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ZE PAK SA CAPITAL GROUP

CONSOLIDATED FINANCIAL STATEMENT FOR THE FINANCIAL YEAR ENDED 31 DECEMBER 2021

This is a translation of the document issued originally in Polish language.
The Polish original should be referred to in matters of interpretation.

(in thousand PLN)

CONSOLIDATED PROFIT AND LOSS ACCOUNT

For the year ended 31 December 2021

		Year ended 31 December 2021	*Year ended 31 December 2020*
Continuing operations			
Revenues, including:		**2 451 209**	**2 206 974**
Revenues from the contracts with clients	*15.1*	2 190 817	1 971 192
Other revenues	*15.1*	260 392	235 782
Costs of goods sold, including:	*15.6, 15.7*	(2 892 942)	(2 446 997)
Write-off revaluating fixed assets and mining assets	*15.7*	*(620 170)*	*(281 331)*
Gross profit / (loss)		**(441 733)**	**(240 023)**
Other operating revenues	*15.2*	64 007	84 917
Selling and distribution expenses	*15.6, 15.7*	(6 091)	(3 613)
Administrative expenses	*15.6, 15.7*	(119 720)	(114 691)
Other operating expenses	*15.3*	(9 085)	(17 704)
Gross profit / (loss) from operations		**(512 622)**	**(291 114)**
Finance income	*15.4*	11 782	5 889
Finance costs	*15.5*	(17 683)	(17 830)
Profit / (loss) before tax		**(518 523)**	**(303 055)**
Income tax expense (taxation)	*16*	201 119	76 590
Net profit / (loss) for the period from continuing operations		**(317 404)**	**(226 465)**
Net profit / (loss) for the period		**(317 404)**	**(226 465)**
Net profit/ (loss) attributable to equity holders of the parent		(316 999)	(222 393)
Net profit/ (loss) attributable to non-controlling interests		(405)	(4 072)

	Note	*Year ended 31 December 2021*	*Year ended 31 December 2020*
Profit / loss per share (in zloty):			
Basic/diluted for profit for the period from continuing operations attributable to equity holders of the parent	*18*	(6,24)	(4,38)

Rules (policies) of accountancy and additional explanatory notes to the consolidated financial statement are its integral part.

(in thousand PLN)

CONSOLIDATED STATEMENT OF COMPREHENSIVE INCOME

For the year ended 31 December 2021

	Note	*Year ended 31 December 2021*	*Year ended 31 December 2020*
Net profit / (loss) for the period		**(317 404)**	**(226 465)**
Other comprehensive income			
Items to be reclassified to the profit / (loss) in subsequent reporting periods:			
Cash flow hedges		-	-
Exchange differences from converting a foreign unit		(33)	43
Income tax on other comprehensive income	*16.1*	-	-
Other comprehensive income to be reclassified to the profit / (loss) in subsequent reporting periods		(33)	43
Items not to be reclassified to the profit / (loss) in subsequent reporting periods:			
Actuarial profits / (losses) on provisions for post-employment		3 659	(648)
Income tax on other comprehensive income	*16.1*	(695)	64
Other comprehensive income not to be reclassified to the profit / (loss) in subsequent reporting periods		2 964	(584)
Net other comprehensive income		**2 931**	**(541)**
Comprehensive income for the period		(314 473)	(227 006)
Comprehensive income attributable to equity holders of the parent		(314 068)	(222 934)
Comprehensive income attributable to non-controlling holders		(405)	(4 072)

(in thousand PLN)

CONSOLIDATED STATEMENT OF FINANCIAL POSITION

As at 31 December 2021

	Note	*31 December 2021*	*31 December 2020*
ASSETS			
Fixed assets			
Property, plant and equipment	*20*	1 182 258	1 660 661
Assets due to the right of use	*21*	45 856	49 210
Investment property		1 810	2 141
Intangible assets		2 383	2 754
Assets of removing overburden and other mining assets (long-term)	*23*	-	52 291
Other financial assets	*24.1*	22 622	5 081
Other non-financial assets	*24.2*	9 998	297
Deferred tax assets	*16.3*	8 769	84 920
Total fixed assets		**1 273 696**	**1 857 355**
Current assets			
Emission allowances	*22*	-	3 565
Inventories	*26*	74 241	67 859
Trade and other receivables	*27*	1 394 784	385 056
Income tax receivables		81	19 416
Derivative short-term financial instruments (assets)	*33.3*	10 540	6 550
Other financial assets	*24.1*	150	10
Other non-financial assets	*24.2*	50 129	39 673
Amounts due from customers under long-term construction contracts	*15.8*	1 472	1 283
Cash and cash equivalents	*28*	506 669	497 861
Total current assets		**2 038 066**	**1 021 273**
TOTAL ASSETS		**3 311 762**	**2 878 628**

(in thousand PLN)

	Note	*31 December 2021*	*31 December 2020*
LIABILITIES AND EQUITY			
Equity			
Share capital	*29*	101 647	101 647
Reserve capital	*30*	1 131 326	1 124 376
Other reserve capital	*30.1*	3 472	3 472
Retained earnings / Accumulated losses		(711 828)	(278 324)
Exchange differences from converting a foreign unit		10	43
Equity attributable to equity holders of the parent		**524 627**	**951 214**
Equity attributable to non-controlling interests	*30.3*	(395)	(1 751)
Total equity		**524 232**	**949 463**
Long-term liabilities			
Interest-bearing loans and borrowings	*31*	249 226	-
Employee benefits	*25.1*	27 155	40 886
Trade liabilities and other long-term financial liabilities		467	5 248
Lease liabilities	*21*	41 515	51 495
Grants and deferred income	*33.4*	4 317	36 027
Other provisions and accruals	*32*	439 105	414 527
Deferred income tax	*16.3*	32 802	312 902
Total long-term liabilities		**794 587**	**861 085**
Short-term liabilities			
Trade liabilities and other short-term financial liabilities	*33.1*	251 887	188 261
Current portion of interest-bearing loans and borrowings	*21*	6 316	-
Short-term financial derivatives (liabilities)	*31*	202 545	55 003
Other non-financial liabilities	*33.3*	3 606	-
Current income tax liability	*33.2*	200 723	78 152
Employee benefits		663	1 279
Grants and deferred income	*25.1*	4 371	6 521
Amounts due to customers under long-term construction contracts		46	3 646
Other short-term provisions and accruals	*15.8*	3 680	6 680
Total short-term liabilities	*32*	1 319 106	728 538
Total liabilities		**1 992 943**	**1 068 080**
TOTAL LIABILITIES AND EQUITY		**2 787 530**	**1 929 165**
LIABILITIES AND EQUITY		**3 311 762**	**2 878 628**

(in thousand PLN)

CONSOLIDATED STATEMENT OF CASH FLOWS

For year ended 31 December 2021

	Note	*Year ended 31 December 2021*	*Year ended 31 December 2020*
Cash flow from operating activities			
Profit /(loss) before tax		(518 523)	(303 055)
Adjustments for:			
Depreciation and amortization	*28*	119 134	153 253
Interests and shares in profits		-	2 329
(Profit) / loss on foreign exchange differences		124	(264)
(Profit) / loss on investing activities		(25 244)	(812)
(Increase) / decrease in receivables	*28*	(1 021 512)	(134 838)
(Increase) / decrease in inventories		(6 382)	36 482
Increase / (decrease) in payables except for loans and borrowings	*28*	225 541	215
Change in provisions, prepayments, accruals and employee benefits	*28*	1 246 268	653 421
Income tax paid		15 194	21 368
Allowances for emission of CO_2	*32.3.1*	(639 159)	(528 438)
Impairment write-down on fixed assets and mining assets		620 170	281 879
Other		(9 056)	(15 219)
Net cash flow from operating activities		**6 555**	**166 321**
Cash flow from investing activities			
Sale of tangible fixed assets		31 815	6 520
Purchase of tangible fixed assets		(409 720)	(63 482)
Proceeds and expenses relating to other financial assets		(13 321)	(711)
Dividends received		46	71
Other		(49)	(17)
Net cash flow from investing activities		**(391 229)**	**(57 619)**
Cash flow from financing activities			
Payment of finance lease liabilities		(290)	(1 310)
Proceeds from loans and borrowings and debt securities		492 639	9 376
Repayment of loans and borrowings and debt securities		(95 126)	(30 914)
Dividends paid		-	-
Interest paid		(3 741)	(2 627)
Other		-	-
Net cash flow from financing activities		**393 482**	**(25 475)**
Net increase / (decrease) in cash and cash equivalents		**8 808**	**83 227**
Cash and cash equivalents at the beginning of the period		**497 861**	**414 634**
Cash and cash equivalents at the end of the period	*28*	**506 669**	**497 861**

(in thousand PLN)

CONSOLIDATED STATEMENT OF CHANGES IN EQUITY

For the year ended 31 December 2021

	Issued capital	*Reserve capital*	*Other reserve capital*	*Retained earnings / accumulated losses*	*Exchange differences from converting a foreign unit*	*Total*	*Non-controlling interest*	*Total equity*
As of 1 January 2021	**101 647**	**1 124 376**	**3 472**	**(278 324)**	**43**	**951 214**	**(1 751)**	**949 463**
Net profit for the period	-	-	-	(316 999)	-	(316 999)	(405)	(317 404)
Total other comprehensive income	-	-	-	2 964	(33)	2 931	-	2 931
Total income for the period	**-**	**-**	**-**	**(314 035)**	**(33)**	**(314 068)**	**(405)**	**(314 473)**
Purchase of companies	-	-	-	(342)	-	(342)	10	(332)
Transfer of non-controlling interest's profits to retained earnings	-	-	-	(1 751)	-	(1 751)	1 751	-
Liquidation of fixed assets	-	6 949	-	(6 949)	-	-	-	-
Impairment loss on fixed assets	-	-	-	(110 395)	-	(110 395)	-	(110 395)
Other changes	-	1	-	(32)	-	(31)	-	(31)
As of 31 December 2021	**101 647**	**1 131 326**	**3 472**	**(711 828)**	**10**	**524 627**	**(395)**	**524 232**

Rules (policies) of accountancy and additional explanatory notes to the consolidated financial statement are its integral part.

(in thousand PLN)

CONSOLIDATED STATEMENT OF CHANGES IN EQUITY

For the year ended 31 December 2020

	Issued capital	*Reserve capital*	*Other reserve capital*	*Retained earnings / accumulated losses*	*Exchange differences from converting a foreign unit*	*Total*	*Non-controlling interest*	*Total equity*
As of 1 January 2020	**101 647**	**1 124 376**	**3 472**	**(55 348)**	**-**	**1 174 147**	**2 321**	**1 176 468**
Net profit for the period	-	-	-	(222 393)	-	(222 393)	(4 072)	(226 465)
Total other comprehensive income	-	-	-	(584)	43	(541)	-	(541)
Total income for the period	**-**	**-**	**-**	**(222 977)**	**43**	**(222 934)**	**(4 072)**	**(227 006)**
Other changes	-	-	-	1	-	1	-	1
As of 31 December 2020	**101 647**	**1 124 376**	**3 472**	**(278 324)**	**43**	**951 214**	**(1 751)**	**949 463**

RULES (POLICIES) OF ACCOUNTANCY AND ADDITIONAL EXPLANATORY NOTES

1. General information

The Capital Group of ZE PAK SA („the Group",” Capital Group", „ZE PAK SA") consists of ZE PAK SA („the parent company", „the Company", „ZE PAK SA") and its subsidiaries (see Note 2). The country of registration is Poland. Address of the registered office of the unit: 62-510 Konin ul. Kazimierska 45. Head office address: 62-510 Konin ul. Kazimierska 45, Poland. Legal form of the entity: joint stock company. Basic place of business: 62-510 Konin ul. Kazimierska 45.

Change of the name of the Company

On September 30, 2021, the District Court Poznań - Nowe Miasto and Wilda in Poznań, IX Commercial Division of the National Court Register, registered the amendments to the Articles of Association adopted by the Ordinary General Meeting of Shareholders of ZE PAK SA on June 28, 2021, consisting in a change of the Company's name from Zespół Elektrowni Pątnów-Adamów-Konin Spółka Akcyjna to ZE PAK Spółka Akcyjna, giving § 1 sec. 1 of the Articles of Association of the Company with the new following wording: "The name of the Company is: ZE PAK Spółka Akcyjna".

The change concerns only the name of the Company, all other data has not changed.

The Group's consolidated financial statement covers the year ended 31 December 2021 and includes comparative data for the year ended 31 December 2020.

The parent company is entered into the Register of Entrepreneurs of the National Court Register kept by the District Court Poznań – Nowe Miasto and Wilda in Poznań, IX Commercial Division of the National Court Register, under the KRS number 0000021374.

The parent company was assigned the statistical number (REGON) 310186795.

The duration of the parent and member companies of the Capital Group is unlimited.

The main activities of the Group are: generation and sale of electricity, generation and sale of heat (steam and hot water), lignite extraction.

Mr. Zygmunt Solorz indirectly holds shares of the Company representing in total 65.95% of the share capital of the Company.

Through Mr. Zygmunt Solorz, the Company has personal connections with other entities.

The directly parent entity is Argumenol Investment Company Limited.

The consolidated statements for 2020 of Elektrim SA Capital Group as a higher-level entity also contain the consolidated data of ZE PAK SA Capital Group included in this report.

(in thousand PLN)

2. Composition of the Group

The Group consists of ZE PAK SA and the following subsidiaries:

Entity	*Registered office*	*Scope of operations*	*Group's share in the capital in %*	
			As at 31 December 2021	*As at 31 December 2020*
„PAK – Polska Czysta Energia" sp. z o.o.	62-510 Konin ul. Kazimierska 45	Activities of central companies, excluding financial holding companies	100,00%	100,00%
„PAK Kopalnia Węgla Brunatnego Konin" SA	62-540 Kleczew ul. 600-lecia 9	Lignite extraction	100,00%*	97,68%*
„PAK Górnictwo" sp. z o.o.	62-510 Konin ul. Przemysłowa 158	Exploration and recognition of lignite	100,00%	100,00%
Przedsiębiorstwo Remontowe „PAK SERWIS" sp. z o.o.	62-510 Konin ul. Przemysłowa 158	Construction and repair services	100,00%*	100,00%*
„PAK-Volt" SA	04-028 Warszawa Al. Stanów Zjednoczonych 61	Trade of electricity	100,00%	100,00%
„PAK – PCE Polski Autobus Wodorowy" sp. z o.o.	62-510 Konin ul. Kazimierska 45	Production of buses	100,00%*	100,00%*
„PAK – PCE Fotowoltaika sp. z o.o.	62-510 Konin ul. Kazimierska 45	Generation of electricity	100,00%	100,00%
„PAK – PCE Biogaz" sp. z o.o.	62-510 Konin ul. Kazimierska 45	Generation of electricity	100,00%*	100,00%*
„PAK – PCE Biopaliwa i Wodór" sp. z o.o.	62-510 Konin ul. Przemysłowa 158	Generation of electricity	100,00%*	100,00%*
„PAK – PCE Wiatr" sp. z o.o.	62-510 Konin ul. Kazimierska 45	Generation of electricity	100,00%*	100,00%*
„PG Hydrogen" sp. z o.o.	02-673 Warszawa ul. Konstruktorska 4	Manufacture of engines and turbines, except aircraft, car and motorcycle engines	52,00%*	52,00%*
„Exion Hydrogen Polskie Elektrolizery" sp. z o.o.	80-701 Gdańsk ul. Ku Ujściu 19	Design and production of electrolysers	88,88%	-
„Exion Hydrogen Belgium" BV	Slachthuisstraat 120 Bus 12 2300 Turnhout	Design and production of electrolysers	88,88%*	-
„Farma Wiatrowa Kazimierz Biskupi" sp. z o.o.	62-510 Konin ul. Kazimierska 45	Engineering activities and related technical consultancy	100,00%*	-
„PCE – OZE 1" sp. z o.o.	62-510 Konin ul. Kazimierska 45	Generation of electricity	100,00%*	-
„PCE – OZE 2" sp. z o.o.	62-510 Konin ul. Kazimierska 45	Generation of electricity	100,00%*	-
„PCE – OZE 3" sp. z o.o.	62-510 Konin ul. Kazimierska 45	Generation of electricity	100,00%*	-
„PCE – OZE 4" sp. z o.o.	62-510 Konin ul. Kazimierska 45	Generation of electricity	100,00%*	-
„PCE – OZE 5" sp. z o.o.	62-510 Konin ul. Kazimierska 45	Generation of electricity	100,00%*	-
„PCE – OZE 6" sp. z o.o.	62-510 Konin ul. Kazimierska 45	Generation of electricity	100,00%*	-
„PAK CCGT" sp. z o.o.	62-510 Konin ul. Kazimierska 45	Generation of electricity	100,00%	-
„MESE" sp. z o.o.	04-028 Warszawa Al. Stanów		90,00%	-

(in thousand PLN)

	Zjednoczonych 61A			
„Park Wiatrowy Pałczyn 1" sp. z o.o.	70-419 Szczecin Plac Rodła 8	Generation of electricity	100,00%	-
„Park Wiatrowy Pałczyn 2" sp. z o.o.	70-419 Szczecin Plac Rodła 8	Generation of electricity	100,00%	-
„PAK Kopalnia Węgla Brunatnego Adamów" SA in liquidation	62-700 Turek Warenka 23	Lignite extraction	100,00%*	99,35%
„Aquakon" sp. z o.o. in liquidation	62-610 Sompolno Police	The company is in liquidation	99,08%*	96,20%*

** Entities with partial or total indirect share via other companies from ZE PAK Group.*

As of 31 December 2021, the share in the general number of votes held by the Group in subsidiaries is equal to the Group's share in capitals of these subsidiaries.

Conclusion of a preliminary agreement for the sale of shares in PAK - Polska Czysta Energia sp. z o.o.

On December 20, 2021, as a result of negotiations, the Company concluded a preliminary share sale agreement regarding the sale by the Company to Cyfrowy Polsat SA of shares in PAK - Polska Czysta Energia sp. z o.o. (PAK - PCE sp. z o.o.) with its seat in Konin, representing 67% of the share capital of PAK - PCE sp. z o.o. Around PAK - PCE sp. z o.o. the structure of special purpose vehicles, which are to be responsible for the overall implementation of the strategy in the area of energy production from renewable sources, is successively being built. Thanks to the planned transaction of sale to Cyfrowy Polsat Group of the majority stake in the structure of PAK - PCE sp. z o.o., it is planned to acquire a strong capital partner that will be able to guarantee the implementation of a very wide range of prospective investment projects in the area of renewable energy sources and production and use of „green" hydrogen. As a result of the planned transaction, in 2022 the Company will become a minority shareholder, i.e. 33% of the structure of PAK - PCE sp. z o.o. On March 30, 2022, an annex was concluded to the above preliminary share sale agreement, based on which it was decided to change the end date (the so-called long stop date) by which the parties assumed the fulfilment of all conditions precedent to the agreement and to make a prepayment by Cyfrowy Polsat SA to Companies against the sale price for the shares of PAK - PCE sp. z o.o. up to the maximum amount being the sum of: the base price specified in the agreement for the shares, i.e. the amount of PLN 193.1 million and the amount constituting the selling price of additional shares in PAK - PCE sp. z o.o., which, in accordance with the agreement, will be created as part of the performance of the additional obligation indicated in the contract and then sold to the buyer, i.e. the amount of PLN 607.4 million, which may be adjusted in connection with the settlement of the working capital in accordance with the contract. As part of the concluded transaction, the Company undertook to sell an organized part of the Company's enterprise, which includes in particular: land owned or perpetual usufruct by the Company, on which there are production assets, electrical switchboards with transmission infrastructure, workshops, office buildings and other, accompanying infrastructure, contracts and some employees necessary for the conduct of business by the Konin Power Plant (ZCP Konin) for the company PAK - PCE Biopaliwa i Wodór sp. z o.o., for which on April 22, 2022 it was approved by the Extraordinary General Meeting of ZE PAK SA. Pursuant to IFRS 5, assets that meet the criteria for classification as held for sale are measured at the lower of their carrying amount and fair value less costs to sell. An entity classifies a non-current asset (or disposal group) as held for sale if its carrying amount will be recovered principally through a sale transaction rather than through its continued use. Such a situation occurs when the asset (or disposal group) is available for immediate sale in its present condition, considering only normal and customary conditions for the sale of such assets (or disposal groups) and its sale is highly probable. As at the balance sheet date, the Group did not evaluate the assets for sale as they are not available for immediate sale. Pursuant to the signed Agreement, the execution of the sale transaction requires changes in the Group consisting in the separation of an organized part of the enterprise and changes in the structure of the Group consisting in the transfer of shares of the sold companies to PAK-PCE sp. z o.o.

On March 10, 2022, the Extraordinary General Meeting of ZE PAK SA adopted a resolution on consenting to the target regulation of an organized part of the enterprise including a group of assets and non-property assets and a team of employees necessary to conduct business activities within Elektrownia Pątnów, which consists in independent and comprehensive production electricity and heat using Elektrownia Pątnów 1 (644 MW installed capacity) and Elektrownia Pątnów 2 (474 MW installed capacity), hereinafter referred to as "ZCP Pątnów", which will be sold in two stages - lease of ZCP Pątnów to PAK Pątnów sp. z o.o. with headquarters in Konin and contributing ZCP Pątnów in kind to PAK Pątnów sp. z o.o. based in Konin.

3. Composition of the Management Board of the parent company

As at the date of signing the report, the Management Board of ZE PAK SA includes:

Piotr Woźny – President of the Management Board,

Zygmunt Artwik – Vice President of the Management Board,

Maciej Nietopiel – Vice President of the Management Board,

Andrzej Janiszowski – Vice President of the Management Board,

Katarzyna Sobierajska – Vice President of the Management Board,

In the year ended December 31, 2021, there were no changes in the composition of the Management Board.

4. Approval of the financial statement

This consolidated financial statement was approved for issuing by the Management Board on 28 April 2022.

5. Essential values based on professional judgement and estimates

5.1. Impact of a COVID-19 disease pandemic on the Group's operations

The situation related to the negative consequences of the COVID-19 pandemic gradually improved with the passing months of 2021. The severity of the incidence occurred with the beginning of the fall-winter season, which usually favours greater exposure to various types of illnesses. However, the propensity to introduce severe restrictions reducing economic activity was significantly lower than it was in 2020, when the pandemic first appeared. Healthcare system efficiency was also significantly better than in the first year of the pandemic.

Taking into account last year experience, one should not expect to introduce drastic restrictions and restrictions hampering economic activity. The past year proved that, despite the ongoing pandemic, the economic activity indicators recorded positive readings, this also concerned the increase in electricity demand and an increase in its prices. The Company assumes that in the event of a worsening of the pandemic situation, the introduced restrictions will be temporary and their implementation will be gradual depending on the severity of the disease and the ability of the health care system to care for the infected.

The company assumes that over time, COVID-19 will begin to be treated like other viruses currently occurring, thus the consequences of the pandemic situation will be much less severe than it was in the first year of the pandemic. Although a negative scenario and subsequent waves of increased disease cannot be ruled out, the adaptability of enterprises is at a much higher level than it was in 2020.

The past two years have proved that the Company is properly prepared to operate in a pandemic. The solutions developed in the field of employee protection, preventing production continuity, securing the financial position allow to assume that in the event of an unfavourable scenario, the functioning of the Company is not burdened with too high risk.

5.2. Professional judgement

The preparation of the consolidated financial statement of the Group requires from the Management Board of the parent company, the judgements, estimates and assumptions, which affect the reported income, costs, assets, liabilities and the related notes and disclosures related to contingent liabilities. Uncertainty about these assumptions and estimates may result in the significant impairment of balance sheet values of assets and liabilities in the future.

In the process of application of the rules (policies) of accounting, the Management Board made the following judgements that have the greatest impact on the presented balance sheet values of assets and liabilities.

Leasing contracts

The Group concludes contracts regarding the use of such underlying assets such as land, including perpetual usufruct right to land, machinery and cars.

The application of IFRS 16 requires the Group to make various judgments, including determining which contracts fall under the definition of the lease, which parameters (including the amount of fees, length of the lease period or interest rate) should be used to measure the lease liability and whether there are premises indicating the need to reassess the lease period, discount rate or variable leasing fees.

Leasing definition

In situations where the assessment of whether a contract contains a lease is not clear, the Group makes a professional judgment as to whether the definition of a lease in accordance with IFRS 16 is met. In particular, this applies to cases in which it is necessary to determine whether an identified asset exists, the right of conversion on the part of the lessor or whether the lessee has the right to manage use.

Leases regarding the exploration or use of minerals, crude oil, natural gas and similar non-renewable resources are excluded from the scope of IFRS 16 (IFRS 16.3.a). The Group has analysed the possibility of using the above exclusion from the scope of IFRS 16 with respect to lease contracts for land used for lignite mining or land reclamation after lignite exploitation, including perpetual usufruct rights. The Group assessed that the above-mentioned exclusion applies only to concessions for the extraction of non-renewable natural resources, and not land used for this purpose. As a consequence, the Group recognized an asset under the right to use and a lease liability in respect of all land leases, irrespective of the purpose and manner of use.

Non-leasing components

The subject of the judgment is determining whether a given contract contains non-leasing components, which, in accordance with the accounting policy chosen by the Group for a given asset class, should be separated or treated together with the leasing component as one leasing component for the purposes of recognizing the contract in accordance with IFRS 16.

The duration of leasing contracts

The Group determines the leasing period, taking into account the irrevocable period during which the Group has the right to use the underlying asset, together with:

- periods for which the lease may be extended if it can be assumed with sufficient certainty that the Group will exercise this right; and
- periods in which you can withdraw from the lease if it can be assumed with sufficient certainty that the Group will not exercise this right.

When assessing the length of the irrevocable lease period and determining the lease period, the Group takes into account the provisions of the contract and past practices regarding the lease of a given type of assets. In particular, the Group makes the following assumptions when determining the lease term:

- in the case of perpetual usufruct right to land, the leasing period is determined as the remaining period of validity of the decision;
- in the case of land lease contracts from State Forests and private owners:

  - when contracts are concluded for a definite period, the leasing period is the period resulting from the contract;

  - when contracts are concluded for an indefinite period or until certain events occur (e.g. until the purchase of the property), the Group estimates the lease period, taking into account, inter alia, period of operation of the open pit for which the Group uses the leased land;
- in the case of other leasing agreements (car leasing, vulcanization presses), the leasing period is the period resulting from the agreements, taking into account the individual consideration of the extension option.

