-29	-	-963
31 December 2019	-191	1,322	2,266,798	4,199,276	-	6,467,205

Net value	Marketable properties		Properties	Machinery and vehicles	Investment	Total
1 January 2019	410,594		13,768,170	4,712,468	1,205,792	20,097,025
31 December 2019	2,756	113,957	14,666,224	4,418,328	36,012	19,237,277

In addition to its core operations comprising the production and sale of geothermal heat (Energy) the Company has industrial real property and offices originating from before the time of the "Pannonplast - PannErgy" strategy shift, in the 21st district of Budapest (Csepel) and in the town of Debrecen. The real estates concerned were categorised by the Company during the preceding period as fixed assets held for sale. Accordingly it actively sought to sell the assets concerned, as a result of which it managed to sell its property in District XXI of Budapest – one that was not linked to the core operation of the PannErgy Group, that is, its the energy industry activities – for an amount of HUF 375,000 thousand, earning a profit of HUF 71,191 thousand on the transaction. The deal left the Company with properties in Csepel worth only some HUF 2,756 thousand – public roads, shared with a number of co-owners – which the Company continues to make efforts to sell, being committed to dispose of them in the short run.

PannErgy Plc's industrial properties in the town of Debrecen, neither directly nor indirectly related to the Group's core operations of geothermal heat generation and sale, were reclassified by the Company during the reporting period from assets held for selling to investment properties – in an amount of HUF 115,279 thousand – because the properties concerned are leased to customers, therefore and thus are not going to be sold within a year. The aforementioned industrial properties, located in the town of Debrecen, were stated in the consolidated statement of the Company's financial position as investment properties in an amount of 113,957 thousand at the end of the reporting period.

The PannErgy Group recognised HUF 1,467,002 thousand during the reporting period in the way of depreciation, in the following breakdown: HUF 52,278 thousand for intangible assets, HUF 1,390,989 thousand for tangible assets, HUF 388 thousand for investment properties and HUF 23,186 thousand for the production well and associated facilities put in place under a concession project; the latter being presented in the consolidated statement of financial position as financial assets.

Tangible assets (including investment in progress) were reclassified to other financial assets in a total amount of HUF 46,650 thousand during the period concerned, in relation to the production well BON-PE-03 implemented under a concession project.
The HUF 1,336,516 thousand increase in properties, plants and equipment in the schedule of movements in fixed assets covering the reporting period

- is associated the assets (properties) taken over by the PannErgy Group via the acquisition during the year of Well Research Ltd in a total amount of HUF 1,274,370 thousand,
- and the arrangement – categorised as lease under the IFRS 16 accounting rules – covering rented geothermal equipment in HUF 62,146 thousand.

One tangible asset item was reclassified by PannErgy Group regarding the base period: The HUF 980,556 thousand investment in progress as of 31 December 2018 relating to the GINOP R&D project of DoverDrill Mélyfúró Ltd. was stated among tangible assets in the previous year's consolidated statement of financial position, however, since the output of the K&F project will appear in the form of a know-how type intangible asset, this amount should be presented in the base period among in the category of other intangible assets. Accordingly, the above schedule of movements in tangible assets shows the reclassification of a HUF 980,556 thousand item. The base period data of other intangible assets and of tangible assets were changed in the consolidated statement of financial position as a consequence of the reclassification, as detailed in Chapter *44 Reclassifications relative to the base period and explanation of reclassifications during the reporting period*.

Certain properties and machinery serve as collateral for outstanding investment loans. In this context, the following material restrictions of title or mortgages are registered as of 31 December 2019 with regard to properties, machinery and equipment:

PannErgy	Financing entity	Amount of collateral charged to tangible assets	Collateral
Kuala Ltd. Miskolci Geotermia CPlc.	UniCredit Bank Hungary CPlc.	EUR 4,500,000 and HUF 3,023,675 thousand	General mortgage on assets (all movable and immovable property) on the business share of PEGE CPlc.
Arrabona Koncessziós Ltd. DD Energy Ltd.	CIB Bank CPlc.	EUR 27,700 thousand	General mortgage on assets (all movable and immovable property) on the business share of PEGE CPlc.
DoverDrill Mélyfúró Ltd.	Budapest Bank CPlc.	HUF 249,977 thousand	Mortgage on assets, on the PannErgy Group's industrial property to be found in Debrecen and on movable assets acquired under the GINOP application scheme.
Szentlőrinci Geotermia CPlc.	Széchenyi Bank CPlc.	HUF 540,000 thousand	General mortgage on assets (all movable and immovable property)
PannErgy Geothermal Power Plants CPlc.	Unicredit Bank Hungary CPlc.	HUF 200,000 thousand	Security pledge
PannErgy Plc.	Budapest Bank CPlc.	HUF 200,000 thousand	Security pledge

No tangible assets were revalued in the reporting period.

16.1. *Year-end valuation of high-value tangible assets*

Due to the special nature of geothermal projects, the PannErgy Group has high-value assets in several of its subsidiaries (production and injection wells, properties, heat centers, transmission systems, other assets). Because of the nature of the project, their cash-generating capacity is relevant only with regard to all the tangible assets related to the project considered as a cash-generating unit. For this reason, each project is organized into a separate economic entity, and each group of assets is used in a single market.

As of 31 December 2019, an impairment test was performed in all PannErgy group members where the overwhelming majority of assets consists in tangible assets used in or directly related to production, irrespective of whether the Company has noted any indication of their impairment.

In the interpretation of the PannErgy Group, it is an indication of impairment if losses were suffered in the previous years or the reporting year, which may signal that the economic performance of the assets is weaker than the level envisaged upon installation.

Due to the special nature of the geothermal market, the year-end valuation and impairment test was performed relying on evaluation based on income generating capacity rather than on market comparison, cost-based evaluation or the residual goodwill method. Using this approach, the future benefits expected to be derived by the PannErgy Group from the ownership of the high-value assets were quantified, and the present value of these quantified benefits as future cash flows was estimated. Income-generating capacity was selected as the core benefit, i.e., the discounted present value of cash flows forecasted by the detailed model was calculated for forthcoming years. In the impairment test the calculated value, as recoverable value, was compared with the aggregated book value of tangible assets and intangible assets as of 31 December 2019.
The model used for the calculation of the recoverable amount contains the following:

- an estimate of the envisaged level of future cash flows from the assets to be derived by the Companies defined as individual cash-generating units;
- the amounts and timing of these future cash flows;
- the time value of money;
- other factors based on the characteristics of the industry.

The impairment tests indicated that, in line with the requirements of *IAS 36*, the assets of the Group are recorded at a value not exceeding their recoverable amount, i.e. their book value exceeds the amount recoverable through the use or sale of the asset; consequently, no impairment was recognized.

17. Other invested financial assets

	31 December 2019 HUF Th	31 December 2018 HUF Th
Government securities	72,949	-
Total	**-**	**-**

The Company had no financial investments before the reporting period. The Company invested part of its separated liquid assets the use of which is subject to authorization by the funding financial institution (HUF 72,949 thousand) in government securities.

18. Financial assets (production well established under a concession project)

	31 December 2019 HUF Th	31 December 2018 HUF Th
PannErgy Koncessziós Ltd.'s investment in Győr	1,183,496	1,068,432

As of 31 December 2018, the PannErgy Group reported financial assets relating to concession agreements in the value of HUF 1,183,496 thousand in its consolidated financial statements, in conformity with the *IFRIC 12* interpretation. This financial asset comprises the costs of implementation (including the concession tender costs) of the production well established under the concession project implemented in relation to the Győr Geothermal Project of the Company.

PannErgy Geothermal Power Plants CPlc., a subsidiary of the Company, concluded a concession contract with the Hungarian State for the exploration, extraction and exploitation of geothermal energy in the region of Győr, for a definite period of 35 years (which may be extended once, by 17.5 years). PannErgy Geothermal Power Plants CPlc. established a separate concession company – PannErgy Koncessziós Ltd. – for this project In 2017, which established its production well BON-PE-03 under the concession project. The related closing report of exploration was submitted and accepted, and the necessary permits and authorizations were obtained from the competent authority during the reporting year.
In terms of its legal and accounting qualification, the project, implemented under, and in accordance with the terms and conditions of, the concession contract, is in line with the *IFRIC 12* interpretation, therefore the investment implemented so far in the context of the project is recognized in the category of fixed assets, as a financial asset, in the consolidated statement of financial position. After the integration of the BON-PE-03 production well drilled in the framework of the concession project into the Győr Geothermal System following the obtaining of the required permits, the capacity of the Győr project to generate consolidated sales revenue and EBITDA will increase substantially. Accordingly, the recognized value of the "concession" production well presented as a financial asset is adequate based on the *IFRIC 12* interpretation, i.e. it is covered by the value of the discounted cash-flows expected for the 35-year term of the concession contract, in proportion to the degree of completion of the investment project.

19. Long-term receivables

	31 December 2019 HUF Th	31 December 2018 HUF Th
Other receivables	5,318	99,095

The PannErgy Group's consolidated financial statements as of 31 December 2019 show long-term receivables in a total amount of HUF 5,318 thousand. These receivables, stated in terms of amortized cost, are linked to sale and purchase transactions where the Company agreed with the buyer on a long-term – over-year – payment schedule for part of the purchase price.

20. Lease receivables

The PannErgy Group had no lease receivable during the reporting period or the reporting period.

21. Inventories

	31 December 2019 HUF Th	31 December 2018 HUF Th
Materials	27,651	-
Total	**27,651**	**-**

The inventories shown in the 2019 consolidated financial statements include reserve maintenance materials required for the efficient, safe and secure running of the geothermal projects in operation.

22. Trade receivables

	31 December 2019 HUF Th	31 December 2018 HUF Th
Trade receivables	1,280,270	1,518,957
Impairment losses for doubtful receivables, reversals	-2,387	-5,632
Total	**1,277,883**	**1,513,325**

The members of the PannErgy Group sell their products and services to a small number of buyers, mostly on the basis of long-term contractual arrangements. Due to the stability of the relationships with the Group's customers no impairment losses need to be recognized for trade receivables; an amount of HUF 344 thousand was booked for the reporting period for a single partner. Impairment reserves were reversed in relation to a number of doubtful receivables on the basis of financial settlements effected during the period (see *Chapter 39* on *Impairment*). The trade receivables are non-interest earning items, with a 30-day term for the most part.
Trade receivables dropped 16% year-on-year, as a consequence of the higher basis figure relating to the one-off sale of inventories during the previous reporting period.

23. Other receivables

	31 December 2019 HUF Th	31 December 2018 HUF Th
Deferred items	75,401	110,738
Other tax receivables	53,801	161,062
Advance payments made	12,224	25,146
Other loans provided	3,143	3,143
Follow-up discounts received, recognized	-	100,000
Receivables associated with insured events	-	5,709
Other	-	-
Total	**144,569**	**405,798**

HUF 128 thousand and HUF 75,273 thousand of the deferred items of the next period are associated with the sales revenue and the costs, respectively. The largest items of the category of other tax receivables in the company's books include VAT receivables and local industry tax receivables in a total of HUF 29,398 thousand and HUF 24.133 thousand, respectively, each being receivable from the tax authority.

24. Securities (Marketable Financial Assets)

	31 December 2019 HUF Th	31 December 2018 HUF Th
Securities held until maturity	24	25

The value of the portfolio of securities during the reporting period was practically equal to the amount stated at the end of the preceding period.

25. Subscribed capital

	31 December 2019 HUF Th	31 December 2018 HUF Th
Subscribed capital	421,093	421,093

On 31 December 2019 the subscribed capital amounted to HUF 421,093 thousand, unchanged relative to 2018. The subscribed capital is stated in the financial reports in its total amount as issued, while the number of shares is presented net of the amount of treasury shares.

The subscribed capital comprises a total of 21,054,655 voting shares, of a nominal value of HUF 20 each.

A total of 3,191,433 of the above were held by the Company and its consolidated members on 31 December 2019, up 21% year-on-year, as a result of the buyback of own shares in the context of the treasury share buyback program organised during the reporting period.

The Budapesti Értéktőzsde CPlc. modified the Product List data pertaining to Pannonplast Plc's ordinary shares of the HU0000073440 ISIN code with effect from 21 November 2007.

ISIN Code	**new code: HU0000089867**	**previous code: HU0000073440**
Nominal value of the securities:	HUF 20	HUF 100
Securities introduced to the stock exchange (number):	21,054,655	4,210,931

With effect from 12 October 2007 the Court of Registration registered the resolutions adopted by the Company's General Meeting of 31 August 2007 on splitting the nominal value of the shares issued by the Company without affecting the total amount of the Company's subscribed capital. 20 November 2007 was the last day on which the shares of the nominal value of HUF 100 were traded on the exchange.

26. Treasury shares

	31 December 2019	**31 December 2018**
Treasury shares (number)	3,191,433	2,642,637
Nominal value (HUF Th)	63,829	52,853
Cost (HUF Th)	2,355,278	2,003,119

On 31 December 2019 the Company held a total of 3,191,433 PannErgy Plc. treasury shares, 548,796 more than the stock of treasury shares held on 31 December 2018. The aggregated change was a result of an increase of 658,795 and a decrease of 109,999 during the reporting period.

The addition of 658,795 shares to the Company's stock of treasury shares in the review period is linked to the Company's treasury share repurchasing programme that took place during the reporting period, in the framework of which 540,895 treasury shares were repurchased in 2019 H1, followed by 117,900 shares in 2019 H2. In addition, 109,999 treasury shares were called down under the Company's share option programme concluded in the review period; the shares were transferred to the beneficiaries as soon as they paid the option price per share defined in the programme.

With respect to the treasury share transactions, more detailed information is available in the Company's public disclosures; moreover, details of the treasury share buyback program started and completed during the reporting period are discussed in *Chapter 11 Dividend payment treasury share* *buyback* of the Business and Management Report worked out on these basis of this consolidated financial statements.

27. Reserves

Reserves are detailed in the PannErgy Group's consolidated financial statements as follows:

	31 December 2019 HUF Th	31 December 2018 HUF Th
Capital reserve	10,515,993	10,515,993
Retained earnings	1,827,721	1,429,717
Other reserves	-955,953	-955,953
Total	**11,387,761**	**10,989,757**

The capital reserve is regarded to be associated with two historical events: the subscribed capital decrease upon the company's transformation into a one limited by shares, and the exchange rate gain resulting from share issue. The amount stated as capital reserve remained unchanged between the business years of 2018 and 2019.
The amount of the profit reserve equals the total amount of the profits accumulated by the PannErgy Group in the previous years, net of the dividends paid to shareholders. No dividends were approved to be paid in 2018 and 2019. The Company shows a difference from consolidation among its reserves in an amount of HUF 23,833 thousand as of 31 December 2019. This amount is the difference that resulted from the consolidation during the reporting year of receivables and liabilities as well as the interim profit/loss, relating to the integration of Well Research Ltd., which was purchased by the PannErgy Group on 28 June 2019, in consolidated reporting.
The other reserves line shows the exchange rate differences resulting from the consolidation of foreign subsidiaries sold in earlier years, together with the exchange rate losses on the sale of treasury shares.

The PannErgy Group's consolidated statement of financial position shows the aggregated amount of the reserve created for treasury shares and the general reserves in separate lines. The form of accounting and presentation complies with the requirements described in the *IAS 32 Financial instruments: Presentation and IAS 33 Earnings per share standard*s. The '*Treasury shares*' column of the consolidated statement on the changes in the Company's equity shows the book value – cost – of the current treasury share portfolios and movements, while the amount in the '*Reserve*' column of the '*Sales of treasury shares*' line presents the price difference recognized relative to the relevant book values as a result of the sale transactions concerned. No profit or loss is incurred upon the purchase of treasury shares, therefore no amount recognized among reserves within the equity capital.

28. Minority interests

	31 December 2019 HUF Th	31 December 2018 HUF Th
Balance as of 1 January	25,474	24,540
Reporting year profit or loss of subsidiaries attributable to minority shareholders (subsidiary, external)	6,562	984
Decrease/increase in minority interest due to the sales/purchase of subsidiary shares	-	-50
Balance as of 31 December	**32,036**	**25,474**

28.1. *Other changes involving minority interests during the reporting year*

Neither any acquisition nor disposal took place during the reporting period in regard to minority interests.

29. Long-term liabilities

	31 December 2019 HUF Th	31 December 2018 HUF Th
Long-term credits/loans and leases		
- EUR-based credit secured with collateral	*5,282,749*	*5,788,889*
- HUF-based credit secured with collateral	*4,082,408*	*3,578,145*
- Financial lease liabilities	*9,567*	*-*
- Short-term part reclassified to short-term credits	-1,496,188	-1,114,509
Long-term loans, leases, total	**7,878,536**	**8,252,525**

The amount of the long-term loans was reduced, on the whole, by loan repayments during the reporting period.

29.1. *Weighted average interest rate on long-term loans*

The interest rates applied to the outstanding EUR loans relating to all of the project companies concerned, are based on the 3M EURIBOR, regardless of which financial institution provides the required funding. In view of this fact and the contractual interest margins the weighted average interest rates on the collateral covered EUR-based loans was 2.47% in view of the loan amounts as at 31 December 2019, the same as the rate recorded as of 31 December 2018, taking into account the interest fixing effect of the interest swap transactions as well. Without the interest swap transactions the weighted average interest rate on the EUR-based loans would have been 1.97% on the cut-off date, however, the fixing of the interest rates on the investment loans by way of the interest swap transactions affords considerable predictability and significantly mitigates the interest rate risk faced by the Company in the long run. The HUF-based loans secured with collaterals are either with a fixed 2.5% interest rate or based on the 3M BUBOR. In the reporting period, their weighted average interest rate was 2.91% based on the credit amounts on 31 December 2019, which is more favourable than the 3.07% observed on 31 December of the previous financial year. The weighted average interest rate on the HUF-based loans was, without interest swap transaction, 2.27% at the end of the period.

29.2. *Maturity dates of the long-term loans*

HUF 7,653,557 thousand of the total of HUF 7,878,536 thousand long-term liabilities is made up of items maturing in 1-5 years, while HUF 224.979 thousand comprises items maturing in over 5 years.

29.3. *Lease liabilities recorded among long-term liabilities*

As at 31 December 2019 the Company shows long term lease liabilities in an amount of HUF 9,567 thousand among the long term liabilities in the consolidated financial statements, in relation to motor vehicles leased under arrangements categorised as lease according to the relevant *IFRS 16*.

29.4. *Other long-term deferred incomes*

	2019 HUF Th	**2018 HUF Th**
Other long-term deferred incomes	4,251,151	4,260,978
Short-term part of the long-term incomes	-220,189	-275,660
Other long-term deferred incomes, total	**4,030,962**	**3,985,318**

It is among the other long-term incomes that the Company states – in connection with its energy industry projects – the over-year part of the non-repayable grants won for its projects through application schemes, while the short-term part is stated among short-term liabilities; the latter is recognized in the consolidated profit & loss account among other incomes, as a result of the reversal (in proportion with depreciation) of assets associated with application schemes.