The Group analyses the use of the option to extend the lease for each contract separately. When assessing the likelihood of using the option to extend the contract, the Group considers all relevant facts and events that give rise to economic incentives (or not) for such an option, including, for example, the significance of the underlying component from the operating perspective or the costs of terminating the contract, including the costs of reallocation and searching for a new lease subject to the needs of the tenant. When assessing the likelihood of using the lease withdrawal option, the Group considers all relevant facts and events that give rise to the conditions for using such an option.

Interest rate

The Group applies the following assumptions in determining the discount rate:

- The Group applies the leasing interest rate for contracts for which it can be easily determined (car leasing).
- In the case of other leasing agreements, the Group applies the lessee's marginal interest rate.
- The current sources of financing for the Group have too short a time horizon to use them when estimating the lessee's marginal interest rate. The group determines the rate by estimating:

  - Risk-free rate based on publicly available data,

  - Credit margin
- Discount rates vary depending on the leasing period.
- The Group only has lease contracts denominated in PLN, therefore there is no differentiation of discount rates due to the currency of the contracts.

5.3. Uncertainty of estimates

Basic assumptions concerning the future and other key sources of uncertainty occurring at the balance sheet date, to which vital risk of the significant adjustment of balance sheet value of assets and liabilities in the next financial year are related, are discussed below. The Group adopted assumptions and estimates concerning the future on the basis of the knowledge possessed during development of the financial statement. Occurring assumptions and estimates may be subject to change due to future events resulting from market fluctuations or fluctuation not controlled by the Group. Such fluctuations are reflected in estimates or assumptions at the moment of occurrence.

Loss in fixed assets

As a result of the analyses, as at December 31, 2021 the Group identified the existence of circumstances, which would indicate possible loss in value of the asset components, in the form of the balance sheet net value of the Group's assets higher than the value of its market capitalisation. In relation to the above fact, the Group conducted value impairment tests of components of fixed assets. Based on the tests performed, it was found that there is a need to recognize impairment losses on property, plant and equipment.

Sources of uncertainty are changes in electricity prices, CO2 emission allowances, and legal regulations regarding support for biomass units.

Information about the conducted test is presented in note 20.1.

Evaluation of provisions for employee benefits

Provisions for employee benefits were estimated using actuarial methods. The assumptions adopted for that purpose were presented in the note 25.1.

Estimate was developed on the basis of following main assumptions:

- discount rate 3,2%
- estimated inflation rate 2,5%
- estimated salary increase rates 2,5%

Changes of the financial indexes, which are a basis of the estimation, would change the balance of the provisions by the amounts presented in the table below (in thousands zloty).

	(+) increase by 1 p.p.	*(-) decrease by 1 p.p.*
discount rate	(2 105)	2 399
salary increase rates	2 349	(1 679)

The sources of uncertainty are the values of the discount rate and the wage growth rate.

Component of deferred tax assets

The Group recognises the component of deferred tax assets on the basis of assumption that tax profit enabling to its use will be achieved. The deteriorations of the achieved tax results in the future, could lead to a situation, in which this assumption would become unjustified. Details concerning the deferred tax are described in note 16.3.

Settlement period for assets related to overburden stripping and other mining assets

On a periodic basis, the Group verifies the settlement periods of assets related with overburden stripping and other mining assets, on the basis of current forecasts regarding the open pit exploitation. Data on assets related to overburden stripping and other mining assets are described in note 23. The exploitation periods of open pits are the source of uncertainty.

Compensation for the termination of long-term contracts for sale of power and electricity

Note 34 presents the descriptions of essential contingent liabilities and essential law suits, including these concerning compensations for the termination of long-term contracts for the sale of power and electricity.

The source of uncertainty in the estimates of LTC compensation for individual years is primarily the sales price of electricity on the revenue side, and the purchase price of CO2 emission rights on the cost side. These are variables beyond the control of the Company. However, in general, i.e. in the years 2022-2023 (end of receiving compensation), the Company will receive the due compensation amount resulting from the remaining limit, only their distribution in individual years may change.

Revenue recognition

Long-term contracts for construction services

The Group recognizes revenues from long-term construction contracts over time, measuring the degree of full compliance with this obligation to perform the service. The Group applies an input-based method. The application of this method requires the Group to measure the proportion of works performed so far to all services to be performed. Revenue is recognized on the basis of the transaction price, excluding amounts that the Group collects as a leader on behalf of consortium members when executing contracts under a consortium.

At each balance sheet date, the Group updates the transaction price and the degree of fulfilment of the obligation to perform the service, i.e. the implementation of a long-term construction contract. The expected total loss on the contract is recognized as costs of the period in which it was recognized, in accordance with IAS 37. For data on long-term construction contracts, see Note 15.8. A possible change in the budget may be a source of uncertainty in estimates, but at the end of 2020 the budgets were updated and all circumstances and facts known to the Group related to the execution of contracts were included.

Depreciation rates

The amount of depreciation rates is determined on the basis of the projected period of economic usability of tangible fixed asset components and intangible assets. The Group verifies accepted periods of economic usability on the basis of current estimates annually.

Assets due to the right of use are amortized over the period of economic usability of the underlying asset, provided that the lease agreement transfers the ownership of the underlying asset to the Group at the end of the lease period or if the cost of the asset due to the right of use takes into account that the Group will use call options. Otherwise, the Group amortises the asset due to the right of use from the date of leasing commencement until the end of the useful life of the asset or to the end of the leasing period, whichever is earlier. The source of the uncertainty are the expected periods of use of the tangible fixed assets.

Provision for the liquidation of tangible fixed assets components

The group creates provisions for the liquidation of tangible assets in the event of such an obligation or undertaking such a liability by the Group's management. The provision is created in the amount resulting from the received offers concerning liquidation of components of tangible fixed assets. The Group updates the value of the provision on every balance sheet date. The value of the provision due to liquidation of components of tangible fixed assets is discounted on every balance sheet date. The source of uncertainty is the future values of the discount rate and inflation. The provision described in note 12.24.

Provision for liquidation of ash storage yards

The Group creates the provision for liquidation of ash dumps due to a legal obligation resulting from the integrated approval entries. The basis of estimation are developments, technical and economic analyses developed by the Group, as well as received external offerings for planned directions of reclamation. At the end of each reporting period, the Group updates the value of the provision. As at the balance sheet date, the Management Board of ZE PAK SA Group estimated the value of reclamation costs to be borne in the future based on knowledge about the area of ash landfills used and the currently incurred costs of reclamation for similar areas. When calculating the provision, the Group adopted the following assumptions: discount rate at 3.71%, inflation at 5.8%. The source of uncertainty is the future values of the discount rate and inflation.

The provision is described in note 32.3.2.

Reclamation and other provisions related to mining activity

The Group creates both, the provision for reclamation costs related to current extraction of coal on a given open pit, and the provision for costs of the final excavation. The provision is created on the basis of the estimates of future reclamation costs, as well as assumed start and finish dates of reclamation, on the basis of reports by independent experts estimating reclamation costs on the order of the Management Board, as well as internal estimates of the Group, and is discounted on every balance sheet date. The Group has adopted the following assumptions: discount rate at 3.71%, inflation at 5.8%. The source of uncertainty is the future values of the discount rate and inflation.

The provision is described in note 32.3.3.

Valuation of Energy certificates

The Group recognises the energy certificates of origin (green certificates) due to the energy production from renewable energy, gas, and peak load co-generation sources according to the fair value at the end of the month, in which they were produced. On the balance sheet date, the Group appraises certificates of origin to the net value possible to achieve – for green certificates on 31 December 2021 to the price of 260,69 PLN/MWh. Data on prices come from listings on Towarowa Giełda Energii SA. A write-down against the certificate value is created in case the sale price possible to achieve, diminished by the disposition costs, is lower than the historical production cost. The amount of the impairment loss is PLN 4 863 thousand. The value of the write-down decreases the value of stocks for certificates of origin and increases the cost of sales. The source of uncertainty are legal regulations regarding the RES market.

Provision for liabilities for the emission of greenhouse gases and provisions for the redemption of certified emission reductions (EUA)

The Group recognises the provision for greenhouse gas emission obligations. From January 1, 2021, another settlement period for emission allowances applies, which will end on December 31, 2021. The assumption of this period is the free allocation of emission allowances (EUA) resulting from the production of heat only pursuant to Art. 10c of Directive 2009/29 / EC. Significant fluctuations in prices of CO2 emission allowances and legal regulations related to the climate policy of the European Union are the source of uncertainty.

Emission in ZE PAK SA Group in 2021 amounted to 4 870 451 tons of CO_2.

Emission in ZE PAK SA Group in 2020 amounted to 5 510 260 tons of CO_2.

In 2022, 4,859,839 EUAs for 2021 will be redeemed.

Details regarding the provision for liabilities for greenhouse gas emissions are presented in note 32.3.1.

Risks related to climate change

Climate changes change the Group's strategy, which is described in note 11. The Group has analysed the risks associated with climate change and has provided more information in the Report on the activities of the Company and the Group for the year ended December 31, 2021, including the Non-Financial Statement included in this Report on Activities. The Group also considered the influence of climatic factors on the financial statements and included these factors, among others, in tests for impairment of non-financial assets and in the calculation of other provisions and accruals.

6. Basis for development of the consolidated financial statement

This consolidated financial statement was developed according to the historical cost principle, except for the derivatives and other financial instruments.

The balance sheet value of the recognised hedged assets and liabilities is adjusted with fair value changes, which may be attributed to the risk against which such assets and liabilities are hedged.

This consolidated financial statement is presented in PLN, and all values, unless indicated otherwise, are provided in thousands of PLN.

6.1. Going concern assumption

The consolidated financial statements have been prepared on the assumption that the Group will continue as a going concern in the foreseeable future. Taking into account, in particular, the increased reporting standards of public interest entities and the protection of stakeholders, the Management Board of ZE PAK SA (the "Management Board") notes that:

1. In 2021, the Group incurred a net loss of PLN 317,404 thousand. On the amount of loss, the impact of PLN 633,307 thousand, had impairment losses on non-current assets, mining assets and inventories. The write-offs were non-cash. On the other hand, the result at the EBITDA level in 2021 amounted to PLN 243,079 thousand. The amount of one-off events in the form of impairment losses on assets and inventories was influenced by the change in the base scenario in terms of shortening the expected life of mining assets and the activity of coal-based generation assets. The current scenario assumed the operation of coal-fired units 1, 2 and 5 at Elektrownia Pątnów until 2024, while the 474 MW unit (former Elektrownia Pątnów II) was to be operated no longer than until 2030. Currently, the base scenario is the operation of all the Group's coal units until the end of 2024, i.e. until these assets are supported in the form of the capacity market mechanism. The Company perceives the current market situation in terms of the relationship between energy prices and CO_2 emission allowances as highly volatile and risky, and the dynamics of these changes has become even stronger in the last year. Coal mining and production after 2024 will have to involve a number of investments, including enabling further exploitation of Tomisławice open pit and adjusting the 474 MW unit to environmental requirements. The company sees the possibility of incurring such investments and extending the operation of coal assets after 2024, but it definitely makes such measures conditional on the introduction of a support mechanism after 2024, which would reduce the risk of operations of the Group's generation assets to be discontinued. Due to the fact that currently no such mechanism exists, after 2024, following the principle of reasonable expectations, the Company shortened the expected life of its coal mining and production assets. At the same time, the Company does not rule out a change in the expected lifetime of coal assets in the event of establishing a support mechanism after 2024in a satisfactory shape.
2. As at December 31, 2021, the Group's current assets exceed the value of short-term liabilities, including bank loans, by PLN 45 123 thousand. The company draws attention to this fact, because in subsequent periodic reports in 2021, the value of short-term liabilities was higher than the value of current assets. During the year, the liquidity situation gradually improved and at the end of the year, there was a surplus of current assets over short-term liabilities.

The Management Board has analysed the cash flow forecasts in detail and confirms that the cash flow analysis indicates the possibility of generating sufficient positive cash flows for at least the next 12 months from the date of these financial statements.

6.2. Statement of compliance

This consolidated financial statement was developed in conformity with the International Financial Reporting Standards ("IFRS"), approved by the EU ("EU IFRS").

EU IFRS covers standards and interpretations adopted by the International Accounting Standards Board ("IASB") and The International Financial Reporting Interpretation Committee ("IFRIC").

The Group's companies keep their accounting books in accordance with the policy (rules) specified in the Act of 29 September 1994 on accounting unified text of 2021 item 217 ("the Act"), as amended, and the regulations issued therein ("Polish accounting standards"). The consolidated financial statement includes adjustments, which are not included in the accounting books of the Group's units, introduced in order to make their financial statements comply with IFRS.

6.3. Functional currency and financial statements currency

The functional currency of the parent company and other companies included in this consolidated financial statement and the presentation currency of this consolidated financial statement is the Polish zloty (zloty).

7. Changes in applied accounting principles and data changes comparative

The accounting (policy) rules applied for the development of this consolidated financial statement are coherent with the ones used for the development of the Company's consolidated financial statement for the year concluded on 31 December 2020.

Capacity market revenues

Starting from January 1, 2021, the Group recognizes revenues from the capacity market. Revenues from the capacity market are revenues from the performance of capacity contracts (obligations) concluded as a result of Auction 2021 (primary market) and the performance of the capacity obligation resulting from agreements concluded on the secondary market. The capacity market is a market mechanism aimed at ensuring stable electricity supplies in the long term. After the end of each month, the ZE PAK SA capital group is entitled to remuneration from PSE SA for the performance of the capacity obligation. Therefore, the companies of the Group, which are power suppliers to PSE SA, recognize revenues from transactions related to the capacity market each month.

Standard changes

The introduction of the following changes to the standards did not have a significant impact on the accounting policy:

- **Amendments to IFRS 9, IAS 39, IFRS 7, IFRS 4 and IFRS 16 related to the IBOR reform**

In response to the expected reform of the reference rates (IBOR reform), the International Accounting Standards Board published the second part of the amendments to IFRS 9, IAS 39, IFRS 7, IFRS 4 and IFRS 16, which are applicable from 1 January 2021. The changes relate to accounting issues that will arise when the financial instruments based on IBOR switch to new interest rates. The amendments introduce a number of guidelines and exemptions, in particular, a practical simplification in the case of modifications to the contracts required by the reform, which will be recognized by updating the effective interest rate, exemption from the obligation to terminate hedge accounting, temporary exemption from the need to identify the risk component, and the obligation to provide additional disclosures.

- **Amendment to IFRS 4: Application of IFRS 9 "Financial Instruments"**

The amendment to IFRS 4, Insurance Contracts, postpones the application of IFRS 9, Financial Instruments, until January 1, 2023, until IFRS 17, Insurance Contracts, becomes effective.

- **Amendments to IFRS 16 "Leasing"**

In connection with the coronavirus (COVID-19) pandemic, an amendment to IFRS 16 was introduced in 2020, which allows for a simplification in terms of assessing whether changes to lease agreements introduced during the pandemic constitute modifications to the lease. As a result, lessees can benefit from a simplification of not applying IFRS 16 guidance on modification of leases. This amendment concerned a reduction in lease payments due until June 30, 2021 and earlier, and was effective for reporting periods beginning on or after June 1, 2020.

In March 2021, the Council extended the availability of the practical solution for concessions on leasing payments until June 2022. The amendment was approved by the European Union for application from 1 January 2021.

The Group has not decided to early apply any standard, interpretation or amendment that has been published but has not yet come into force in the light of the European Union regulations.

8. New standards and interpretations which were issued but are not effective yet

In the consolidated financial statements, the Group did not decide to apply the following published standards, interpretations or amendments to the existing standards before their effective date:

- **IFRS 17 "Insurance Contracts" and amendments to IFRS 17**

IFRS 17 "Insurance Contracts" was issued by the International Accounting Standards Board May 18, 2017, while the amendments to IFRS 17 were published on June 25, 2020. The new revised standard is effective for annual periods beginning on or after January 1, 2023.

IFRS 17 Insurance Contracts will replace the current IFRS 4, which allows a variety of practice in the field of settlement of insurance contracts. IFRS 17 will fundamentally change the accounting of all entities that deal with insurance contracts and investment contracts.

- ***Amendments to IAS 1 Presentation of Financial Statements***

The Board published amendments to IAS 1, which clarify the issue of presenting liabilities as long- and short-term. The published changes are effective for financial statements for periods beginning on or after January 1, 2023.

As at the date of preparing these interim condensed consolidated financial statements, the new standard, including amendments, has not been approved by the European Union yet.

- **Amendments to IFRS 3 "Business Combinations"**

The amendments to the standard published in May 2020 are intended to update the relevant references to the Conceptual Framework in IFRS, without introducing substantive changes to accounting for business combinations.

- **Amendments to IAS 16 *Property, Plant and Equipment***

The amendment prohibits adjusting the manufacturing cost of property, plant and equipment by the amounts obtained from the sale of components produced in the period of preparing the property, plant and equipment to start operating as intended by the management. Instead, the unit will recognize the above-mentioned sales revenues and related costs directly in the profit and loss account. The amendment is effective for financial statements for periods beginning on or after January 1, 2022.

- **Amendments to IAS 37 "Provisions, Contingent Liabilities and Contingent Assets"**

The amendments to IAS 37 provide clarifications regarding the costs that an entity considers in analysing whether the contract is an onerous contract. The amendment applies to financial statements for the periods beginning on or after January 1, 2022.

- **Annual amendments to IFRS 2018 - 2020**

“Annual amendments to IFRS 2018-2020" introduce changes to the standards: IFRS 1 "First-time Adoption of International Financial Reporting Standards", IFRS 9 "Financial Instruments", IAS 41 "Agriculture" and the illustrative examples to IFRS 16 "Leasing".

The amendments precise and clarify the guidelines of the standards for recognition and measurement.

- **Amendments to IAS 1 "Presentation of Financial Statements" and guidelines of the IFRS Board regarding disclosures about accounting policies in practice**

The amendment to IAS 1 introduces the requirement to disclose significant information about the accounting principles defined in the standard. The amendment explains that information on accounting policies is material if, in the absence of such information, users of the financial statements would not be able to understand other material information included in the financial statements. In addition, the Board's guidance on applying the concept of materiality in practice has also been revised to provide guidance on how to apply the concept of materiality to accounting disclosures. The change is effective from January 1, 2023.

- **Amendments to IAS 8 "Accounting Policies, Changes in Accounting Estimates and Errors"**

In February 2021, the Board published an amendment to IAS 8 "Accounting Policies, Changes in Accounting Estimates and Errors" regarding the definition of accounting estimates. The amendment to IAS 8 explains how entities should distinguish changes in accounting principles from changes in accounting estimates. The change is effective from January 1, 2023.

- **Amendments to IAS 12 "Income Taxes"**

Amendments to IAS 12 specify how to account for deferred tax on transactions such as leasing and decommissioning obligations. Before the amendment to the standard, there were uncertainties as to whether the exemption from the recognition of deferred tax recognized for the first time applied to this type of transaction, i.e. where both deferred tax assets and liabilities are recognized. The amendments to IAS 12 clarify that the exemption does not apply and that entities are required to recognize deferred tax on such transactions. The amendments require companies to recognize deferred tax on transactions which, upon initial recognition, give rise to the same taxable and deductible temporary differences.

The amendment is effective for financial statements for periods beginning on or after January 1, 2023. As at the date of preparing these interim condensed consolidated financial statements, the changes have not yet been approved by the European Union.

- **Amendment to IFRS 17 "Insurance Contracts"**

This amendment relates to the transitional requirements in connection with the first-time application of IFRS 17 "Insurance Contracts" and IFRS 9 "Financial Instruments". The amendment introduces the possibility of improving the usefulness of information for investors on the first application of the new standard.

The amendment only applies to the transition of insurers to the new standard, it does not affect any other requirements contained in IFRS 17.

As at the date of preparing these consolidated financial statements, these changes have not yet been approved by the European Union.

- **IFRS 14 "Regulatory Deferral Accounts"**

This standard allows entities that prepare financial statements in accordance with IFRS for the first time (on or after 1 January 2016), to recognize the amounts resulting from activities with regulated prices, in accordance with the accounting principles applied so far. To improve comparability, with entities that already apply IFRS and do not report such amounts, in accordance with the published IFRS 14, the amounts resulting from activities with regulated prices should be presented in a separate item both in the statement of financial position and in the profit and loss account and in the statement from other comprehensive income.

By the decision of the European Union, IFRS 14 will not be approved.

- **Amendments to IFRS 10 and IAS 28 regarding the sale or contribution of assets between an investor and its associates or joint ventures**

The amendments solve the problem of the current inconsistency between IFRS 10 and IAS 28. The accounting treatment depends on whether the non-cash assets sold or contributed to the associate or joint venture constitute a "business".

In the event that the non-monetary asset constitutes a "business", the investor shows the full gain or loss on the transaction. If the assets do not meet the definition of a business, the investor recognizes a gain or loss only to the extent of the interests of other investors.

The changes were published on September 11, 2014. As at the date of preparation of these consolidated financial statements, the approval of this change has been postponed by the European Union.

As at the date of approval of these consolidated financial statements for publication, the Management Board has not yet completed work on the assessment of the impact of the introduction of the above standards and interpretations on the accounting principles (policy) applied by the Group in relation to the Group's operations or its financial results.

The effective dates are the dates resulting from the content of the standards announced by the International Financial Reporting Council. The dates of application of the standards in the European Union may differ from the dates of application resulting from the content of the standards and are announced at the time of approval for use by the European Union. The Group has not decided to early apply any standard, interpretation or amendment that has been published but has not yet come into force in the light of the European Union regulations.

9. Changes of estimates

During the period covered by the financial statement, the following changes of estimates, affecting the values shown in the financial statements, occurred:

- estimates in the assumptions for the valuation of actuarial provisions,
- estimates in the scope of assumptions regarding the valuation of derivative instruments,
- estimates in the assumptions regarding the calculation of the revenue for compensation of LTC,
- estimates in the assumptions regarding the periods of economic usability of the capital work,
- estimates related to realisation of the deferred tax assets,
- estimates in the scope of assumptions regarding the valuation of provisions for ash storage reclamation,

- estimates in the assumptions for the valuation of the provision for the liquidation of components of tangible fixed assets,
- estimates regarding the valuation of long-term contracts,
- estimates in the scope of assumptions regarding the valuation of the reclamation provisions associated with mining activity
- estimates in the scope of fixed asset impairment,
- estimates in the scope of prices of CO_2 emission allowances.

The impact of changes in estimates on the value of the recoverable amount of property, plant and equipment was presented in Note 20.1.

The impact of estimate changes on the value of actuarial provisions was presented in note 5.3.

In case of the valuation of derivatives (IRS, options), the change in estimates is due to the market changes of risk factors on the interbank market, i.e. the exchange rate and market interest rates. The description of the used protections was included in note 40.3.1.

In the calculation of the revenue due to compensation, the change of estimates relates primarily to changes in the sale prices and purchase of energy on the Commodity Power Exchange and balancing market, the volume of energy production and purchase of energy in order to meet sale plans as well as the interest rate of the 5-year government bonds and the NBP deposit rate, affecting the discount rate. The value of the yearly impairment due to compensations for 2021 is (+) zloty 52,32 million. The principles of recognition of revenue for compensations to cover stranded costs are described in note 12.26.1.

The period of economic usability of the fixed assets is subject to verification at the end of each reporting period based on the expected functionality period, verified against the Management Board's plans related to the modernisation, sale, and liquidation of the main components of assets. The effect of the changes is recognised in the year in which the verification was performed. In 2021, the economic useful lives of fixed assets were adjusted to the dates resulting from the new directions of GK ZE PAK strategy, which is described in more detail in note 11.

With reference to the deferred tax asset, for each balance sheet day an analysis is carried out and, if necessary, a revaluation write-down is created, which is described in more detail in note 16.3.

The description of the titles of the main recognised provisions and changes of provision items in the current and previous fiscal year was described in note 32.

Note 15.8 shows the values of revenues for construction contracts, taking into account the balance sheet measurement and the expected losses due to these contracts.

10. Seasonality of the activities

Demand for electricity and heat, especially among consumers, is subject to seasonal fluctuations. So far, the practice has shown that electricity consumption increased in the winter (mainly due to low temperatures and a shorter day) and decreased during the summer (due to the holiday period, higher ambient temperatures and longer days). In recent years, the demand for electricity in the summer has been systematically growing, mainly due to the growing number of used refrigeration and air conditioning equipment.

Irrespective of the factors described above, meteorological conditions are becoming more and more important for the Group's production level. In the past, the operations of the Group were not subject to significant seasonality of demand, due to the low costs the work of the blocks was carried out continuously (in the basis) for almost a whole year. Currently, taking into account the growing share of renewable energy in the energy generation segment, including primarily wind sources, weather conditions are becoming more and more important in the estimation of the Group's production volume, with particular regard to wind conditions in the periods of I and IV quarter and solar conditions in the periods of II and III quarter. However, the risk related to the seasonality and weather conditions is not crucial for the Group's operations.

11. New directions of the strategy of ZE PAK SA Capital Group

In view of the worsening prospects for conventional electricity generators, especially those based on high-emission fuels, the ZE PAK SA Group decided to set new directions of development, according to which it intends to focus on projects in the area of low-emission and neutral-emission sources of energy production and production and use "green" hydrogen.

The strategic directions assume that the transformation process of the ZE PAK SA Group will last for the coming years. During this time, further projects for generating energy from low-emission and neutral-emission sources will be launched, and the capacity based on lignite will be gradually phased out.

The base operation scenario provides for the operation of all units of Elektrownia Pątnów by the end of 2024. The current scenario assumed the operation of coal-fired units 1, 2 and 5 at Elektrownia Pątnów until 2024, while the 474 MW unit (former Elektrownia Pątnów II) was to be operated no longer than until 2030. Currently, the base scenario is the operation of all the Group's coal-fired units until the end of 2024, i.e. until these assets are supported in the form of the capacity market mechanism. The Company perceives the current market situation in terms of the relationship between energy prices and emission allowances as highly volatile and risky, and the dynamics of these changes has become even stronger in the last year. Coal mining and production after 2024 will have to involve a number of investments, including enabling further exploitation of Tomisławice open pit and adjusting the 474 MW unit to environmental requirements. The company sees the possibility of incurring such investments and extending the operation of coal assets after 2024, however, it definitely makes such measures conditional on the introduction of a support mechanism after 2024, which would reduce the risk of operating the Group's coal generation assets to be phased out.

Along with the gradual reduction of energy production from lignite, the Group undertakes initiatives related to the development of new projects. Currently, around PAK - PCE sp. z o.o. the structure of special purpose vehicles, which are to be responsible for activities in particular renewable energy technologies, is successively being built. Thanks to the sale of the majority stake in the PAK PCE structure to Cyfrowy Polsat Group, it is planned to acquire a strong capital partner that will be able to guarantee the implementation of a wide range of prospective investment projects in the area of renewable energy sources and the production and use of "green" hydrogen.

Special purpose vehicle PAK CCGT sp. z o.o. is to be responsible for the preparation and implementation of the gas unit construction project at the former Adamów coal-fired power plant.

The project won the auction and thus, starting in 2026, it received support in the form of a 17-year capacity contract.

As part of its transformation activities, the Group is also active in the area of offshore wind farm construction projects. It is also planned to use the assets at Pątnów Power Plant for the implementation of the SMR (Small Modular Reactor) technology, which is currently in the pre-commercial phase. Both of the above projects are developed in cooperation with external partners.

Due to the new directions of the strategy, impairment losses were made on the assets of coal-fired power plants and mines. Details on impairment losses are provided in Note 20.1. Periods of depreciation of fixed assets were shortened, however, due to revaluation write-offs there was a total loss of value of some fixed assets, which resulted in a decrease in depreciation compared to the previous year (notes 15.6 and 15.7). The period of settlement of the subsidy related to the loan from the National Fund for Environmental Protection and Water Management granted on preferential terms was also shortened. As at December 31, 2021, the subsidy was fully settled. The subsidy is described in note 33.4.

12. Significant accounting rules

12.1. Consolidation rules

This consolidated financial statement includes the financial statement of ZE PAK SA as well as financial statements of its subsidiaries, developed each time for the year concluded on 31 December 2021. The financial statements of the entities controlled by it (subsidiaries), after the taking into account the adjustments to ensure compliance with IFRS, are prepared for the same reporting period as the parent company’s statement, using consistent accounting rules, based on uniform accounting policies applied for transactions and economic events of a similar nature. In order to eliminate any differences in the applied accounting methods, adjustments are implemented.

All significant balances and transactions between the Group's entities, including unrealised profits arising from transactions within the Group, were entirely eliminated. Unrealised losses are eliminated, unless they prove the impairment.

Subsidiaries are subject to consolidation from the date on which they are controlled by the Group and cease to be consolidated from the date on which such control ends. The control of the parent company over an entity takes place when:

(in thousand PLN)

- it has power over a given entity
- it is exposed to variable returns or has rights to variable returns due to its commitment in a given entity,
- it has the possibility to use the power to shape the level of the generated returns.

The Company verifies the fact of having control over other entities, if the situation, which indicates a change of one or more of the above-mentioned control conditions, occurred.

If the company has less than a majority of the voting rights of the entity, but the held voting rights are sufficient to unilaterally manage the relevant activities of the entity, it means that it holds power over the entity. When assessing whether the voting rights in a given entity are sufficient to ensure power, the Company analyses all significant circumstances, including:

- the size of the held voting rights block in comparison to the scale of shares and the degree of dispersion of the voting rights held by other shareholders;
- potential voting rights held by the Company, other shareholders, or other parties;
- rights under other contractual arrangements; and
- additional circumstances that may demonstrate that the Company has or does not have the possibility to manage relevant activities in the decision-making moments, including voting schemes observed during previous meetings of the shareholders.

Changes in the parent company's ownership that do not result in the loss of control of the subsidiary are recognised as equity transactions. In such cases, in order to reflect changes in relative shares in the subsidiary, the Group adjusts the balance value of the controlling and non-controlling shares. Any differences between the amount of the adjustment of non-controlling shares and the fair value of the paid or received amount are recognised in the equity and attributed to owners of the parent company.

12.2. Calculation of items denominated in foreign currency

Transactions denominated in currencies other than zloty are calculated into Polish zloty using the exchange rate applicable on the date of conclusion of the transaction.

At the balance sheet date, assets and liabilities denominated in currencies other than zloty are calculated into Polish zloty using the average exchange rate determined for a given currency by the Polish National Bank at the end of the reporting period. The foreign exchange differences, which arise from the calculation, are respectively recognised in the financial revenue item (costs), or in cases of the rules (policy) of accounting, capitalised in the value of assets. Assets and non-monetary liabilities recognised at historical cost in a foreign currency are disclosed at the historical exchange rate of the transaction date. Assets and non-monetary liabilities recognised as per the fair value expressed in a foreign currency are converted to the fair value at the rate of the evaluation date. Profits or losses arising from the recalculation of assets and non-monetary liabilities recognised within the fair value are recognised in accordance with the recognition of profit or loss, which arises from changes in the fair value (i.e., in other comprehensive income or profit or loss, respectively, depending on where the change in the fair value is recognised).

The following exchange rates were adopted for the purposes of the balance sheet valuation:

	31 December 2021	*31 December 2020*
EUR	4,5994	4,6148
GBP	5,4846	5,1327
USD	4,0600	3,7584

12.3. Tangible fixed assets

Tangible fixed assets are stated according to the acquisition price / production cost reduced by the redemption and impairment write-downs for the loss in value. The initial value of fixed assets includes the acquisition price increased by all costs directly related to the acquisition and adaptation of the asset components to a condition for its intended use. The cost also includes the cost of replacing the individual components of machinery and devices when incurred, if the recognition criteria are met. Any costs incurred after the date when a fixed asset is put into operation, such as the maintenance and repair costs, encumber the profit or loss when incurred. The initial value includes disassembly, removal and restoration costs.

Fixed assets, at the time of their acquisition, are divided into components with a significant value, to which a separate period of the economic usability can be attributed. The costs of general overhauls are also classified as components. The Group capitalizes only compulsory repairs resulting from legal provisions, guarantees and the like. The period of amortization of renovation components is the time planned for the next major overhaul of a given facility. Lands classified as fossil are subject to depreciation until they are reclassified for another type of use.

The redemption is calculated on a straight-line basis for an estimated useful life of a given component of assets, amounting to:

Type	Period
Lands	8 - 10 years
Buildings and structures	2 - 27 years
Machinery and technical devices	2 - 27 years
Means of transport	2 - 10 years
Other fixed assets	2 - 27 years
General renovations	3 - 4 years
Strategic spare parts	2 - 4 years

The final value, useful life and a depreciation method for the asset components are annually verified and, if necessary, adjusted with effect from the beginning of the just ended financial year. Any changes resulting from the conducted review are recognised as a change in estimates.

A given item of the tangible fixed assets may be removed from the balance sheet after its sale, or if any economic benefits, arising from the further use of such a component of assets, are expected. Any profits or losses resulting from removal of a given component of assets from the balance sheet (calculated as the difference between potential net income from the net sale and the balance sheet value of a given item) are recognised in the profit and loss of the period, in which such removal was made.

Commenced investments relate to fixed assets under construction or assembly and are reported in accordance with the acquisition or production costs reduced by potential impairment write-downs for the loss in value. The fixed assets under construction are not subject to redemption until the completion of their construction and putting the fixed asset into operation. Financing costs subject to capitalisation are also a value element of fixed assets under construction. The question of their capitalisation is described in more detail in note 12.11.

12.3.1. Strategic spare parts

Inventories recognized as parts of strategic repairs and breakdowns of machinery and equipment are recognized in property, plant and equipment. The main criteria for recognizing materials under Property, plant and equipment are:

- a key element to maintain continuity of production, the purchase of which is difficult due to the long waiting process associated with the complicated manufacturing process,
- an element being a set or subassembly of a machine or device that will be used in the production process for more than one year,
- spare parts can only be used for the proper operation of individual items of property, plant and equipment.

Strategic spare parts are amortized to the expected period of their use.

The revaluation write-off is created for non-rotating materials over 3 years. For spare parts with a value above PLN 100,000, the write-off amounts to 100% of the value.

12.3.2. Fixed assets intended for sale

Fixed assets and their groups are deemed as held for sale when their balance sheet value is recovered rather by means of a sale transaction than through their further use. This condition can be met only when the sale transaction is highly probable and the assets' component is available for immediate sale in its present condition. The classification of the assets' component as intended for sale assumes the intention of the company's management board to conduct the sale transaction within one year from the date of classification. The fixed assets classified as held for sale are measured at the lower of two values:

the balance sheet value or fair value reduced by costs related to the sale.

If the Group wants to make a sale transaction, which would result in losing control over its subsidiary, all assets and liabilities of this entity are classified as held for sale, regardless of whether the Group keeps non-controlling interests after this transaction.

12.4. Investment properties

The initial recognition of the investment properties takes place according to the acquisition price or production cost, taking into account the transaction costs. The balance sheet value of the investment properties includes the cost of replacing the individual components of the investment property at the time of its incurrence, if the recognition criteria are met, and it does not include costs of the current maintenance of these properties. After the initial recognition, the value of investment properties is reduced by redemption and impairment write-downs for the loss in value.

Investment properties are removed from the balance sheet upon their sale or permanent withdrawal of the given investment property from use, when no future benefits of its sale are expected. Any profits or losses arising from removal of the investment property from the balance sheet are recognised in the income statement of the period in which the aforementioned removal took place.

The transfer of assets to investment properties is made when there is a change in their use confirmed by the owner ceasing to use the assets' component or the conclusion of an operating leasing agreement.

The Group as investment properties presents post-mining lands for which the reclamation process was completed. Such lands, in accordance with the plans of companies executing extraction activities, will be sold in the future.

12.5. Assets concerning stripping off and other mining assets

Assets related to stripping off and other mining assets include capitalized costs incurred in the mine's pre-production phase, in particular outlays related to the creation of an accessing site.

In the initial value of the assets, the Group recognizes discounted decommissioning costs, i.e. reclamation, in the part in which it relates to the removed overburden as part of works related to the construction of an accessible trench, which, in accordance with applicable law, are subject to liquidation after the end of operations. The principles of recognition and measurement of decommissioning costs are presented in Note 32.3.3.

The initial value of the asset also includes costs related to the creation of provisions for significant, one-off costs related to the areas on which open-cast construction works, for example liquidation and reconstruction of roads, liquidation of cemeteries, transfer of public construction objects.

In any case, the Group settles activated costs on a straight-line basis in the period of the economic usability of the duration of particular open pits (the exploitation period adopted for particular open pits). The linear method was used because the deposits are mined according to the schedule evenly throughout the entire concession period. The adopted depreciation periods and depreciation methods are periodically reviewed, at least at the end of each financial year. The assets related to the removal of overburden and other mining assets with the economic usability of less than 12 months are classified within short-term assets. The periods of economic utility of individual outcrops are as follows:

Drzewce open pit till 2022, Tomisławice open pit till 2024, Jóźwin open pit till 2022.

The write-down against settlement of mining assets is recognised as operating costs within the depreciation costs.

12.6. Expenses related to exploration and evaluation of mineral resources

Within the assets related to stripping off and other mining assets item, the Group also shows expenses related to the exploration and evaluation of mineral resources.

The Group activates the expenses related to the exploration and evaluation of mineral resources until the end of the exploration works. The next step is to verify if the identified resources demonstrate the technical feasibility and economic viability of extracting. In the absence of viability of extracting, all the incurred expenses are written off in other operating costs.

Within the costs associated with the exploration and evaluation of mineral resources, the following element can be distinguished, among other things:

- topographical, geological, geochemical, and geophysical analyses,
- drilling,
- open-pit mining works,
- sampling,
- acquisition of extraction rights.

Assets related to the exploration for and evaluation of mineral resources are measured at cost less accumulated impairment losses.

Impairment tests on a single unit (project), the Group obligatorily performs when it demonstrates the technical feasibility and commercial viability of extracting mineral resources when facts and circumstances indicate that the carrying amount of assets from exploration and evaluation of mineral resources may exceed their recoverable amount. Any write-downs are recognized prior to the reclassification resulting from the demonstration of technical feasibility and economic viability of extracting mineral resources.

12.7. Intangible assets

Intangible assets acquired in a separate transaction or created (if they meet the recognition criteria for development costs) are measured at initial recognition, at their acquisition price or production cost, respectively. The acquisition price of intangible assets acquired in a business combination transaction is equal to their fair value at the date of the combination. Following the initial recognition, intangible assets are stated at their acquisition price or production cost reduced by the redemption and value impairment write-downs. The expenses incurred on the intangible assets produced internally, except for the activated assets incurred on the development works, are not activated and are recognised in the costs for the period, in which they were incurred.

Intangible assets are depreciated over the period of use and are subjected to the value impairment tests whenever there are premises indicating their value loss. The depreciation period and method of intangible assets with a definite useful life are verified at least at the end of each fiscal year. Changes in the expected useful life or the expected method of consuming the economic benefits from a given component of assets are recognised through a change of the period or depreciation method, and treated as changes in estimates. Depreciation write-downs for components of intangible assets with a definite useful life are recognised in the profit or loss in the expense of the category, which corresponds to the function of a given component of intangible assets.

Usufruct periods are verified annually and, if necessary, adjusted with effect from the beginning of the just ended financial year. Any changes resulting from the conducted review are recognised as a change in estimates.

A summary of the policies applied in relation to the Group's intangible assets is as follows:

	Concessions, patents and licences	*Computer software*	*Other*
Periods of use	5 years	2 years	5 years
Applied depreciation method	Straight-line method	Straight-line method	Straight-line method
Internally produced or acquired	Acquired	Acquired	Acquired
The value impairment test	The annual assessment of whether there are any prerequisites indicating the occurrence of the loss in value.	The annual assessment of whether there are any prerequisites indicating the occurrence of the loss in value.	The annual assessment of whether there are any prerequisites indicating the occurrence of the loss in value.

Profits or losses resulting from removal of intangible assets from the balance sheet are valued according to the difference between the income from the net sales and the balance sheet value of a given asset component and are recognised in the profit or loss, when they are removed from the balance sheet.

The company also shows the CO_2 emission allowances received or acquired for own needs, as intangible assets. A detailed description of the accounting policy in respect of CO_2 emission allowances was included in note12.25.

12.8. Lease

The Group as a lessee.

Lease, rent, lease and other contracts granting the Group the right to use assets that fall under the definition of leasing in accordance with the requirements of IFRS 16 are recognized as assets under the right to use the underlying assets and on the other side as liabilities under leasing fees.

The Group is a lessee in the case of machinery and car leasing contracts and uses land, including for perpetual usufruct.

The Group applies the exemptions provided for in IFRS 16 and does not recognize assets due to the right of use for short-term leases and leases involving low-value assets. Short-term leases are defined as leases that have a period of not more than 12 months as at the commencement date (including periods for which the lease can be extended if it can be assumed with sufficient certainty that the lessee will exercise this right). Low-value assets are considered to be assets that, when new, have a value of no more than USD 5,000.

For all individual leasing contracts that meet the leasing criteria, the Group sets:

- d date of commencement of the leasing period in which the lessor provides the underlying asset,
- the leasing period, including the irrevocable period for which the Group has the right to use the underlying asset along with periods for which the lease may be extended, if it can be assumed with sufficient certainty that the lessee will exercise this right and the periods in which the lease can be withdrawn if it can be assumed with sufficient certainty that the lessee will not exercise this right,
- leasing fees, and
- discount rate, which is the leasing interest rate (e.g. in the case of car leasing contracts) or, if the leasing interest rate is not easily available, the marginal interest rate of the Group, understood as the cost of credit interest that the Group would have to incur when taking a loan to purchase a given component assets and with appropriate collateral.

As at the start of the lease, the Group measures the asset due to the right of use at cost. The cost of the asset due to the right of use includes:

- the amount of the initial measurement of the lease liability,
- payments made to the lessor before or at the start of the lease, less leasing incentives received
- initial direct costs incurred by the Group,
- estimated costs that will be incurred by the Group for dismantling and removing the asset, restoring the area where the asset is located or restoring the asset to the condition required by the terms and conditions of the lease agreement. The liability regarding dismantling costs is recognized and measured in accordance with IAS 37 "Provisions, contingent liabilities and contingent assets".

The measurement of the asset due to the right to use at a later date is made by the Group using the cost model - i.e. according to the cost less amortization and accumulated impairment losses and adjusted in connection with the revaluation of the leasing liability, which reflects changes in leasing, not resulting in the need to recognize a separate lease component.

Assets used on the basis of a lease-based contract are amortized on a straight-line basis over the shorter of the two periods: the duration of the lease contract or the useful life of the underlying asset, unless the Group has reasonable assurance that it will obtain ownership before the end of the lease term - then the right to use it is amortized from the day the lease begins to the end of the asset's useful life.

Asset components of the right to use are subject to impairment regulations in accordance with IAS 36 'Impairment of assets'.

As at the beginning of the lease period, the Group measures the value of the lease liability at the current value of the lease payments to be made during the lease period, including:

- fixed leasing fees (including essentially fixed leasing fees), less leasing incentives received from the lessor,

- variable lease payments, which depend on the index or rate, initially valued using the index or rate in the amount applicable at the date of leasing,
- the call option exercise price if it can be assumed with sufficient certainty that the lessee will exercise this option,
- financial penalties for early termination of the lease agreement, if determining the lease period, it was assumed that the lessee will use the option to withdraw from the lease,
- amounts expected to be paid by the lessee in relation to the residual value guarantee.

Variable fees that do not depend on an index or rate and do not have a certain minimum level are not included in the value of the lease liability. These fees are recognized in the income statement in the period of the event that causes them to be due.

After the commencement date, the lease liability is measured using the effective interest rate.

The lessee separately recognizes the depreciation of the asset due to the right to use and interest on the lease liability.

The lessee updates the valuation of the lease liability after specific events (e.g. changes with respect to the lease period, changes in future lease payments resulting from a change in the index or the rate used to determine these charges). As a rule, the lessee recognizes the revaluation of the lease liability as an adjustment to the value of the asset due to the right of use.

If the contract includes service components deemed by the Group to be immaterial in the context of the entire contract, the Group applies a practical solution consisting of treating leasing and non-leasing components as one leasing component and treating as fees also the fees assigned to non-leasing components.

12.9. Fair value measurement

The Group measures financial instruments such as debt / equity instruments and derivatives at fair value as at each balance sheet date - IFRS 9. In addition, the fair value of financial instruments measured at amortized cost is disclosed in Note 40.

The fair value is defined as the price that would be received from the sale of an asset or paid in order to transfer a liability in the transaction conducted on normal sale conditions of a component of assets between market participants at the valuation date in the current market conditions. The valuation of fair value is based on the assumption that the sale transaction of a component of assets or the transfer of a liability occurs either:

- on the main market for a given component of assets or liability,
- in the event of absence of a principal market, in the market, this is most advantageous for the asset or liability.

Both, the main and the most advantageous markets must be available to the Group.

The fair value of a component of assets or liability is measured at the assumption that market participants, when determining the price of a component of assets or liability, act in their best economic interest.

The fair value of a component of non-financial assets takes into account the market participant's ability to generate economic benefits by making the greatest and the best use of the component of assets or its sale to another market participant that would provide the greatest and the best use of this component of assets.

The Group uses measurement techniques that are relevant to the circumstances and for which sufficient data to determine the fair value, with maximum use of relevant observable input data and minimal use of unobservable input data, are available.

All assets and liabilities that are measured at the fair value, or their fair value is disclosed in the financial statement, are classified in the fair value hierarchy as described below on the basis of the lowest level of input that is significant to the valuation of fair value treated as a whole:

- Level 1 – Quoted (unadjusted) market prices on the active market for identical assets and liabilities,
- Level 2 – Valuation techniques, for which the lowest level of input data, which is significant for the fair value measurement as a whole, is directly or indirectly observable,
- Level 3 – Valuation techniques, for which the lowest level of input data, which is significant for the valuation of the fair value as a whole, is unobservable.

At each balance sheet date, in the event of assets and liabilities existing per each balance sheet date in the financial statement, the Group evaluates whether there were transfers between levels of the hierarchy through a re-assessment of the classification into different levels, following the materiality of input data from the lowest level, which is essential for the valuation to the fair value treated as a whole.

Summary of essential procedures for the fair value measurement

The Management Board of the Group determines the rules and procedures for both, the systematic valuation of non-listed financial assets at the fair value, as well as one-time valuations, e.g. in case of assets intended for sale within a discontinued activity.

In order to determine the fair value, independent experts are engaged to perform the valuation of significant assets and financial liabilities, measured at the fair value. Internal valuation models are also used.

In order to perform the above valuations, independent experts, unrelated to the Group and with qualifications appropriate to conduct such valuations, as well as having current experience in such valuations in locations, where there are assets of the Group are appointed.

For the purposes of disclosure of the fair value measurement, the Group established classes of assets and liabilities based on the type, characteristics, and risks of the various components of assets and liabilities and the level in the fair value hierarchy, as described above.

12.10. Loss in value of non-financial fixed assets

At the balance sheet date, the Group evaluates whether there are any prerequisites indicating that loss in value of the component of non-financial fixed assets may have occurred. In the event when there are such prerequisites, or in case of the necessity to conduct an annual impairment test, the Group estimates the recoverable value of a given component of assets or a cash generating unit, which the component of assets belongs to.

The recoverable value of a component of assets or a cash generating unit corresponds to the fair value reduced of effecting the sale of the given component of assets or respectively the cash generating unit, or its value in use, depending on which one is higher. The recoverable value is determined for an individual asset, unless a given asset component does not independently generate cash inflows that are largely independent of those generated by other assets or groups of assets. If the balance sheet value of a component of assets is higher than its recoverable value, the loss in value occurs, and the write-down to the determined recoverable value is made.

In assessing the value in use, the projected cash flows are discounted to their current value using a discount rate prior to entailing the effects of taxation reflecting the current estimated value of money in time as well as the risk typical for a given component of assets. Impairment write-downs for the loss in value of assets used in the continued activity are recognised in the category of costs, which are consistent with the function of the asset component, in case of which the loss in value was identified.

At each balance sheet date, the Group assesses whether there are any prerequisites indicating that the value impairment write-down, which was recognised in previous periods, in relation to a given asset component, is unnecessary or whether it should be reversed. If such prerequisites exist, the Group estimates the recoverable value of the component of assets. The previously recognised impairment write-down for the loss in value is reversed only if, from the time of recognition of the impairment write-down, a change of the estimated values applied to determine the recoverable value of a given component of assets occurred and there was a cessation of premises indicating impairment. In this case, the balance sheet value of the component of assets is increased to its recoverable value. The increased amount cannot exceed the balance sheet value of the component of assets that would have been determined (after taking into account redemption) if, in the previous years, the impairment write-down for the loss in value, in relation to this component of assets, was not recognised. A reversal of the impairment write-down for the loss in value of the component of assets is immediately recognised as reducing of costs. After the reversal of the impairment write-down, in the following periods, the depreciation write-down related to a given component is adjusted in a way, which within the remaining period of use of this component of assets allows systematically writing down the verified balance sheet value of the component of assets reduced by the final value.

12.11. Borrowing costs

Borrowing costs are capitalised as part of the fixed assets production cost. Borrowing costs consist of interests calculated using the effective interest rate method, financial encumbrances due to financial lease agreements and foreign exchange differences resulting from the external financing up to the amount corresponding to the adjustment of the interest cost. In terms of foreign exchange differences, the cumulative approach is applied.

12.12. Financial assets

Financial assets are initially recognized at fair value.

After the initial recognition, the Company classifies financial assets into the following valuation categories:

- measured at amortized cost,
- measured at fair value through profit or loss,
- valued at fair value through other comprehensive income.

The classification depends on the financial asset management model adopted by the Company and the contractual terms of cash flows.

The Group has applied IFRS 9 from the effective date of the standard, without transforming the comparative data.

- **Classification and valuation**

All financial assets so-far measured at fair value will continue to be measured at fair value. Trade receivables are maintained to obtain cash flows arising from the contract. The Group has no trade receivables subject to factoring. The Group uses a practical exemption and for trade receivables under 12 months does not identify significant elements of financing.

Financial assets are recognized in the statement of financial position when the Group becomes a party to a binding contract. The acquisition and sale of the financial assets are recognised at the transaction date. At the time of the initial recognition, a component of financial assets is measured at the fair value, increased, in case of the component of assets not classified as the measured at the fair value by the financial result, with the transaction costs, which can be directly attributed to the acquisition.

The component of financial assets is removed from the balance sheet when the Group loses control over the contractual rights that comprise a given financial instrument; it usually occurs when the instrument is sold or when all the cash flows attributed to a given instrument are transferred to an independent third party.

In a situation, in which the Group:

- has a legally enforceable right to compensate the recognised amounts, and
- intends to settle on a net basis, or at the same time to realise the component of assets and settle the liability

a financial asset component and financial liability are compensated and presented in the financial statement in the net amount.

The framework agreement described in IAS 32.50 does not constitute grounds for compensation, if both above described criteria are not met.

12.13. Impairment of financial assets

In accordance with IFRS 9, the entity measures the write-down for expected credit losses in the amount equal to the 12-month expected credit loss or expected credit losses over the life of the financial instrument. In the case of trade receivables, the Group applies a simplified approach and measures the write-off for expected credit losses in the amount equal to the expected credit losses throughout their life.

For the purpose of estimating the expected credit losses, IFRS 9 indicates the validity of using both historical data in the field of repayment as well as reliable data available at the balance sheet date that may increase the accuracy of estimating the expected credit losses in future periods.

The Company identified the following classes of financial assets for which, in accordance with IFRS 9, it estimated the impact of expected loan losses on the financial statements:

- Trade receivables for deliveries and services,
- Other receivables, including those due to LTC settlement
- Sureties and bank deposits,
- Cash.

With respect to trade receivables, it is assumed that the repayment data can be used to estimate credit risk in the future, and therefore the credit losses were estimated using historical data on the maturities of trade receivables and their fulfilment. In order to estimate the expected loss for other financial assets, the insolvency risk was determined based on other data, in particular rating assessments made by rating agencies or given to counterparties as part of the internal credit risk assessment process, adjusted for the probability of default assessment.

12.14. Other non-financial assets

The Group recognises prepayments as other non-financial assets, if the following conditions are met:

- they result from past events – expenses incurred for the operational purpose of entities,
- their extent can be reliably determined,
- they will result in the impact of economic benefits to the entities in the future,
- they apply to future reporting periods.

Write-offs of active prepayments of costs can occur appropriately to the passage of time and the amount of benefits. The time and method of settlement is justified by the nature of the settled costs, respecting the precautionary principle.

At the end of the reporting period, the Group verifies the active prepayments of costs in order to check whether the degree of certainty associated with the achievement of economic benefits by the entity, after the expiry of the current financial period, is sufficient to show a given item as a component of assets.