PannErgy Group level long-term deferred incomes comprise the over-year part of the non-repayable grants won in the context of application schemes for the geothermal projects, while in the individual unconsolidated balance sheet they are stated among deferred liabilities. The short-term part is stated among short-term liabilities.

29.5. *Details of aids relating to deferred revenues*

HUF Mn

Group entity	Project ID	Eligible investment cost	Aid granted	Aid drawn down	Aid deferred income (liability)
Szentlőrinci Geotermia CPlc.	KEOP-4.2.0/B-09-2009-0026	883	442	427	340
Berekfürdő Energia Ltd.	KEOP 4.4.0/A/09-2009-0009	250	125	125	56
DoverDrill Mélyfúró Ltd.	GOP-1.3.1-11/A-2011-0192	232	104	104	43
DoverDrill Mélyfúró Ltd.	GINOP-2.1.2-8-1-4-16-2017-00166	1,250	500	200	200
Miskolci Geotermia CPlc.	KEOP 4.7.0-2010-0001	632	316	314	235
Miskolci Geotermia CPlc.	KEOP 4.2.0/B-11-2011-0007	2,856	1,000	1,000	751
Miskolci Geotermia CPlc.	GOP-1.2.1/B-12-2012-0005	323	162	148	47
Kuala Ltd.	KEOP 4.7.0/11-2011-0003	619	309	309	270
Kuala Ltd.	KEOP-4.10.0/B-12-2013-0012	2,836	1,000	1,000	758
DD Energy Ltd.	KEOP-4.10/B-12-2013-0010	3,997	1,000	1,000	776
Arrabona Koncessziós Ltd.	KEOP-4.10/B-12-2013-0011	3,509	1,000	992	775

Government aids as of 31 December 2019 were stated in the consolidated statement of financial position in the form of long term and short-term (shorter than one year) deferred incomes (HUF Mn):	**4,251**

Each of the above projects are of the project implementation type. The project objectives are, in the case of the EEOP (Environment and Energy Operational Program) application schemes, geothermal energy utilization, while in the case of the EDOP (Economic Development Operational Program) the objectives include the procurement of assets or system development.
The expiry of the maintenance periods relating to the various projects implemented under application schemes do not influence the aid reversals because they are linked to the useful life period associated with each asset acquired from aid money.

As regards application schemes the PannErgy Group stated an amount of HUF 249,977 thousand as of 31 December 2019 in the way of liability in relation to grant advance received, in connection with DoverDrill Mélyfúró Ltd's GINOP-2.1.2-8.1.4-16-2017-00166 application entitled “Grants for R&D&I

activities of companies in the framework of combined loan products". The advance amount was recognised in the accounts rendered concerning application schemes following the reporting period.

30. Short-term credits

	31 December 2019 HUF Th	31 December 2018 HUF Th
Short-term part of long-term credits	1,496,188	1,114,509
Other short-term credits	710,244	560,423
Total	**2,206,432**	**1,674,932**

Among short term credits an amount of HUF 10,244 thousand is shown at the end of the reporting period, relating to the lease of motor vehicles categorised as lease under the relevant IFRS.

30.1. *Short-term part of other long-term deferred incomes*

	31 December 2019 HUF Th	31 December 2018 HUF Th
Short-term part of other long-term deferred incomes	220,189	275,660
Total	**220,189**	**275,660**

The part of the grants won under application schemes relating to geothermal projects which can be used within a year, which is recognized in the profit & loss account among other incomes in proportion with the depreciation of the intangible assets and tangible assets directly involved in the application scheme.

31. Provisions

	31 December 2019 HUF Th	31 December 2018 HUF Th
Opening balance as of 1 January.	18,449	-
Provisioning	-	18,449
Reclassification of provisions	-	-
Release of provisions	18,449	-
Closing balance as of 31 December	**-**	**18,449**

The Company formed provisions in a total amount of HUF 18,449 thousand during the first year to cover liabilities expected to arise from contractual obligations, as well as for financial liabilities that may stem from lawsuits (based their estimated outcomes). Such liabilities were prescribed regarding costs and expenditures during the reporting period therefore the provisions made for this purpose was released.

In its consolidated statement of financial position for the reporting year and the preceding year PannErgy Group stated no provisions for environmental and recultivation-type obligations.
The Company created no provisions for liabilities relating to redundancy programs or for employee pensions. It has no such obligations other than the contributions paid to the public pension system.

32. OTHER SHORT-TERM LIABILITIES

	31 December 2019 HUF Th	31 December 2018 HUF Th
Grant advances relating to application schemes	249,977	249,977
Tax and contribution liabilities	204,598	157,259
Deferred items	53,996	84,682
Wages and social security	8,506	4,345
Liabilities from derivative transactions	12	1,268
Liabilities relating to the share option program	-	33,604
Other	5,890	28,076
Other short-term liabilities, total	**522,979**	**559,211**

On 31 December 2019 the PannErgy Group shows short term liability in an amount of HUF 249,977 thousand regarding the grant advance received in relation to DoverDrill Mélyfúró Ltd's GINOP-2.1.2-8.1.4-16-2017-00166 application entitled “Grants for R&D&I activities of companies in the framework of combined loan products”.

At the end of the reporting period the Company’s records show tax and contribution liabilities in a total amount of HUF 204,598 thousand, of which the largest items are made up of VAT liabilities in a total amount of HUF 165,410 thousand, and the mining annuity liabilities of the project companies engaged in geothermal heat generation, in a total amount of HUF 24,726 thousand.

Of the HUF 53,996 thousand items deferred to the next period HUF 23,699 thousand is associated with incomes, while HUF 30,297 thousand is the sum of the costs relating to the next period. HUF 2,304 thousand of the latter is made up of interests payable for the next period.

HUF 4,431 thousand of the other short-term liabilities is recognized by the Company in liabilities stemming from the earlier conversion of shares into dematerialized securities.

33. TAXATION, INCOME TAX

33.1. *Income tax payable for the reporting year*

	2019 HUF Th	2018 HUF Th
Tax liabilities for the reporting year	60,488	28,738
Effect of deferred taxes	-13,704	61,788
Total	**46,784**	**90,526**

The group's tax corporate tax liability for the reporting year is calculated on the basis of the taxable income of each member according to the relevant domestic rules. As in the previous period a 9% corporate income tax rate is applied to each member of the PannErgy Group.

The local business tax payable to the municipal governments concerned is stated by the Company – in accordance with its accounting policy – not among the income tax items but as part of its other expenditures.

33.2. *Receivables from deferred taxes*

In the assessment of the deferred tax assets and liabilities the following amounts of receivables from deferred taxes were stated among the assets:

	2019 HUF Th	2018 HUF Th
Amounts recovered from deferred losses	52,922	88,132
The difference stemming from depreciation according to the Accounting Act and the depreciation according to the Tax Act	25,106	804
Tangible assets depreciation difference from consolidation	196,079	205,328
Receivables from deferred taxes (gross)	*274,107*	*294,264*
Deferred tax liabilities (gross)	*-31,216*	*-65,077*
Deferred tax to be recognized (net)	**242,891**	**229,187**
Deferred tax recognized in previous year	229,187	290,975
Deferred tax recognized/reversed	-13,704	61,788
Receivables from deferred taxes as of 31 December	**242,891**	**229,187**

The deferred tax receivable of HUF 242,891 thousand stated among fixed assets comprises the 9% corporate income tax payable for the unused negative tax bases of the subsidiaries belonging to the PannErgy Group on the one hand, and on the other hand, for other deferred tax modifying items under the IFRS rules.

The deferred tax receivables stemming from accrued and deferred losses is based on the controlled deferred tax recovery of the subsidiaries concerned. The Company decided to apply a five-year period regarding accrued and deferred losses instead of the previously applied the-year period, in accordance with the *IAS 12* standard recommendations, resulting in a HUF 20,576 thousand decrease in the amount of the deferred tax receivable.

The total gross amount of the deferred tax receivable is HUF 274,107 thousand. This is reduced by another HUF 31,216 thousand by the amount of the reporting year's deferred tax liability relating to the development reserves.

Since these deferred tax receivables and liabilities are to be settled with the same tax authority, their amounts are netted as prescribed by the IFRS, leaving HUF 242,891 thousand in the way of deferred tax receivable in the consolidated financial statements.

33.3. *Calculation of the effective income tax*

The difference between the expected income tax figures calculated by multiplying the individual pre-tax profit figures stated in the profit & loss accounts of the members of the PannErgy Group with the income tax rates applying to them, and the corporate income tax figures actually stated in the profit & loss accounts, is calculated as follows:

	2019 HUF Th	2018 HUF Th
Profits before taxes (individual companies)	**631,305**	**383,796**
The tax payable on the basis of the member company's profit/loss at the applicable tax rate (9%)	56,817	34,542
Effects of different tax rates (minimum profit tax)	800	36,350
Tax implications of non-deductible expenditures, effects of differences in depreciation and other tax-decreasing items	69,799	-2,193
Tax-free incomes	-	-
Tax allowances	-42,938	-26,132
Deferred tax liabilities assessed in the reporting year for any negative tax base not stated earlier	-23,990	-13,829
Tax liabilities for the reporting year	**60,488**	**28,738**
Write-off of tax receivables assessed earlier for negative tax bases	**-13,704**	**61,788**
Income tax (as per the profit & loss account)	**46,784**	**90,526**

34. Earnings per share

	2019	2018
Net profit for the year attributable to the shareholders of the Company (HUF Th)	728,336	433,652
Number of shares issued less the number of treasury shares	17,863,222	18,412,018
Profit/loss per share (HUF)	**40.77**	**23.55**
Diluted profit/loss per share (HUF)	**40.77**	**23.41**

There is no difference between the profit/loss per share the diluted profit/loss per share at the end of the reporting period since the Company calculates the diluted profit/loss per share without taking into account any adjustment factor, unlike the way it did in the base period. The reason for this is that the Company took into account the number of shares not called/transferred under the current share option program as an adjustment factor in the base period, but the Company has no share option program running as at 31 December 2019, as the share option program taken into account in the previous year was closed in April 2019.

35. Liquid assets and cash equivalents

The PannErgy Group had the following portfolio of liquid assets and cash equivalents as of 31 December 2019:

	31 December 2019 HUF Th	31 December 2018 HUF Th
Bank account and cash at hand	766,482	614,969
Separated, blocked cash	578,306	493,277
Cash and cash equivalents	**1,344,788**	**1,108,246**

Certain amounts in regard to which use for purposes other than the account holder’s own business operations is subject to the financing institution’s consent are stated in the bank account and cash at hand.

Those stated in the separated blocked cash are amounts on accounts managed by financial institutions, blocked as collaterals for loan repayment, not accessible for the borrowers.

36. Trade payables

	31 December 2019 HUF Th	31 December 2018 HUF Th
Trade payables	900,737	1,177,750
Total	**900,737**	**1,177,750**

37. FINANCIAL INSTRUMENTS

The members of the PannErgy Group hold financial instruments of the following categories:

	31 December 2019 HUF Th	31 December 2018 HUF Th
Financial assets	**1,500,742**	**2,021,722**
Financial assets available for sale (AFS)	***72,973***	***25***
Other invested financial assets (government securities)	72,949	-
Securities	24	25
Loans and Receivables (LAR)	***1,422,452***	***1,922,602***
Loans provided	3,143	3,143
Trade receivables	1,277,883	1,513,325
Other short term receivables, prepaid income taxes	141,426	406,134
Financial instruments held to maturity (HTM)	***5,318***	***99,095***
Long term financial receivables	5,318	99,095
Financial instruments, Fair Value to Profit and Loss, (FVTPL)	**-**	**-**
Derivative transactions	-	-
Financial liabilities	**11,508,684**	**11,670,565**
Other financial liabilities	***11,508,672***	***11,669,297***
Trade payables	900,737	1,177,750
Long-term credits	7,878,536	8,252,525
Short-term credits	2,206,432	1,674,932
Other financial liabilities	522,967	557,943
Financial liabilities, Fair Value to Profit and Loss, (FVTPL)	***12***	***1,268***
Derivative transactions – liabilities	12	1,268

The Company shows primarily the purchased debt securities and its participations in other companies among its marketable financial assets. The portfolio of marketable financial assets comprises participations of or below 50%, along with other participations that are not consolidated for other reasons, but the company shows no investment in its statements at the end of the reporting period. The Company shows government securities in an amount of HUF 72,949 thousand among its other financial investment, having invested part of its separated liquid assets the use of which is subject to authorization by the funding financial institution (i.e this amount) in government securities

The Company shows purchased debt securities among the loans and receivables and, on account of their very nature, it is also here that it can show the trade receivables and the loans it has provided. Loans are recognized by the Company among the current assets. The value of loans and receivables are initially shown at fair value, and thereafter at amortized cost, in its IFRS consolidated financial statements, using the effective interest rate method.

The Company states its non-derivative financial assets with fixed or determinable payments, which it positively intends to keep, and is capable of keeping, until maturity, among its financial instruments held-to maturity. The Company shows its outstanding purchase price receivables associated with the sale of assets, entailing long term scheduled payments to be made by the Company, among its financial instruments to be held to maturity; the receivables are of the held to maturity status.

Receivables associated with futures transactions, swap transactions are recognized by the Company as financial assets evaluated at fair value against the profit or loss, while liabilities connected with similar transactions are shown as financial liabilities evaluated at fair value against the profit or loss.

All other financial liabilities not carried at fair value through profit or loss – primarily trade payables, loan and credit liabilities, other short-term liabilities. – are recorded under other financial liabilities. Initially, trade payables are recognized at fair value, while subsequently they are measured at amortized cost that are defined with the effective interest method.

38. SHARE-BASED BENEFITS

In the review period 109,999 treasury shares were called down by the beneficiaries in accordance with the terms and conditions of the share option programme for 2016–2019 approved by the Company's regular General Meeting held on 28 April 2016. After the buyers' payment of the option price of 349.02 HUF/share the Company transferred the shares, and the price difference was recognized – on account of the shares the Company's own shares – in the capital reserve and had no impact on the Company's profit/loss during the reporting period.

Combined with the 790,001 treasury shares called down by 31 December 2018, all 900,000 shares available under the share option programme were called down, bringing the programme to an end in April 2019. Accordingly, at the end of the review period the Company does not state any liabilities in this regard in its financial statements.

<u>The main conditions of the concluded share option programme were the following:</u>
Subject to the conclusion of the relevant option agreements, beneficiaries were entitled to acquire conditional call options for a total of 900,000 shares against the Company. The options were of the American type and could be exercised until 30 April 2019 in several phases when a pre-specified stock exchange price level was reached:

- The option price equalled the turnover-weighted average stock exchange price during the 60 trading days preceding the day on which the Option became available for exercising (1 May 2016), i.e. 349.02 HUF/share.
- Where the stock exchange price exceeded the fixed 349.02 HUF/share option price by 15% in the period of the option programme, i.e. it reached HUF 402/share, the call option opened for 300,000 shares;
- Where the stock exchange price exceeded the fixed 349.02 HUF/share option price by 30% in the period of the option programme, i.e. it reached HUF 454/share, the call option opened for another tranche of 300,000 shares, that is 600,000 shares in total;

- Where the stock exchange price exceeded the fixed 349.02 HUF/share option price by 45% in the reporting period, i.e. it reached HUF 506/share, the call option opened for yet another tranche of 300,000 shares, that is 900,000 shares in total; i.e. the total quantity of the share option programme.

39. IMPAIRMENTS

IAS 36 impairments booked by the PannErgy Group during the reporting period:

2019				HUF Th
	Impairments, opening balance	**Impairment provisioning**	**Impairment reversal**	**Impairments, closing balance**
Tangible assets	-	-	-	-
Investments	-	-	-	-
Long-term receivables	-	-	-	-
Inventories	-	-	-	-
Trade receivables	5,632	344	3,589	2,387
Other receivables	-	-	-	-
Securities	-	-	-	-
Total impairment	**5,632**	**-**	**-**	**2,387**

Impairment provisioning and reversal were recognized during the reporting period only in regard to trade receivables. No impairment provisioning or reversal was booked among inventories and tangible assets. The only movement in these assets during the reporting period included scrapping and extraordinary depreciation.

40. OFF-BALANCE SHEET LIABILITIES AND COMMITMENTS

40.1. *Contractual and investment obligations*

At the At the end of the reporting period the PannErgy Group has contractual obligations concerning investment projects in relation to the GINOP application of its subsidiary DoverDrill Mélyfúró Ltd. submitted its application under the GINOP-2.1.2-8.1.4-16-2017-00166 "*Grants for R&D&I activities of companies in the framework of combined loan products*" application scheme as part of the Economic Development and Innovation Operational Programme in 2017, for which it was provided with a non-repayable grant of HUF 500,000 thousand in 2018, in addition to which it borrowed a soft loan of HUF 250,000 thousand under the application scheme facility. In association with its application the Company assumed a contractual investment commitment in an amount of HUF 1,250,000 thousand, the bulk of the project was implemented during the reporting period.

In its 2018 consolidated financial statement the Company showed a contractual investment commitment of HUF 812,000 thousand on the basis of a concession contract concluded in 2017 with the Hungarian State with regard to an area near the town of Győr in addition to the above mentioned GINOP R&D project. The closing report on the concession research project was adopted in 2019 after the boring in 2018 of the BON-PE-03 production well implemented in the context of the project at the village of Bőny, whereby the Company completed the fulfilment of its investment obligation assumed in the concession contract.

40.2. *Commitments relating to asset management transactions*

In concluding asset management type transactions (sale and purchase of shares and other assets) the Company provides reasonable guarantees to secure the economic contents of the transactions. To the best of its knowledge the Company's management expect no obligation to perform significant tasks under the guarantees provided.

40.3. *Other contingent liabilities*

40.3.1. Assets relating to funding by financial institutions, restriction of titles

Collaterals of various types (pledge, guarantee) were provided to the financial institutions contributing to the funding of operations under external financing agreements – of HUF 4,498,391 thousand and EUR 15,983 thousand – concluded by members of the PannErgy Group during the reporting period. The amount of principal debt under the financing agreements has been decreasing gradually through repayments therefore the amounts of the associated contingent liabilities have dropped below the amounts specified in the contracts.

40.3.2. Contingent commitments relating to application schemes

Pursuant to Government Decree 358/2014 (XII. 29) and other related legislation since 1 January 2015 beneficiaries with at least one full closed business year, listed in the NTCA's register of taxpayers free of tax debt obligations are no longer obliged to provide guarantees in relation to funds received from the European Regional Development Fund or the European Social Fund. Accordingly, the PannErgy Group is relieved from the obligation to provide such guarantees in relation to applications regarding all of its applications now in the project maintenance phase.

40.3.3. Other contingent commitments to external parties

PannErgy Geothermal Power Plants CPlc. has a joint and several guarantee in place in connection with the Miskolc Geothermal Project towards one of the heat receiving customers for commitments stemming from potential future loss events, in an amount up to HUF 100 million in the case of Miskolci Geotermia CPlc. and without value limit for Kuala Ltd.