During the reporting period, the subjects of prepayments are, among others:

- costs of property insurance,
- costs of current charges for perpetual usufruct of lands,
- deductions for social insurance fund,
- subscriptions,
- other costs related to next reporting periods.

Other non-financial assets include, in particular, the public and legal settlement receivables (except for CIT settlements, which are presented in a separate item of the financial statement), as well as advance payments for future purchases of tangible fixed assets, intangible assets and inventories. The advance payments are presented according to the nature of the assets, to which they relate – respectively, as fixed or current assets. As non-monetary assets, the advance payments are not subject to discount.

12.15. Financial derivative instruments and securities

The derivatives used by the Group in order to secure against the risk related to the changes of interest rates and exchange rates are mainly the forward foreign exchange contracts and contracts for the interest rates change (interest rate swaps). Such derivatives are measured at the fair value. Derivatives are stated as assets when their fair value is positive, and as liabilities – when their value is negative.

Profits or losses for the fair value changes of derivatives, which do not comply with the hedge accounting principles are directly stated in the net financial result of the financial year.

The fair value of forward foreign exchange contracts is determined by the reference to the current forward rates for contracts with a similar maturity date. The fair value of contracts for the interest rate swaps is determined by the reference to the market value of similar instruments.

Within the hedge accounting, securities are classified as:

- cash flow hedges securing against the changes in cash flows, which can be attributed to a specific kind of risk related to a recognised component of assets, liability or forecasted transaction, or
- Securing the currency risk of the substantiated future liability is settled as the cash flow hedge.

At the inception of the hedge, the Group formally determines and documents the hedging relationship as well as the risk management objective and strategy for establishing the hedge. The documentation includes identification of the hedging instrument, the hedged item or transaction, the characteristics of the hedged risk as well as a method of assessing the hedge instrument effectiveness in the compensation for the risk of changes value of cash flows related to the hedged risk.

It is expected that the hedge will be highly effective in the compensation for changes of cash flows resulting from the hedged risk. The hedge effectiveness is constantly assessed to determine whether it is highly effective within all the reporting periods for which it was established.

In addition, the Group secures the cash flow associated with purchasing CO_2, emission allowances in the form of short-term forward contracts. In addition, the Group hedges cash flows related to the purchase of electricity. Due to the fact that contracts for the purchase of non-financial assets are concluded in order to secure own needs, they are excluded from the scope of IFRS9.

12.15.1.Cash flow security

The cash flow hedge is a hedge against the exposure to variability in cash flows, which can be attributed to a specific type of risk related to a recognised component of assets, liability, or highly probable planned transaction, and which could influence profit or loss. The part of profits or losses related to the hedge instrument, which constitutes an effective security is recognised in other comprehensive income, and an ineffective part is recognised in profit or loss.

If a hedged planned transaction subsequently results in the recognition of a component of financial assets or a financial liability, the associated profits, or losses, which were included in other comprehensive income and accumulated in equity, are transferred to the income statement within the same period, or in the periods, during which the acquired component of assets or liability affect the profit or loss.

If hedging the planned transaction subsequently results in the recognition of a component of non-financial assets or non-financial liability, or the planned transaction related to a component of non-financial assets or non-financial liability becomes a substantiated future liability, to which the fair value hedge will be applied, then, the profits or losses that were recognised in other comprehensive income are excluded from the equity and included in the acquisition price or other balance sheet value of the component of assets of liability.

The profits or losses resulting from changes of the fair value of derivatives, which do not meet the conditions for the application of hedge accounting principles are directly recognised in the net financial result for the current period.

The Group discontinues using the hedge accounting principles when the hedging instrument expires or was sold, its use terminated or it was executed, or the hedge no longer meets the conditions, which allow the application of hedge accounting principles to it. In such a case, the total profit or loss on a hedging instrument, which were recognised in other comprehensive income and accumulated in the equity are still stated in the equity until the forecast transaction takes place.

If the Group no longer expects that the forecast transaction will occur, then the total net profit or loss, accumulated in the equity, are charged to the net financial result for the current period.

12.16. Inventories

The production item includes production fuel, non-strategic spare parts and other materials as well as certificates of energy origin. Spare parts presented in inventories are recognized annually with revaluation allowances that reflect the technological and economic consumption of these parts. A description of the strategic spare parts presented in property, plant and equipment is provided in Note 12.3.1.

Inventories are measured at the lower of the two values: the acquisition price/production cost and the net sale price possible to achieve.

The Group uses the weighted average price method to determine the value of inventory turnover.

The net sale price, which is possible to achieve, is an estimated sale price in the ordinary course of business, decreased with costs of completion as well as the estimated costs necessary to complete the sale.

As at the balance sheet date, the Company measures these inventories at cost (i.e. the initial value) not higher than the net selling price by analysing the value of inventories for impairment. Any impairment loss is presented in the cost of sales.

Certificates of Energy origin

As part of inventories, the Group presents certificates of origin of energy purchased for redemption, acquired for resale and manufactured on its own. These rights are transferable and constitute a stock exchange trading commodity.

Certificates of origin obtained free of charge for production in renewable sources, gas and cogeneration (green, red certificates) are recognized at the time of first recognition at fair value at the time of probable receipt, i.e. at the end of the month in which they were produced. The fair value is a reflection of the market situation, i.e. quotations on the commodity energy exchange (TGE). The gratuitous acquisition of certificates is recognized in correspondence with other revenues. The Group sells surplus certificates, which are presented in the inventory.

Purchased certificates of origin of energy are recognized as a reserve at purchase price.

The issue of certificates of energy origin is valued according to the FIFO method.

The Group is required to obtain certificates of energy origin and submit them for redemption by June 30 of the year following the accounting year.

In the absence of a sufficient number of certificates required to fulfil the obligations imposed by the Energy Law and the Energy Efficiency Act as at the reporting date, the Group creates provisions for redemption of energy origin certificates and energy efficiency certificates or payment of substitution fees. See note 32.

12.17. Trade receivables and other receivables

Trade receivables

Trade receivables are measured at the initial moment at fair value. After initial recognition, trade receivables and other receivables of a financial nature are measured at amortized cost using the effective interest rate (all trade receivables meet the SPPI test and are maintained to collect contractual cash flows), including impairment write-downs. Trade receivables are maintained to obtain cash flows resulting from the agreement, and the Group does not sell trade receivables as part of factoring.

The Group uses a practical exemption and for trade receivables under 12 months does not identify significant elements of financing. Trade receivables with a maturity of less than 12 months from the date of creation (i.e. without element of financing), are not discounted and are valued at face value.

In accordance with IFRS 9, in the case of trade receivables, the Group applied a simplified approach and measures the write-off for expected credit losses in the amount equal to the expected credit losses over their entire life, using the reserve matrix counting non-fulfilment ratios on the historical data basis.

In order to estimate the expected loan losses, IFRS 9 used both historical data in the field of repayment as well as available data as of the balance sheet date, reliable data that may increase the accuracy of the estimation of expected credit losses in future periods. Historical analysis is carried out for a period of 5 years. The main customers are several large entities from the energy industry with an established position. With respect to trade receivables, it is assumed that the repayment data can be used to estimate credit risk in the future, and therefore the credit losses were estimated using historical data on the maturity intervals of trade receivables and their fulfilment. The group applies individual analysis to all recipients. Receivables are not insured.

The Group classified trade receivables up to Level 2 of classification of financial assets in terms of their impairment provided for in IFRS 9, except for receivables for which impairment was recognized - these receivables were classified as Stage 3 of a.m. classification. For the moment of impairment, the Group recognizes the moment of transferring receivables to be recovered, however not later than on the 90th day of expiry. Irrecoverable receivables are written off as costs when they are found not to be recoverable, i.e. when there is no reasonable expectation that they will be recovered.

Other financial assets

Mine Liquidation Fund

In accordance with the Act of 9 June 2011 (consolidated text, Journal of Laws of 2021, item 1420, 2269) Geological and Mining Law, the Company is obliged to create a liquidation fund. The purpose of the fund is to secure and cover the costs associated with the liquidation of the mining activities in the areas that were undergoing the mining process. The Company makes periodic write-offs in the amounts resulting from the Act and transfers funds in this respect to a separate bank account. Expenses from this fund may be used for areas of liquidated outcrops after prior approval of the Mining Office approving the plan for the liquidation of the mining plant. The write-off for the mining plant liquidation fund is 10% of the exploitation fee for the extracted mineral.

Deposits and shares in other entities

They include deposits and shares in other entities that are not assessed for impairment.

Other receivables

Other receivable, which are not financial instruments in scope of IFRS 9, include, in particular, receivables for settlements with employees.

Advance payments for future purchases of tangible fixed assets, intangible assets and inventories are recognised in the item for other non-financial assets. The advance payments are shown according to the nature of the assets, to which they relate – as fixed or current assets, respectively. As non-monetary assets, the advance payments are not subject to discount.

Budgetary receivables are presented as other non-financial assets, except for the receivables due to corporate income tax, which constitute a separate item in the financial statement.

Other receivables that are not financial assets as at the last day of the reporting period are valued at the amount due.

12.18. Cash and cash equivalents

Cash and short-term deposits in the balance sheet include cash in bank and in hand as well as short-term deposits with the original maturity date that does not exceed three months.

The balance of cash and cash equivalents in the consolidated statement of cash flows consists of the above-mentioned cash and cash equivalents.

The Group classifies cash and cash equivalents as financial assets at amortized cost, taking into account impairment losses determined in accordance with the expected loss model. To estimate the expected loss on cash, the risk of insolvency was determined based on other data, in particular the assessment of credibility made by credit rating agencies or given to counterparties as part of the internal credit risk assessment process, corrected for the purpose of assessing probability of default.

The analysis showed that these assets have a low credit risk as at the reporting date. The Group used the simplification allowed by the standard and the impairment loss was determined based on 12-month loan losses. Calculation of the write-off showed a negligible amount of the impairment loss.

12.19. Interest-bearing bank loans, borrowings and debt securities

At the time of the initial recognition, all bank credits, loans, and debt securities are recognised at the fair value, decreased by the transaction costs associated with obtaining a credit or loan.

After the initial recognition, the interest credits, loans and debt securities are measured in accordance with the depreciated cost using the effective interest rate method.

While determining the depreciated cost, the costs associated with obtaining a credit or loan as well as discounts or premiums achieved in connection with the liability are taken into account.

Revenues and costs are recognised in the profit or loss, when the liabilities are removed from the balance, and also as a result of the settlement with the effective interest rate method.

12.20. Trade liabilities and other financial liabilities

Short-term liabilities include trade liabilities and other financial liabilities that become due within 12 months from the end of the reporting period. Initially, the liabilities are carried at fair value, where the valuation corresponds to the amount due or liability, and subsequently financial liabilities are carried at amortized cost using the effective interest rate method (in the case of trade payables it corresponds to the amount due) while other non-financial liabilities - in the amount due.

The Group excludes a financial liability from its balance when the liability expires – i.e. when the contractual obligation is fulfilled, redeemed or terminated. Replacing the existing debt instrument with the instrument of essentially different conditions made between the same entities is recognised by the Group as termination of the original financial liability and recognition of a new financial liability. Similarly, significant modifications of the contractual provisions concerning an existing financial liability are recognised by the Group as termination of the original one and recognition of a new financial liability. The difference of reference balance sheet values arising due to the replacement is shown in the profit or loss.

12.21. Other non-financial liabilities

Other non-financial liabilities include, in particular, liabilities for the value added tax, other public-legal liabilities (except for liabilities due to the corporate income tax, which is recognised in a separate item of the financial statement), as well as liabilities for the received advance payments, which will be settled by the supply of goods, services or fixed assets. Other non-financial liabilities are recognised in the amount that requires payment.

12.22. Special funds for employee purposes

In accordance with Polish economic practice, entities may contribute to a social fund and other special funds. In the IFRS-compliant report, the amounts transferred are included in the operating costs for the period.

12.23. Share-based payments

Share-based payments is a transfer of equity instruments of the entity or their equivalents made by the entity or its shareholders to the third parties (including employees), who provided goods and services to a given company, unless the transfer is made for the purpose that is other than paying for goods and services provided for the entity.

The Group includes goods and services received or acquired within the framework of the share-based payment transactions in the equity instruments as well as the corresponding increase in the equity when it obtains these goods and services. If the goods or services obtained or acquired within the framework of the share-based payment transactions are not classified to be recognised as assets, the entity includes them as the cost.

The Group evaluates the obtained goods or services and the corresponding increase in the equity at the fair value of the obtained goods or services, unless it is impossible to reliably estimate their fair value. If the group is unable to reliably estimate the fair value of the obtained goods or services, it indirectly determines their value and the corresponding increase in equity by the reference to the fair value of the granted equity instruments.

12.24. Provisions

Provisions are created when the Group is burdened with the existing liability (the legal or customary expected one) resulting from past events, and when it is probable that the fulfilment of this liability will result in the necessity of the economic benefits outflow, and the amount of this liability can be reliably estimated. If the Group expects the costs covered by the provision to be reimbursed, for example under an insurance contract, then the reimbursement is recognised as a separate component of assets, but only when it is virtually certain that the reimbursement of this will actually occur. The costs related to a given provision are stated in the income statement after the reduction by any reimbursement.

When the impact of the time value of money is significant, the value of the provision size is determined by discounting the forecast future cash flows to the current value, using the discount rate reflecting the current market estimates of the time value of money as well as the possible risk related to a given liability. If a method of discounting was applied, then the increase in liabilities due to the passage of time is recognised as financial costs.

In particular, the Group creates the following provisions:

- **provisions for post-employment benefits as well as jubilee awards**

In accordance with the remuneration systems, the Group's employees are entitled to the following benefits:

- retirement or disability benefits, payable at the time of retirement,
- death benefits for families of deceased employees,
- coal benefits for employees of PAK KWB Konin SA and PAK KWB Adamów SA in liquidation

The amount of benefits depends on the number of years of employment and the average salary of the employee. The Group creates provisions for these future liabilities for the purpose of allocating the costs to the periods that they concern. The current value of these liabilities at each balance sheet date is calculated by an independent actuary. The accumulated liabilities are equal to the discounted payments, which will be made in the future, taking into account the rotation of employment and they relate to the balance sheet date. Demographic information and information about the rotation of employment are based on historical data. Profits and losses of actuarial calculations are recognised in other comprehensive income.

The cost of created provision is presented in the income statement in the cost of sales and general administrative expenses.

- **Provision for the submission of redemption of Energy origin certificates**

The provision for the obligation to present the redemption of certificates of origin of energy produced from renewable energy sources or in peak load co-generation is recognised as follows:

- in a part covered by the certificates of origin held at the balance sheet date – in the value of the held certificates,
- in a part uncovered by the certificates of origin at the balance sheet date – at the lower value of the market value of the certificates required to fulfil the obligation at the balance sheet date, and a possible penalty.

The cost of the created provision is presented in the profit and loss account at the cost of sales.

- **provisions for liabilities related to CO_2 emission allowances**

Acquired or received free of charge allowances to emit carbon dioxide (European Union Allowances - EUA) and their equivalents are recognized in the financial statements as allowances earmarked for own needs under the item intangible assets. These allowances are measured at the purchase price (allowances received free of charge at zero value). The provision for liabilities due to gas emissions covered by the emission allowance system is created only when the actual production emission shows a shortage of emission allowances in relation to the allowances granted for the accounting period. This reserve is created in accordance with the FIFO rule. The cost of the created provision is presented in the profit and loss account in operating activities and is recorded in the calculation system in the item cost of sales, while in the comparative system in the item taxes and fees.

The provision is created by net liabilities method, in the amount of:

- in a part covered by the allowances held at the balance sheet date – in the value of the held allowances, i.e. at the purchased prise (in case of purchased at the balance sheet value, received in the zero value.
- in the part uncovered by the allowances on the balance sheet date – at the lower of the market values of the allowances required to satisfy the obligation and a possible penalty.
- in the part for which forward transactions with the implementation for the next year were purchased.

- **Provision for the liquidation of ash storage yards**

The Group creates a provision for liquidation of ash dumps due to a legal obligation resulting from the integrated approval entries. This provision is created on the basis of ash storage yard future reclamation cost estimates, resulting from the studies and technical-economic analyses, developed by external expert.

The Group recognizes the asset and provision for the reclamation of ash landfills at the discounted value of the estimated costs of reclamation to be incurred in the future. In subsequent periods, the asset is amortized using the straight-line method over the estimated useful life of the ash landfill. At the same time, in subsequent periods, the Group recognizes an increase in provision resulting from the effect of unwinding the discount in correspondence with financial costs. Subsequent possible changes to the estimated cost of restoration adjust the value of the asset and provisions.

When calculating the provision, the Group adopted the following assumptions: discount rate at 3,71%, inflation level at 5,8%.

The cost of the created provision is presented in the profit and loss account at the cost of sales.

- **Reclamation and other provisions associated with mining activity**

  - the provision for liquidation of facilities and mining areas

On the basis of the Geological and Mining Law act, the companies conducting extraction activities are obliged to reclaim the areas of extraction works. Due to this, the Group creates a provision both, for the costs of area reclamation related to current coal extraction on a given open pit and for the costs of the final excavation reclamation in the state of advancement of coal extraction in particular open pits on every reporting date.

The provision for the final excavation reclamation is created in correspondence with the assets' component (in the part in which it relates to the initial excavation, on the basis of the volume of the final excavation), and in correspondence with the income statement (in the remaining part, taking into account the state of advancement of coal extraction in particular open pits on a given reporting date). In correspondence with the assets' component, the Group also creates a provision for the external dump reclamation. The provision for reclamation costs associated with current coal mining is created in correspondence with the income statement.

The provision is created on the basis of estimation of future reclamation costs based on reports of independent experts estimating reclamation costs on the order of the company's management boards executing extraction activities. Estimates concerning projected reclamation costs are analysed periodically; on every reporting date, the size of provision is verified in accordance with current assumptions within discount rate, inflation, and the size of extraction. Write-down for the provision related to extraction of a given year charges operating costs (other costs by type), and the difference resulting from the provision discount from previous years influences financial costs. The use of the provision is settled in correspondence with financial costs at the end of every reporting period.

- The provision for the costs related to the preparation of exploitation areas

The Group, within run activities, is obliged to restore to the original condition, or to rebuild damages caused by the mine operations. Due to this, the Group creates the provision for projected costs, to pay which it is obliged on the basis of concluded agreements. Estimates concerning projected costs related to the mine operations are updated on every reporting date. The creation of the provision is recognised, on the other side, within the framework of mining assets. When calculating provisions, the Group adopted the following assumptions: discount rate at 3,71%, and inflation at

The cost of the created provision is presented in the profit and loss account at the cost of sales.

12.25. CO_2 emission allowances

The CO_2 emission allowances obtained free of charge are recognised in the financial statement as allowances intended for own needs at a zero value in the intangible assets item. The emission allowances and their equivalents purchased by the Group for own needs are recognised as intangible assets. These allowances are measured at the acquisition price. The provision for liabilities due to the emission of greenhouse gases included in the system of emission allowances is created only when the actual production emission shows a shortage of emission allowances in respect of the allowances granted for the entire reporting period. This provision is created according to the FIFO principle.

The cost of the created provision is presented in the income statement, in the cost of sales.

12.26. Revenues

The Group applies a five-step method of recognizing revenues resulting from contracts with customers, i.e.:

1: Identification of contracts with the client;

2: Identification of obligations to perform the benefit contained in the contract;

3: Determining the transaction price;

4: Assigning the transaction price to the obligations to perform the service contained in the contract;

5: Recognition of revenue when the entity complies with its obligations.

In accordance with IFRS 15, revenues are recognized in the amount of remuneration which, according to the entity's expectation, is due in exchange for the transfer of promised goods or services to the client.

The Group's companies operate in the area of generation and sale of electricity, production and sale of heat, lignite mining as well as maintenance and repair-construction services.

The generic structure of sales revenues and the way they are recognized in the Group are as follows:

Revenues from the sale of goods:

- Revenues from the sale of electricity (own production and resale)
- Revenues from the sale of heat,
- revenues from the sale of other goods, products and materials are recognized at the time of the sale / transfer transaction.

Revenues from the sale of electricity:

Revenues from the sale of electricity and heat are recognized by the Group at the end of each settlement period, which is no longer than one month, according to the amount of electricity and heat delivered to the customer in a given settlement period. The Company recognizes revenue over a period of time and benefits from simplification regarding the recognition of revenues as invoiced, because it reflects the level of performance of the obligation to perform the service as at the reporting date. Sales prices result from signed contracts, tariffs or their amount on the stock exchange. With respect to excise duty, the Group acts as an agent, therefore the excise duty decreases sales revenues.

Revenues from the sale of other services in energy sector:

The Group's business is also service activities aimed in particular at satisfying the needs and comprehensive service of the energy industry. The recipients of services are primarily entities dealing in the generation and transmission of electricity. The services performed under these agreements are provided over time. The contract implementation period varies from 2 months to 6 years, although they are often 1-2 year contracts. The contracts do not include obligations to perform more than one benefit under each contract. Extensions of the scope of work do not create a new obligation. The entity recognizes revenue over time by measuring the level of total fulfilment of its obligation to provide performance-based method, comparing expenditures incurred so far with the total expected expenditures necessary to perform the contract.

The contracts executed by the Group are characterized by a fixed price. If the scope of works is extended, this does not create a separate obligation - the work carried out additionally constitutes an integral part of the Company's liability.

The Group does not have unfulfilled obligations to perform services with a period of implementation exceeding 12 months.

Capacity market revenues

Starting from January 1, 2021, the Group recognizes revenues from the capacity market. Revenues from the capacity market are revenues from the performance of capacity contracts (obligations) concluded as a result of Auction 2021 (primary market) and the performance of the capacity obligation resulting from agreements concluded on the secondary market. The capacity market is a market mechanism aimed at ensuring stable electricity supplies in the long term. After the end of each month, the ZE PAK SA capital group is entitled to remuneration from PSE SA for the performance of the capacity obligation. Therefore, the Group companies, which are power suppliers to PSE SA, recognize revenues from transactions related to the capacity market each month.

Other revenues:

Other revenues include:

- compensation for termination of LTCs is recognized as revenues from the sale of electricity, revenues from compensations are recognized successively to the rights to compensation developed at the end of each financial year until the end of their validity. For each moment of revenue recognition, the Company determines the ratio of estimated stranded costs to the total amount of received, returned and expected discounted annual advances (including annual advances received so far). The amount of revenue for a given financial year is the product of the ratio and the amounts of advances received so far adjusted for annual adjustments, less the revenues from compensations recognized in previous years. See also the policies described below.
- revenues from property rights from certificates of origin are recognized at the moment of their production, certificates of origin intended for sale are recognized in revenues at the time of the sale transaction. At the time of their subsequent sale through the Polish Power Exchange (TGE), the sales invoice is included in other revenues item, while the costs of sold certificates are recognized as an adjustment to theses sales,
- donation.

12.26.1.Revenues from compensation to cover stranded costs

The Group receives compensation to cover stranded costs in accordance with the Act of June 29, 2007 on the principles of covering costs incurred by producers in connection with the early termination of long-term power and electricity sales contracts. Revenue from compensation is recognized successively to the earned compensation rights at the end of each financial year, until the end of their validity period.

At each moment of revenue recognition, the Group determines the ratio of estimated stranded costs to the total sum of received, returned and expected discounted annual advances (including annual advances received so far). The amount of revenue for a given financial year is the product of the ratio and the amounts of advances received so far, adjusted by annual adjustments, less revenue from compensations recognized in previous years.

The difference between the total amount of revenue recognized and the total amount of advances received up to the total amount of stranded costs is recognized by the Group as:

- receivables, in the event of a negative difference between the total amount of received advances and the recognized revenues from compensations,
- liabilities, if there is a positive difference between the total amount of received advances and the recognized revenues from compensations.

12.27. Costs

Costs of goods sold

The cost of goods sold includes:

- the production cost incurred during the reporting period, adjusted for the change in the level of products (finished products, semi-finished products and production in progress), as well as adjusted for the cost of manufacturing products for own needs,
- the value of sold goods and materials according to the acquisition cost,
- the creation of the impairment write-downs against the value of tangible fixed assets, intangible assets and inventories,

The production costs, which can be directly allocated to the revenues achieved by the entities, influence the financial result of the entities for the reporting period, in which the revenues occurred.

The production costs, which can be only indirectly allocated to the revenues and other benefits achieved by the entities, influence the financial result of the entities in the part, in which they relate to a given reporting period, providing their adequacy to the revenues and other economic benefits, including the valuation of fixed assets and inventories.

12.28. Other operating revenues and costs

Other operating income and costs include items mainly related to:

- the disposal of tangible fixed assets, intangible assets,
- the creation and reversal of provisions, except for the provisions related to the financial operations or included in operating expenses,
- free transfer or receiving, including the way of donation of assets, as well as cash.
- the compensation, penalties, and fines, as well as other costs not related to the usual business activity.

12.29. Government subsidies

If there is reasonable certainty that the subsidy will be obtained and all related conditions will be met, government subsidies are recognized at their fair value.

If the subsidy concerns a given cost item, then it is recognized as income in a manner commensurate with the costs, the grants is intended to compensate. If the grant relates to an asset component, then its fair value is recognised on the revenue account for future periods and then, gradually, through equal yearly write-downs, recognised in the profit or loss over the estimated period of use of the associated asset component.

If the Group receives non-monetary grants, both the component of the assets and the grant are recognised at nominal value and gradually, by equal annual write-offs, are included in profit or loss during the estimated useful life of the received component of assets.

12.30. RES auctions won

The Group classifies won auctions for the generation of electricity from renewable energy sources, in accordance with IAS 20, as subsidies related to assets. The essential condition is that an eligible entity acquires, builds or otherwise acquires long-term assets. A government subsidy is not recognized until there is sufficient certainty that the entity will meet the conditions attached to it and the subsidy will be received. The subsidy received is then recognized in the profit and loss account in the period in which the related costs are recognized.

12.31. Revenues and financial costs

Revenues and financial costs especially include the revenues and costs related to:

- the sale of financial assets,
- revaluation of financial instruments, excluding financial assets valued at fair value, whose revaluation effects are referred to revaluation capital,
- the interest (including the valuation effect with a depreciated cost),
- the changes in the value of the provision resulting from the fact of approaching the date of incurring the cost (the unwinding of the discount effect),
- the foreign exchange differences which are a result of the operations performed during the reporting period and the balance sheet valuation of assets and liabilities at the end of the reporting period, except for the foreign exchange differences recognised in the initial value of the fixed asset, to the extent in which they are considered as an adjustment of the interest costs and foreign exchange differences,
- other items connected with the financial activity of the company.