40.3.4. Lease transactions

The minimum aggregated amounts payable in the future under non-cancellable operating lease agreements are shown in the following table in a breakdown by maturity:

	31 December 2019 HUF Th	**31 December 2018 HUF Th**
Within 1 year	18,553	17,779
Over 1 year but within 5 years	40,156	32,599
Over 5 years	-	-
Total	58,709	50,378

The total amount payable under operating lease contracts increased during the reporting year in relation to contracts covering certain other equipment, machines and vehicles covered by operating lease financing.

The Company carried out an assessment of the details of its lease contracts in connection with the introduction from 1 January 2019 of *IFRS 16 Leases*, and found that the above lease fees cover no acquired valuable rights, i.e. they are lease liabilities relating solely to lease fee payments.
No assets are rented or leased from the Company under lease type arrangements on account of which the IFRS 16 provisions would be applicable.

41. FINANCIAL RISK MANAGEMENT

41.1. *Financial risk factors*

The PannErgy Group is exposed to the following types of financial risks through its operations: market risk including exchange rate risk, price risk, fair value interest risk, cash flow interest risk, lending risk and liquidity risk.

41.2. *Market risk*

41.2.1. Exchange rate risk

Some of the Company's operations involve foreign currencies and it issues its invoices in EUR as stipulated in the relevant agreements. Part of the Company's liabilities are denominated in EUR, most of them stemming from EUR-based long term investment loans taken out for the implementation of geothermal projects, and many of its foreign and domestic suppliers also issue invoices in EUR. Such assets and liabilities involving settlements in foreign currencies entail risks resulting from fluctuations in currency rates – particularly the EUR rates – which the PannErgy Group uses its best efforts to mitigate, primarily by maximizing the coverage of its EUR loan debt liabilities by the above mentioned EUR-based revenues.
The Company occasionally concluded FX forward transactions in 2019 to moderate the risk of exchange rate losses on the settlement of its future liabilities to be incurred in foreign currencies. These transactions were not cash-flow hedge transactions; the gains and losses on such transactions during the reporting year appear in the financial incomes and financial expenditures categories in its consolidated financial statements.

In view of the PannErgy Group's foreign exchange receivables and liabilities, and assuming a 10% increase/decrease relative to the 31 December 2019 rate of the HUF, the functional currency, the positive/negative effects on the profit are presented in the table below:

Description	EUR		USD	
	2019	**2018**	**2019**	**2018**
Resulting change in profit/loss in HUF Th	97,652	664,283	-	-

Details of EUR-based items (change in HUF Th):

	EUR amount, 2019	Change in profit as a result of 10% change in exchange rate	EUR amount, 2018	Change in profit as a result of 10% change in exchange rate
Long-term receivable	-	-	-	-
Short-term receivables	756,227	24,995	794,203	25,534
Trade payables	1,368,861	45,244	1,051,833	33,817
Other liabilities	-	-	-	-
FX credits	15,983,146	528,275	18,815,317	604,931
Total		**598,514**		**664,283**

41.2.2. Price risk

The Company runs no risks relating to exchange traded commodities or financial instruments. Mention should be made here, however, despite it being essentially a regulatory risk, of the fact that the selling price of the bulk of the geothermal heat sold by the PannErgy Group's members engaged in generating and selling geothermal heat is a regulated price, which is reviewed and in some cases modified annually by the competent authority, that is, the Hungarian Energy and Public Utility Regulation Authority (HEA). This may influence the PannErgy Group's profitability through the future selling prices.

41.2.3. Cash flow and fair value interest risk

The interest rate risk facing the PannErgy Group results primarily from its long term investment loans. Owing to the variable interest rates applying to its loans the Company is exposed to a cash-flow interest rate risk which is only partly offset by variable-rate financial assets, therefore the Company faces a fair value interest rate risk stemming from its fixed-rate loans.
The Company's long-term FX loan portfolio was worth HUF 5,282,749 thousand (EUR 15,983 thousand) at the end of 2019, while its forint loan portfolio amounted to HUF 4,082,408 thousand, down from the HUF 5,788,889 thousand (EUR 18.005 thousand) worth of FX loan portfolio and the HUF 3,878,144 thousand forint loan portfolio stated at end-2018. The interest rates applying to the FX loans are typically based on the 3M EURIBOR, while the interest rates on the HUF loans are based either on the 1M or the 3M BUBOR. A 2.5% rate applies to the loans borrowed under the Funding for Growth Scheme operated by the National Bank of Hungary.

The PannErgy Group applies a dynamic analysis to its exchange rate risk exposure, through simulating a series of different financial models, factoring in refinancing, the renewal of existing positions and the involvement of alternative funding sources. It is these scenarios on the basis of which the Company calculates the responses of its profit to from changes in the applicable specific interest. The Company uses the same movements in the interest rates applying to each of the relevant currencies in its various models. Models are worked out only for the liabilities involving the largest interest bearing positions.

To mitigate the interest rate risk entailed by its investment loans the Company has replaced the interest bases applying to its 3M EURIBOR and 3M BUBOR based variable-rate loans with fixed interest rates for the entire remaining term of each loan via interest rate swap (IRS) transactions, taking advantage of the current favorable interest rate environment. The interest rates fixed under the above transactions will remain unchanged even if market rates should increase in the future, therefore no such risk will be borne by the Company. The results of the interest rate swap transactions during the reporting period are shown in the financial incomes or the financial expenditures, as the case may be.

The Company's interest sensitivity is characterized by the fact that a 1% increase in interest rates would have resulted in a HUF 96,652 thousand increase in the Group's profit at the end of 2019, in contrast to the additional cost of HUF 96,670 thousand that would have been recorded at end-2018, assuming an unchanged portfolio of principal debt relative to the cut-off date of the reporting period and that of the base period. A 1% decrease in the interest rates would entail the opposite effect. Through its interest swap transactions however, replacing the variable interests on the investment loans with fixed rates, the Company eliminated this interest rate risk, for the most part.

41.3. *Lending risk*

The lending risk is a financial risk of loss from potential non-performance of any contractual obligation by any of the Company's buyers, primarily in the form of failure to settle invoices. It should be noted in particular that the Company sells its products and services to a handful of customers, resulting in a limited degree of diversification.

Lending risk management is a group function. It is a responsibility for the members of the PannErgy Group to analyze and manage lending risks relating to their new customers before working out and offering terms and conditions of payment and delivery as befits their normal of business operations.

The lending risks faced by the PannErgy Group stem from liquid assets and cash equivalents, the bank deposits and security deposits placed with financial institutions as well as the exposure to buyers through the sale of energy, including receivables and transactions under which the Company assumes commitments.

Customers are rated on the basis of their creditworthiness and their credit limits are determined on the basis of their financial positions, financial data, historical performance and other factors, by the PannErgy Group's Finance and Treasury group. The Company monitors draw-downs from the credit limits. Its customers always pay for their purchases by bank transfers. No credit limit was exceeded during the reporting period, and management does not expect losses from default on the part of the partners concerned.

Buyers' debts (trade receivables) are assessed at the end of the year and actions are taken, as necessary, regarding each buyer individually. The trade receivables are shown, in a breakdown by time past due, in the following table:

HUF Th

	Total	Before due date	1-90 days past due	91-180 days past due	181-360 days past due	over 360 days past due
Trade receivables	1,277,883	1,262,643	11,430	3,810	-	-

Items before due date are trade receivables whose due date – specified in the invoice or in the payment agreement –is beyond the cut-off date of the statement of financial position. Among past due items the 1-90 days past due category includes items whose due date for payment has passed by not more than 90 days, and the same principle applies to the other past due categories as well. The due date is always the date specified for payment in the invoice concerned. These are checked in the light of the statement's cut-off date and the buyer concerned, together with the liability, is assigned to the past due category depending on the number of days by which the due date had passed by the cut-off date.

PannErgy Group's liquid assets as of 31. December 2019 are presented in relation to the lending risk in a breakdown by time to maturity:

31.12.2019 HUF Th

Conditions	**Weighted average interest rate**	**<1 month**	**1-3 months**	**3-12 months**	**1-5 years**	**>5 years**	**Total**
Non-interest earning or sight	-	1,344,788	-	-	-	-	1,344,788
Variable rate	-	-	-	-	-	-	-
Fixed rate	-	-	-	-	-	-	-
Total		**1,344,788**	**-**	**-**	**-**	**-**	**1,344,788**

31.12.2018 HUF Th

Conditions	**Weighted average interest rate**	**<1 month**	**1-3 months**	**3-12 months**	**1-5 years**	**>5 years**	**Total**
Non-interest earning or sight	-	1,108,246	-	-	-	-	1,108,246
Variable rate	-	-	-	-	-	-	-
Fixed rate	-	-	-	-	-	-	-
Total		**1,108,246**	**-**	**-**	**-**	**-**	**1,108,246**

41.4. *Liquidity risk*

Liquidity risk is the risk of the company's incapacity to settle its financial liabilities upon their respective due dates. The purpose of liquidity management is to ensure that sufficient funds are available to settle liabilities when they fall due. The Company's approach to liquidity management is aimed at providing sufficient liquidity, to the extent possible, for the settlement of liabilities on their respective due dates in both regular and tight conditions without incurring unacceptable losses or putting its reputation at risk. Adequate liquidity is maintained by adjusting the terms of the funding sources to the lifecycles of its projects. Cash-flow forecasts are worked out by the PannErgy Group's Finance and Treasury group, besides the monitoring of rolling forecasts regarding the satisfaction of the Group's liquidity requirements, in order to maintain a portfolio of liquid assets as required for the Group's operations, while keeping up sufficient manoeuvring room concerning the available credit limits to ensure that the Company does not exceed any of its limits and can deliver the debt required servicing ratios to the financial institutions concerned. The cash-flow forecasts that are based on the financial settlement of trade payables, loan repayments as well as contractual and other incomes are worked out in view of the PannErgy Group's financial plans, the need to maintain the ratios stipulated in contracts as well as all relevant regulatory and statutory regulations.
The financial liabilities in a breakdown by time to due date:

31.12.2019

HUF Th

	Amount	0-6 months	6-12 months	1-2 years	3-5 years	over 5 years
Non-derivative financial liabilities						
Loans	10,084,968	310,244	400,000	209,567	8,940,178	224,979
Trade payables	900,737	900,737	-	-	-	-
Other financial liabilities (apart from forward transactions)	522,967	522,967	-	-	-	-
Derivative financial liabilities	**12**	**12**	**-**	**-**	**-**	**-**

The above table is a collection of the amortized costs of the Company's financial liabilities in terms of their nearest possible maturity dates.
Besides trade payables other short-term liabilities appear in the cash-flow forecasts with due dates corresponding to their respective types: taxes and contributions and other liabilities relating to salaries and wages are settled within 30 days, while other liabilities are settled on the dates specified in the underlying contracts or other documents, but not beyond one year.

41.5. *Capital management*

The Company's purpose in the management of its capital structure is to maintain continuous operability in order to generate profits for its shareholders and other stakeholder groups as well as to minimize the costs of capital through optimized capital structure. To ensure that adequate capital structure is maintained, and/or adjusted as appropriate, the Company's management makes decisions or proposals concerning the amount of dividends to be paid, or capital repayments to be made, to the shareholders. In certain cases – and with the support of the General Meeting – the management may, also in the context of capital management, make decisions on issuing new shares or selling assets. The management affirms that the Company meets the applicable statutory capital requirements, based on its assessment as stipulated by the provisions laid down in Act V of 2013 on the Civil Code. Data on the equity and its ratio to the subscribed capital are presented in the following table: The positive amount of the equity was significantly larger than the subscribed capital in both the reporting period and the preceding period.

	31 December 2019 HUF Th	31 December 2018 HUF Th
Subscribed capital	421,093	421,093
Total equity capital	10,213,948	9,866,857
Equity / Subscribed capital	**24.26**	**23.46**

41.6. *Offsetting of financial assets and financial liabilities*

In the case of financial assets and liabilities that are subject to a mandatory offsetting arrangement or a similar agreement the agreement between the Company and the other party permit offsetting of the given financial assets and liabilities only if both parties opt for this type of clearing. No such agreement or decision is in place in the PannErgy Group, therefore financial assets and liabilities are cleared and settled in terms of gross amounts.

41.7. *Regulatory risk*

In discussing the general regulatory risks it needs to be noted in particular that the selling price of the bulk of the heat sold by certain project companies engaged in heat generation and sale is subject to regulatory pricing, which is regularly reviewed and even adjusted by the pricing authority, thereby limiting the Company’s profitability, resulting in considerable uncertainty concerning future selling prices.

41.8. *Technological risk*

Geothermal energy production entails unforeseeable risks, stemming from the unpredictable availability of the geothermal energy resources as well as the tolerance of the equipment used, to the unconventional operational environment.

41.9. *Pandemic risk*

The foreseeable human and economic effects of the global COVID-19 pandemic will have consequences, that are difficult to quantify at present for various actors in society and the economy.

42. Participations

42.1. *Consolidated subsidiaries*

	Share capital (HUF Mn)	Shareholding (%)	Voting rights (%)	Consolidation ratio
PannErgy Geothermal Power Plants CPlc.	2,072.70	100.00	100.00	100.00
DoverDrill Mélyfúró Ltd.	86.00	100.00	100.00	100.00
Berekfürdő Energia Ltd.	24.10	100.00	100.00	100.00
Well Research Ltd.	10.00	90.00	90.00	90.00
Arrabona Koncessziós Ltd.	6.10	100.00	100.00	100.00
TT Geotermia CPlc.	6.00	100.00	100.00	100.00
Szentlőrinci Geotermia CPlc.	5.00	100.00	100.00	100.00
Miskolci Geotermia CPlc.	5.00	90.00	90.00	90.00
DD Energy Ltd.	3.10	100.00	100.00	100.00
Kuala Ltd.	3.00	90.00	90.00	90.00

The ratios presented above show the respective shares of ownership and voting rights of PannErgy Plc. and PannErgy Geothermal Power Plants CPlc. in the various subsidiaries. The consolidated ratios are the same as the respective shares of ownership.

42.2. *Changes affecting investments and participations during the reporting year*

PannErgy Concession Ltd. merged into Arrabona Geotermia Ltd. effective from the court of registration entry on 30 June 2019. Upon the merger, PannErgy Concession Ltd. was terminated, and its general legal successor became Arrabona Geotermia Ltd. which, following the transformation, continued its operations under the new company name Arrabona Concession Ltd. With the merger, the share capital of Arrabona Concession Ltd. rose to HUF 6,100 thousand million from the previous HUF 3,100 thousand in line with the HUF 3,000 thousand share capital of PannErgy Concession Ltd. which was terminated by merger. The stake of PannErgy Geothermal Power Plants CPlc. (and thus of PannErgy Plc.) remained unchanged at 100% in the process.

Miskolci Geotermia Ltd. acquired 100% ownership in Well Research Ltd. – the owner of the third reinjection well in Miskolc – on 28 June 2019 in the framework of an ownership purchase and sale transaction; the Company was included in the consolidation as at 28 June 2019.

43. Segments report

43.1. *Definition and identification of the segments of operation*

In line with IFRS requirements, the Company needs to present its operating segments. The Company identified a single operating segment during the reporting period, just like in the base period: Energy. The Energy industry is the Company's main operating segment, its core operations including the generation and sale of geothermal heat as well as the implementation of related investment projects and other activities. The PannErgy Group does not identify the utilization – in the way of property management – of industrial facilities and related office premises formerly used by Pannonplast Plc' in its plastics manufacturing operations, located in District XXI of Budapest (Csepel) and in Debrecen as a separate operating segment for the following reasons:

- based on the requirements of *IFRS 8 Operating Segments*, particularly, the management approaches to segments and the criteria for the presentation of operating segments the asset management and property utilization activity performed in addition to the Energy segment does not form truly separate components in themselves. This may be regarded as a integrated supplementary function, including the re-invoicing of electricity and other utility fees and, to a lesser extent, the collection of office rents. Moreover, the Company is planning to sell the properties concerned; indeed, the most valuable property was actually sold during the reporting period;
- the assessment of the performance of the utilization of the aforesaid properties is a negligible part of the work of the operative management and supreme bodies of the Company; information regarding the utilization of properties is not specifically highlighted in the relevant internal control and reporting system; because these are 'pass-through' type transactions with constant revenue and cost elements;
- the Company pursues its activities solely in the territory of Hungary, in a similar legal, technical, economic and demographic environment, consequently, territorial segmentation is not relevant;
- In view of the principles detailed in section *4.29 Segment reports* hereof the Company affirms that Energy as an operating segment can be clearly identified in the case of the PannErgy Group. As regards the operation of the PannErgy Group, the management of the Company has adopted the approach to focus all its resources, in line with the expectations of investors, on maximizing the efficiency of the Energy segment; the utilization of property owned by the Company is in all respects an insignificant element in its operation and, based on the management's approach, cannot be considered to constitute an operating segment.

Regardless of the above the Company reviewed the limit values of the asset management and property utilization activity linked to the identification of the operating segments and it is concluded from the assessment that the sales revenue from the utilization of the properties in Csepel, that is District XXI of Budapest, and in the town of Debrecen, amounted to HUF 587,914 thousand during the reporting period, equalling 10% of the PannErgy Group's sales revenue during the same period. Since a significant part of this amount is made up of pass-through items, i.e. public utility fees re-invoiced to the tenants, the profit element of the public utility fees relating to the utilization of the properties, that are re-invoiced to tenants provides a more accurate picture of the proportion of the real property utilization business within the sales revenue of the PannErgy Group: it amounted to HUF 21,117 thousand, or 0.4% of the total sales revenue during the business year concerned, the same as the ratio of the HUF 22,691 thousand rent to the sales revenue. Accordingly, the asset management and property utilization activity is below the *IFRS 8* quantitative limit pertaining to standards and it will remain so because of the continuous growth of the Energy segment and the diminishing of the property portfolio.

Ultimately, the Company has one operating segment, that is, the Energy segment. Consequently, the Company has to fulfil disclosure obligations covering the whole of the business entity. In the case of the Company this means that the reporting year's and the basis year's data of the Energy segment are the same as the financial information pertaining to the entirety of the business entity, which are adequately presented herein.

43.2. *Geographical segments*

Within Energy, the single operating segment defined within the Company, geographical/project location segments were identified in the reporting period based on the order of magnitude of both sales revenue and fixed assets. In addition to assessing financing and other aspects the Company examines the profitability of these separately, working out specific plans concerning their operation.