Revenues and costs for the foreign exchange rates are presented after compensation.

The revenues and costs due to the interest are successively presented as they grow, including the effective interest rate method in relation to the net balance sheet value of a given financial instrument, based on the concept of materiality.

Dividends are recognised at the time of establishment of the shareholders' rights to these dividends.

12.32. Taxes

Income tax for the reporting period includes current and deferred tax. The tax is recognized in profit or loss, except for the extent to which it relates directly to items recognized in other comprehensive income or equity. In this case, the tax is also recognized in other comprehensive income or equity, respectively.

12.32.1. Current tax

The liabilities and receivables for the current tax for the current period and previous periods are measured in the amount of the expected payment to the tax authorities (subject to return from tax authorities), using the tax rates and regulations, which were legally or actually applicable as at the balance sheet date.

12.32.2. Deferred tax

Deferred income tax liability and assets resulting from temporary differences between the tax value of assets and liabilities and their book value in the consolidated financial statements - are recognized in full, using the balance sheet method.

The provision for the deferred tax is recognised in reference to all positive temporary differences:

- except for the situation when the provision for the deferred tax arises from the initial recognition of the company's value or of the assets' component or liability on a transaction other than a combination of the entities, and at the time of its conclusion have no influence on the gross financial result, as well as on the taxable income or tax loss, and
- in case of positive temporary differences resulting from the investment in subsidiaries or associates and shares in joint ventures – except for the situations where dates of the reversal of temporary differences are subject to the investor's control and it is probable that in the predictable future, temporary differences shall not be reversed.

The assets for the deferred tax are recognised in relation to all negative temporary differences, as well as unused tax credits and unused tax losses transferred to future years, to the extent that it is probable that the taxable income, which allows using the above-mentioned differences, assets, and losses, will be achieved:

- except for a situation when the assets for the deferred tax associated with negative transition differences as a result from the initial recognition of the assets or liability component for a transaction other than a combination of the entities, and at the time of its conclusion, have no influence on the gross financial result, nor on the taxable income or tax loss, and

- in case of negative temporary differences resulted from the investment in subsidiaries or associates and shares in joint ventures, the assets' component for the deferred tax is recognised in the balance sheet only to the extent that it is probable that in the predictable future, the above mentioned temporary differences will be reversed and the taxable income, which enables the negative temporary differences to be deducted, will be achieved.

The balance sheet value of the asset component for the deferred tax is reviewed on every balance sheet date and reduced to the extent that it is no longer probable that the taxable income sufficient for a partial or complete realisation of the assets' component for the deferred tax will be achieved.

An unrecognised deferred tax asset is re-assessed as at each balance sheet date, and is recognised at the amount reflecting the likelihood of achieving the future taxable income allows the recovery of this asset component.

The deferred tax assets and provisions for the deferred tax are evaluated with the use of the tax rates that are expected to be applicable in the period, in which the assets component is realised or the provision is reversed, the basis for which will be tax rates (and tax regulations) applicable at the balance sheet date, or those which will certainly be effective as at the balance sheet date in the future.

The income tax on items recognised outside of the profit or loss is recognised outside of the profit or loss: other total income related to the items recognised in other comprehensive income or directly in the equity, relating to the items recognised directly in the equity.

The companies of the Group compensate the deferred income tax assets with the provisions for the deferred income tax provisions only and solely if it has an executable legal right to compensate receivables with current tax liabilities, and the deferred income tax is related to the same taxpayer and the same tax authority.

12.32.3. Value added tax and excise tax

Revenues, costs, assets and liabilities are recognised after deducting the value added tax, with the exception of:

- the situation when the value added tax paid at the time of the assets or service purchase is impossible to be recovered from the tax authorities; it is then recognised as part of the acquisition price of the assets' component or as a cost item part, and
- receivables and liabilities, which are stated with the amount of the value added tax.

The net amount of the value added tax, which is recoverable or payable to the tax authorities, is included in the financial statement as part of receivables or liabilities.

The net amount of the value added tax and excise tax, which are recoverable or payable to tax authorities are included in the financial statement as parts of receivables or liabilities.

12.33. Net profit per one share

The net profit per share for each period is calculated by dividing the net profit for a given period by the weighted average number of shares in a given reporting period.

12.34. Acquisition under joint control

The situation, in which a particular transaction or economic phenomenon, requiring inclusion in the statement drawn up in accordance with IFRS, is not regulated by the provisions of the various standards, was settled by IAS 8 point 10–12. These provisions impose on the entity, which draws up the statement in accordance with IFRS, the obligation to create its own list of accounting rules, indicating the characteristics of the following accounting principles: a faithful presentation of the financial position, results of operations and cash flows, reflection of the substance of the transaction, neutrality, caution and completeness in all aspects.

According to the analyses conducted by the Company, the commonly used method for the settlement of such transactions is pooling of interests, and such a method was applied by the Company. At the bottom of this method, there is an assumption that merging entities, both before and after the transaction, were controlled by the same shareholder, and therefore the consolidated financial statement reflects the continuity of joint control and does not reflect any changes in the value of net assets to fair values (or recognition of new assets), or the valuation of the company's value, since none of the merging entities is not actually acquired. The settlement takes place on the day of the merger and the previous data is not adjusted.

13. Acquisition of ventures

In the period from January 1, 2021 to December 31, 2021, the following ventures were acquired:

- PG Hydrogen sp. z o.o.
- Exion Hydrogen Polskie Elektrolizery sp. z o.o.
- Exion Hydrogen Belgium BV
- Farma Wiatrowa Kazimierz Biskupi sp. z o.o.
- Park Wiatrowy Pałczyn 1 sp. z o.o.
- Park Wiatrowy Pałczyn 2 sp. z o.o.

The acquisition of the above ventures has no significant impact on the consolidated financial statements for 2021. The Group uses the temporary deferral of the obligation to settle goodwill on these transactions. The amount resulting from the initial settlement is presented in note 24.1

14. Operating segments

For the purpose of management, the Group was divided into parts on the basis of manufactured products and provided services.

Therefore, there are following operating segments:

- The Generation Segment covering production of electricity both from conventional sources (including cogeneration) and by combustion and co-combustion of biomass. Basic fuels used by the Generation Segment are lignite and biomass. The Generation Segment covers following entities:
  - ZE PAK SA
  - PAK – Polska Czysta Energia sp. z o.o.
  - PAK – PCE Fotowoltaika sp. z o.o.
  - PAK – PCE Biogaz sp. z o.o.
  - PAK – PCE Biopaliwa i Wodór sp. z o.o.
  - PAK – PCE Wiatr sp. z o.o.
  - PCE – OZE 1 sp. z o.o.
  - PCE – OZE 2 sp. z o.o.
  - PCE – OZE 3 sp. z o.o.
  - PCE – OZE 4 sp. z o.o.
  - PCE – OZE 5 sp. z o.o.
  - PCE – OZE 6 sp. z o.o.
  - PAK CCGT sp. z o.o.
  - Park Wiatrowy Pałczyn 1 sp. z o.o.
  - Park Wiatrowy Pałczyn 2 sp. z o.o.
- The Mining Segment covering the extraction of lignite. In the Mining Segment, within the Capital Group ZE PAK SA:
  - „PAK Kopalnia Węgla Brunatnego Konin” SA
  - „PAK Kopalnia Węgla Brunatnego Adamów” SA in liquidation
- The Renovation Segment performing services in the scope of construction and renovation services. The Segment covers activities of Przedsiębiorstwo Remontowe „PAK SERWIS” sp. z o.o.
- The Sales Segment performing services of the sale of electricity. The Sales Segment also includes the “PAK – Volt” SA company.

ZE PAK SA Group also conducts other types of activities that are included in the "Other" column. In 2021, the activities of other companies are included there.

(in thousand PLN)

Transaction prices used in transactions between operating segments are determined on the basis of commercial principles, like in transactions with non-related entities. None of the Group's operating segments has been combined with another segment to create the above reporting operating segments.

Revenues due to transactions between segments are eliminated in the process of consolidation.

The Management Board of ZE PAK SA is the body making key decisions in the Group. The Management monitors the operating results of the segments separately in order to make decisions regarding the allocation of resources, the assessment of the effects of this allocation and results of operations. The basis for the assessment of operating results is profit or loss on operating activities and EBITDA. EBITDA should be seen as an add-on and not a substitute for operating results presented in accordance with IFRS. EBITDA is a useful indicator of the ability to incur and service debt. The level of EBITDA is not defined by IFRS and can be calculated differently by other entities. The following is the reconciliation and definitions used by the ZE PAK Group when determining these measures.

The Group defines EBITDA as a net profit excluding financial revenues and costs, income tax and depreciation and impairment write-downs of the value of fixed assets and mining assets.

EBITDA for the entire Capital Group of ZE PAK SA:

	Year ended 31 December 2021	*Year ended 31 December 2020*
(Loss)/Net profit	(317 404)	(226 465)
Financial revenues	-11 782	-5 889
Financial costs	+17 683	+17 830
Income tax	-201 119	-76 590
Depreciation and impairment write-down	+755 701	+438 779
EBITDA	243 079	147 665

Main recipients:

- Towarowa Giełda Energii SA — amount of PLN 1 279 712 thousand which is 52,7% of the total value of sale revenues
- Polskie Sieci Elektroenergetyczne SA — amount of PLN 598 494 thousand which is 24,6% of the total value of sale revenues

Revenues from sales to the above recipients are included in the "Generation" segment.

The segment results for the years ended December 31, 2021 and December 31, 2020 are shown below.

(in thousand PLN)

Year ended 31 December 2021

	Generation	Mining	Renovation	Sale	Other	Consolidation adjustments	Total
Sales revenue to external customers	2 124 698	6 855	57 193	255 742	6 721	-	2 451 209
Sales revenue between segments	121 403	477 007	133 145	141	140 932	(872 628)	-
Sales revenue	**2 246 101**	**483 862**	**190 338**	**255 883**	**147 653**	**(872 628)**	**2 451 209**
Cost of goods sold	(2 651 428)	(541 023)	(165 418)	(255 800)	(137 002)	857 729	(2 892 942)
Gross profit / (loss)	**(405 327)**	**(57 161)**	**24 920**	**83**	**10 651**	**(14 899)**	**(441 733)**
Other operating income	22 268	95 574	1 823	2 108	1 109	(58 875)	64 007
Selling and distribution expenses	(2 320)	-	-	(2 374)	(1 397)	-	(6 091)
Administrative expenses	(55 130)	(41 708)	(10 888)	(3 329)	(8 665)	-	(119 720)
Other operating expenses	(3 059)	(5 396)	(491)	(81)	(149)	91	(9 085)
Finance income	13 489	543	148	7	33	(2 438)	11 782
Finance costs	(17 465)	(8 799)	(240)	(294)	(509)	9 624	(17 683)
Profit before tax	**(447 544)**	**(16 947)**	**15 272**	**(3 880)**	**1 073**	**(66 497)**	**(518 523)**
Income tax expense	278 033	(75 490)	(3 444)	281	(1 147)	2 886	201 119
Net profit/loss for the period from continuing operations	**(169 511)**	**(92 437)**	**11 828**	**(3 599)**	**(74)**	**(63 611)**	**(317 404)**
Profit / (loss) from operating activities, without financial operations and income tax	**(443 568)**	**(8 691)**	**15 364**	**(3 593)**	**1 549**	**(73 683)**	**(512 622)**
Amortization	113 805	14 085	2 464	11	4 148	1 018	135 531
Impairment write down	535 126	74 715	-	-	-	10 329	620 170
EBITDA	**205 363**	**80 109**	**17 828**	**(3 582)**	**5 697**	**(62 336)**	**243 079**

(in thousand PLN)

Year ended 31 December 2020

	Generation	Mining	Renovation	Sale	Other	Consolidation adjustments	Total
Sales revenue to external customers	1 517 419	7 937	40 592	399 822	5 422	-	1 971 192
Other revenues	235 782	-	-	-	-	-	235 782
Sales revenue between segments	93 373	520 259	97 853	-	180 483	(891 968)	-
Sales revenue	**1 846 574**	**528 196**	**138 445**	**399 822**	**185 905**	**(891 968)**	**2 206 974**
Cost of goods sold	(1 991 825)	(644 997)	(123 593)	(405 266)	(181 399)	900 083	(2 446 997)
Gross profit / (loss)	**(145 251)**	**(116 801)**	**14 852**	**(5 444)**	**4 506**	**8 115**	**(240 023)**
Other operating income	61 390	10 895	285	3 321	18 279	(9 253)	84 917
Selling and distribution expenses	(1 620)	-	-	(1 530)	(463)	-	(3 613)
Administrative expenses	(47 698)	(47 708)	(9 653)	(2 783)	(6 849)	-	(114 691)
Other operating expenses	(7 217)	(9 653)	(1 595)	(4)	(619)	1 384	(17 704)
Finance income	6 031	197	307	147	9	(802)	5 889
Finance costs	(4 985)	(13 260)	(270)	(18)	(3 806)	4 509	(17 830)
Profit before tax	**(139 350)**	**(176 330)**	**3 926**	**(6 311)**	**11 057**	**3 953**	**(303 055)**
Income tax expense	76 721	1 459	336	(1 317)	(578)	(31)	76 590
Net profit/loss for the period from continuing operations	**(62 629)**	**(174 871)**	**4 262**	**(7 628)**	**10 479**	**3 922**	**(226 465)**
Profit / (loss) from operating activities, without financial operations and income tax	**(140 396)**	**(163 267)**	**3 889**	**(6 440)**	**14 854**	**246**	**(291 114)**
Depreciation / Amortization	107 541	41 290	2 922	7	3 871	1 269	156 900
Impairment write down, including:	152 000	129 879	-	-	-	-	281 879
Creation of impairment write down	*448 000*	*130 631*	-	-	-	-	*578 631*
Reversal of impairment write down	*(296 000)*	*(752)*	-	-	-	-	*(296 752)*
EBITDA	119 145	7 902	6 811	(6 433)	18 725	1 515	147 665

(in thousand PLN)

15. Revenues and costs

15.1. Revenues from the contracts with clients

	Year ended 31 December 2021	*Year ended 31 December 2020*
Material structure		
Revenues from the sale of goods, including:		
Revenues from the sale of electricity	1 477 306	1 356 437
Revenues from the sale of electricity from trade	388 116	507 157
Revenues from the sale of heat	54 733	48 797
Capacity market revenues	185 793	-
Other sale revenues	45 423	34 843
Revenues from service contracts	41 090	25 254
Total revenues from the sale of goods	**2 192 461**	**1 972 488**
Excise	(1 644)	(1 296)
Total revenues from the sale of goods, including excise duty	**2 190 817**	**1 971 192**
Property rights from energy certificates	89 818	55 709
Revenues from the production of green certificates	*74 531*	*51 287*
Profit on the sale of energy origin certificates	*15 287*	*4 422*
Compensation for LTC termination	170 574	180 073
Total revenues	**2 451 209**	**2 206 974**

The largest components of the item "Other sales revenues" are revenues from the sale of materials in the amount of PLN 18 722 thousand and revenues from service for PSE in the amount of PLN 11 562 thousand.

Territorial structure	*Year ended 31 December 2021*	*Year ended 31 December 2020*
Poland	2 434 702	2 195 370
EU countries	16 507	11 604
Outside the EU	-	-
Total sale revenues	2 451 209	2 206 974

Revenue realized for the moment	2 394 856	2 167 639
Revenues realized in the period	56 353	39 335

15.2. Other operating revenues

	Year ended 31 December 2021	*Year ended 31 December 2020*
Revenues from the sale of CO_2 allowances	7 792	2 553
Revenues from damages	796	2 496
Revenues from the anti-crisis shield	-	19 818
Use of a forward contract securing the purchase of CO_2 emission allowances	-	33 103
Reversal of write-downs against receivables	570	3

(in thousand PLN)

Grants settlement	3 645	3 646
Revenue from demolition and scrap sales	-	13 803
Profit from disposal of non-financial fixed assets	46 240	3 910
Release of the provision for costs and losses and cancellation of liabilities	3 200	16
Other	1 764	5 569
Total of other operating revenues	64 007	84 917

The funds received under the anti-crisis shield are non-returnable aid, intended for the protection of jobs.

The authority granting the aid related to the protection of jobs has concluded that it is possible to control the utilization of the above-mentioned measures within three years from the lapse of 30 days from the date of receiving the funds. Neither the date nor the method of control is specified. Pursuant to the Act, the funds are reimbursed in the event that the employer has used the funds inconsistently with their intended use. Any entity that uses the funds inconsistently with its intended use is obliged to return with interest in the amount specified as for tax arrears, calculated from the date of transfer of funds.

The main component of the item "Profit on the sale of non-financial fixed assets" is the sale of land in KWB Adamów SA in liquidation.

15.3. Other operating expenses

	Year ended 31 December 2021	*Year ended 31 December 2020*
Loss on the sale of property, plant and equipment	561	-
Costs of abandoned investments	-	8 857
Creation of provisions	1 102	3 778
Costs of shortages and damage	371	1 128
Impairment write down on receivables	267	656
Costs of court and enforcement proceedings	175	358
Electricity-related damage	189	410
Donations given	89	173
Real estate tax for previous years	1 514	-
Compensatory pensions	599	231
Other	4 218	2 113
Total other operating expenses	9 085	17 704

15.4. Financial income

	Year ended 31 December 2021	*Year ended 31 December 2020*
Interest income	349	1 948
Foreign exchange gains	96	3 839
Valuation of currency exchange rate hedging instruments (forward) and interest rate (IRS)	10 540	-
Release of write-offs on futures contracts	-	-
Other	797	102
Total financial income	11 782	5 889

(in thousand PLN)

15.5. Financial costs

	Year ended 31 December 2021	*Year ended 31 December 2020*
Interest expenses	5 310	5 702
Negative course differences	2 634	31
Discount of the provision for decommissioning of power units	304	757
Investment value update	1 901	-
Discount of actuarial reserves	-	848
Discount on the provision for reclamation	6 241	10 029
Other	1 293	463
Total financial costs	17 683	17 830

In the „Other" item in 2021 mainly bank fees in the amount of PLN 230 thousand are presented.

15.6. Costs by type

	Year ended 31 December 2021	*Year ended 31 December 2020*
Depreciation / Amortisation	135 531	156 900
Impairment write-downs on fixed assets	620 170	281 879
Impairment write-downs on inventories	13 137	28 025
Materials	322 888	271 628
External services	104 335	106 869
Taxes and charges, excluding excise duty	160 588	163 668
Costs of allowances for emission of CO_2	792 344	671 041
Employee benefits, including	369 764	383 751
Salaries	*290 031*	*299 741*
Social insurance and other benefits	*79 733*	*84 010*
Other costs by type	25 277	13 595
Cost of goods for resale and raw materials sold and resale of electricity from the market	493 874	521 696
Total costs by type	3 037 908	2 599 052
Items included in cost of goods sold	2 892 942	2 446 997
Items included in selling and distribution expenses	6 091	3 613
Items included in administrative expenses	119 720	114 691
Change in the stocks of finished goods	19 060	33 306
Cost of goods and services for internal needs	95	445

The impairment loss on property, plant and equipment (including mining assets) has been presented in the net amount. Details on the write-downs are presented in Notes 14, 15.7 and 23.

(in thousand PLN)

15.7. Depreciation costs and write-downs recognized in profit or loss

	Year ended 31 December 2021	*Year ended 31 December 2020*
Items included in the cost of manufacture of sold products:		
Fixed assets depreciation	122 725	135 626
Depreciation of mining asset	8 522	8 979
Intangible assets depreciation	631	551
Depreciation of assets due to the right of use	3 354	6 999
Impairment of property, plant and equipment, incl:	576 207	277 700
Creation of impairment write down	*576 207*	*574 452*
Reversal of impairment write down	-	*(296 752)*
Impairment of a mining asset (write-down)	43 963	3 631
Impairment of inventories	13 137	-
	768 539	433 486
Items included in administrative costs		
Fixed assets depreciation	130	4 381
Intangible assets depreciation	169	364
Impairment of property, plant and equipment (creation of a write-off)	-	548
	299	5 293

The revaluation reserve was created during the revaluation carried out on January 1, 1995.
As a result of the change in the Company's strategy in 2021, it was adjusted by impairment losses on fixed assets subject to revaluation in the amount of PLN 110,395 thousand.

Recognition of an impairment loss

Lost value of non-current assets of ZE PAK SA (note 20.1)	654 662
Lost value of the fixed assets of PAK KWB Konin SA	74 715
Copy of spare parts	10 503
Writing down the depreciation of margins and KFZ	10 329
Part included in the revaluation reserve	(110 395)
Grant settlement	(19 644)
Write-off included in costs by type	620 170

15.8. Construction agreements

The Group executes contracts that are settled during the execution of works - issuing partial invoices adequately to the progress of works and the final invoice upon completion of works.

Services performed under these contracts are services rendered over time. The duration of the contracts ranges from 2 months to 6 years, although these are often 1-2 year contracts. During the contracts, partial invoices are issued with a payment period of usually 30 days. In the case of some high-value contracts, the Group may obtain an advance payment. Advances are billed with partial invoices and a final invoice.

The revenue of 2020 did not include the part of revenue for which the obligation to meet the service was already included in previous reporting periods.

(in thousand PLN)

Assets and liabilities due to contracts for construction and assembly services concluded

	01.01.2021	*Change in the valuation of contracts*	*Revenues recognized in 2021 included in the balance of liabilities as at 31.12.2020*	*Change of the period in which the right to remuneration becomes unconditional*	*31.12.2021*
Valuation of construction contracts	1 370	3 754	-	(1 370)	3 754
Assets due to contracts with clients	1 370	3 754	-	(1 370)	3 754
Valuation of construction contracts	7 858	4 257	(4 220)	-	7 895
Liabilities due to contracts with clients	7 858	4 257	(4 220)	-	7 895

The change in the valuation of contracts applies to both changes related to the signed annexes to the contracts with the contractor and changes in the stage of completion of works on the contract.

The item change in the period in which the right to remuneration becomes unconditional means the realization of revenue on contracts in 2021 (in 2020 the determined amount of revenue was higher than the partial net invoices, and the surplus was statistically calculated).

Revenues recognized in 2021 are shown in negative figures, because the valuation of contracts on the liabilities side was reduced by 2021 in these amounts (in 2020 the sum of partial invoices was higher than the value of services rendered, and the surplus was transferred to deferred income).

Remaining commitments to perform the obligations

The total amount of the transaction price assigned to the obligation to perform the service, which remained unmet (or partially unfulfilled) at the end of the reporting period to be implemented:	*31 December 2021*	*31 December 2020*
- up to 1 year	20 183	43 138
Total	20 183	43 138

	31 December 2021	*31 December 2020*
The gross amount due from the contracting parties for works under the contract:	1 472	1 283
The gross amount due to the contracting parties for work under the contract:	3 680	6 680

16. Income tax

16.1. Tax load

The main components of tax load for the year ended 31 December 2021 and 31 December 2020 are as follows:

	Year ended 31 December 2021	*Year ended 31 December 2020*
Included in the profit or the loss		
Current income tax		
Current income tax load	3 974	(5 546)
Deferred income tax load		
Related to creation and reversal of temporary differences	(204 903)	(69 613)

(in thousand PLN)

Other changes	(190)	(1 431)
Tax load in the consolidated profit or loss	**(201 119)**	**(76 590)**
Included in the consolidated statement of the comprehensive income		
Net profit (loss) tax due to revaluation of cash flow securities	-	-
Actuarial allowance concerning actuarial profits/losses	(695)	64
Tax advantage/(tax load) included in comprehensive income	**(695)**	**64**

16.2. Fixing of an effective tax rate

The agreement of income tax on the gross financial result before taxation according to the statutory tax rate with the income tax calculated according to the effective tax rate of the Group for the year ended on 31 December 2021 and 31 December 2020 is as follows:

	Year ended 31 December 2021	*Year ended 31 December 2020*
Gross profit before taxation from continuing operations	**(518 523)**	**(303 055)**
Tax at the statutory tax rate applicable in Poland, amounting to 19%	(98 531)	(57 580)
Adjustments to the current tax from previous years	(8)	(8 478)
Not included tax losses	-	17 801
Usage of the tax losses not recognised earlier	(7 610)	(533)
Recognition of an asset for tax losses from previous years	(41 410)	-
Permanent costs not constituting tax deductible costs	18 871	27 191
Income that is permanently not the basis for taxation	10 910	(24 113)
Change related to a different tax rate in Germany	194	151
Release of a provision for the difference between tax depreciation and balance sheet depreciation	(155 365)	-
Assets are written off against inventories	9 340	-
Write-off of assets to financial assets	(3 017)	-
Reversal of assets from reserves	87 510	-
Other	(22 003)	(31 029)
Tax at the effective tax rate of 39.19% (in 2020 25.27%)	(201 119)	(76 590)
Income tax in the profit and loss account	**(201 119)**	**(76 590)**

(in thousand PLN)

16.3. Deferred income tax

Deferred income tax results from the following items:

			Consolidated profit and loss account for the year ended	
	31 December 2021	*31 December 2020*	*31 December 2021*	*31 December 2020*
Deferred tax asset				
Balance sheet provisions	10 238	60 908	(50 670)	(5 961)
Overburden and other mining assets	-	4 811	(4 811)	(667)
Interest and exchange rate differences	938	2	936	(179)
Hedging instruments	-	-	-	-
Valuation of non-terminated agreements for building services	1 934	1 510	424	1 017
Tax loss from previous years	41 410	10 192	31 218	(9 543)
Impairment write-down on inventories	3 263	6 530	(3 267)	(840)
Impairment write-down on receivables	2 347	932	1 415	83
Impairment write-downs on fixed assets	-	-	-	(15 087)
Difference between the balance sheet value and the tax value of fixed assets	-	16 103	(16 103)	719
Settlements with employees	573	5 689	(5 116)	2 109
Other	3 252	5 451	(2 199)	1 758
Total	63 955	112 128	(48 173)	(26 591)
Provision under deferred income tax				
Difference between the balance sheet value and the tax value of fixed assets	60 183	316 977	(256 794)	(105 092)

(in thousand PLN)

Receivables under PPAs	14 861	15 942	(1 081)	7 003
Energy certificates	6 322	4 311	2 011	(417)
Interest and exchange rate differences	967	509	458	447
Valuation of non-terminated construction agreements	1 544	501	1 043	137
Purchased CO_2 allowances	-	-		
Other	4 111	1 870	2 241	1 624
Total	87 988	340 110	(252 122)	(96 298)
After offsetting the balances at the level of the Group companies, the deferred tax is presented as:				
Asset:	**8 769**	**84 920**		
Provision:	**32 802**	**312 902**		
Deferred tax liability:				
- in correspondence with total incomes			51	(64)
- in correspondence with the financial result			11 174	(69 643)

(in thousand PLN)

The table below presents tax losses:

	2016	*2017*	*2018*	*2019*	*2020*	*2021*
PAK KWB Adamów SA	-	-	64 548*	-	14 448*	-
PAK KWB Konin SA	-	-	46 834*	12 573*	34 147*	7 815*
ZE PAK SA	11 495*	-	58 776*	53 818*	23 350*	-
ZE PAK SA	-	18 793	122 155	53 817	23 182	-
PAK Serwis sp. z o.o.	11	-	2 188	-	-	-
PAK Górnictwo sp. z o.o.	269*	-	-	1 577*	-	-
PAK-PCE Fotowoltaika sp. z o.o.	-	-	-	-	-	2 716*
Total tax losses	11 775	18 793	294 501	121 785	95 127	-
Total tax losses on which the asset is recognized	11	18 793	124 343	53 817	23 182	-
Deferred tax asset	2	3 571	23 625	10 225	4 405	-
Settlement year	2021	2022	2023	2024	2025	2026

* *deferred income tax asset were not recognized*

As a result of the analysis of recoverability of the deferred tax asset in 2022, the Company will settle only a part of the tax losses on the sale of ZCP Konin.