Profit/loss data by geographical segment (HUF Th):

	Győr	**Miskolc**	**Holding management, other activities**	**Total**
Revenue from sales	**2,870,939**	**2,051,472**	**725,510**	**5,647,921**
Revenues among segments	-	-	-	-
Direct cost of sales	**1,942,762**	**1,513,962**	**736,070**	**4,192,794**
Gross margin	**928,177**	**537,510**	**-10,560**	**1,455,127**
Gross profit ratio %	***32.3%***	***26.2%***	***-1.5%***	***25.8%***
Indirect costs of sales	**75,792**	**131,058**	**242,847**	**449,697**
Other incomes	**84,046**	**138,352**	**193,853**	**416,251**
Other expenditures	**104,690**	**87,707**	**31,604**	**224,001**
Operating profit	**831,741**	**457,097**	**-91,158**	**1,197,680**
Operating profit rate %	**29.0%**	**22.2%**	**-12.6%**	**21.2%**
Direct depreciation	802,445	526,330	135,934	1,464,709
Indirect depreciation	2,252	-	41	2,293
Total depreciation	**804,697**	**526,330**	**135,975**	**1,467,002**
Extraordinary depreciation	-	-	963	963
EBITDA	**1,636,438**	**983,427**	**45,780**	**2,665,645**
EBITDA rate %	**57.0%**	**48.0%**	**6.3%**	**47.2%**
Financial profit	-243,359	-142,307	-30,332	-415,998
Profit before taxes	**588,382**	**314,790**	**-121.490**	**781,682**
Income tax	14,008	4,511	28,265	46,784
Net profit for the year	**574,374**	**310,279**	**-149,755**	**734,898**

Main financial position data by geographical segment (HUF Th):

	Győr	Miskolc	Holding management, other activities	Total
Intangible assets	52,727	38,160	1,827,562	1,918,449
Goodwill	264,418	219,544	34,525	518,487
Tangible assets	8,370,196	9,302,149	1,448,219	19,120,564
Investment properties	-	-	113,957	113,957
Marketable properties	-	-	2,756	2,756
Financial assets (concession)	1,183,496	-	-	1,183,496
Long-term receivables	-	-	5,318	5,318
Trade receivables	471,348	697,724	108,811	1,277,883
Liquid assets	1,146,128	166,324	32,336	1,344,788

	Győr	Miskolc	Holding management, other activities	Total
Long-term loans, leases	4,568,051	2,965,347	345,138	7,878,536
Long-term deferred income	1,467,267	1,956,844	606,851	4,030,962
Provisions	-	-	-	-
Trade payables	313,448	362,116	225,173	900,737
Short-term credits	-	-	710,244	710,244
Short-term part of long-term credits	751,739	704,235	40,214	1,496,188
Short-term deferred income	83,667	104,999	31,523	220,189

44. Explanation for reclassifications relative to base period report and during the reporting period

The PannErgy Group made only one change relative to the data contained in its 2018 consolidated financial statements; otherwise the basis data presented herein are the same as those to be found in the 2018 consolidated financial statements.

	31 December 2018 Modified value	31 December 2018 Original value
Other intangible assets	1,748,438	767,882
Tangible assets	18,705,874	19,686,430
Total of modified data	**20,454,312**	**20,454,312**

One modification affecting the base period is associated with the GINOP R&D project of DoverDrill Mélyfúró Ltd.: the HUF 980,556 thousand investment in progress as of 31 December 2018 was stated among tangible assets in the previous year's consolidated statement of financial position, however, since the output of the K&F project will appear in the form of a know-how type intangible asset, this amount should be presented in the base period among in the category of other intangible assets.

One significant reclassification took place during the reporting period in addition to the above reclassification relative to the base period

On 31 December 2018 the PannErgy Group stated property held for sale in a total amount of HUF 410,594 thousand: industrial real estate and office buildings in District XXI of Budapest (Csepel) and the town of Debrecen.

Much of the properties in Csepel were sold during the reporting period, leaving the Company with properties in Csepel worth HUF 2,756 thousand – public roads, shared with a number of co-owners – which the Company continues to make efforts to sell, being committed to dispose of them in the short run.

PannErgy Plc's properties in the town of Debrecen were reclassified by the Company during the reporting period from assets held for selling to investment properties because the Company decided not to sell those properties within a year based on some other considerations, instead, they are leased to customers. Accordingly, properties worth HUF 115,279 thousand held for sale were reclassified as investment properties.

45. TRANSACTIONS WITH AFFILIATED PARTIES

The effects of settlements and transactions between all consolidated subsidiaries belonging to PannErgy Plc. were eliminated by consolidation.

45.1. *Transactions with members of the Company's management*

The members of the Group's management are shareholders of enterprises that provide regular business management consultancy or long-term lease of vehicle type services for PannErgy Plc. – in 2019 such services amounted to HUF 52,441 thousand, of which business management consultancy services were provided in the amount of HUF 40,741 thousand, and long-term leases in the amount of HUF 11,700 thousand.

45.2. *Transactions with affiliated parties*

The following items relating to transactions with the following affiliated but not consolidated parties appeared in the PannErgy Group's 2019 consolidated financial statements:

Data of transactions with affiliated but not consolidated parties	2019 HUF Th	2018 HUF Th
Products sold to, services provided for, affiliated but not consolidated parties	-	-
Products, services purchased from affiliated but not consolidated parties	52,441	74,296
- *Of which from affiliated but not consolidated subsidiaries*	-	-
- *Of which from enterprises in which members of the Group's management have shareholdings*	*52,441*	*74,296*
Receivables from affiliated but not consolidated parties	-	-
Liabilities to affiliated but not consolidated parties	-	275,791
- *Of which to affiliated but not consolidated subsidiaries*	-	-
- *Of which to enterprises in which members of the Group's management have shareholdings*	-	*275,791*

45.3. *Loans provided for affiliated parties*

The PannErgy Group provided no loans to affiliated but not consolidated parties in 2019 or 2018. No loans were disbursed for management either.

45.4. *Changes in intra-group consolidated / eliminated transactions and portfolios*

Elimination of profit & loss account items:	2019 HUF Th	2018 HUF Th
Revenue from sales	2,361,650	3,234,213
Direct cost of sales	2,013,238	2,893,288
Indirect cost of sales	93,390	90,252
Other incomes	455,158	11,831
Other expenditures	437,462	9,417
Financial profit/loss	309,007	286,499

Elimination of statement of financial position items:	**2019 HUF Th**	**2018 HUF Th**
Tangible assets	2,068,034	2,143,179
Intangible assets	110,617	142,712
Next period's items among other receivables	872,143	769,125
Other receivables, short term loans	10,057,723	11,759,245
Long-term loans granted	9,212,706	5,433,997
Long-term liabilities	9,212,706	6,889,435
Next period's items among other liabilities	872,143	769,125
Other short-term liabilities	10,057,723	10,303,808

45.5. *Management's compensation*

	2019 HUF Th	**2018 HUF Th**
Short-term employee benefits	13,500	13,500
Other long term benefit, severance pays	-	-
Share-based payments	-	-
Total	**13,500**	**13,500**

By its General Meeting Resolution No. 5/2019. (IV.26.) the Company set the remuneration of the Chairman of the Board of Directors at 195 thousand HUF/month, while that of the other members of the BoD at 155 thousand HUF/month, from 27 April 2019.

46. Event after the cut-off date of the consolidated statement of financial position

References to events that occurred after the cut-off date of the consolidated financial statements are presented in the following table: Based on the references the complete information is accessible at the Company's official places of disclosure.

Date	Type of news	Subject, brief content
27 March 2020	Extraordinary information	Treasury share transaction
26 March 2020	Extraordinary information	The impact of the COVID-19 epidemic on the Annual General Meeting
22 March 2020	Extraordinary information	Treasury share transaction
17 March 2020	Extraordinary information	AUDI to shut down production in its plant in Győr
17 March 2020	Extraordinary information	General Meeting – Invitation
15 March 2020	Extraordinary information	Treasury share transaction
8 March 2020	Extraordinary information	Treasury share transaction
1 March 2020	Other information	Number of voting rights at PannErgy Plc.
1 March 2020	Extraordinary information	Treasury share transaction
23 February 2020	Extraordinary information	Treasury share transaction
17 February 2020	Extraordinary information	Treasury share transaction
15 February 2020	Extraordinary information	Changes to the implementation of the share-buyback program
9 February 2020	Extraordinary information	Treasury share transaction
2 February 2020	Other information	Number of voting rights at PannErgy Plc.
2 February 2020	Extraordinary information	Treasury share transaction
26 January 2020	Extraordinary information	Treasury share transaction
19 January 2020	Extraordinary information	Treasury share transaction
15 January 2020	Extraordinary information	Quarterly production report
12 January 2020	Extraordinary information	Treasury share transaction
2 January 2020	Other information	Number of voting rights at PannErgy Plc.

47. Date of authorization of disclosure

The Company's Board approved the financial statements and authorized their disclosure on 24 March 2020.

Dénes Gyimóthy
Representing the Board of Directors

PannErgy Plc.
Business and Management Report
2019

Based on the PannErgy Group's IFRS consolidated financial statements

Budapest, 27 March 2020

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

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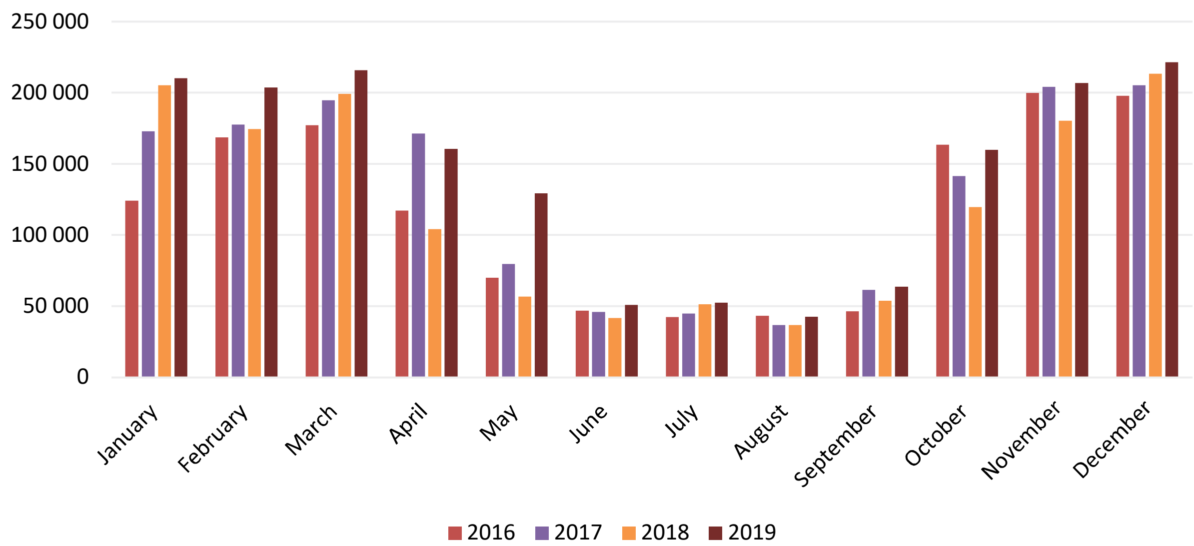
1. Executive Summary

<u>Significant increase in heat sales volume during the reporting period due to favourable weather conditions</u>

The PannErgy Group successfully achieved the objectives set out in its strategy on geothermal energy production and utilization in the 2019 business year. The objectives were aimed at maximising the utilization of the capacities at the Group's project locations as afforded by weather conditions and putting in place and continuously maintaining the operational conditions facilitating this goal. The reporting period's favourable weather conditions for selling heat, combined with optimised operation throughout the year enabled the PannErgy Group to sell a total 1,716 TJ of thermal energy on a consolidated basis, up by a significant 20% in comparison to the previous year's 1,436 TJ, and 6% over its 2019 plan of 1,620 TJ.

The consistently high quality of operation enabled the Company to take advantage of the operating condition potentials afforded by this year's more favourable weather conditions. After the 9% year-on-year increase in heat sales volume in the first quarter of the reporting period, the volume of heat sold in the second quarter rose by 68% compared to the base period, thanks to the lower daily average temperatures recorded in 2019 Q2 than those observed in the same period of 2018, which had an especially favourable effect on the heat market in May, extending the heating season. The Company managed to sell 12% and 14% more heat year-on-year in 2019 Q3 and Q4 respectively, even though the 2019/20 district heating season did not start in September, just like the year before.



Consolidated quantity of heat sold, in GJ

The chart illustrates the aggregate amount of heat sold by the Miskolc, Győr, Szentlőrinc and Berekfürdő projects, in a monthly breakdown.

<u>Significant consolidated EBITDA improvement, gross margin and cash flow increase</u>

Owing to the abovementioned positive effect of the weather conditions on heat sales and the results of operation, the consolidated sales revenues of the Company grew by 21% to HUF 5,647,921 million year-on-year, representing an increment of HUF 968.825 million during the reporting period. The direct costs of sales closely related to revenue-generating activities rose by 13%. This can be attributed primarily to electricity costs that reflected the effect of the year-on-year increase in sales revenues resulting from the longer and more intensive heating season, as well as to maintenance, operation and facility maintenance costs; the increase caused by these factors was mitigated by the reinjection costs reduced due to the purchase of the third reinjection well at Miskolc. Due to the sales revenue increase attributable, among other factors, to efficient operation, the consolidated gross margin of the Company increased by HUF 501,739 thousand, or 53%, relative to the base period. Since depreciation in the reporting period increased as a result of investment projects implemented during the reporting period, yet the consolidated gross cash flow rose significantly by HUF 649.662 million as well, reflecting a 29% improvement. The efficient operation in the reporting period is also reflected in the gross margin and gross cash flow rate, at 25.8% and 51.7%, respectively, in the reporting period, each being a significant improvement year-on-year.

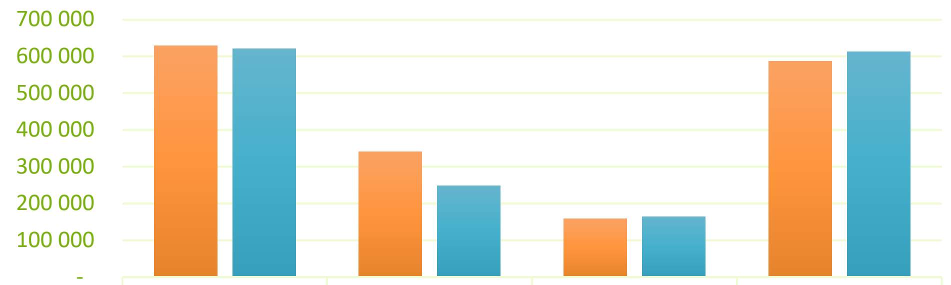
Administration and general costs decreased marginally by 1% relative to the base period, which contributed to the EBITDA improvement. At the same time, the net balance of other incomes and expenditures amounting to HUF 192.250 thousand fell markedly, by 53%, reducing the EBITDA by HUF 216.350 thousand. Nevertheless, thanks to the gross margin and cash flow increase reflecting the combined effect of the remarkable improvement in heat sales and optimal operation, EBITDA amounted to HUF 2,665,645 million in the period under review, up 20% year on year. The Company achieved a HUF 434,531 thousand EBITDA improvement while the rate of the EBITDA remained a the previous year's 47%. The consolidated EBITDA of HUF 2,665,645 thousand chalked up during the reporting period significantly exceeds the 2019 target of HUF 2,320–2,380 million.

The Company realised a financial loss of HUF 415,998 thousand and – after the deduction of a corporate income tax of HUF 46,784 thousand – a consolidated net profit of HUF 734.898 thousand in 2019, a remarkable increase compared to the HUF 434.636 million consolidated net profit recorded in the base period.

Key profit/loss figures (HUF Th)	2019	2018
Revenue from sales	5,647,921	4,679,096
Direct costs of sales	-4,192,794	-3,725,708
Gross margin	**1,455,127**	**953,388**
Gross cash-flow	**2,919,836**	**2,270,174**
Gross cash flow rate	**51.7%**	**48.5%**
Indirect costs of sales	-449,697	-455,860
Other incomes and expenditures	192,250	408,600
Operating profit (EBIT)	**1,197,680**	**906,128**
EBITDA	**2,665,645**	**2,231,113**
EBITDA rate	**47.2%**	**47.7%**
Financial profit	-415,998	-380,966
Of which: Effect of period-end FX revaluation	*-131,534*	*-186,132*
Profit before taxes	**781,682**	**525,162**
Consolidated net profit for the reporting period	**734,898**	**434,636**
Return on Equity (ROE) %	7.13%	4.40%
Return on Sales (ROS) %	12.90%	9.27%
Earnings per ordinary share (diluted EPS) (HUF)	*40.77*	*23.41*

The Company's EBITDA expectations concerning the coming years

The Company proposes to sell heat of 1,646 TJ in 2020. The Company updates its EBITDA expectation to 2,530-2,600 million for the business year of 2020, instead of the previously published range of HUF 2,580-2,640 million.



	Q1	Q2	Q3	Q4
2019	629 176	340 628	158 552	587 822
2020	621 403	247 988	164 526	612 739

Treasury share buyback programs

On 31 December 2019 the Company held a total of 3,191,433 PannErgy Plc. treasury shares, 548,796 more than the stock of treasury shares held on 31 December 2018. The change resulted from the purchase of 658,795 treasury shares under the treasury share repurchasing programme in effect in the review period and from the call-down of 109,999 shares under the 2016–2019 share option programme closed in April 2019 in the review period.
A total of 540,895 and a total of 117,900 treasury shares were bought back in the first half and in the second half of 2019, respectively, under the above treasury share buyback programs.

The stock exchange closing price of PannErgy shares was HUF 738 per share at the end of the review period, compared to HUF 758 on 31 December 2018.

Conclusion of the licensing procedure of the Győr Concession Project, merger of the concession company

PannErgy Geothermal Power Plants CPlc. – a member of the PannErgy Group – concluded a concession contract in February 2017 with the Hungarian State for the exploration and extraction as well as utilization of geothermal energy in the region of Győr, for a definite period of 35 years. The conclusion of the concession contract was followed – on 17 February 2017 – by the establishment of PannErgy Koncessziós Ltd. Having examined, in the framework of the concession rights acquired under the concession contract, the geothermal resources in the zone over 2,500 meters below the surface, that is the zone covered by the concession, the newly established concession company decided to have a new geothermal well drilled in order to increase its thermal capacity, an investment expected to pay off, for which the Company was issued with the final construction permit on 26 January 2018. The drilling of productive well No. BON-PE-03 was successfully completed in 2018 in accordance with the schedule of the exploration under concession, followed by the commencement of the licensing process of the well, at the end of which – on 3 June 2019 – the Company received the district heat production license for

well No. BON-PE-03 established in the framework of the concession project. Thereafter, following additional permission procedures, heat production from the well was started in the heating season that got under way in October 2019. PannErgy plans to use the additional quantity of heat supplied by the increased capacity stemming from the third well of the Győr Geothermal Project for selling additional green energy to its existing customers.
PannErgy Concession Ltd. merged with another Győr-based project company, Arrabona Geotermia Ltd. as at the company registration effective date of 30 June 2019. Upon the merger-type acquisition, PannErgy Concession Ltd., as acquired company, merged into Arrabona Geotermia Ltd., which took it over. As a result of the merger, PannErgy Concession Ltd. was terminated, with its general legal successor being the recipient Arrabona Geotermia Ltd. which, effective from 30 June 2019, continues to perform the legal predecessor's activities undertaken under a concession contract as well as its activities carried out so far, under the name of Arrabona Concession Ltd. (Arrabona Koncessziós Ltd.). The official licensing procedures related to the transformation were concluded on 17 June 2019.

<u>Acquisition related to the purchase of the Miskolc reinjection well</u>

On 28 June 2019, the Company acquired full ownership in Well Research Ltd., owner of the reinjection well (ID: KIS-PE-01B) bored at Kistokaj and connected to the Geothermal System of Miskolc. The purchase price of the full ownership in Well Research Ltd. along with its debt to its owner amounts to HUF 740,000 thousand, while after the subtraction of the balance on the reserve accounts, its net loan liabilities amounted to HUF 343,000 thousand at the time of the closure of the transaction. The PannErgy Group's consolidated annual EBITDA increment arising from the transaction was HUF 156,375 thousand in the reporting period. This increment was taken into account in PannErgy's EBITDA figures planned for 2019 and 2020 – as indicated the latest proposal submitted to its General Meeting – on a *pro rata temporis* basis. PannErgy Group includes the newly acquired company as a subsidiary in the consolidation process related to the financial report pertaining to the first half of 2019 as at the date of its acquisition, i.e. 28 June 2019.

<u>Sale of real-estate property unrelated to the Company's core activity in Csepel in the reporting period</u>

In the review period the Company sold its industrial real property located in Dézsa utca, District XXI, Budapest owned by PannErgy Plc. This property is unrelated to the PannErgy Group's core activity, energy. The purchase and sale transaction was consistent with the Company's intention to sell and with its active sales activity; the property concerned had been recognised in the financial statements of the previous period as an asset held for sale. As a result of the sale, the Company realised a revenue of HUF 375,000 thousand and a profit of HUF 71,191 thousand, and the property sale transaction was concluded upon the payment of the purchase price in the second quarter of 2019.

In the period under review, a number of additional, non-core industrial real properties located in Debrecen were reclassified into the investment property category from assets held for sale because the properties concerned are not expected to be sold in the next one-year period, and the Company suspended its active sales activity in relation to the properties.

<u>General meeting closing the previous business year, dividend payment</u>

The regular General Meeting of the Company closing the 2018 business year took place, in the form of a repeated meeting, with a quorum on 26 April 2019. In view of the Board report, the report of the Audit Committee and the auditor's report the General Meeting approved the PannErgy Group's 2018 report consolidated in accordance with the EU IFRS rules, with HUF 25,810,702 thousand as total assets and total liabilities (balance sheet total) and HUF 434,636 thousand as profit after taxes.

The General Meeting approved the Board's proposal for adding the whole of the Company's profit after taxes to its profit reserve, i.e. the Company paid no dividend for the 2018 business year.

The Company's 2019 consolidated net profit for the year attributable to the Company's shareholders amounts to HUF 728,336 thousand, and the Board proposes to the General Meeting that HUF 17 dividend per share should be paid. (Amendment published on 30th April 2020: The Management Board—acting in the capacity of the General Meeting—adopts the proposal of the Management Board to transfer the total amount of the Company's profit after taxes to the profit reserve, bearing in mind, among others, the reasonable, diligent and prudent management in light of the developments of the COVID-19 epidemic, and therefore the Company will not pay any dividend for the 2019 business year.)

2. PannErgy Group's profit or loss in 2019, key ratios of its business operations

In 2019 the PannErgy Group continued its activities aimed at accomplishing its geothermal energy production and utilization strategy laid down in the preceding year, focused on boosting its sales revenue and EBITDA through increased heat output based on continued improvements in the operational condition and running of its geothermal projects. Another key event during the reporting period was – also in close connection with the efforts aimed at achieving the targeted sales revenue and EBITDA goals – the commissioning of the third production well bored on the basis of the concession relating to the Győr Geothermal Project. These efforts were positively affected by the favourable weather conditions for the sale of heat during the period under review, enabling heat sales to significantly exceed the prior year's data, generating a higher sales revenue. Effective operation and maintenance practices enabled the PannErgy Group to maintain the effects of the 20% year-on-year increase in its sales revenue in terms of consolidated gross margin and cash-flow as well as the reporting period's EBITDA ratio as well.

Key profit/loss figures (HUF Th)	2019	2018
Revenue from sales	**5,647,921**	**4,679,096**
Direct costs of sales	-4,192,794	-3,725,708
Gross margin	**1,455,127**	**953,388**
Gross margin ratio %	*25.8%*	*20.4%*
Gross cash-flow	**2,919,836**	**2,270,174**
Gross cash flow rate %	*51.7%*	*48.5%*
Indirect costs of sales	-449,697	-455,860
Other incomes	416,251	617,797
Other expenditures	-224,001	-209,197
Operating profit (EBIT)	**1,197,680**	**906,128**
Operating profit rate %	*21.2%*	*19.4%*
EBITDA	**2,665,645**	**2,231,113**
EBITDA rate %	*47.2%*	*47.7%*
Financial profit	-415,998	-380,966
Profit before taxes	**781,682**	**525,162**
Consolidated net profit for the reporting year, attributable to the Company's shareholders	**728,336**	**433,652**
Return on Equity, % (ROE)	7.13%	4.40%
Return on Sales, % (ROS)	12.90%	9.27%
Earnings per share (EPS) HUF	40.77	23.55

The diluted earnings per share amounted to HUF 40.77, and unlike in the previous period, there is no difference in determining the diluted earnings per share as there was no share option program running with shares not called at the end of the reporting period.

Detailed description of the Company’s business operations in 2019:

The PannErgy Group recorded HUF 5,647,921 thousand in the way of consolidated sales revenue in 2019, 21% up over the HUF 4,679,096 thousand of 2018. This growth in sales revenues can be mainly attributed to the favourable weather conditions for the sale of geothermal heat during the period concerned, as a result of which the 2018/2019 heating season ended later than in the base period. Moreover, average temperatures were more optimal in terms of heat input for the most part of the year, allowing the Company to achieve a higher sales revenue level both in the first and in the second half of the year.
HUF 4,981,506 thousand of the total sales revenue of HUF 5,647,921 thousand came from the sale of heat, 26% up from the HUF 3,948,334 thousand booked for the previous year.

A breakdown of heat sale by project shows that Geothermal Project of Győr performed particularly well in 2019, its sales revenue adding HUF 2,870,939 thousand to the PannErgy Group's business performance, up 30% in comparison to the HUF 2,215,904 thousand sales revenue recorded in 2018. Arrabona Koncessziós Ltd’s sales to Győr-Szol CPlc. amounted to HUF 1,770,144 thousand of the above total figure while DD Energy Ltd’s sales to its automotive industry customer amounted to HUF 1,099,913 thousand (to be compared to the previous year’s HUF 1,182,384 thousand and HUF 1,031,497 thousand figures, respectively). Sales realised in the framework of the Geothermal Project of Miskolc towards heat-receiving partners added up to HUF 2,038,227 thousand in the review period, of which HUF 1,979,976 million was sold to MIHŐ Heat Distribution Ltd. of Miskolc. Owing to the above mentioned favourable weather conditions, these sales figures significantly exceed the previous year’s revenue of HUF 1,654,414 thousand from the Miskolc project, and the HUF 1,598,165 thousand revenue from MIHŐ Heat Distribution Ltd. At the level of the Miskolc project, this represents a 23% year-on-year sales revenue increase.

The Company's two smaller projects in Szentlőrinc and Berekfürdő showed nearly the same performance in terms of sales revenues as in the previous period: Szentlőrinc realised HUF 66,134 thousand sales revenues during the reporting period compared to HUF 72,209 thousand in 2018, whereas in Berekfürdő HUF 6,206 thousand turnover came from heat sales, exceeding the HUF 5,607 thousand base period sales revenue.

In addition to the sale of thermal energy the Company earned HUF 552,316 thousand from the sale of electricity, including 526,913 thousand electricity fee relating to the operation of the PannErgy Plc’s real estates in Csepel and Debrecen, re-invoiced to the tenants and other owners of the co-owned properties and are unrelated to the energy industry core operation. The additional HUF 25,403 thousand sales revenue comes from the sale of electricity in relation to the Company’s project in Berekfürdő. Other re-invoiced utility services generated HUF 85,155 thousand in the utilization of the above mentioned properties not related to the Company’s geothermal operations during the period concerned. The profit earned on re-invoiced services amounted to HUF 21,117 thousands, while the profit realised on the rental amounted to HUF 22,691 thousand during the period concerned, each falling short of the corresponding figures of the previous year as a consequence of the sale during the year of PannErgy Plc's property in Csepel.

Similarly to the previous period, three customers exceeded 10% of the total amount of the Group's consolidated revenue from sales, making up a combined 86% percent of the total sales of PannErgy Group in the review period, exceeding the base period's 81%.

The direct costs of sales increased from HUF 3,725,708 thousand in 2018 by 13% to HUF 4,192,794 thousand during the period under review. The PannErgy Group's direct costs of sale increased less markedly than did its sales revenue. This increase is attributed primarily to electricity costs that reflected the effect of the increase in sales revenues resulting from the longer and more intensive heating season, as well as to reinjection, maintenance, operation and facility maintenance costs.

In the "Costs of goods sold, mediated services" category, HUF 549,717 thousand was stated as expenses of sales not related to geothermal operations; they consisted in re-invoiced services, primarily re-invoiced electricity charges, in the context the utilization of real properties owned by the Company in Debrecen and in Csepel (the latter were sold during the year).

The increase of direct depreciation reflects the effect of the commissioning of capacity expansion and additional investment projects in 2019, while in certain asset categories the period of useful life was adjusted following a technical review, resulting in a modest increase in the depreciation charge.

Accordingly, the Group stated HUF 2,919,836 thousand in the way of gross cash-flow in 2019, 29% up on the previous year's HUF 2,270,174 thousand. The cash-flow ratios were: 51.7% in 2019 and 48.5% in 2018.

HUF 449,697 thousand was incurred in the reporting period as administrative and overhead – i.e. indirect – costs, up 1% from the HUF 455,860 thousand base figure. Depreciation on assets not directly linked with energy industry activities, indirect personnel expenditures, general office and administration costs, expert charges, banking and insurance expenses as well as non-capitalizable costs belonging to business development and new projects are stated by the Group under the heading of indirect costs, among other items.

The substantial cuts in central costs achieved during earlier periods were followed by additional reductions in costs in the reporting period as well, for example in office and operating costs, personnel type expenditures and consultancy fees. With regard to the costs of public and stock exchange presence recognised among indirect costs it should be noted that, for social responsibility considerations, PannErgy Group continues to attach high importance to supporting the cities and regions where existing projects are located in the areas of sports activities and other social initiatives, thereby offering support to the end users of geothermal energy.

The balance of other revenues and expenditures during the reporting period is a revenue of HUF 192,250 thousand, in contrast to the HUF 408,600 thousand recorded in the base period.

Within the HUF 224,001 thousand other expenditures the most substantial item – of HUF 129,621 thousand – consists in local taxes, primarily the local business tax paid to the local governments at the sites of geothermal projects. In addition, the mining royalties related to geothermal heat production constitute another significant expenditure item; the Company paid HUF 75,654 thousand in the review period in this regard. Similar to the local business tax, these expenditures rose parallel to the increase in sales revenues compared to the base period. In the review period, the Company recognised HUF 963 thousand in other expenditures related to the scrapping and impairment of inventories, significantly below the previous year’s HUF 7,978 thousand. The level of fines and compensations paid remained the same as in the base period. No specific provisions were made during the reporting period.

Within the HUF 416,251 thousand other income in the reporting year, the most significant item is aid received. The HUF 241,300 thousand revenue stated during the reporting period as grant for development comprised the reversal, in proportion with depreciation during the reporting year, of grants received earlier and recognized as deferred income in the form of other income during the reporting period. Further significant items among other incomes include compensations and similar items relating to insured events that occurred before and during the reporting period, in a total amount of HUF 40,257 thousand, such as penalties and compensations enforced against suppliers subsequently or such items recognised and settled by suppliers in relation to defective performance.
The Company realised a profit of HUF 71,073 thousand – stated among other incomes – during the reporting period from the sale of tangible assets, including HUF 71,191 thousand from the sale of the industrial property in Csepel.

During the reporting period the Company released an amount of HUF 18,449 thousand from the provisions set aside during the previous year because costs for which provisions were made were realised during the reporting period in expenditures.

As a consequence of the above factors the operating profit/loss (EBIT) appeared as a profit of HUF 1,197,680 thousand in the 2019 business year, up 32% on the HUF 906,128 thousand of 2018.

The business cash-flow (EBITDA) comprised the influx of HUF 2,665,645 thousand with a 47.2% EBITDA ratio, exceeding the HUF 2,231,113 thousand EBITDA of 2018 by HUF 434,532 thousand. Scheduled and extra depreciation was recognised during the reporting period in a total amount of HUF 1,467,002 thousand, up 11% on the preceding year’s HUF 1,317,007 thousand. In calculating the EBITDA the Company takes account of the extraordinary depreciation recognised among intangible assets and tangible assets.

The financial profit was a negative amount of HUF 415,998 thousand during the reporting period, a loss HUF 35,032 greater than the HUF 380,966 thousand loss on financial transactions in 2018.
This decrease in financial profit resulted from an unfavourable change (caused by variations in the HUF/EUR exchange rate relative the previous periods) in the non-realised foreign exchange loss at the end of the period, presented as a revaluation of foreign currency receivables and liabilities in the consolidated financial statements. During the period under review the Company stated HUF 131,534 thousand as non-realised exchange rate loss among its financial transactions while regardless of the “temporary” unrealised effect of the aforementioned revaluation at the end of the period the Company is not actually exposed to any significant exchange rate risk in its operations, as it has created a hedging position and therefore its revenues that are denominated in foreign currency almost completely cover its expenditures denominated in foreign currency, including its currency-based debt servicing obligation.

The Company's interest expenses increased slightly during the period concerned, by 3% to HUF 273,264 thousand, year-on-year.

Accordingly, the PannErgy Group's 2019 profit before taxes amounted to HUF 781,682 thousand, significantly surpassing the previous year's HUF 433,652 thousand, thanks to the developments detailed above.

The Company recognised HUF 46,784 thousand in tax liability for the reporting period, so it's consolidated net profit amounted to HUF 734,898 thousand in 2019, HUF 300,262 thousand more than the HUF 434,636 thousand recorded for 2018.

Key data on the asset position (HUF Th)	2019	2018
Fixed assets	**23,178,868**	**22,780,107**
Total current assets	2,794,915	3,030,594
Of which Liquid assets	1,344,788	1,108,246
Total assets	**25,973,783**	**25,810,702**
Total equity	**10,213,948**	**9,866,857**

The portfolio of fixed assets increased by 2% during the reporting period, as a combined result of a significant increase in the amount of other intangible assets, from HUF 767,882 thousand in the base period to HUF 1,918,449 thousand, as a result of procurements, and reclassifications from tangible assets during the reporting period, in relation to the implementation of DoverDrill Mélyfúró Ltd's GINOP R&D project. The decrease in the portfolio of tangible assets is also a result of the abovementioned reclassification to intangible assets. The value of the reclassified items exceeded the value of the capacity increasing projects implemented and the assets purchased during the reporting period.
The Company stated HUF 518,487 thousand in the way of goodwill, similarly to the preceding period, of which HUF 517,537 thousand is associated with the minority interest acquired earlier in PEGE CPlc. and a HUF 950 thousand increment in the reporting year through the acquisition of a minority interest in Szentlőrinci Geotermia CPlc.

The Company stated HUF 242,892 thousand as deferred tax receivable among its assets, up 6% year-on-year, as a result of the PannErgy Group's deferred tax recovery calculations.

The portfolio of current assets dropped by 8% year-on-year, primarily as a consequence of a decrease in the amount of trade receivables and other receivables.
At the end of the reporting period, the Company stated inventories – maintenance materials for use in the operation of the geothermal projects – in an amount of HUF 27,651 thousand.

Among its current assets the Company had liquid assets in an amount of HUF 1,344,788 thousand at the end of the period, of which HUF 766,482 thousand to was, for the most part, freely disposable in the wake of the banks' approvals, in contrast to the HUF 614,969 thousand stated at the end of the previous year. The amount of separated and blocked liquid assets was HUF 578,306 thousand, also up from the HUF 493,277 thousand recorded at the end of the preceding year. The disposable funds also include certain amounts whose use for purposes other than the Company's, as account holder's, own business operations is subject to the financing institution's consent are stated in the bank account and cash at hand. Those stated in the separated blocked cash are amounts on accounts managed by financial institutions, blocked as collaterals for loan repayment, not accessible for the borrowers.

The Company's equity increased by 4% year-on-year, as a result of a combined effect, during the reporting period, of the net profit of the reporting year attributable to the Company's shareholders and the portfolio of treasury shares. The equity per share (calculated for the number of shares less the portfolio of treasury shares) grew from the previous year's HUF 536 to HUF 572.

The portfolio of long-term credits dropped 5% year-on-year to HUF 7,878,536 thousand through repayments made during the reporting period.

The over-year part of the non-repayable grants won in the context of application schemes for the geothermal projects is shown in the other long-term deferred incomes line. In relation to the above, an amount of HUF 4,030,962 thousand is shown in the statement of the Company's financial position, up 1% year-on-year, as a result of the amount received, in the way of a grant relating to DoverDrill Mélyfúró Ltd's GINOP project and recognised as deferred income in the period under review, eliminating the reducing effect of the reversals booked during the same period.

The balance of trading partners was HUF 900,737 thousand in the category of short term liabilities, down 24% from the base period's figure, as a result of the intensive investment activities carried out during the base period.

The portfolio of short-term credits, plus the short term part of the long-term credits, amounted to HUF 2,206,432 thousand at the end of the reporting period, 32% larger than the previous year's HUF 1,674,932 thousand, reflecting the borrowing of additional external short term funds during the period. The portfolio of other short-term liabilities amounted to HUF 522,979 thousand at the end of the reporting period, down 6% year-on-year, primarily as a consequence of the conclusion in the reporting period of the share option program that had taken place in the preceding period, in relation to which no short term loans were thus stated at the end of the reporting period.

Key indicators	2019	2018
Profitability indicators		
Return on assets, % (ROA)	2.80	1.68
Return on Equity, % (ROE)	7.20	4.41
Return on Sales, % (ROS)	12.90	9.27
Asset position indicators		
Ratio of fixed assets, %	89.24	88.24
Ratio of equity capital, %	39.32	38.23
Indebtedness rate, %	154.30	161.59
Financial indicators		
Liquidity ratio	72.59	82.18
Acid test ratio	71.87	82.18
Earnings per share (EPS) HUF	**40.77**	**23.55**

As a result of a significant year-on-year growth in the PannErgy Group's profit after taxes for the year the profitability ratios increased substantially year-on-year. Reflecting the increasing effect of the reporting period's investment projects and that of the cost value of the reinjection well acquired through participation purchase the asset position ratios indicate an increase in the ratio of fixed assets, as well as – thanks to the profitable business operations – a decrease in the Group's indebtedness. The financial ratios decreased year-on-year, as a result of an increase in the portfolio of short term credits and the short term part of long-term credits.

3. Introduction to the Company

3.1. *The PannErgy Group's core operations*

PannErgy Plc. ("Company" or "PannErgy") is an entity listed at the Budapest Stock Exchange, included in the BUX basket, and is a premium share issuer; its core activities involve the extraction, utilization for energy generation and selling of one of Europe's most significant thermal water resources, in particular, renewable geothermal energy. In connection with its geothermal energy generating operations the Company performs productive operations in Miskolc, Győr, Szentlőrinc and Berekfürdő. As of 31 December 2019 the PannErgy Group had a headcount of 17, with an annual average statistical headcount of 27.