17. Social services fund assets and liabilities of the Company's Social Benefits Fund

The Act of 4 March 1994 (as amended) on the Company Social Benefits Fund as amended, states that the Social Insurance Fund is formed by employers employing more than 50 full-time employees. The Group forms such a fund and makes periodical write-offs based on the amounts agreed with trade unions. In addition, the Group's companies contribute some social assets to the Fund. The aim of the Fund is to finance social activities, loans granted to the Group's employees and other social costs.

ZE PAK SA and PAK Serwis Sp. z o.o. together form the Inter-Enterprise Social Benefit Fund, and the other companies of the Group, if they are required to create a fund, create it on their own.

The Group compensated the assets of the Fund with their obligations to the Fund because these assets do not constitute separate assets of the Group. According to the above fact, the net balance as of 31 December 2021 is PLN 4 702 thousand (as of 31 December 2020 – PLN 10 343 thousand respectively).

The below tables present the analytics of assets, liabilities, and costs of the Fund.

	31 December 2021	*31 December 2020*
Loans granted to the employees	4 320	6 671
Cash	3 777	7 098
Liabilities due to the Fund	(3 395)	(3 426)
Balance after compensation	4 702	10 343

	Year ended 31 December 2021	*Year ended 31 December 2020*
Write-offs for the Fund in the financial period	2 324	3 604

(in thousand PLN)

18. Profit per one share

Basic profit per one share is calculated with division of net profit/loss for the period of the parent company's ordinary shareholders by weighted average of number of issued ordinary shares occurring during the period.

Diluted profit per one share is calculated with division of net profit for the period of the parent company's ordinary shareholders by weighted average of number of issued ordinary shares occurring during the period corrected by weighted average of ordinary shares, which would be issued by converting all diluting potential equity instruments into ordinary shares.

Data concerning profit and shares that served to calculated basic and diluted profit per one share were presented below:

	31 December 2021	*31 December 2020*
Net profit / (loss) on continued activities of the parent company's shareholders	(316 999)	(222 393)
Profit / (loss) on abandoned activities of the parent company's shareholders	-	-
Net profit / (loss) of ordinary shareholders used for calculation of diluted profit / (loss) per one share	(316 999)	(222 393)
The average weighted number of ordinary shares used for calculation of basic and diluted profit / (loss) per one share	50 823 547	50 823 547

The below table shows the profit per one share in PLN for the year ended 31 December 2021 and 31 December 2020 presented in the profit and loss account.

	Year ended 31 December 2021	*Year ended 31 December 2020*
Basic and diluted from profit for the financial year attributable to the shareholders of the parent company	(6,24)	(4,38)
Basic and diluted from profit from continuing operations attributable to the shareholders of the parent company	(6,24)	(4,38)

In the period between the balance sheet day and the day of signing of this financial statement, there were no other transactions concerning ordinary shares or potential ordinary shares.

19. Dividends paid and proposed for payment

ZE PAK SA did not pay or declare to pay dividend in 2021.

(in thousand PLN)

20. Tangible fixed assets

Year ended 31 December 2021

	*Land, incl. perpetual usufruct right to land**	*Buildings and constructions*	*Technical devices*	*Means of transport*	*Other assets*	*Assets under construction*	*Total*
Gross value as at 1 January 2021	227 051	2 041 008	4 958 644	62 817	33 561	194 765	7 517 846
Direct purchase	11 355	-	3 920	355	1 689	346 107	363 426
Acquisition of companies	-	35	78	-	183	2 722	3 018
Repairs	-	-	(288)	-	-	(233)	(521)
Transfer from fixed assets under construction	16 023	48 102	157 367	196	222	(221 910)	-
Sale and liquidation	(6 607)	(9 249)	(92 458)	(8 513)	(754)	(1 537)	(119 118)
Reclassification	-	-	-	-	-	535	535
Settlement of the advance payment	-	-	-	-	-	(6 380)	(6 380)
Gross value as at 31 December 2021	247 822	2 079 896	5 027 263	54 855	34 901	314 069	7 758 806
Depreciation and impairment write-downs as at 1 January 2021	53 801	1 635 308	4 021 745	55 656	23 534	67 141	5 857 185
Depreciation write-down for the period	4 278	32 391	82 399	2 258	1 529	-	122 855
Write-down (creation of a write-off)	-	223 234	458 598	620	595	23 199	706 246
Sale and liquidation	(5 038)	(8 826)	(88 098)	(7 051)	(725)	-	(109 738)
Depreciation and impairment write-down as at 31 December 2021	53 041	1 882 107	4 474 644	51 483	24 933	90 340	6 576 548
Net value as at 1 January 2021	173 250	405 700	936 899	7 161	10 027	127 624	1 660 661
Net value as at 31 December 2020	194 781	197 789	552 619	3 372	9 968	223 729	1 182 258

** this item also includes land exploited for extraction of minerals using the opencast method*

(in thousand PLN)

Year ended 31 December 2020

	*Land, incl. the right of perpetual usufruct of land **	*Buildings and constructions*	*Technical devices*	*Means of transport*	*Other assets*	*Assets under construction*	*Total*
Gross value as at 1 January 2020	223 248	2 054 574	5 008 834	68 269	33 695	110 079	7 498 699
Direct purchase	25	-	1 122	886	498	78 650	81 181
Repairs	-	-	(288)	-	-	-	(288)
Transfer from fixed assets under construction	4 371	11 725	20 817	21	218	(37 152)	-
Sale and liquidation	(506)	(25 287)	(71 793)	(5 473)	(850)	(2 449)	(106 358)
Advances for fixed assets under construction	-	-	-	-	-	37 137	37 137
Other changes	(87)	(4)	(48)	(886)	-	8 500	7 475
Gross value as at 31 December 2019	227 051	2 041 008	4 958 644	62 817	33 561	194 765	7 517 846
Depreciation and impairment write-downs as at 1 January 2020	49 888	1 485 397	3 848 829	49 283	23 113	82 328	5 538 838
Depreciation write-down for the period	3 913	41 901	91 179	1 787	1 227	-	140 007
Impairment write-down (change of the state)	-	133 312	151 494	8 588	41	(15 187)	278 248
Creation of a write-down	-	*197 440*	*368 931*	*8 588*	*41*	-	*575 000*
Reversal of an impairment loss	-	*(69 909)*	*(226 091)*	-	-	*(752)*	*(296 752)*
Transfer from fixed assets under construction	-	*5 781*	*8 654*	-	-	*(14 435)*	-
Sale and liquidation	-	(25 287)	(69 570)	(3 891)	(847)	-	(99 595)
Other changes	-	(15)	(187)	(111)	-	-	(313)
Depreciation and impairment write-downs as at 31 December 2020	53 801	1 635 308	4 021 745	55 656	23 534	67 141	5 857 185
Net value as at 1 January 2020	173 360	569 177	1 160 005	18 986	10 582	27 751	1 959 861
Net value as at 31 December 2020	173 250	405 700	936 899	7 161	10 027	127 624	1 660 661

** this item also includes land exploited for extraction of minerals using the opencast method*

Tangible fixed assets also include strategic spare parts which are depreciated.

The main item of fixed assets under construction is the outlays related to the adaptation of the K-7 coal boiler for the exclusive combustion of biomass at Konin Power Plant.

The value of capitalized borrowing costs in the year ended December 31, 2021 amounted to PLN 1 602 thousand (in the year ended December 31, 2021 it amounted to PLN 186 thousand). The capitalization rate was 93% calculated as a percentage of total financial costs related to general loans.

20.1. Impairment test of the assets of ZE PAK SA Capital Group

Identification of Cash Generating Units (CGUs)

According to IAS 36, "cash-generating units (CGUs) are the smallest identifiable groups of assets generating income from current use which are independent of the proceeds from other assets or groups of assets. If there are any indications that a given asset may be impaired, the recoverable amount of this individual asset is estimated. If it is not possible to estimate the recoverable amount of an individual asset, an entity shall determine the recoverable amount of the cash-generating unit to which the asset belongs (the asset's cash-generating unit)."

When separating the CGU within the Group companies, an analysis of the independence of cash flow generation in terms of the functioning of individual companies was performed and additional premises on the basis of which the financial projections were updated were taken into account.

On December 30, 2020, the company ZE PAK SA was merged with Elektrownia Pątnów II sp. z o.o. in the manner specified in art. 492 §1 point 1 of the Commercial Companies Code, i.e. by transferring all assets of Elektrownia Pątnów II sp. z o.o. (acquired company) to the company ZE PAK SA. Within ZE PAK SA, a CGU was established:

- „CGU Elektrownia Pątnów" for electricity based on lignite (including units 1, 2, 5 and unit 9);
- „CGU Elektrownia Konin" for electricity based on biomass.

As at December 31, 2021, the PAK KWB Konin SA lignite mine conducts business activity in the Jóźwin, Tomisławice and Drzewce open-pit mines.

Regarding PAK KWB Adamów SA - on September 14, 2020, the General Meeting of the company adopted a resolution on dissolution and liquidation of the company PAK KWB Adamów. Therefore, no tests were performed for this company. A significant part of the value of the company's fixed assets has been written off and shown so far in the consolidated financial statements, fixed assets are mainly land, which is carried at fair value.

In these companies, as profit generating centres, no smaller groups of assets generating independent cash inflows were identified, because for many reasons the inflows generated by individual groups of assets are very closely related to each other. As a result, the mine is to deliver a certain amount of coal to the power plant, the fact from which the open pit it will come from is irrelevant. As a result, coal is supplied interchangeably to the power plant from several open pit mines. The organizational structure and record systems are also subordinated to the production goal set in this way. An additional factor determining the separation of the CGU was the update of the strategy of the ZE PAK SA Group, which, on the one hand, assumed the acceleration of the decommissioning of coal-based activities, and on the other hand, the development of renewable energy activities.

The above arguments resulted in the separation of the following cash-generating units within the ZE PAK SA Capital Group:

- fixed assets (production) ZE PAK SA – Elektrownia Pątnów („CGU Elektrownia Pątnów" – black energy) – CGU of blocks 1, 2, 5 (the so-called Elektrownia Pątnów I) and block 9 (formerly called Elektrownia Pątnów II) was considered to be one because of technological and commercial linkages;
- fixed assets (production) ZE PAK SA – Elektrownia Konin („CGU Elektrownia Konin" – green energy from biomass);
- non-current (mining) assets and mining assets of PAK KWB Konin SA relating to open-pit mines in Jóźwin, Tomisławice and Drzewce („CGU PAK KWB Konin"),

Moreover, the remaining CGUs were separated into the following segments: Repairs, Sales and Other.

Analysis of the premises to conduct impairment tests as at December 31, 2021

In accordance with IAS 36, at the end of each reporting period, the Management Board assesses whether there are any premises indicating that non-current assets may be impaired. If it is found that such premises exist, the Group estimates the recoverable amount of assets. In connection with the above, the Group always analyses the premises that may affect the impairment of any asset, and determines cash-generating units (CGUs) within the Group's companies.

The main reasons for conducting the tests were:

- the periodic maintenance of the Parent's stock market capitalization below the carrying amount of net assets in 2021;
- the adoption and publication of the "Fit for 55" package by the European Commission in July 2021, which includes the reduction of greenhouse gases in the European Union by 55% by 2030 (previously by 40%);
- dynamic changes in electricity prices, CO_2 emission allowances and market interest rates;
- adoption by the Council of Ministers on March 29, 2022 of the assumptions for updating the "Polish Energy Policy until 2040" (PEP 2040), including those concerning the acceleration of the development of renewable energy sources in all sectors;
- verification of strategic assumptions and shortening the operation of unit 9 at the Pątnów Power Plant until 2024.

An analysis of individual CGUs was carried out:

- CGU related to the production of electricity, the so-called black, i.e. „CGU Elektrownia Pątnów" – the base operation scenario provides for the operation of all units of the Elektrowni Pątnów by the end of 2024. The current scenario assumed the operation of coal-fired units 1, 2 and 5 at the Elektrownia Pątnów until 2024, while the 474 MW unit (former Elektrownia Pątnów II) was to be operated no longer than until 2030. Currently, the base scenario is the operation of all the Group's coal-fired units until the end of 2024, i.e. until these assets are supported in the form of the capacity market mechanism. The company perceives the current market situation in terms of the relationship between energy prices and CO_2 emission allowances as highly volatile and risky, and the dynamics of these changes has increased even more in the last year. Coal mining and production after 2024 will have to involve a number of investments, including enabling further exploitation of the Tomisławice open pit and adjusting the 474 MW unit to environmental requirements. The company sees the possibility of incurring such investments and extending the operation of coal assets after 2024, however, it definitely makes such measures conditional on the introduction of a support mechanism after 2024, which would reduce the risk of operating the Group's coal generation assets to be phased out. Due to the fact that currently the Group's coal units cannot participate in such a mechanism after 2024, guided by the principle of reasonable expectations, the Company shortened the expected lifetime of its coal mining and generation assets. At the same time, the Company does not rule out a change in the expected lifetime of coal assets in the event that a satisfactory form of the support mechanism is established after 2024.
- CGU related to coal mining – mining assets have already been written off to the fair value of the land, therefore the Group does not see the need to test these assets;
- CGU related to the production of green electricity, i.e. „CGU Elektrownia Konin" – renewable energy from biomass. Generating energy from a renewable source is in line with the European Union's climate policy aimed at radical reconstruction of the economy towards increasing use of renewable energy sources. In addition, there is a growing demand for production from biomass units due to the qualification - as a RES stabilizing the production of non-controllable wind farm modules and photovoltaic. Moreover, it should be emphasized that the value of the sale of Konin Power Plant in the form of ZCP to Cyfrowy Polsat significantly exceeds the book value of the assets. Hence, the Group decided not to test these assets.

The following assumptions were made to estimate the value in use of property, plant and equipment of the „CGU Elektrownia Pątnów":

- Inflows from the capacity market in the years 2022-2024 were assumed based on the results of the auction, and a share in the secondary capacity market was also assumed.
- For block 9, the participation of this unit in the program of stranded costs (LTC) was assumed.
- The selling prices of electricity and the purchase prices of CO_2, emission allowances for the years 2022-2024 were adopted on the basis of the current market levels.

(in thousand PLN)

- The weighted average cost of capital after tax (WACC) for the projection period was assumed at the level of 7.95%.
- In the case of BAT conclusions in the case of ZE PAK SA for units 1, 2, 5, it was assumed that deviations from the required emission limit values would be obtained due to the assumed short life of generation assets, while in the case of unit 9, a periodic exemption until 2024 was assumed.

Based on the tests performed, it was found that a write-off was required in the „CGU Elektrownia Pątnów" segment in the amount of PLN 654,661.9 thousand, i.e. up to the value of the land.

Below are the results of the tests carried out for „CGU Elektrownia Pątnów", for which impairment was found:

Tested value	**681 578,0**	**thousand PLN**	**Value after write-of**	**26 916,1 thousand PLN**
Confirmed loss	**654 661,9**	**thousand PLN**		

Sensitivity analysis

Changes in the financial parameters being the basis for estimating the recoverable amount would change the present value of discounted cash flows by the amounts presented below.

CGU Elektrownia Pątnów.	(+) increase by 1,0 p.p.	(-) fall by 1,0 p.p.
weighted average cost of capital	(PLN 8 m)	PLN 11 m
	(+) increase by 1%	(-) fall by 1%.
change in sales revenues (electricity price)	PLN 27 m	(PLN 27 m)
	(+) increase by 5%	(-) fall by 5%.
change in cost of sales (price of 1 EUA)	(PLN 103 m)	PLN 102 m
	(+) increase by 10%	(-) fall by 10%
change of the capacity market rate for 1 MW	PLN 32 m	(PLN 32 m)

The results of the sensitivity analysis showed that the costs of purchasing CO_2 emission allowances had the most significant impact on the value in use of the tested assets. In the optimistic scenario, if the 5% decrease in CO_2 costs is taken into account, and the other assumptions remain unchanged, the amount of the reversed write-down for CGU Elektrownia Pątnów (units 1, 2, 5 and 9) would be PLN 102 million. In the sensitivity analysis for CGU Elektrownia Pątnów, changes in biomass prices were not taken into account, due to the lack of co-firing in the presented projections.

21. The value impairment test of assets of ZE PAK SA Capital Group

As of January 1, 2019, the Group applied IFRS 16 Leasing for the first time. In accordance with this standard, the Group recognizes an asset for the right of use and a liability for leasing in the balance sheet.

The Group as a lessee

The Group is a party to lease contracts for underlying asset components such as:

- land, including the right of perpetual usufruct of land,
- motor vehicles,
- machinery.

Land lease contracts are concluded for a period of 4 to 14 years and for an indefinite period, and rights to perpetual usufruct of land have been received for a period of 40 to 100 years. Lease payments are indexed in accordance with the Land Management Act.

The leasing period of motor vehicles is from 2 to 5 years.

(in thousand PLN)

The period of leasing machines (vulcanizing presses) is from 2 to 5 years. The contract includes the option to buy the underlying asset after the lease period.

All leasing contracts were concluded in PLN.

In 2021, no new leases were recognized.

Maturity analysis of leasing liabilities:

	31 December 2021	*31 December 2020*
Up to 1 year	6 315	6 330
1 to 3 years	14 208	14 558
3 to 5 years	8 364	8 337
Over 5 years	124 039	128 765
Total according to undiscounted payments	152 926	157 990
Book value	47 830	51 495

Amounts recognized in the cash flow statement

	Year ended 31 December 2021	*Year ended 31 December 2020*
Total cash outflow	6 330	8 990

The right to use

Assets due to the right to use include assets used under land lease contracts, perpetual usufruct rights to land and financial leasing at PAK KWB Konin SA, PAK KWB Adamów SA in liquidation and ZE PAK SA.

	Year ended 31 December 2021	*Year ended 31 December 2020*
Gross value as at 1 January	67 296	67 296
Remission as at 1 January	(18 086)	(11 087)
Net value as at 1 January	49 210	56 209
Depreciation for the period	(3 354)	(6 999)
As at the end of the period	45 856	49 210

Additional qualitative and quantitative information on leasing activities

In connection with concluded lease agreements, the Group is potentially exposed to future cash outflows that were not included in the measurement of lease liabilities. This includes exposure resulting from:

- from variable leasing fees,
- from the option to extend the lease and the option to terminate the lease,
- from the guaranteed residual value, and
- from leases not yet started to which the lessee is obliged.

Variable leasing fees

Current lease contracts do not contain variable lease payments

Extension options

Until the date of signing these financial statements, the Group has not concluded any lease agreements that include extension options.

22. Intangible assets

Emission allowances

	31 December 2021	*31 December 2020*

	Certified emission reduction units (EUA)	*Certified emission reduction units (EUA)*
Gross value as at 1 January	3 565	93 218
Sale	(24 022)	(43 500)
Handing over to IRGIT security	(44 128)	-
Purchase	707 200	571 937
Redemption of EUA	(642 615)	(618 090)
Net value as at 31 December	-	3 565

23. Assets for overburden removal and other mining assets

	31 December 2021	*31 December 2020*
As of 1 January	52 291	70 620
Increase	-	7 599
Decrease	(43 769)	(13 318)
Impairment write-down	-	(3 631)
Depreciation for the period	(8 522)	(8 979)
As of 31 December	-	52 291
Long-term	-	52 291
Short-term	-	-

The item decrease in 2021 relates to the impairment write-down. Due to the change in the Group's strategy ZE PAK SA, the value of assets related to stripping and other mining assets was completely written off.

24. Other assets

24.1. Other financial assets

	31 December 2021	*31 December 2020*
Investments and deposits	1	1
Investments and MLF* deposits	3 983	3 470
Shares	345	345
The amount resulting from the initial settlement of the acquisition of Farma Wiatrowa Kazimierz Biskupi sp. z o.o.	14 107	-
Other	4 336	1 275
Total other financial assets	22 772	5 091
Short-term	150	10
Long-term	22 622	5 081

* *MLF – Mining Liquidation Fund*

The creation of the mining plant's liquidation fund results from the Geological and Mining Act.

The main components of the "Other" item are deposits in the amount of PLN 1,007 thousand.

(in thousand PLN)

24.2. Other non-financial assets

	31 December2021	*31 December2020*
VAT receivables	39 992	34 536
Insurance	46	371
Other receivables from the state budget	3	-
Other prepayments	2 000	1 779
Research and development works	5 485	1 572
Delivery prepayments	1 105	508
Prepayments for assets under construction	8 944	-
Other	2 552	1 204
Total other non-financial assets:	60 127	39 970
Short-term	50 129	39 673
Long-term	9 998	297

The largest components of the item "other accruals" in 2021 are the settlements regarding the valuation of properties for sale owned by PAK KWB Konin SA, in the amount of PLN 631 thousand. The costs are charged at the time of sale of the real estate that the valuation concerned. A significant component of other accruals is also the settlement of royalties in the amount of PLN 1 725 thousand.

25. Employee benefits

In the “employee benefits” item, the Group presents a provision for retirement and disability benefits, jubilee bonuses and other benefits broken down into long-term and short-term parts.

25.1. Pension benefits and other post-employment benefits

The Group's entities pay the retiring employees amounts of one-time retirement benefits and other post-employment benefits in the amount specified by the Collective Labour Agreement. In relation to this, the Group, on the basis on the evaluation made by a professional pension actuary company, creates a provision for the current value of the liability due to one-time retirement and other benefits.

The amount of the provision and the agreement of changes in provisions during the accounting period are presented in the following table:

	Provision for pension, retirement, and post-mortem benefits	*Anniversary premiums*	*Subsidies to electricity/coal benefits*	*Total*
As of 1 January 2021	**26 949**	**628**	**19 830**	**47 407**
Current service cost	1 433	37	1 043	2 513
Interest costs	323	8	238	569
Actuarial profits and losses	(1 976)	-	(1 683)	(3 659)
Paid benefits	(2 934)	(156)	(1 284)	(4 374)
Past service costs*	181	-	-	181
Profits and losses from the settlement of the program benefits	(613)	(517)	(9 981)	(11 111)
As of 31 December 2021	**23 363**	**-**	**8 163**	**31 526**
Long-term provisions	20 213	-	6 942	27 155
Short-term provisions	3 150	-	1 221	4 371

(in thousand PLN)

Profits and losses from the settlement of the benefit program relate to the final settlement of provisions in PAK KWB Adamów SA in liquidation.

	Provision for pension, retirement, and post-mortem benefits	*Anniversary premiums*	*Subsidies to electricity/coal benefits*	*Total*
As of 1 January 2020	**29 906**	**1 604**	**20 892**	**52 402**
Current service cost	1 604	140	1 027	2 771
Interest costs	628	34	439	1 101
Actuarial profits and losses	794	93	(146)	741
Paid benefits	(3 170)	(373)	(2 382)	(5 925)
Past service costs*	(2 813)	(870)	-	(3 683)
As of 31 December 2020	**26 949**	**628**	**19 830**	**47 407**
Long-term provisions	22 903	391	17 592	40 886
Short-term provisions	4 046	237	2 238	6 521

** Past employment costs result from significant changes in the employment of employees in some companies or other significant changes.*

The main assumptions adopted by the actuary as of the balance sheet date for calculation of the amount of the liability are as follows:

	Year ended 31 December 2021	*Year ended 31 December 2020*
discount rate	3,2%	1,2%
expected inflation rate	2,5%	2,5%
expected remuneration growth rate	2,5%	3,0%

26. Inventories

	31 December 2021	*31 December 2020*
Production fuel	9 410	6 599
Other materials and non-strategic spare parts	26 262	33 265
Certificates of origin of energy	38 569	27 995
Inventory total according to the lower of two values: acquisition price (costs of production) and the net value possible to acquire	74 241	67 859

Certificates of origin for energy production from renewable energy sources are recognized at fair value as at the end of the month in which energy was produced from renewable sources.

As at December 31, 2021 the Group had in total 18 310, 000 MWh of property rights green certificates of green energy produced and verified by the ERO. From January 1, 2021 to December 31, 2021 the Group received 380 346,294 MWh of certificates for production in October, November, December 2020 and in January, February, March, April, May, June, July, August, September 2021. During this period, an application was submitted for the release of 35 901,318 MWh for the production in October 2021. Obtaining certificates of origin was performed on an ongoing basis. In this period, 408 881.409 MWh were sold on TGE SA, the revenue from this amounted to PLN 76 402 thousand.

Spare parts are a stock for the needs of current repairs and service. In 2021, the remaining materials and non-strategic spare parts for Elektrowni Pątnów were completely written off.

27. Trade and other receivables

(in thousand PLN)

	31 December 2021	*31 December 2020*
Trade receivables	222 477	155 289
Receivables due to compensation related to the termination of the PPAs	78 748	83 908
Receivables due to security of purchase of electricity in the balancing market	2 558	2 293
Other receivables	1 091 001	143 566
Net receivables	1 394 784	385 056
Impairment write-down on receivables	25 327	46 105
Gross receivables	1 420 111	431 161

In the line other receivables as at December 31, 2021, the Group presents mainly receivables from deposits securing transactions on the Polish Power Exchange and securing the purchase of CO_2 emission allowances (EUA) in the amount of PLN 1,020,043 thousand, including:

Advance payment for the purchase of CO_2 for EDF	50 255
IRGiT	782 470
Polenergia Obrót SA	146 255
PSE SA	40 862
Other	201

The entire write-down of receivables concerns individual receivables.