PannErgy Plc. has its registered office in Hungary at H–1117 Budapest, Budafoki út 56. The Company is operating in a holding structure. For the subsidiaries' detailed data see Chapter 6.

3.2. *Regulated district heating tariffs*

Some of the project companies of PannErgy Group have district heat production licenses. Accordingly, they sell heat in a an environment regulated by the Hungarian Energy and Public Utility Regulatory Office (MEKH). In this arrangement the heat sold by PannErgy Group to district heating companies is subject to the authority-regulated tariffs announced each year by the Minister for National Development in the form of the Decree of the Ministry for National Development for a period of one year from 1 October each year until 30 September the following year. The thermal energy tariff in place from 1 October 2019 for the Miskolc Geothermal Project was increased from the previous year's 2,515 HUF/GJ to 2,695 HUF/GJ in the case of Miskolci Geotermia CPlc. and Kuala Ltd.: this is the price invoiced by these two companies for the heat sold to MIHŐ Miskolci Hőszolgáltató Ltd. In connection with the Győr Geothermal Project the regulated district heating tariff charged for the heat sold by Arrabona Koncessziós Ltd. to Győr-Szol Győri Közszolgáltató és Vagyongazdálkodó CPlc. was increased from 3,108 HUF/GJ to 3,204 HUF/GJ, while Szentlőrinci Geotermia CPlc. may continue to sell thermal energy to Szentlőrinci Közüzemi Nonprofit Ltd. for the same price as in the previous period, that is, 3,654 HUF/GJ.

3.3. *Sale of heat to industrial and non-municipal government partners*

To enhance the diversification of the sale of heat the PannErgy Group is constantly seeking for opportunities to boost its sales of geothermal heat to industrial partners as well, in the form of primary or secondary heat utilization, besides the agreements concluded with heating utility partners. The Company's major industrial consumers purchasing heat, include Audi Hungaria CPlc. in the case of the Győr Geothermal Project, while in the case of the Miskolc Geothermal Project they include Joyson Safety Systems Hungary Ltd (formerly: Takata Safety Systems Hungary Ltd.) and GS Yuasa Magyarország Ltd. In addition to the above the PannErgy Group has multiple smaller industrial consumer contracts in place – it continues to be committed to increasing the list of its industrial consumers.

3.4. *Real property utilization*

In addition to its core operations comprising the production and sale of geothermal heat (Energy) the Company has industrial real property and offices originating from before the time of the "Pannonplast - PannErgy" strategy shift, in the 21st district of Budapest (Csepel) and in the town of Debrecen. The real estates concerned were categorised by the Company during the preceding period as fixed assets held for sale. Accordingly it actively sought to sell the assets concerned, as a result of which it managed to sell its property in District XXI of Budapest – one that was not linked to the core operation of the PannErgy Group, that is, its the energy industry activities – for an amount of HUF 375,000 thousand, earning a profit of HUF 71,191 thousand on the transaction. The deal left the Company with properties in Csepel worth only some HUF 2,756 thousand – public roads, shared with a number of co-owners – which the Company continues to make efforts to sell, being committed to dispose of them in the short run.

PannErgy Plc's industrial properties in the town of Debrecen, neither directly nor indirectly related to the Group's core operations of geothermal heat generation and sale, were reclassified by the Company during the reporting period from assets held for selling to investment properties because the properties concerned are leased to customers, therefore and thus are not going to be sold within a year. The aforementioned industrial properties, located in the town of Debrecen, were stated in the consolidated statement of the Company's financial position as investment properties in an amount of 113,957 thousand at the end of the reporting period.
The transformer building and equipment supplying the industrial property in Debrecen with electricity were transferred during the year preceding the reporting period from PannErgy Plc to TT-Geotermia Zrt, as a fully consolidated affiliated undertaking. Consequently, this is the Company that supplies power to the Debrecen industrial site in undivided joint ownership, simultaneously with the consumption-based re-invoicing of the electricity costs to the co-owners.

As described above, the Company performs no active asset management operations; it utilizes all of its resources primarily in the Energy industry.

4. Achievement of PannErgy's main targets set for 2019, and the associated risks

4.1. *Győr Geothermal Project (DD Energy Ltd., Arrabona Concession Ltd.)*

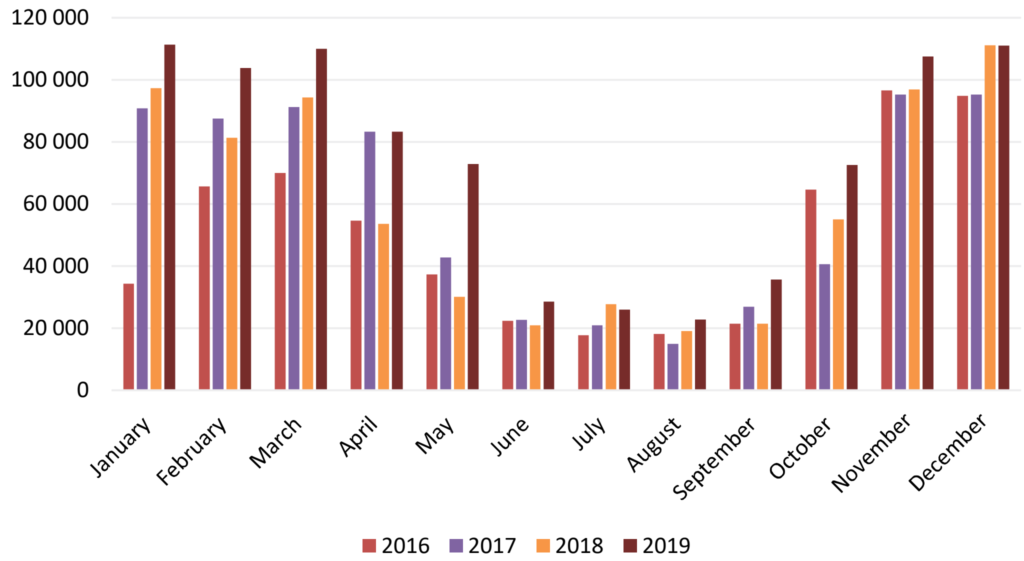
The operation of the Győr Geothermal Project during the year was characterised that in addition to the favourable weather conditions, improvements in the efficiency of capacity utilization as well as the commercial operation of the third production well also contributed significantly to the company's success in exceeding the basis period's sales figures. The increased sales figures were also driven by improved alignment of the characteristics of geothermal heat generation to the operation of Győr-Szol Ltd.'s boiler capacities as a result of continuous facility developments making it more efficient in supporting the switches of between the operation of the boilers.

The BON-PE-03 production well-constructed by PannErgy Concession Ltd. in the framework of the Group's concession project received the district heat production license required for its operation on 3 June 2019. In accordance with the decision of PannErgy Geothermal Power Plants CPlc., as owner, and the relevant rulings of the Budapest Metropolitan Court as Court of Registration, PannErgy Concession Ltd. merged with Arrabona Geotermia Ltd. As a result of the merger, PannErgy Concession Ltd. was terminated, with its general legal successor being the recipient Arrabona Geotermia Ltd., which continues to perform the legal predecessor's activities undertaken under a concession contract as well as its activities carried out so far, under the name of Arrabona Concession Ltd.

The regulated district heating producer tariffs to be applied from 1 October 2019 were announced by Decree 37./2019. (IX. 30.) of the Minister of Innovation and Technology in the 161st edition in 2019 of the Magyar Közlöny (the Hungarian Official Journal). The regulated heat supply tariff applied by Arrabona Koncessziós Ltd. was increased from the previously applied 3,108 HUF/GJ to 3,204 HUF/GJ.

Overall, the Company realised 885,107 GJ heat sales in the commercial operations of the Geothermal System of Győr during the first half of 2019, up 25% compared to the 708,738 GJ heat sold during the previous year. The utilization of the green thermal energy produced by the Bőny Heat Centre of the Győr Geothermal Project substituted the burning of 31 million m^3 of natural gas, reducing the amount of greenhouse CO2 released into the atmosphere from Győr by more than 51,342 tons during the whole of the year.

The amounts of heat sold in Győr were as follows during the reporting period (GJ):



Consolidated heat sales figures of the Győr Geothermal Project (GJ)				
	2016	**2017**	**2018**	**2019**
January	34,305	90,827	97,271	111,334
February	65,618	87,471	81,359	103,768
March	69,970	91,190	94,356	109,948
April	54,638	83,321	53,599	83,265
May	37,286	42,783	30,106	72,868
June	22,338	22,612	20,857	28,558
July	17,748	20,936	27,744	25,953
August	18,161	14,891	19,028	22,703
September	21,446	26,895	21,381	35,621
October	64,623	40,603	54,990	72,587
November	96,565	95,198	96,894	107,473
December	94,853	95,254	111,153	111,029
Total	**597,551**	**711,981**	**708,738**	**885,107**

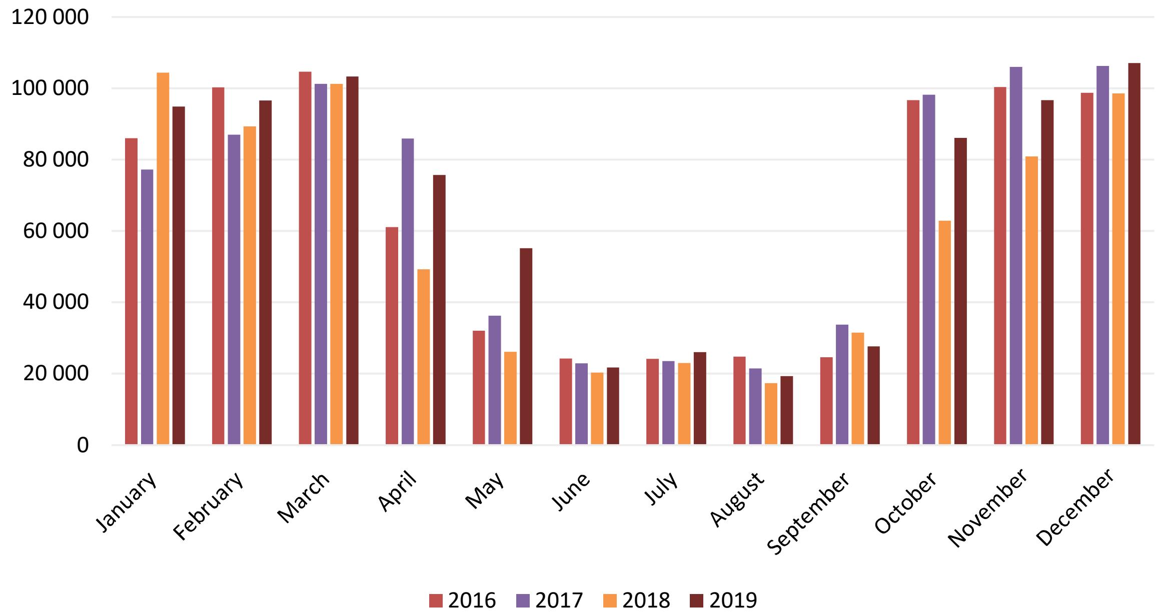
4.2. *Miskolc Geothermal Project (Miskolci Geotermia CPlc., Kuala Ltd.)*

It should be noted concerning the 2019 operation of the Geothermal System of Miskolc that the weather conditions at the beginning of the year could have enabled the sale of an additional 15-20,000 GJ a month in Miskolc, but the town's district heating system was supplied with a higher ratio of heat generated from fossil fuels during the months of January and February than in the corresponding periods of earlier years. The parties concerned are taking additional steps to improve arrangements for increasing the input of green energy. The reduced loads outside the heating season enabled the Company to carry out comprehensive checks and maintenance on the wells operated in an alternating scheme, during the summer months. The geothermal production wells and the geothermal reservoir are under continuous monitoring. No material change has been observed in comparison to the previous year. The Company lays particular emphasis on the maintenance and preservation of the wells and the geothermal systems to maximise the length of their useful life. The growth in the second half of the year is attributed mainly to the performance in October and November which could be attained due to the previously mentioned more favourable weather conditions, the minor technical problems in the base period, and the improvements in the utilization of available capacities.

The regulated district heating producer tariffs to be applied from 1 October 2019 were announced by Decree 37./2019. (IX. 30.) of the Minister of Innovation and Technology in the 161st edition in 2019 of the Magyar Közlöny (the Hungarian Official Journal). The regulated heating tariff applied by Kuala Ltd. and Miskolci Geotermia CPlc. was increased from 2,515 HUF/GJ to 2,695 HUF/GJ.

Overall, the Company realised 810,152 GJ heat sales in the commercial operations of the Geothermal System of Miskolc during the first half of 2019, up 15% compared to the 704,794 GJ heat sold during the previous year. The utilization for urban district heating of the green thermal energy produced by the Geothermal System of Miskolc substituted the burning of 28 million m^3 of natural gas, reducing the amount of greenhouse CO2 released into the atmosphere from Miskolc by more than 46,994 tons during the whole of the year.

The amounts of heat sold in Miskolc were as follows during the reporting period (GJ):



Consolidated heat sales figures of the Miskolc Geothermal Project (GJ)				
	2016	**2017**	**2018**	**2019**
January	85,970	77,189	104,384	94,905
February	100,284	87,028	89,328	96,584
March	104,643	101,220	101,218	103,323
April	61,116	85,882	49,254	75,663
May	32,065	36,298	26,094	55,201
June	24,234	22,886	20,263	21,740
July	24,148	23,556	23,021	26,002
August	24,808	21,476	17,330	19,279
September	24,596	33,757	31,535	27,677
October	96,652	98,227	62,881	86,057
November	100,349	105,953	80,937	96,644
December	98,768	106,247	98,549	107,077
Total	**777,633**	**799,719**	**704,794**	**810,152**

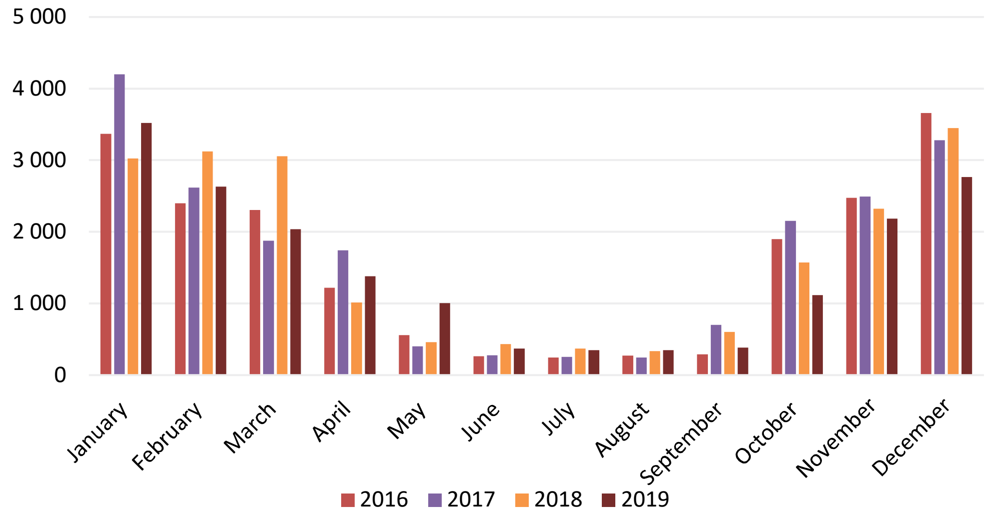
4.3. *The geothermal heating facility of Szentlőrinc (Szentlőrinci Geotermia CPlc.)*

The mild weather at the beginning of the year had a less favourable effect on the Szentlőrinc project than on the Company's Győr and Miskolc projects because there is only a geothermally supplied district heating system in Szentlőrinc, which was directly affected by the decrease in the annual average demand for heat, caused by global warming. The higher average temperatures in Q1 resulted in a 12% year-on-year drop in the amount of heat sold. The more optimal weather conditions in Q2 – the relatively cool weather in April and May – improved the heat sales figures. The longer heating season also increased heat sales in the second quarter. Heat sales in the summer months were largely the same as in the previous year, the September figures differed from those recorded one year before. Given the mild weather conditions – intermittent – heating did not begin until the first days of October in 2019, whereas heating began as early as September in 2018.

The regulated district heating producer tariffs to be applied from 1 October 2019 were announced by Decree 37./2019. (IX. 30.) of the Minister of Innovation and Technology in the 161st edition in 2019 of the Magyar Közlöny (the Hungarian Official Journal). The regulated heating tariff applied by Szentlőrinci Geotermia Zrt was 3,654 HUF/GJ, i.e. it remained unchanged from the tariff applied up to 30 September 2019.

The total quantity of heat sold by the Geothermal System of Szentlőrinc amounted to 18,084 GJ in 2019; the heat input dropped by 8% at an annual level year-on-year, as a consequence of the weather-sensitive nature of geothermal heat-input.

The amounts of heat sold in Szentlőrinc were as follows during the reporting period (GJ):



Consolidated heat sales figures of the Szentlőrinc Geothermal Project (GJ)				
	2016	**2017**	**2018**	**2019**
January	3,366	4,200	3,026	3,519
February	2,400	2,617	3,124	2,630
March	2,305	1,877	3,057	2,035
April	1,220	1,741	1,013	1,380
May	559	402	458	1,004
June	262	276	434	372
July	243	253	370	347
August	270	245	334	348
September	289	700	603	382
October	1,896	2,154	1,570	1,118
November	2,474	2,491	2,323	2,186
December	3,658	3,278	3,450	2,763
Total	**18,942**	**20,234**	**19,762**	**18,084**

4.4. *Geothermal methane utilization facility of Berekfürdő (Berekfürdő Energia Ltd.)*

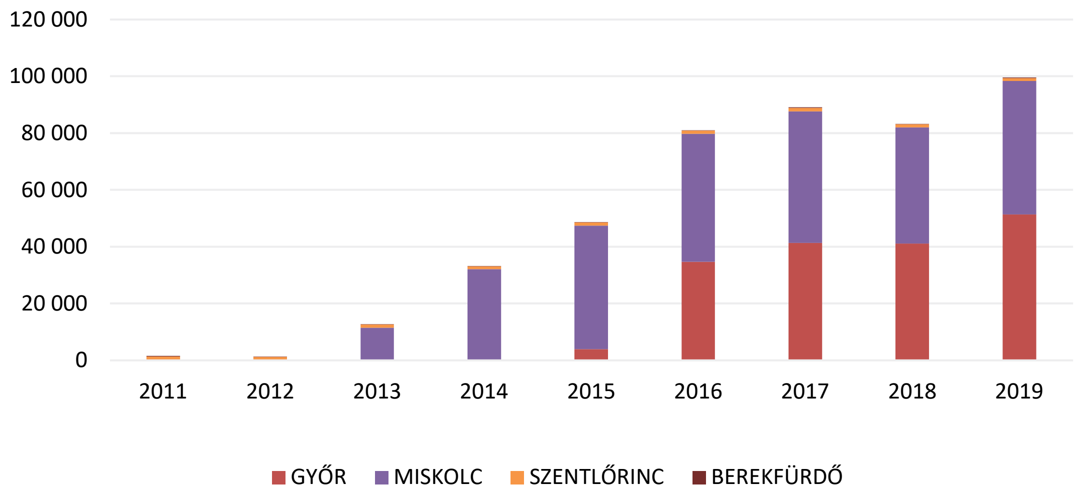
The Geothermal Methane Utilization Small Power Plant of Berekfürdő sold a total of 925,655 kWh electricity in 2019 H1, and 667,445 kWh 2019 H2. The sales figures of the beginning of 2019 were negatively affected by the fact that the refurbishment of the larger gas engine was carried over to 2019. Subsequently, in the second and the third quarter, the availability of gas engines was poorer, which affected the generation of both electricity and thermal energy. A total of 2,835 GJ of heat was sold in 2019, up 9% from the 2,600 GJ sold in 2018.

4.5. *Climate change*

Hungary has set the objective of reducing its greenhouse gas emissions by at least 40% below 1990 levels by 2030, while the rate of renewable energy in gross final energy consumption will be at least 21%. PannErgy Group runs its renewable energy projects in strict accordance with the national ambition to

make the district heating sector greener and more competitive. Through its geothermal projects, the Company supports Hungary's climate policy and the objectives laid down in the National Energy Strategy 2030 document by promoting sustainability.
The PannErgy Group's projects contributed to the efforts made to preserve a more liveable environment by the CO_2 emission cuts shown in the figure below. The reduction amounted to 99,550 tons, while the total aggregate amount of greenhouse gas emission saved by the PannErgy Group so far amounts to 450,408 tons.

The amount of greenhouse CO_2 not released into atmosphere thanks to the PannErgy Group's projects (in tons):



One of the evident effects of climate change in Hungary appears in the form of frequent volatile and extreme changes in weather conditions, including ambient temperatures, and a rise of the average temperature of the winter months from the historically cold, steadily sub-zero range to markedly over freezing point. These changes are not expected to have an adverse impact on the output of geothermal heat generation; indeed, perspectives of input into district heating systems are favourable as an average over multiple years. The reason for this is—as is noted in this report—the fact that daily geothermal heat sales are ideal in the 2-8 C temperature range during the heating season. At the same time, the potential decrease in the demand for heat during the transitional seasons may be compensated, indeed, overcompensated by the growth in the potential of the increasingly mild winter months.

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 the climate change has no perceivable effect on PannErgy Group, and the Company does not expect any trend-like effects in the future either.

PannErgy aims 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 optimization projects with existing customers;
- Cold energy projects — for the utilization 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.

5. Overview of the core operation – energy industry

PannErgy Plc. set out to implement its long-term strategy focusing on the utilization of renewable energy sources. The central element of the PannErgy Group's strategy is to become the region's dominant company in the utilization of geothermal energy and to maintain this position, as well as to provide highly reliable environmentally friendly services that are free of geopolitical risks. The PannErgy Group is committed to the utilization of one of the most substantial thermal water activity of Europe for the generation of energy. Geothermal heat can be utilized by households and industrial consumers in the long term and the environment preserving investment projects implemented by PannErgy enable significant reductions in energy expenditures.

On 31 May 1991, the company was transformed into a public company limited by shares, in line with Act XII of 1989 on the transformation of economic organizations. In 2007, PannErgy set itself an ambitious goal of generating substantial volumes of thermal energy and electric power by exploiting the long-known geothermal resources of Hungary, thereby creating value for the population and institutions of the country as well as for PannErgy's shareholders. The increase in the demand for energy is unstoppable in the long term – in spite of temporary set-backs from time to time – however, both the domestic and the global resources are limited. Professional, effective and efficient geothermal energy production is not only a form of utilization of a hitherto hardly used immense source of energy but also one of the most environmentally friendly and cleanest form of energy generation. The European Union has not only come to welcome such forms of energy generation but it is now guiding member states, including Hungary, by way of a strictly regulated program and clear-cut objectives as well.

The PannErgy Group has entered into a variety of cooperation agreements with a number of municipalities primarily in order to access the heat market, of which only the ones meeting a complex set of selection criteria were chosen subsequently as project goals.
Based on its strategy the Company accomplished its first success in 2010 with its geothermal developments by launching its commercial heat generation operation on 1 January 2011 in the framework of the Geothermal Project of Szentlőrinc, together with the sale of energy in the town of Szentlőrinc. The Company's second operational facility to be put into service as a project is to be found in the town of Berekfürdő, operating both heat and electricity from the methane dissolved in the geothermal water. The Berekfürdő facility found its way into the Company's portfolio through acquisition.

May 2013 saw the start-up of Central Europe's largest geothermal power plant, in the form of an investment project implemented by the PannErgy Group. The Geothermal Project of Miskolc won the international GeoPower Market's "2013 best heating project" award. The PannErgy Group had implemented the second phase of the Geothermal Project of Miskolc by September 2014, and the system started to supply thermal energy in the town of Miskolc to the Downtown and the University heating districts as well, in addition to that of the Avas residential area.
The capacity of the geothermal system enables the supply of additional consumers with environmentally friendly geothermal energy, besides the district heating system of the town of Miskolc as its primary heat consumer.

The PannErgy Group launched its second largest investment project – the Győr Geothermal Project – in the Kisalföld region in early 2014. 24 November 2015 marked the inauguration of the Győr Geothermal

Project, a development with a total cost of HUF 10.2 billion. Geothermal energy is delivered to a total of 24,266 homes and the heating systems of 1,046 other consumers under a long term heat supply contract concluded between the PannErgy Group and the district heating company called Győr-Szol CPlc. The energy to be supplied by the Heating Centre at Bőny covers at least 60% of the heating energy requirement of the AUDI factory. The total annual quantity of thermal energy to be supplied by the Geothermal System of Győr is 1,100 – 1,200 terajoule, enabled by commissioning of the third production well (BON-PE-03) implemented at Bőny in the context of the PannErgy Group's concession project.

Based on experience relating to the Miskolc and Győr projects described in detail above the Company assessed its funding and investment possibilities as well as the market's demand for heat supplies, identifying a substantial demand for highly competent and well-organised energy producers providing geothermal heat capacities.

The investment projects embraced by the PannErgy Group are in line with the national energy strategy and the renewable energy utilization program, each aimed at boosting Hungary's competitiveness. Hungary has set the objective of reducing its greenhouse gas emissions by at least 40% below 1990 levels by 2030, while the rate of renewable energy in gross final energy consumption will be at least 21%. PannErgy Group runs its renewable energy projects in strict accordance with the national ambition to make the district heating sector greener and more competitive. Through its geothermal projects, the Company supports Hungary's climate policy and the objectives laid down in the National Energy Strategy 2030 document by promoting sustainability.
PannErgy has not only become the enterprise implementing geothermal energy projects with the most substantial competence and experience but has recently also become one of Hungary's largest groups of companies generating and utilizing geothermal energy. The key short-term goals include increasing the productive capacities of the Geothermal Systems of both Győr and Miskolc, together with continued system optimization, thereby maximizing the amount of heat sold.

The Company wishes to make the available free capacities of the geothermal systems, and the savings enabled by them, accessible for new partners as well. Industrial use requires special expertise and project management experience which the Company believes are available at the highest standards in Hungary only from the members of the PannErgy Group.

6. THE PANNERGY GROUP'S SUBSIDIARIES

Of the subsidiaries of the parent company PannErgy Plc. PannErgy Geothermal Power Plants CPlc. is the Group's technical/professional leader and manager, the owner of the participations held in the various project companies. Moreover, PannErgy Plc. has a minority participation in the subsidiary called TT-Geotermia Zrt, which, together with the majority participation of PannErgy Geothermal Power Plants CPlc., constitutes a 100% ownership at a group level.

The Hungarian subsidiaries belonging to the PannErgy Group perform their economic activities typically in the territory of Hungary.

6.1. *The PannErgy Group's subsidiaries, ratios of participations and consolidation*

PannErgy subsidiaries	Share capital (HUF Mn)	Shareholding (%)	Voting rights (%)	Consolidation ratio (%)
PannErgy Geothermal Power Plants CPlc.	2,072.70	100.00	100.00	100.00
DoverDrill Mélyfúró Ltd.	86.00	100.00	100.00	100.00
Berekfürdő Energia Ltd.	24.10	100.00	100.00	100.00
Well Research Ltd.	10.00	90.00	90.00	90.00
Arrabona Koncessziós Ltd.	6.10	100.00	100.00	100.00
TT Geotermia CPlc.	6.00	100.00	100.00	100.00
Szentlőrinci Geotermia CPlc.	5.00	100.00	100.00	100.00
Miskolci Geotermia CPlc.	5.00	90.00	90.00	90.00
DD Energy Ltd.	3.10	100.00	100.00	100.00
Kuala Ltd.	3.00	90.00	90.00	90.00

6.2. *Key 2019 data of PannErgy's consolidated subsidiaries, on the basis of individual reports*

PannErgy subsidiaries	Equity	Subscribed capital	Sales revenue	Business profit or loss	Profit after taxes	Head count
PannErgy Plc.	11,971,780	421,093	335,238	57,709	56,298	0
PannErgy Geothermal Power Plants CPlc.	3,220,904	2,072,682	390,300	34,310	5,974	10
Arrabona Koncessziós Ltd.	1,433,900	6,100	2,060,437	272,547	175,162	1
DD Energy Ltd.	997,330	3,100	1,671,913	472,213	272,785	1
DoverDrill Ltd.	839,323	86,000	277,275	37,418	25,628	7
Well Research Ltd.	567,331	10,000	353,192	68,845	48,250	2
Miskolc Geotermia CPlc.	225,230	5,000	1,418,966	250,128	67,946	5
Kuala Ltd.	102,711	3,000	1,090,799	74,344	1,576	1
Szentlőrinci Geotermia CPlc.	26,606	5,000	69,116	29,163	952	0
Berekfürdő Energia Ltd.	24,960	24,100	28,626	2,140	150	0
TT- Geotermia CPlc.	13,574	6,000	529,604	4,771	2,145	0

7. THE COMPANY'S OWNERSHIP STRUCTURE, SENIOR OFFICERS

7.1. *The Company's ownership structure, shareholdings and voting rights*

Shareholders	Total share capital = Introduced series					
	01.01.2019			31.12.2019		
	%	%	unit(s)	%	%	unit(s)
Domestic institutions	25.24	28.86	5,314,498	23.93	28.21	5,039,030
Foreign institutions	21.50	24.58	4,526,036	21.45	25.28	4,516,639
Domestic private individuals	31.95	36,54	6,727,535	30.69	36,17	6,461,819
Foreign private individuals	0.26	0.30	54,551	0.33	0.39	69,989
Employees, senior officers	0.54	0.62	113,653	0.47	0.56	100,000
Own holding	12.55	-	2,642,637	15.16	-	3,191,433
Owner belonging to the general government system	7.96	9.10	1,675,745	7.96	9.38	1,675,745
International Development Institutions	-	-	-	-	-	-
Other	-	-	-	-	-	-
Total	**100.00**	**100.00**	**21,054,655**	**100.00**	**100.00**	**21,054,655**

7.2. *Shareholders with over 5% shareholdings in the Company*

Name	Investor category		Number of shares	Shareholding (%)	Voting rights (%)
Benji Invest Ltd.	Domestic	Company	2,424,010	11.51	13.57
Cashline Holding CPlc.	Domestic	Company	1,848,000	8.78	10.35
MVM Hungarian Electricity Ltd.	Domestic	Company	1,675,745	7.96	9.38

7.3. *Changes in the number of treasury shares held by Company in the year under review*

Changes in the number of treasury shares held by the PannErgy Group in the year under review:

	01.01.2019	06.30.2019	31.12.2019
At company level	1,707,434	2,138,330	2,256,230
Subsidiaries *	935,203	935,203	935,203
Total	2,642,637	3,073,533	3,191,433

*PannErgy shares held by PannErgy Geothermal Power Plants CPlc., the Company's 100% subsidiary

7.4. *Senior officers of the Company*

The Company's senior officers are the members of the Board of Directors. Data of the members of the Board of Directors, and their respective shareholdings on 31 December 2019:

Name	Position	Mandated from	Mandated until	Number of shares held
Balázs Bokorovics	Member, Chairman	31.08.2007	indefinite term	-
Dénes Gyimóthy	Member, Vice-Chairman Acting Chief Executive Officer	31.08.2007 (05.05.2015)	indefinite term	-
Katalin Gyimóthy	Member	28.04.2016	indefinite term	-
Lilla Martonfalvay	Member	28.04.2016	indefinite term	100,000
Csaba Major	Member	30.04.2013	indefinite term	-
Attila Juhász	Member	31.08.2007	indefinite term	-
István Töröcskei	Member	31.08.2007	indefinite term	-
Total number of shares held				100,000

The Company has no (strategic) employees influencing its operations.
PannErgy Group's Consolidated annual statements prepared in accordance with the international financial reporting standards and the annual report are signed by Dénes Gyimóthy, acting Chief Executive Officer.

8. THE PANNERGY GROUP'S STRATEGY

Dependence on fossil fuels can be reduced – or in some cases it can even be eliminated – by using other alternative energy sources, including geothermal energy. A system underground geothermal resources, hardly utilized so far, is one of the most significant resources of the Carpathian Basin, including Hungary, the utilization of which enables the generation of thermal energy and power in an environmentally friendly way. Demand for energy is growing unstoppably, however, both the domestic and the global conventional resources are limited.

Professional, effective and efficient geothermal energy production is not only a form of utilization of a hitherto hardly used immense source of energy but also one of cleanest environmentally friendly form of energy generation. The European Union not welcomes such forms of energy generation but it is now guiding member states, including Hungary, by way of a strictly regulated program and clear-cut objectives as well.
The central element of the PannErgy Group's strategy is to become the region's dominant company in the utilization of geothermal energy and to maintain this position, as well as to provide highly reliable environmentally friendly services that are free of geopolitical risks. The PannErgy Group is committed to the utilization of one of the most substantial thermal water activity of Europe for the generation of energy. Geothermal heat can be utilized by households and industrial consumers in the long term and the environment preserving investment projects implemented by PannErgy enable significant reductions in energy expenditures.

PannErgy has not only become the enterprise implementing geothermal energy projects with the most substantial competence and experience but has recently also become one of Hungary's largest groups of companies generating and utilizing geothermal energy.

The key short-term goals include increasing the productive capacities of the Geothermal Systems of both Győr and Miskolc, together with continued system optimization, thereby maximizing the amount of heat sold.

The Company wishes to make the available free capacities of the geothermal systems, and the savings enabled by them, accessible for new partners as well. Industrial use requires special expertise and project management experience which the Company believes are available at the highest standards in Hungary only from the members of the PannErgy Group.

9. Environmental protection, climate protection

The Company attaches particular importance to environmental protection. In the field of geothermy it is working on introducing one of the most environmentally friendly form of energy generation from a renewable source as widely as possible in Hungary.

Through its geothermal projects the PannErgy Group contributed to the preservation of a more liveable environment by cutting greenhouse CO_2 emissions by around 99,550 tons, while the Group's total greenhouse gas emission savings so far amounted to 450,408 tons.

In addition to the above direct environmental impacts the subsidiaries involved in geothermy make sure that they prepare the impact studies and carry out the assessments prescribed by the relevant environmental regulations and comply with the applicable statutory regulations.

In accordance with the domestic and EU energy policies the Company aims to meet the requirements and apply the considerations of environmental protection in economic development. This requires an increasing reliance on renewable energy sources, harmonizing the relationship between society and environment and, indirectly, facilitating a positive change in the structure of fuels and energy sources used in Hungary by way of a shift from conventional towards renewable energy sources. At the same time, and in observance of economic and technical considerations, the Company assumes responsibility for the continuous strengthening of the environmentally friendly nature of project sites and for environmentally friendly management of natural resources. Research and development is part of the PannErgy Group's environmental policy. The PannErgy Group is fully committed to continuously improving its environmental and energy performance and to acting on the basis of an approach geared towards sustainability. The Company attaches particular importance to the social implications of its activities, working towards responsible and sustainable operation.

10. Headcount information

The average statistical headcount figures of the PannErgy Group during the reporting year are as follows:

Own staff	31.12.2019	31.12.2018	Change
PannErgy Plc.	-	-	-
Affiliated entities	27	32	-5
Total	**27**	**32**	**-5**

The PannErgy Group's had an average statistical headcount of 27 in 2019, 16% down from the 32 recorded in 2018. The headcount decreased because – after a year of intensive development activities – the PannErgy Group did not implement major development projects during the reporting period. On 31 December 2019 the actual number of staff working for the PannErgy Group was 17; the difference between the average statistical headcount and the actual number of employees is attributable to part-time employment across group members and the increased headcount during the year.

11. DIVIDEND PAYMENT, TREASURY SHARE PURCHASE

The Company's 2019 consolidated net profit for the year attributable to the Company's shareholders amounts to HUF 728,336 thousand, and the Board proposes to the General Meeting that HUF 17 dividend per share should be paid. (Amendment published on 30th April 2020: The Management Board—acting in the capacity of the General Meeting—adopts the proposal of the Management Board to transfer the total amount of the Company's profit after taxes to the profit reserve, bearing in mind, among others, the reasonable, diligent and prudent management in light of the developments of the COVID-19 epidemic, and therefore the Company will not pay any dividend for the 2019 business year.)

On 31 December 2019 the Company held a total of 3,191,433 PannErgy Plc. treasury shares, 548,796 more than the stock of treasury shares held on 31 December 2018. The aggregated change was a result of an increase of 658,795 and a decrease of 109,999 during the reporting period.

The addition of 658,795 shares to the Company's stock of treasury shares in the review period is linked to the Company's treasury share repurchasing programme that took place during the reporting period, in the framework of which 540,895 treasury shares were repurchased in 2019 H1, followed by 117,900 shares in 2019 H2. In addition, 109,999 treasury shares were called down under the Company's share option programme concluded in the review period; the shares were transferred to the beneficiaries as soon as they paid the option price per share defined in the programme. Combined with the 790,001 treasury shares called down by 31 December 2018, all 900,000 shares available under the share option programme were called down, bringing the 2016-2019 programme to an end.

<u>The treasury share buyback program concluded during the reporting period</u>
In accordance with Resolution No. 7/2018. (IV. 27.) of the Company's General Meeting held on 27 April 2018, PannErgy Plc. launched a treasury share repurchasing programme starting on 28 April 2018 and ending on 27 April 2019. In the framework of the programme, PannErgy Plc. was entitled to purchase treasury shares up to an amount of HUF 1,000 million, at a share price of at least HUF 1 and up to HUF 950. Within the relevant regulatory framework, the Board of Directors was entitled to acquire equity shares at a face value of HUF 20, that is twenty Hungarian forints, to the extent that the total amount of treasury shares held did not exceed 25% of the total amount of the issued share capital at any moment during the term of the authorization. The shares may be purchased by the Company only through trading on the stock exchange. No General Meeting resolution has been adopted concerning any further scheduled activities in the context of the buyback program. Under this treasury share repurchasing programme, a total of 501,495 treasury shares were purchased at the Budapest Stock Exchange in 2019 H1, in the period between 1 January and 27 April 2019. By the conclusion of the programme on 27 April 2019, a total of 509,495 treasury shares were purchased.