After the balance sheet date, as a result of the execution of contracts for the purchase of CO_2 emission allowances, deposits and advances were settled with Polenergia Obrót SA and EDF Trading Limited. Deposits with IRGiT SA were also settled.

Failure rates:

	31 December 2021	*31 December 2020*
On time	0,00%	0,00%
< 30 days	0,00%	0,00%
30 – 60 days	1,04%	2,29%
60 – 90 days	9,39%	9,28%
Over 90 days	100%	100%

The significant change in the default rate in the 60-90 day range is due to the decline in overdue receivables in this range.

Receivables due to supplies and services are not subject to interest and the date of payment is usually within the 14-day period.

The Group has appropriate policy concerning the sale to the verified clients only. Thanks to that, according to the management, there is no additional credit risk exceeding the level specified by non-collectible receivables impairment write-downs, specific to the Group's trade receivables.

As at December 31, 2021, trade and other receivables in the amount of PLN 25 327 thousand (as at December 31, 2020: PLN 46 105 thousand) were written off. Changes in the write-down of receivables were as follows:

	31 December 2021	*31 December 2020*
Impairment write-down as at	46 105	45 469
Increase	9 290	656
Use	(1)	(10)
Redemption	(30 067)	(10)
Impairment write-down as at	25 327	46 105

Below is an analysis of trade receivables and other receivables which as at 31 December 2021 and as at 31 December 2020 were past due, but were not considered as irrecoverable and were not written off. The write-off balance mainly consists of a receivable from several counterparties that has been written off historically in 100% (grade 3 in accordance with IFRS 9). The Group has identified a high probability of non-recoverability of written off receivables.

(in thousand PLN)

			Expired but recoverable				
	Total without write-down	unexpired	<30 days	30-60 days	60-90 days	90-120 days	>120 days
31 December 2021	1 394 784	1 369 260	17 531	890	10	180	6 913
31 December 2020	385 056	379 935	890	2 137	905	46	1 143

28. Cash and cash equivalents

Cash at bank are subject to interest at volatile interest rates, whose amount depends on the interest rate on one-day bank deposits. Short-term deposits are established for various periods; from one day to three months, depending on current Group's demand for cash and are subject to interest at fixed interest rates. The fair value of cash and cash equivalents as of 31 December 2021 amounts to PLN 506 669 thousand (as of 31 December 2020: PLN 497 861 thousand).

The balance of cash and cash equivalents in the consolidated cash flow statement consisted of the following items:

Cash structure

	31 December 2021	*31 December 2020*
Cash in hand and at bank:	494 847	345 861
Short-term deposits	11 822	152 000
Total cash and cash equivalents	506 669	497 861

Explanation of changes in balance sheet items and changes to items recognized in the statement of cash flows

	31 December 2021	*31 December 2020*
Depreciation:		
Depreciation shown in the income statement	135 531	156 900
Settlement of subsidies	(16 397)	(3 647)
Depreciation shown in the cash flow statement	119 134	153 253

	31 December 2021	*31 December 2020*
Receivables:		
Balance sheet change in trade receivables and other receivables	(1 009 728)	(155 284)
Balance sheet change in other long and short-term non-financial assets	(20 158)	23 058
Balance sheet change in amounts due from clients under PPAs	(189)	(236)
Change in advances for fixed assets under construction	7 749	(2 311)
Other changes	814	(65)
Change in receivables shown in the cash flow statement	(1 021 512)	(134 838)

	31 December 2021	*31 December 2020*
Liabilities:		

Balance sheet change in trade liabilities and other financial liabilities, long and short-term	58 845	75 744
Balance sheet change in other non-financial liabilities	122 571	(24 780)
Balance sheet change in amounts paid to clients under PPAs	(2 999)	4 950
Change in liabilities under investment settlements	39 420	(52 582)
Purchase of debt securities		-
New lease agreements and payment of lease liabilities	4 027	2 835
Other changes	3 677	(5 952)
Change in liabilities shown in the cash flow statement	225 541	215

	31 December 2021	*31 December 2020*
Change in provisions, prepayments and accruals and employee benefits:		
Change in provisions and prepayments	615 146	35 231
Change in long and short-term employee benefits	(15 881)	(4 995)
Decrease of provision from redemption EUA	642 615	618 090
Change in actuarial provisions indicated in other comprehensive income	3 659	(648)
Other changes	729	5 743
Change in provisions, prepayments and accruals and employee benefits	1 246 268	653 421

	31 December 2021	*31 December 2020*
Inventories		
Balance change in inventories	(6 382)	36 482
Transfer to strategic spare parts	-	-
Change in inventories disclosed in the statement of cash flows	(6 382)	36 482

29. Share capital and other capitals

29.1. Share capital

Share capital	*31 December 2021*	*31 December 2020*
50 823 547 shares with a nominal value of PLN 2 each	101 647	101 647

29.1.1. Share nominal value

All the issued shares have a nominal value of zloty 2 each and were paid up.

(in thousand PLN)

29.1.2. Shareholders rights

The shares of all series are equally preferred in terms of dividend and return on the capital.

29.1.3. Shareholders with significant share

	31 December 2021	*31 December 2020*
Elektrim SA		
Share in capital	-	-
Share in voting rights	-	-
Embud II sp. z o.o.		
Share in capital	-	-
Share in voting rights	-	-
Argumenol Investment Company Limited		
Share in capital	65,96%	65,96%
Share in voting rights	65,96%	65,96%
Nationale - Nederlanden OFE		
Share in capital	8,86%	8,86%
Share in voting rights	8,86%	8,86%
OFE PZU Złota Jesień		
Share in capital	9,12%	9,12%
Share in voting rights	9,12%	9,12%
Other		
Share in capital	16,06%	16,06%
Share in voting rights	16,06%	16,06%
	100,00%	100,00%

Shareholders owning more than 5% share in the capital and the number of votes according to the knowledge of the Company based on notifications submitted by shareholders.

30. Supplementary capital

As of 31 December 2021, the structure of the supplementary capital origin in the amount of zloty 1 131 326 thousand is as follows:

- From the sale of shares above their nominal value 380 030
- Created in accordance with the articles of association
  Above the statutory (minimum) value 617 397
- Other, including: 133 899
  - merger with PAK Odsiarczanie sp. z o.o. i PAK Holdco sp. z o.o. 66 126
  - liquidation of fixed assets 67 773

30.1. Other reserve capital

The ZE PAK SA Company was founded as a result of the commercialisation of Zespół Elektrowni PAK State-owned Company made pursuant to the Act of 13 July 1990 on the privatisation of state-owned companies. The so-called Privatisation Fund, shown as part of the reserve capital in the balance sheet of the company, was created by Zespół Elektrowni PAK state-owned company on the basis of the Act of 31 January 1989 on financial economy of state-owned companies.

(in thousand PLN)

The value of the reserve fund consists of the Privatisation Fund in the amount of zloty 3 472 thousand, which was created from the profit of 1994, on the basis of a resolution of the Extraordinary General Meeting of the newly established Company, and the values related to the redemption of own shares in the amount of zloty 2 405 thousand. Due to the negative result of ZE PAK SA for 2015 in the amount of zloty 1,515,851 thousand, the General Meeting of the Company, on 28 June 2016, adopted a resolution no. 5 on covering the Company's loss for 2015. According to the resolution, the General Meeting allocated the amount of zloty 2 405 thousand from the reserve capital. The total value of other reserve capitals, as of 31 December 2020, is zloty 3 472 thousand.

Cash accumulated in this fund were to be reserved for employees' purchase from the State Treasury shares after transformation of the enterprise into the company and its privatisation (purchase of up to 10% of the shares for a half price). The Act of 30 August 1996 on the commercialisation and privatisation of state-owned enterprises introduced in 1996 granted employees the right to acquire 15% of the company's shares belonging to the State Treasury free of charge. Therefore, the objectives, which the privatisation fund was to serve, do not exist. However, the capital in the company's liabilities remained.

30.2. Undivided financial result and restrictions on payment of dividend

The undivided profit also includes amounts, which are not subject to division that is they may not be paid in the form of dividend. They are:

- Retained profits/losses of subsidiaries owned by the shareholders of the parent company,
- differences in values of retained profits between the statutory statement and the IFRS statement of the parent company,
- The equivalent of 8% of the statutory write-offs from profit for the capital and other write-offs made on the basis of existing provisions in the contracts of subsidiaries.

In the Group, as of 31 December 2021, the full amount of undivided profit (including the equivalent of reserve and supplementary capitals created within the division of profits in the previous years) is subject to the restriction on payment of dividend. The following conditions are the basis of such an assumption:

- Statutory financial statements of all companies included in the ZE PAK SA Capital Group are prepared in accordance with the Polish accounting standards. The dividend may be paid on the basis of the financial result determined in a separate annual financial statement prepared for the statutory purposes.
- According to the requirements of the Code of Commercial Companies, a parent company is required to create a reserve capital for coverage of losses. At least 8% of the profit for a given financial year, recognised in a separate financial statement of the company is transferred to this category of the capital, until this capital reaches at least one third of the parent company's issued capital. The use of supplementary and reserve capitals is decided by the General Meeting. However, parts of the supplementary capital in the amount of the one-third of the initial capital can be used only to cover the loss demonstrated in the separated financial statement of the parent company and is not divided for other purposes.

As of 31 December 2021, there are no other restrictions on the payment of the dividend.

30.3. Non-controlling interest

	Year ended 31 December 2021	*Year ended 31 December 2020*
At the beginning of the period		
Acquisition - defining non-controlling interest at the acquisition date	30 981	30 971
Employee share program - correction of the original settlement	(955)	(955)
Result of subsidiaries in a given year - attribution to non-controlling interests	(405)	(4 072)
The result of subsidiaries in a given year - attribution to non-controlling interests	-	(1 245)

(in thousand PLN)

Settlement PUT options - the recognition of the commitment to purchase employee shares	(30 016)	(30 016)
Settlement PUT option - recognition of the difference between the value of non-controlling interest and obligation at end of period	-	3 566
Total	(395)	(1 751)

Allocation of the result to the non-controlling interests

In the consolidated financial statement, 15% of the result of PAK KWB Adamów SA in liquidation and 15% of the result of PAK KWB Konin SA for the period from 19 July 2012 – 31 December 2013 and from 1 January 2014 – 31 December 2014 were allocated as a profit of non-controlling shareholders. In 2015, 2016, 2017 and 2018 in connection with the ongoing employee shares redemption, the profit for non-controlling shareholders was allocated in proportion to the shares volume of non-controlling shareholders.

The Company's obligation to buy employee shares was recognized as at the date of taking control and applies to situations in which employees have the option to sell shares. In accordance with the chosen policy, non-controlling interests received the allocation of the result and other comprehensive income in the next reporting periods. At the end of each reporting period, the value of non-controlling interests was adjusted as if they were acquired while simultaneously recognizing the liability for the share buyback option. The difference between the value of non-controlling interest derecognized as at the reporting date and the recognized financial liability was recognized in the position of retained earnings. As at 31 December 2021 and 31 December 2020, ZE PAK SA's obligation to buy employee shares expired. The amount assigned to non-controlling shareholders in the amount of PLN 395 thousand results from 11.12% of shares in Exion Hydrogen Polskie Elektrolizery sp. z o.o. value of PLN 10,000 belonging to non-controlling shareholders and the allocation of the company's loss in the amount of PLN 405 thousand.

Recognition of ZE PAK SA's obligation to purchase the remaining shares in PAK KWB Konin SA and PAK KWB Adamów SA in liquidation

In accordance with the IFRS, ZE PAK SA recognised the obligation to purchase the shares of PAK KWB Konin SA and PAK KWB Adamów SA in liquidation possessed by the non-controlling interest on the day of the acquisition of control.

In the shares sale agreement of KWB Konin SA and KWB Adamów SA concluded between ZE PAK SA and the State Treasury on 28 May 2012 (hereinafter "Shares Sale Agreement"), ZE PAK SA submitted an irrevocable offer of purchasing the remaining shares of both mines to the State Treasury, under the terms set forth in this agreement, which will not be acquired from the State Treasury by the entitled employees and their legal successors on the basis of the Act of 30 August 1996 on the commercialisation and certain powers of employees. In accordance with the provisions of this act, the entitled employees of KWB Konin SA and KWB Adamów SA are entitled to acquire free of charge up to 15% of the shares of the company covered by the State Treasury on the date of entering a given company into the register. In accordance with the Shares Sale Agreement, ZE PAK SA's purchase of the remaining mines' shares from the State Treasury, not covered by the entitled employees or by their legal successors, will take place at a price per share equal to, respectively, the price of one share of KWB Konin SA and KWB Adamów SA in the transaction of sale of 85% of KWB Konin SA and KWB Adamów SA's shares of Konin to ZE PAK SA by the State Treasury, index-linked by the consumption products and services price indicator announced by the CSO President. In accordance with the Shares Sale Agreement, the offer of purchasing the remaining shares of KWB Konin SA and KWB Adamów SA are submitted by ZE PAK SA to the State Treasury, which is referred to above, was binding until 28 February 2017. The remaining shares of KWB Konin SA and KWB Adamów SA were purchased from the Treasury.

In addition, in accordance with the Shares Sale Agreement, ZE PAK SA obliged to, under the terms as provided for in this agreement, submit to the entitled employees of KWB Konin SA and KWB Adamów SA, who acquired free of charge the shares from the State Treasury on the basis of the Act of 30 August 1996 on the commercialisation and certain powers of employees, the offer to purchase these shares at a prices equal to, respectively, the price of one share of KWB Konin SA and KWB Adamów SA in the transaction of sale of 85% of KWB Konin SA and KWB Adamów SA's shares of Konin to ZE PAK SA by the State Treasury. In the implementation of this obligation, after the expiry of the prohibition on trading the employee shares specified in article 38 paragraph 3 of the Act of 30 August 1996 on the commercialisation and certain powers of employees, ZE PAK SA began the process of employee share redemption, within which ZE PAK SA offered the people, who expressed the interest in disposal of PAK KWB Konin SA and PAK KWB Adamów SA's shares, to redeem them under terms set forth in the Shares Sale Agreement. By the end of 2016, as a result of that redemption process, most employee shares of PAK KWB Konin SA and PAK KWB Adamów SA were acquired. ZE PAK SA still plans to purchase the employee shares of PAK KWB Konin SA and PAK KWB Adamów SA in liquidation and continues the redemption process at the currently offered price.

(in thousand PLN)

As at 31 December 2021, in the opinion of the Management Board of ZE PAK SA, the obligation to buy employee shares of PAK KWB Konin SA and PAK KWB Adamów SA in liquidation expired.

31. Interest-bearing bank credits and loans

Short-term	*Maturity*	*31 December 2021*	*31 December 2020*
Overdraft facility at Santander Bank Polska SA in the amount of PLN 40 000 thousand; interest rate at WIBOR 1M + bank margin (PAK KWB Konin SA)	30.06.2021	-	24 123
Overdraft facility at Pekao SA in the amount of PLN 100,000 thousand, interest rate at WIBOR 1M + bank margin (ZE PAK SA)	30.12.2022	-	-
Non-revolving loan at Alior Bank SA in the amount of PLN 66,700 thousand, interest rate at WIBOR 3M + bank's margin (PAK KWB Konin SA) (PAK KWB Konin SA)	15.12.2021	-	30 880
Investment loan at Pekao SA in the amount of PLN 160,000 thousand, interest rate at WIBOR 3M + bank margin (ZE PAK SA)	31.12.2030	13 249	-
Term investment loan in the consortium of banks PKO BP, Pekao SA and mBank SA in the amount of PLN 138,000 thousand, interest rate at WIBOR 1M + bank margin (PAK - PCE Fotowoltaika sp. z o.o.)	31.12.2035	13 068	-
VAT working capital loan at PKO BP and Pekao SA in the amount of PLN 37,000 thousand, with an interest rate at WIBOR 1M + bank margin (PAK - PCE Fotowoltaika sp. z o.o.)	30.06.2022	1 841	-
Overdraft facility at Santander Bank Polska SA in the amount of PLN 10,000 thousand, interest rate at WIBOR 1M + bank margin (PAK-Volt SA)	30.06.2022	195	-
Loan at EFG Bank AG Zurich in the amount of PLN 175,000 thousand, interest rate WIBOR + bank margin (PAK - Polska Czysta Energia sp. z o.o.)	31.12.2022	174 135	-
Loan in the amount of PLN 58 thousand from Galeon sp. z o.o., interest rate at WIBOR 6M (PG Hydrogen sp. Z o.o.)	06.03.2022	57	-
TOTAL		**202 545**	**55 003**

Long-term	*Maturity*	*31 December 2021*	*31 December 2020*
Investment loan at Pekao SA in the amount of PLN 160,000 thousand, interest rate at WIBOR 3M + bank margin (ZE PAK SA)\	31.12.2030	107 030	-
Term investment loan in the consortium of banks PKO BP, Pekao SA and mBank SA in the amount of PLN 138,000 thousand, interest rate at WIBOR 1M + bank margin (PAK - PCE Fotowoltaika sp. z o.o.)	31.12.2035	124 173	-
Loan from Cyfrowy Polsat SA up to the amount of PLN 60,000 thousand or its equivalent in EUR, with	31.12.2025	10 932	-

(in thousand PLN)

interest at WIBOR 3M or EURIBOR 3M + bank margin (PAK - Polska Czysta Energia sp. z o.o.)			
A loan from Cyfrowy Polsat SA up to the amount of EUR 15,000 thousand or its equivalent in PLN, with an interest rate of WIBOR 1Y or EURIBOR 1Y + margin (Exion Hydrogen Polskie Elektrolizery sp. z o.o.)	31.12.2026	7 053	-
Loans from Vortex Energy Polska Sp. z o.o. in the amount of PLN 19 thousand, with an interest rate of 2.5% per annum (Park Wiatrowy Pałczyn 1 sp. z o.o.)	22.12.2036	19	-
Loans from Vortex Energy Polska Sp. z o.o. in the amount of PLN 19 thousand, with an interest rate of 2.5% per annum (Park Wiatrowy Pałczyn 2 sp. z o.o.)	22.12.2036	19	-
RAZEM		**249 226**	**-**

For a loan at EFG Bank AG Zurich in the amount of PLN 175,000 thousand granted to PAK-Polska Czysta Energia sp. z o.o. collateral has been obtained from a third party related to the main shareholder.

Change in loans and advances the year ended December 31, 2021

	Bank loans	*Investment loans*	*Loans*	*Total*
As of 1 January	55 003	-	-	55 003
Borrowing	175 011	303 294	18 078	496 383
Repayment, including:	(55 682)	(43 098)	-	(98 780)
Capital repayment	(55 003)	(40 036)	-	(95 039)
Interest repayment	(679)	(1 862)	-	(2 541)
Provisions paid	-	(1 200)	-	(1 200)
Change of valuation	-	(835)	-	(835)
As at the end of the year	174 332	259 361	18 078	451 771

Change in loans and advances the year ended December 31, 2020

	Bank loans	*Investment loans*	*Total*
As of 1 January	76 540	-	76 540
Borrowing	10 946	-	10 946
Repayment, including:	(32 483)	-	(32 483)
Capital repayment	(30 914)	-	(30 914)
Interest repayment	(1 569)	-	(1 569)
Provisions paid	-	-	-
Change of valuation	-	-	-
As at the end of the year	55 003	-	55 003

As at December 31, 2021, four companies in the capital group, i.e. ZE PAK SA, PAK-PCE Fotowoltaika sp. z o.o., PAK-Volt sp. z o.o. and Przedsiębiorstwo Remontowe PAK Serwis sp. z o.o. have provisions regarding financial covenants in their loan agreements.

(in thousand PLN)

ZE PAK SA has three existing loan agreements with banks: Santander Bank Polska SA (Overdraft Agreement and Guarantee Limit Agreement) and Pekao SA (Term Loan Agreement), which include one financial ratio based on data from the Group's consolidated financial statements Capital of ZE PAK SA and two financial ratios based on data from the separate report of ZE PAK SA. The ratio of consolidated net debt to consolidated EBITDA (reference level max 3.50), as well as the ratio of net debt to EBITDA for ZE PAK (reference level max 3.50) and DSCR ratio for ZE PAK (reference level min 1.20) are met on the indicator test day, i.e. December 31, 2021.

PAK-PCE Fotowoltaika sp. z o.o. has a valid term loan and VAT loan agreement with a consortium of banks: PKO BP SA, Pekao SA and mBank SA, which includes one financial indicator based on data from the separate report of PAK-PCE Fotowoltaika sp. z o.o. The DSCR ratio (reference level at least 1.10) is met as at the date of the indicator test, i.e. December 31, 2021.

PAK-Volt sp. z o.o. has a valid overdraft agreement with Santander Bank Polska SA, which includes one financial ratio based on the data from the consolidated financial statements of the ZE PAK SA Capital Group. The ratio of consolidated net debt to consolidated EBITDA (reference level max. 3.50) is met as at the date of the ratios test, i.e. December 31, 2021.

Przedsiębiorstwo Remontowe PAK Serwis sp. z o.o. has an active multi-product line agreement with mBank, which concerns only issued and active bank guarantees, which includes three financial ratios based on the data from the separate report of ZE PAK SA and the consolidated report of the ZE PAK SA Capital Group. All ratios, i.e. the unit DSCR ratio (minimum reference level 1.20), the consolidated net debt to consolidated EBITDA ratio (maximum reference level 3.50) and the ratio of consolidated net fixed assets to total consolidated assets (minimum reference level 0.30) are met as at the indicator test date, i.e. December 31, 2021.

32. Provisions and accruals

32.1. Accruals

	31 December 2021	*31 December 2020*
Provision for bonuses and holiday leaves	24 378	24 283
Compensation from an insurance company	804	647
Audit of financial statements	290	290
Other	1 728	2 565
Total	27 200	27 785
Short-term	27 200	27 785
Long-term	-	-

Provisions for retirement benefits and other post-employment benefits are presented by the Group in the statement of financial position under "employee benefits" broken down into short-term and long-term. Details on these provisions are provided in note 25.1

The main components of the "Other" item are a provision for a penalty for exceeding the amount of dust released into the air in 2015 in the amount of PLN 1,190 thousand. At the request of the Group, the Voivodship Inspector for Environmental Protection set a date to defer the payment of the above-mentioned penalties as of March 31, 2023, in accordance with the implementation of individual stages of the schedule for the project "Preparation of Adamów Power Plant grounds for new investments".

(in thousand PLN)

32.2. Change in provisions

	Provision for EUA redemption	*Provision for return of CO_2 emission allowances*	*Provision for the fixed assets liquidation costs*	*Provision for the reclamation of ash storage yards*	*Provision for the certificates of origin of energy redemption*	*Provisions for rehabilitation of mining areas*	*Other*	*Total*
As at 1 January 2021	640 512	7 038	18 451	67 313	11 245	351 779	18 942	1 115 280
increase	1 233 460	59	2 163	9 031	12 616	30 224	7 161	1 294 714
Decrease, incl.:	(640 438)	-	-	(1 438)	(10 808)	(19 953)	(6 346)	(678 983)
Use	*(640 438)*	-	-	*(1 438)*	*(10 808)*	(19 953)	(43)	(656 327)
termination	-	-	-	-	-	-	(6 303)	(22 656)
As at 31 December 2021	1 233 534	7 097	20 614	74 906	13 053	362 050	19 757	1 731 011
Long-term	-	-	20 614	74 906	-	342 454	1 131	439 105
Short-term	1 233 534	7 097	-	-	13 053	19 596	18 626	1 291 906
As at 1 January 2020	587 487	6 362	18 190	63 921	19 249	361 134	24 187	1 080 530
increase	649 190	676	261	3 392	11 245	25 775	1 319	691 858
Decrease, incl.:	(596 165)	-	-	-	(19 249)	(35 130)	(6 564)	(657 108)
Use	*(596 081)*	-	-	-	*(16 649)*	*(31 332)*	*(2 042)*	*(646 104)*
termination	*(84)*	-	-	-	*(2 600)*	*(3 798)*	*(4 522)*	*(11 004)*
As at 31 December 2020	640 512	7 038	18 451	67 313	11 245	351 779	18 942	1 115 280
Long-term	-	-	18 451	67 313	-	327 631	1 132	414 527
Short-term	640 512	7 038	-	-	11 245	24 148	17 810	700 753

32.3. Description of significant titles of provisions

32.3.1. The provision for liabilities due to the emission of greenhouse gases (EUA)

The Group recognizes a provision for redemption of greenhouse gas emission allowances. As at December 31, 2021 the provision amounts to PLN 1 233 534 thousand. The provision is created in correspondence with the cost of sales.

CO_2 emission allowances

From January 1, 2021 another accounting period for emission allowances applies, which will end on December 31, 2030. The assumption of this period is the free allocation of emission allowances (EUA) resulting from the production of heat energy pursuant to art. 10a of Directive 2009/29 / EC). In 2021, the Group will receive a negligible amount of free CO_2 emission allowances, i.e. 12,138 EUA, resulting from the allocation for heat production. Therefore, practically the entire amount of emission allowances needed by the ZE PAK SA Group must be purchased on the secondary market.

The state of EUA units as at January 1, 2021 at ZE PAK SA was 88,998 EUA. In the first quarter of 2021, ZE PAK SA transferred 1,256,000 EUA as security for concluded electricity purchase / sale transactions to the Commodity Clearing House. In March and April 2021, the account of ZE PAK SA received 5,258,000 EUA from the concluded MAR21 futures contracts. The status of emission allowances on the account in KOBIZE as at March 31, 2021 amounts to 4,090,998 EUA. In April 2021, 263,000 EUAs were transferred to the account in KOBIZE. At the same time, ZE PAK SA returned 1,231,873 EUA from the collateral in IRGIT (leaving 23,987 EUA on the collateral in IRGIT) and then redeemed 5,510,871 EUA units for 2020. After the redemption of CO_2 emissions for 2020, the status of EUA units in KOBIZE as at June 30, 2021 was 140 EUA. In the third quarter of 2021, ZE PAK SA purchased EUA under the MAR22 contract for 2021 in the amount of 113,000 EUA and 1,193,000 EUA for 2022 under the DEC22 contracts. The state of EUA units as at September 30, 2021 was 140 EUA.