<u>The treasury share buyback program commenced during the reporting period</u>

In accordance with Resolution No. 6/2019. (IV. 26.) of the Company's General Meeting held on 26 April 2019, PannErgy Plc. launched a treasury share repurchasing programme starting on 2 May 2019 and ending on 26 April 2020. Under the programme, PannErgy Plc. is entitled to purchase treasury shares up to HUF 1,000 million. At present, the Company aims at purchasing 1,000 PannErgy Plc. equity shares per trading day at the Budapest Stock Exchange. The purchase price equals the current market price corresponding to the prevailing strike price, but cannot exceed HUF 950 per share. Under this ongoing treasury share repurchasing programme, the Company purchased 39,400 treasury shares between 2 May and 30 June 2019, along with 117,900 treasury shares between 1 July and 31 December 2019.

12. MAIN RISKS FACED BY THE COMPANY, ASSOCIATED UNCERTAINTIES

A particularly high geological risk is a specific feature of all geothermal projects, which the Group members mitigate by the gathering and integrated processing of the widest possible range of geological and other technical/professional and scientific information. The impacts of the risks and their management are discussed in *Note 40. Financial risk management* in the 2019 consolidated financial statements. The main risks to which the PannErgy Group is exposed are summed up below.
The Company works out a Responsible Corporate Governance Report in accordance with the Responsible Corporate Governance Recommendations released by the Budapest Stock Exchange. The report contains corporate governance information and is adopted by the Company's supreme body simultaneously with the adoption of the annual consolidated report.

<u>Exchange rate risk</u>

Some of the Company's operations involve foreign currencies and it issues its invoices in EUR as stipulated in the relevant agreements. Part of the Company's liabilities are denominated in EUR, most of them stemming from EUR-based long term investment loans taken out for the implementation of geothermal projects, and many of its foreign and domestic suppliers also issue invoices in EUR. Such assets and liabilities involving settlements in foreign currencies entail risks resulting from fluctuations in currency rates – particularly the EUR rates – which the PannErgy Group uses its best efforts to mitigate, primarily by maximizing the coverage of its EUR loan debt liabilities by the above mentioned EUR-based revenues. The Company occasionally concluded FX forward transactions in 2019 to hedge the risk of exchange rate losses on the settlement of its future trade payables to be incurred in foreign currencies. These transactions were not cash-flow hedge transactions; the gains and losses on such transactions during the reporting year appear in the financial incomes and financial expenditures categories in its consolidated financial statements. As at the cut-off date of the consolidated financial statements the Company held no such – as yet unclosed – transactions.

<u>Share price risk</u>

The share price risk needs to be assessed from the aspect of the marketability of the treasury shares and the value of the managers' share option program.

<u>Interest rate risk</u>

The interest rate risk facing the PannErgy Group results primarily from its long term investment loans. Owing to the variable interest rates applying to its loans the Company is exposed to a cash-flow interest

rate risk which is only partly offset by variable-rate financial assets. The Company is exposed to a fair value interest risk in regard to the variable rate credits, which is eliminated for the most part by interest swap transactions concluded for the entire term of the long-term credits concerned, replacing the contractual variable rates with fixed rates.
The PannErgy Group applies a dynamic analysis to its exchange rate risk exposure, through simulating a series of different financial models, factoring in refinancing, the renewal of existing positions and the involvement of alternative funding sources. It is these scenarios on the basis of which the Company calculates the responses of its profit to from changes in the applicable specific interest. The Company uses the same movements in the interest rates applying to each of the relevant currencies in its various models. Models are worked out only for the liabilities involving the largest interest bearing positions.

Lending risk

Lending risk is a financial risk of loss from potential non-performance of any contractual obligation by any of the Company's buyers or other partners. From the Company's perspective this is a risk associated primarily from its buyer's potential failure to settle their invoices. It should be noted in particular that the Company sells its products and services to a handful of customers, resulting in a limited degree of diversification.

Lending risk management is a group function. It is a responsibility for the members of the PannErgy Group to analyze and manage lending risks relating to their new customers before working out and offering terms and conditions of payment and delivery as befits their normal of business operations.
The lending risks faced by the PannErgy Group stem from liquid assets and cash equivalents, the bank deposits and security deposits placed with financial institutions as well as the exposure to buyers through the sale of products or services, including receivables and transactions under which the Company assumes commitments.

Customers are rated on the basis of their creditworthiness and their credit limits are determined on the basis of their financial positions, financial data, historical performance and other factors, by the PannErgy Group's Finance and Treasury group; the Company does not directly engage independent credit rating organizations or experts. The Company monitors draw-downs from the credit limits. Its customers always pay for their purchases by bank transfers. No credit limit was exceeded during the reporting period, and management does not expect losses from default on the part of the partners concerned.

Liquidity risk

Liquidity risk is the risk of the company's incapacity to settle its financial liabilities upon their respective due dates. The purpose of liquidity management is to ensure that sufficient funds are available to settle liabilities when they fall due. The Company's approach to liquidity management is aimed at providing sufficient liquidity, to the extent possible, for the settlement of liabilities on their respective due dates in both regular and tight conditions without incurring unacceptable losses or putting its reputation at risk. Adequate liquidity is maintained by adjusting the terms of the funding sources to the lifecycles of its projects. Cash-flow forecasts are worked out by the PannErgy Group's Finance and Treasury group, besides the monitoring of rolling forecasts regarding the satisfaction of the Group's liquidity requirements, in order to maintain a portfolio of liquid assets as required for the Group's operations, while keeping up sufficient maneuvering room concerning the available credit limits to ensure that the

Company does not exceed any of its limits and can deliver the debt required servicing ratios to the financial institutions concerned. The cash-flow forecasts that are based on the financial settlement of trade payables, loan repayments as well as contractual and other incomes are worked out in view of the PannErgy Group's financial plans, the need to maintain the ratios stipulated in contracts as well as all relevant regulatory and statutory regulations.

Regulatory risk

In discussing the general regulatory risks it needs to be noted in particular that the selling price of the bulk of the heat sold by certain project companies engaged in heat generation and sale is subject to regulatory pricing, which is regularly reviewed and even adjusted by the pricing authority, thereby limiting the Company's profitability, resulting in considerable uncertainty concerning future selling prices.

Technological risk

Geothermal energy production entails unforeseeable risks, stemming from the unpredictable availability of the geothermal energy resources as well as the tolerance of the equipment used, to the unconventional operational environment.

Pandemic risk

The foreseeable human and economic effects of the global COVID-19 pandemic will have consequences, that are difficult to quantify at present for various actors in society and the economy.

Use of financial instruments

The PannErgy Group applies derivative transactions – whether pertaining to transactions relating to forward transactions on the exchange with the Group's own shares or other money and capital market instruments – on the one hand to hedge the Group's foreign exchange rate or interest rate risk or other risk exposures, and on the other hand in order to generate exchange rate or price gains. The Company concluded interest swap transactions and in some cases FX forward transactions covering its FX investment loans in 2019, which are discussed in detail in *3.15 Financial instruments, 11 Incomes from financial transactions, 12 Expenditures on financial transactions and 40.2.3. Cash-flow and fair value interest rate risk* sections of the 2019 consolidated financial statements.

13. PUBLICITY

The Company posts regular and extraordinary notices on its website at (www.pannergy.com), among other things. On its websites relating to its projects (www.miskolci-geotermia.hu, www.kuala.hu, www.gyori-geotermia.hu, www.ddenergy.hu, www.arrabonageotermia.hu, www.szentlorinc-geotermia.hu, www.doverdrill.hu,)) the PannErgy Group posts technical/professional information on the implementation of the projects. The publications and public information released by PannErgy Plc. may make it considerably easier to understand and judge the Company's operations and economic position, therefore they are important supplements to the information disclosed herein.

14. Main events during the period covered by the consolidated statement of financial position

References to the events concerned are presented in the following table. Based on the references the complete information is accessible at the Company's official places of disclosure.

Date	Type of news	Subject, brief content
27 March 2020	Extraordinary information	Treasury share transaction
26 March 2020	Extraordinary information	The impact of the COVID-19 epidemic on the Annual General Meeting
22 March 2020	Extraordinary information	Treasury share transaction
17 March 2020	Extraordinary information	AUDI to shut down production in its plant in Győr
17 March 2020	Extraordinary information	General Meeting – Invitation
15 March 2020	Extraordinary information	Treasury share transaction
8 March 2020	Extraordinary information	Treasury share transaction
1 March 2020	Other information	Number of voting rights at PannErgy Plc.
1 March 2020	Extraordinary information	Treasury share transaction
23 February 2020	Extraordinary information	Treasury share transaction
17 February 2020	Extraordinary information	Treasury share transaction
15 February 2020	Extraordinary information	Changes to the implementation of the share-buyback program
9 February 2020	Extraordinary information	Treasury share transaction
2 February 2020	Other information	Number of voting rights at PannErgy Plc.
2 February 2020	Extraordinary information	Treasury share transaction
26 January 2020	Extraordinary information	Treasury share transaction
19 January 2020	Extraordinary information	Treasury share transaction
15 January 2020	Extraordinary information	Quarterly production report
12 January 2020	Extraordinary information	Treasury share transaction
2 January 2020	Other information	Number of voting rights at PannErgy Plc.
30 December 2019	Other information	PannErgy Plc's event calendar for 2020
30 December 2019	Extraordinary information	Treasury share transaction
22 December 2019	Extraordinary information	Treasury share transaction
16 December 2019	Extraordinary information	Treasury share transaction
8 December 2019	Extraordinary information	Treasury share transaction
1 December 2019	Other information	Number of voting rights at PannErgy Plc.
1 December 2019	Extraordinary information	Treasury share transaction
25 November 2019	Extraordinary information	Treasury share transaction
17 November 2019	Extraordinary information	Treasury share transaction
8 November 2019	Extraordinary information	Treasury share transactions exceeding the 15% voting right threshold
31 October 2019	Other information	Number of voting rights at PannErgy Plc.
31 October 2019	Extraordinary information	Treasury share transaction
27 October 2019	Extraordinary information	Treasury share transaction
20 October 2019	Extraordinary information	Treasury share transaction

15 October 2019	Extraordinary information	Quarterly production report
14 October 2019	Extraordinary information	Treasury share transaction
6 October 2019	Extraordinary information	Treasury share transaction
3 October 2019	Other information	The district heating season has started
1 October 2019	Extraordinary information	Regulated heat tariffs for the district heat supply period of 2019–2020
1 October 2019	Other information	Number of voting rights at PannErgy Plc.
29 September 2019	Extraordinary information	Treasury share transaction
27 September 2019	Other information	Night of power plants
22 September 2019	Extraordinary information	Treasury share transaction
15 September 2019	Extraordinary information	Treasury share transaction
8 September 2019	Extraordinary information	Treasury share transaction
3 September 2019	Extraordinary information	2019 Semi-annual report
1 September 2019	Other information	Number of voting rights at PannErgy Plc.
1 September 2019	Extraordinary information	Treasury share transaction
26 August 2019	Extraordinary information	Treasury share transaction
19 August 2019	Extraordinary information	Treasury share transaction
11 August 2019	Extraordinary information	Treasury share transaction
3 August 2019	Extraordinary information	Treasury share transaction
31 July 2019	Other information	Number of voting rights at PannErgy Plc.
28 July 2019	Extraordinary information	Treasury share transaction
21 July 2019	Extraordinary information	Treasury share transaction
17 July 2019	Extraordinary information	Conclusion of corporate merger within the group of subsidiaries
15 July 2019	Extraordinary information	Quarterly production report
14 July 2019	Extraordinary information	Treasury share transaction
7 July 2019	Extraordinary information	Treasury share transaction
30 June 2019	Other information	Number of voting rights at PannErgy Plc.
28 June 2019	Extraordinary information	Purchase of third reinjection well at Miskolc closed through acquisition
28 June 2019	Extraordinary information	Treasury share transaction
26 June 2019	Extraordinary information	Articles of Association
24 June 2019	Extraordinary information	Treasury share transaction
14 June 2019	Extraordinary information	Treasury share transaction
11 June 2019	Extraordinary information	PannErgy sold its Csepel facility
8 June 2019	Extraordinary information	Treasury share transaction
1 June 2019	Other information	Number of voting rights at PannErgy Plc.
31 May 2019	Extraordinary information	Treasury share transaction
24 May 2019	Extraordinary information	Treasury share transaction
17 May 2019	Extraordinary information	Treasury share transaction
10 May 2019	Extraordinary information	Treasury share transaction
6 May 2019	Extraordinary information	PannErgy Concession Ltd. merges into Arrabona Geotermia Ltd.
3 May 2019	Extraordinary information	Treasury share and share option transactions
1 May 2019	Other information	Number of voting rights at PannErgy Plc.
1 May 2019	Extraordinary information	Treasury share transaction
30 April 2019	Extraordinary information	Owner’s announcement
30 April 2019	Extraordinary information	Owner’s announcement

29 April 2019	Extraordinary information	Detailed description of the share repurchase program
26 April 2019	Extraordinary information	Responsible Corporate Governance Report
26 April 2019	Annual Report	2018 IFRS annual report
26 April 2019	Annual Report	2018 annual report
26 April 2019	Extraordinary information	General Meeting Resolutions
25 April 2019	Extraordinary information	Treasury share and share option transactions
19 April 2019	Extraordinary information	Treasury share transaction
16 April 2019	Extraordinary information	Treasury share transaction
15 April 2019	Extraordinary information	Quarterly production report
12 April 2019	Extraordinary information	Treasury share transaction
12 April 2019	Extraordinary information	General Meeting
11 April 2019	Extraordinary information	Treasury share transaction
9 April 2019	Extraordinary information	Treasury share transaction
5 April 2019	Extraordinary information	Treasury share transaction
3 April 2019	Extraordinary information	Treasury share and share option transactions
2 April 2019	Extraordinary information	Treasury share transaction
31 March 2019	Other information	Number of voting rights at PannErgy Plc.
31 March 2019	Extraordinary information	Treasury share transaction
28 March 2019	Extraordinary information	Treasury share transaction
26 March 2019	Extraordinary information	Treasury share and share option transactions
22 March 2019	Extraordinary information	Negotiations about the purchase of the third reinjection well in Miskolc
22 March 2019	Other information	Number of voting rights at PannErgy Plc.
22 March 2019	Extraordinary information	Treasury share transaction
22 March 2019	Proposals to General Meeting	Resolutions adopted by PannErgy Plc. Board of Directors on 19 March 2019
22 March 2019	Proposals to General Meeting	2018 Individual annual report
22 March 2019	Proposals to General Meeting	2018 Consolidated Financial statements and Annual Report of PannErgy Plc. and its subsidiaries
22 March 2019	Proposals to General Meeting	Proposals to Board of Directors
21 March 2019	Extraordinary information	Treasury share transaction
19 March 2019	Extraordinary information	Treasury share transaction
14 March 2019	Extraordinary information	Treasury share transaction
12 March 2019	Extraordinary information	Treasury share transaction
12 March 2019	Extraordinary information	Invitation to General Meeting
8 March 2019	Extraordinary information	Treasury share and share option transactions
7 March 2019	Extraordinary information	Treasury share transaction
5 March 2019	Extraordinary information	Treasury share transaction
3 March 2019	Extraordinary information	Treasury share transaction
28 February 2019	Extraordinary information	Treasury share transaction
28 February 2019	Other information	Number of voting rights at PannErgy Plc.
26 February 2019	Extraordinary information	Treasury share transaction
22 February 2019	Extraordinary information	Treasury share transaction
21 February 2019	Extraordinary information	Treasury share transaction
19 February 2019	Extraordinary information	Treasury share transaction

15 February 2019	Extraordinary information	Treasury share transaction
14 February 2019	Extraordinary information	Treasury share transaction
12 February 2019	Extraordinary information	Treasury share transaction
8 February 2019	Extraordinary information	Treasury share transaction
7 February 2019	Extraordinary information	Treasury share and share option transactions
5 February 2019	Extraordinary information	Treasury share transaction
1 February 2019	Extraordinary information	Treasury share transaction
31 January 2019	Other information	Number of voting rights at PannErgy Plc.
31 January 2019	Extraordinary information	Treasury share transaction
29 January 2019	Extraordinary information	Treasury share transaction
25 January 2019	Extraordinary information	Treasury share transaction
23 January 2019	Extraordinary information	Treasury share transaction
21 January 2019	Extraordinary information	Treasury share transaction
18 January 2019	Extraordinary information	Treasury share transaction
17 January 2019	Extraordinary information	Treasury share transaction
15 January 2019	Extraordinary information	Quarterly production report
15 January 2019	Extraordinary information	Treasury share transaction
11 January 2019	Extraordinary information	Treasury share transaction
10 January 2019	Extraordinary information	Treasury share transaction
8 January 2019	Extraordinary information	Treasury share transaction
4 January 2019	Extraordinary information	Treasury share transaction
3 January 2019	Extraordinary information	Treasury share transaction
2 January 2019	Other information	Number of voting rights at PannErgy Plc.

15. DATE OF AUTHORIZATION OF DISCLOSURE

The Company’s Board approved the financial statements and authorized their disclosure on 24 March 2020.

Dénes Gyimóthy
Representing the Board of Directors

PannErgy Plc.
Declaration of the issuer 2019

Pursuant to Sections 2.4 and 3.4 of Appendix 1 to Decree 24/2008 of the Minister of Finance

Budapest, 27 March 2020

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

DECLARATION

I, Dénes Gyimóthy, acting CEO, representative of the Board of Directors, issue the following declaration in relation to the 2019 IFRS consolidated financial statements and business as well as management reports of the PannErgy Group, pursuant to the statutory requirement laid down in sections 2.4 and 3.4 of Appendix 1 to Decree 24/2008 of the Minister of Finance:

- the 2019 individual annual report of PannErgy Plc., prepared in accordance with the applicable IFRS rules, disclosed simultaneously with the consolidated financial statements and business as well as management report prepared pursuant to the applicable accounting regulations and the IFRS rules to the best of our knowledge, provides a true and reliable picture of the assets, liabilities, financial position, profit and loss of PannErgy Plc. as a public securities issuer, and;

- the business report attached to the annual report provides a reliable picture of the position, development and performance of PannErgy Plc. as public securities issuer company, laying out the key risks and uncertainties;

- the 2019 consolidated financial statements (aggregated consolidated annual report) of PannErgy Plc., prepared on the basis of the applicable accounting regulations to the best of our knowledge, in accordance with the IFRS rules, provides a true and reliable picture of the assets, liabilities, financial position, profit and loss of PannErgy Plc. as a public securities issuer, and the consolidated entities; and;

- the business and management report attached to the 2019 consolidated financial statements (aggregated consolidated management report), prepared in accordance with the applicable IFRS rules, provides a reliable picture of the position, development and performance of PannErgy Plc. as a public securities issuer company, and the consolidated entities laying out the key risks and uncertainties.

Dénes Gyimóthy
Representing the Board of Directors