In the fourth quarter of 2021, ZE PAK received 372,000 EUA from mBank for the DEC21 contract. On December 22, 2021, 12,138 EUAs were credited to the ZE PAK account as free EUAs for 2021 for heat generation at Elektrownia Konin. After receiving 384,138 EUA units, ZE PAK transferred them along with 140 EUAs held on the account (384,278 EUA in total) to the account of KOBIZE of Izba Rozliczeniowa Giełd Towarowych as securing transactions in electricity trading. Thus, the Company had 408,265 EUA in KOBIZE on the IRGITW account and 0 EUA on its account in KOBIZE. In December 2021, the Company changed the delivery and payment dates of 1,917,000 EUAs from the DEC21 contract to MAR22 as part of the CO_2 needs for 2021, which did not affect the balance of EUAs held on the account in KOBIZE. In the fourth quarter, the Company concluded futures contracts in the amount of 355,000 EUA for 2021 and 975,000 EUA for 2022. In summary, the Company had 0 EUAs in the KOBIZE account, remembering that it had deposited a total of 408,265 EUAs in IRGIT as at December 31, 2021.

The provision is created in correspondence with the prime cost of sales.

CO_2 emission allowances in the year ended 31 December 2021

		ZE PAK SA	
	CO_2 emission (in tons)*	4 870 451	
		quantity (in tons)	*amount (in thousand PLN)*
EUA	Balance at the beginning of the period	88 998	3 565
	Purchased	6 034 000	707 199
	Free of charge	12 138	-
	Sale	(216 000)	(24 021)
	Exchange	(408 265)	(44 128)
	Redemption for 2019	(5 510 871)	(642 615)
	Balance at the end of the period	-	-
	Remain to purchase	4 870 451	1 233 534

Expenses and inflows related to CO_2 emission allowances disclosed in the statement of cash flows amount to PLN 639 159 thousand.

CO_2 emission allowances in the year ended 31 December 2020

		ZE PAK SA	
	CO_2 emission (in tons)*	5 510 260	
		quantity (in tons)	*amount (in thousand PLN)*
EUA	Balance at the beginning of the period	1 107 945	93 217
	Purchased	5 561 000	528 438
	Free of charge	29 370	-
	Redemption for 2019	(6 609 317)	(618 090)
	Balance at the end of the period	88 998	3 565
	Remain to purchase	5 421 262	636 947

** Physical redemption of the allowances for a given year takes place in the first months of the next year*

32.3.2. Provision for reclamation of ash storage yards and costs of liquidation of fixed assets

The Group creates the provision for future costs of reclamation of the land on the basis of legal obligation resulting from the "Integrated Permits." The basis of estimation of the provision size are data prepared by external expert. The value of the provision is estimated and verified on every balance sheet date on the basis of estimated cost to be incurred in the future and a discount. As of 31 December 2021, the created provision amounted to PLN 74 906 thousand. Descriptions of the created provision are included in notes 5 and 12.

Due to the legal obligation to liquidate fixed assets after their period of use, the Group creates the provision for projected future costs, which will be necessary to pay for fulfilment of this obligation. As of 31 December 2021, the provision due to this amounted to PLN 20 614 thousand. The provision is created in correspondence with the cost of sales. The discount amount recognized in financial costs is PLN 2 207 thousand. The change in the strategy and the associated shortening of electricity production based on lignite combustion will result in an earlier start of the ash dump reclamation process.

32.3.3. Reclamation and other provisions related to mining activities

PAK KWB Konin SA and PAK KWB Adamów SA in liquidation are obliged to reclaim areas of extraction works pursuant to the Geological and Mining Law act. Due to this, the Group creates the provision both for costs of area reclamation related to current coal extraction on a given open pit and for costs of the final excavation reclamation in the state of advancement of coal extraction in particular open pits on every balance sheet day.

The provision is created on the basis of estimation of future reclamation costs based on reports of independent experts estimating reclamation costs on the order of the Management Board. Estimates concerning projected reclamation costs are analysed periodically; on every reporting date, the volume of provision is verified in accordance with current assumptions within discount rate, inflation, and the volume of extraction.

PAK KWB Konin SA and PAK KWB Adamów SA in liquidation, within run activities, are obliged to restore to the original condition, or to rebuild damages caused by the mine operations. Due to this, the Group creates the provision for projected costs, to pay which it is obliged on the basis of concluded agreements. Estimates concerning the projected costs related to the mine operations are updated on every reporting date.

Provision for the decommissioning of facilities and reclamation of mining areas and for the preparation of mining areas at PAK KWB Konin SA and PAK KWB Adamów SA in liquidation as at December 31, 2021 amounted to PLN 362 050 thousand and increased compared to the year ended December 31 2020 by PLN 10,270 thousand. When calculating the provision, the Group adopted the following assumptions: discount rate at 3.71%, inflation at 5.8%.

The provision is created in correspondence with the cost of sales. The discount amount charged to financial expenses is PLN 6 241 thousand.

32.3.4. Provision for redemption of energy origin certificates

Due to the sale of electricity to the final recipients, the Group is obliged to redeem the specified number of certificates of origin of energy from renewable energy sources, gas, and peak load co-generation. As of 31 December 2021, the provision due to this amounted to PLN 13 053 thousand. The provision is created in correspondence with the cost of sales.

(in thousand PLN)

32.3.5. Other provisions

In PAK KWB Konin, the main items of other reserves as of 31 December 2021 are: provisions for mining damage in the amount of PLN 329 thousand, the provisions for pending legal proceedings in the amount of PLN 1 501 thousand. In PAK KWB Adamów in liquidation: provisions for permanent exclusion from forest production of land for the final reservoir of Adamów open pit in the amount of PLN 15 828 thousand, the provision for mining damage in the amount of PLN 554 Provisions for mining damage and provision for permanent exclusion from production are created in correspondence with the cost of sales and provisions for pending court proceedings in correspondence with other operating costs.

33. Trade liabilities, other liabilities and accruals

33.1. Trade liabilities and other financial liabilities (short-term)

	31 December 2021	*31 December 2020*
Trade liabilities:	142 717	98 960
Other liabilities:		
Investment liabilities	9 689	50 818
Liabilities to employees due to salaries	15 187	16 119
Bail liabilities	79 028	19 254
Other	5 266	3 110
Total	251 887	188 261

In the line other liabilities as at December 31, 2021 the Group presents mainly liabilities due to settlements with employees and deductions from the payroll in the amount of PLN 1 973 thousand, settlements due to the security deposit in the amount of PLN 1 782 thousand and due to the deposit in the amount of PLN 978 thousand.

Principles and terms of payment of above financial liabilities:

Liabilities due to supplies and services are not subject to interest and are usually settled within either the 14-day, or 30-day period.

Liabilities due to interests are usually settled within either monthly or quarterly periods during the whole financial year.

33.2. Other non-financial liabilities

	31 December 2021	*31 December 2020*
VAT tax liabilities	155 539	31 182
Liabilities due to environmental charges	10 486	11 926
Liabilities due to the excise tax	544	519
Liabilities due to social insurance	19 264	19 191
Income tax from individuals	4 712	4 409
Other budget liabilities	3 174	3 827
Advanced payments for deliveries	550	329
Service charge	5 726	6 153
Other	728	616
Total	200 723	78 152

Liabilities due to environmental charges concern charges for air pollution, waste storage, intake of water, and wastewater disposal. The year is a settlement period.

Liabilities due to mining fees concern charges for the extracted mineral resulting from the Geological and Mining Law. The half-year is a settlement period.

(in thousand PLN)

The main components of the "Other" item are liabilities to PFRON in the amount of PLN 314 thousand.

33.3. Derivative financial instruments

	31 December 2021	*31 December 2020*
Interest rate hedging instruments (IRS SWAP) (assets)	10 540	6 550
Exchange rate hedging instruments (forward) (liabilities and equity)	3 606	-
Total	14 146	6 550
Short-term – assets	10 540	6 550
Short-term – liabilities and equity	3 606	-

All forwards to EUR / PLN were settled in the Group at the end of March 2022. The valuation of forwards was made according to market data as at December 31, 2021.

33.4. Grants and deferred income (long-term)

	31 December 2021	*31 December 2020*
Long-term grants	271	32 710
Other	4 046	3 317
Total	4 317	36 027

The main component of the "Long-term subsidies" item as at December 31, 2020 were subsidies in the amount of PLN 32 393 thousand resulting from the valuation of the loan received from the National Fund for Environmental Protection and Water Management, as if it had been granted on market terms. The loan was repaid in June 2015. The subsidy was settled in accordance with the useful life of the fixed assets included in the 464 MW unit.

In 2021, as a result of writing off the value of the block, the subsidy was also fully settled.

The main component of the "Other" item is the land received free of charge from the Poviat Starosty and the Commune in the amount of PLN 3 895 thousand.

34. Contingent liabilities and description of significant judicial cases

Apart from liabilities described in notes 34.1 and 35 below, as of 31 December 2021 the Group did not have any other contingent liabilities, guarantees and sureties granted.

34.1. Court proceedings

Appealing against the individual interpretation of tax law in the field of refunds to Zarządca Rozliczeń SA of negative corrections under the LTC Act

On 7 July 2017 Elektrownia Pątnów II sp. z o.o. submitted to the Provincial Administrative Court in Poznań (through the Director of National Tax Information Office) a complaint about the individual interpretation of the tax law issued by the Director of National Tax Information dated 20 April 2017 in scope of repayment for Zarządca Rozliczeń SA, on the basis of the agreement between the Parties, liability for repayment of stranded costs for 2008 and other future repayments (negative corrections) from Elektrownia Pątnów II Sp. z o.o. for Zarządca Rozliczeń S.A., that validity will be based on the Act dated 29 June 2007 of the principles of covering the costs incurred by generators in connection with the termination of long-term contracts for sale of power and electricity (Dz. U. z 2017 r., item 569 with changes, hereinafter referred to as “LTC Act”).

On 10 August 2017, the Director of the National Treasury Information Division sent to the Voivodship Administrative Court in Poznań the answers to the above mentioned complaint.

In the opinion of Elektrownia Pątnów II sp. z o.o., all the repayments from Elektrownia Pątnów II Sp. z o.o. for Zarządca Rozliczeń S.A. arising from the LTC Act constitutes the costs of obtaining revenues at the actual time of those payments. The Company reserves the right to include these costs in the settlement for the tax year, in which Zarządca Rozliczeń SA was paid / will be paid. The above is included in the regulation in article 42 pint 4 of LTC Act.

The above opinion complies also with the broad case law in this scope.

Having a different opinion the Director of National Treasury Department, who issued the individual interpretation considered the Company's position to be incorrect and stated that the repayments for Zarządca on the basis of the agreement made in 2014-2017 (within the scope of repayments) in 2017 (in scope of future, not made repayments), and other repayments from The Company for Zarządca, which validity will be based on LCT Act, constitute or will constitute the revenue costs on the day of incurring the costs, i.e. posting in accounting books.

On 18 January 2018, the company won a dispute with the Director of the National Tax Information in the aforementioned case, before the Court of Appeals in Poznań. The verdict of the court means that the company correctly recognized the costs of obtaining income from the abovementioned title.

In March 2018, the Director of the National Tax Information appealed against the court's judgment.

On August 25, 2020, a hearing was held before the Supreme Administrative Court, as a result of which the court dismissed the cassation appeal of the Director of the National Tax Information, thus sharing the arguments of Elektrownia Pątnów II sp. z o.o.

As a consequence, the case has returned to the Director of the National Tax Information, who is obliged to issue an individual interpretation consistent with the judgment of the Supreme Administrative Court, i.e. favourable for the Company.

On March 12, 2021, the Director of the National Tax Information issued an individual ruling in line with the judgment of the Supreme Administrative Court.

The proceeding is finished.

Proceedings on an environmental decision issued to PAK KWB Konin SA concerning lignite deposit in Tomisławice

PAK KWB Konin SA is a party to administrative proceedings regarding environmental decisions related to the lignite deposit in Tomisławice On August 7, 2007, the head of the Wierzbinek commune issued an environmental decision regarding the lignite open pit. On December 5, 2008, the decision was challenged by nine natural persons supported by the Greenpeace Foundation for alleged gross violation of the law. On March 25, 2009, the Local Government Appeal Court refused to revoke the environmental decision. The plaintiffs submitted an application for reconsideration of the case. On May 4, 2009, after reconsidering the case, the Local Government Appeal Court upheld its previous ruling. The plaintiffs once again appealed against the environmental decision. On May 5, 2010, the Provincial Administrative Court in Poznań ruled that the environmental decision on the basis of which the license for the extraction of lignite from the Tomisławice deposit was granted, grossly violates the law. PAK KWB Konin SA and the Self-Government Board of Appeal appealed against this judgment. On March 21, 2012, the Supreme Administrative Court quashed the contested decision of the Provincial Administrative Court in Poznań and remitted the case for reconsideration. On November 6, 2012, the Provincial Administrative Court in Poznań announced a judgment revoking the decision of the Local Government Appeals Court of March 25, 2009 refusing to declare invalid the environmental decision issued on August 7, 2007 by the Head of the Wierzbinek Commune related to the operation of coal mines by PAK KWB Konin SA of the Tomisławice lignite. On January 7, 2013, PAK KWB Konin SA filed a cassation complaint against the described judgment.

After being examined at the hearing on October 7, 2014, the Supreme Administrative Court dismissed the cassation appeal of PAK KWB Konin SA against the judgment of the Provincial Administrative Court in Poznań of November 6, 2012, repealing the decision of the Local Government Appeal Court in Konin of March 25, 2009, refusing to annul the decision environmental certificate issued on August 7, 2007 by the Head of the Wierzbinek Commune, related to the exploitation of the Tomisławice lignite open pit.

The dismissal of the cassation appeal of PAK KWB Konin SA means that the judgment of the Provincial Administrative Court in Poznań of 6 November 2012 became final and the case concerning the annulment of the environmental decision was returned to the Local Government Appeals Court. On January 18, 2019, the Local Government Appeal Court in Konin issued a decision refusing to annul the environmental decision issued on August 7, 2007 by the Head of the Wierzbinek Commune related to the exploitation of the Tomisławice lignite open pit. Subsequently, the College upheld its decision, against which a complaint was lodged with the Provincial Administrative Court in Poznań.

The decision of the Local Government Appeal Court in Konin thus means that the environmental decision issued by the Head of the Wierzbinek Commune is still in legal circulation. The decision is not final. An application for reconsideration of the case by the Local Government Appeal Court in Konin has been submitted.

On June 19, 2020, the Company was informed that, at a closed session by the Provincial Administrative Court in Poznań, the judgment dismissing the complaint against the decision of the Local Government Appeal Court in Konin regarding the refusal to declare the environmental decision invalid issued on August 7, 2007 by the Head of the Wierzbinek commune related to exploitation of the Tomisławice lignite open pit.

The judgment of the Provincial Administrative Court in Poznań, dated June 18, 2020, means that the environmental decision issued on August 7, 2007 by the Head of the Wierzbinek Commune is still in legal circulation.

Against the judgment of June 18, 2020, the Provincial Administrative Court in Poznań, the Greenpeace Polska Foundation with its seat in Warsaw and Józef Imbiorski filed a cassation complaint with the Supreme Administrative Court. On October 26, 2020, PAK KWB Konin responded to the cassation appeal, petitioning for its dismissal. A hearing date has not yet been set in this case.

BAT conclusions enter into force

Commission Implementing Decision (EU) 2017/1442 of July 31, 2017 establishing the conclusions on the best available techniques (BAT Conclusions - Best Available Technology) for large combustion plants in accordance with Directive 2010 of the European Parliament and of the Council has been in force since 18 August 2021. / 75 / UE. Integrated permits for all currently operated combustion installations of ZE PAK SA have been adapted to the requirements of the BAT Conclusions, taking into account individual deviations from the emission limit values. The company operates in accordance with the permissible emission limits resulting from the IED Directive as well as the BAT Conclusions. Continuous emission monitoring systems, developed in accordance with the requirements of BAT 4, constitute the basis for the verification of compliance with the requirements of the Commission Implementing Decision (EU) 2017/1442 in the field of air pollutant emissions at ZE PAK SA. As at the date of signing this report, there are no pending court cases related to BAT.

34.2. Contingent liabilities related to the decommissioning of the power plant

The obligation to carry out liquidation and land reclamation results from integrated permits for running fuel combustion installations in Pątnów, Konin and Adamów power plants belonging to ZE PAK SA. On the abovementioned entities, in the case of termination of the business, it is obliged to carry out the liquidation of all facilities and equipment of the installation in accordance with the requirements resulting from the provisions of the construction law. The installation area after their liquidation should be managed according to arrangements made with the local government body. In particular, it is necessary to draw up a project for the decommissioning of facilities and equipment that takes into account environmental protection requirements, mainly in relation to waste management.

Adamów Power Plant has already completed its operations and the process of decommissioning the installations located there is currently underway. Due to the directions of the strategy announced last year, it is also possible to specify the date of completion of the operation of the installations located in Pątnów. The termination of operation of older units in Pątnów can be determined at the end of 2024, and the newer unit with a capacity of 474 MW (former Pątnów II Power Plant), assuming an effective support system, could be operated until 2030 at the latest. Based on the experience related to the decommissioning of Adamów power plant, the interests and value of the bids submitted, it should be rationally assumed that the value of the dismantled equipment, scrap and aggregate from decommissioned installations is able to cover the costs of decommissioning and reclamation of the units.

35. Liability repayment securities

In order to protect the repayment of liabilities, the Group uses many forms of protections. Mortgages and registered pledges are the most common ones.

As of 31 December 2021 and 31 December 2020, the Group had liabilities protected with its assets and other protections of payment of liabilities:

(in thousand PLN)

Liabilities secured with the assets

Agreement	*Kind of security*	*31 December 2021 Security amount*	*currency*	*31 December 2020 Security amount*	*currency*
Non-renewable loan agreement with Alior Bank SA of July 25, 2019 for PLN 66 700 thousand for PAK KWB Konin SA	Registered pledge on machines and devices *	Up to 141 400	PLN	Up to 141 400	PLN
Debt limit agreement with Alior Bank SA of November 20, 2013 for the amount of PLN 4,000 thousand for PAK KWB Konin SA	Power of attorney to bank accounts maintained at Alior Bank SA	Up to 4 000	PLN	Up to 4 000	PLN
	Cash deposit	Up to 4 000	PLN	-	-
Term investment loan agreement with Pekao SA in the amount of PLN 160,000 thousand for ZE PAK SA	First-class financial and registered pledge on ZE PAK's bank accounts at Pekao SA	Up to 192 000	PLN	-	-
	First-class mortgage on the real estate of Konin Power Plant	Up to 192 000	PLN	-	-
	Power of attorney to bank accounts maintained at Bank Pekao SA	Up to 160 000	PLN	-	-
	Transfer of current and future claims, rights or receivables of the Assignor under insurance contracts and contracts for the supply of heat	Up to 160 000	PLN	-	-
	A declaration of submission to enforcement pursuant to Art. 777 Par. 1 point 5 of the Code of Civil Procedure in the form of a notarial deed	Up to 192 000	PLN	-	-
Agreement for a multi-purpose credit limit in Pekao SA in the amount of PLN 100,000 thousand for ZE PAK SA	A declaration of submission to enforcement pursuant to Art. 777 Par. 1 point 5 of the Code of Civil Procedure in the form of a notarial deed	Up to 150 000	PLN	Up to 150 000	PLN
	Power of attorney to bank accounts maintained at Bank Pekao SA	Up to 100 000	PLN	Up to 100 000	PLN
Agreement on opening a guarantee line in Pekao SA in the amount of PLN 80,000 thousand for ZE PAK SA	A declaration of submission to enforcement pursuant to Art. 777 Par. 1 point 5 of the Code of Civil Procedure in the form of a notarial deed	Up to 120 000	PLN	Up to 120 000	PLN
	Power of attorney to bank accounts maintained at Bank Pekao SA	Up to 80 000	PLN	Up to 80 000	PLN

(in thousand PLN)

Agreement for an overdraft facility in Santander Bank Polska SA in the amount of PLN 45,000 thousand for ZE PAK SA	A declaration of submission to enforcement pursuant to Art. 777 Par. 1 point 5 of the Code of Civil Procedure in the form of a notarial deed	Up to 54 000	PLN	-	-
Agreement for a guarantee limit in Santander Bank Polska SA in the amount of PLN 50,000 thousand for ZE PAK SA	A declaration of submission to enforcement pursuant to Art. 777 Par. 1 point 5 of the Code of Civil Procedure in the form of a notarial deed	Up to 60 000	PLN	-	-
Agreement on granting a guarantee in mBank SA in the amount of PLN 1,650 thousand for Farma Wiatrowa Kazimierz Biskupi Sp. z o.o.	Cash deposit	Up to 1 650	PLN	-	-
Agreement for a multi-purpose credit limit in Pekao SA in the amount of PLN 20,000 thousand for PR PAK SERWIS Sp. z o.o.	Power of attorney to bank accounts maintained at Bank Pekao SA	Up to 20 000	PLN	Up to 20 000	PLN
	A declaration of submission to enforcement pursuant to Art. 777 Par. 1 point 5 of the Code of Civil Procedure in the form of a notarial deed	Up to 30 000	PLN	Up to 30 000	PLN
	Transfer of receivables from commercial contracts for a minimum of 50% of the limit amount	Up to 38 865	PLN	Up to 149 094	PLN
Framework agreement at mBank SA in the amount of PLN 3,300 thousand for PR PAK SERWIS Sp. z o.o.	A declaration of submission to enforcement pursuant to Art. 777 Par. 1 point 5 of the Code of Civil Procedure by PR PAK SERWIS Sp. z o.o.	Up to 15 000	PLN	Up to 15 000	PLN
	A declaration of submission to enforcement pursuant to Art. 777 Par. 1 point 5 of the Code of Civil Procedure by ZE PAK SA	Up to 11 000	PLN	Up to 11 000	PLN
Agreement for a term investment loan and VAT loan in PKO BP SA, Pekao SA and mBank SA in the amount of PLN 175,000 thousand for PAK-PCE Fotowoltaika Sp. z o.o.	First-class financial and registered pledge on the bank accounts of PAK-PCE Fotowoltaika in PKO BP SA, Pekao SA and mBank SA	Up to 262 500	PLN	-	-
	Primary contractual joint mortgage on the real estate of PAK-PCE Fotowoltaika	Up to 262 500	PLN	-	-
	Secondary mortgage on PAK-PCE Photovoltaic real estate to secure liabilities due to IRS securing agreements and related transactions at PKO BP SA, Pekao SA and mBank SA	Up to 12 000 (PKO BP SA)	PLN	-	-
		Up to 12 000 (Pekao SA)	PLN	-	-
		Up to 7 500 (mBank SA)	PLN	-	-
	First-class registered pledge established on the collection of PAK-PCE Fotowoltaika things and rights in the bank PKO BP SA	Up to 262 500	PLN	-	-

(in thousand PLN)

	First-class financial and registered pledge on all shares in the share capital of PAK-PCE Fotowoltaika in PKO BP SA, Pekao SA and mBank SA	Up to 262 500	PLN	-	-
	A declaration of submission to enforcement pursuant to Art. 777 Par. 1 point 5 of the Code of Civil Procedure by ZE PAK (as a surety) to secure liabilities under the syndicated loan agreement and IRS collateral agreements and related transactions for the benefit of PKO BP SA	Up to 10 000	PLN	-	-
	A declaration of submission to enforcement pursuant to Art. 777 Par. 1 point 5 of the Code of Civil Procedure by PAK-PCE Photovoltaics to secure liabilities under the syndicated loan agreement and IRS collateral agreements and related transactions at PKO BP SA, Pekao SA and mBank SA	Up to 117 750 (PKO BP SA) Up to 117 750 (Pekao SA) Up to 58 500 (mBank SA)	PLN PLN PLN	- - -	- - -
	Power of attorney to the bank accounts of PAK PCE Fotowoltaika kept at Pekao SA, PKO BP SA and mBank SA	Up to 175 000	PLN	-	-

* on March 22, 2022, the District Court Poznań - Nowe Miasto and Wilda in Poznań, 7th Commercial Division - Pledge Register deleted registered pledges on machines and devices of PAK KWB Konin SA in connection with the repayment of the loan of July 25, 2019 granted by Alior Bank SA .

Other securities of liabilities

Guarantees given

Kind of guarantee	*31 December 2021* *Security amount*	*currency*	*31 December 2020* *Security amount*	*currency*
Guarantees of good performance of the contract	3 386	PLN	8 819	PLN
Guarantee of payment of the deposit	50	PLN	-	PLN
Guarantees to remove defects and faults	4 273 577	PLN EUR	7 223 434	PLN EUR
Payment guarantees (including guarantees securing transactions on TGE / IRGIT)	485 650 30 559	PLN EUR	30 000 9 980	PLN EUR

In addition, the Group uses as collateral the repayment of liabilities, assignments from sales contracts, assignment from insurance policies, power of attorney to bank accounts and a statement on submission to enforcement.

The below table shows the sum of granted guarantees.

	31 December 2021	*currency*	*31 December 2020*	*currency*
Intra-Group Guarantees	62 400	PLN	125 578	PLN

(in thousand PLN)

The Guarantees granted to the entities outside the Group	34 262 756	PLN EUR	-	PLN
Total of granted Guarantees	**96 662** **756**	**PLN** **EUR**	**125 578**	**PLN**

The below table shows the sum of received guarantees.

	31 December 2021	*currency*	*31 December 2020*	*currency*
Intra-Group Guarantees	62 400	PLN	-	PLN
The Guarantees granted to the entities outside the Group	14 978	PLN	-	PLN
Total of received Guarantees	**77 378**	**PLN**	**-**	**PLN**

36. Received guarantees

Kind of guarantee	*31 December 2020* *Security amount*	*currency*	*31 December 2020* *Security amount*	*currency*
Guarantees of good performance of the contract	26 287 33 683	PLN EUR	23 437	PLN
Guarantees to remove defects and faults	2 377 -	PLN EUR	2 711 -	PLN EUR
Payment guarantees	- -	PLN EUR	- -	PLN EUR
Advance payment guarantees	231 -	PLN EUR	12 705 2 083	PLN EUR

37. Information about related entities

The following table shows the total amounts of significant transactions concluded with related entities (controlled by the same majority owner) for the current year.

Related entity		*Sales to related entities*	*Purchase from related entities*	*Receivables from related entities*	*Liabilities towards related entities*
Elektrim S.A.	2021	-	120	-	-
	2020	-	120	-	-
Megadex Development sp. z o.o.	2021	58	-	4	-
	2020	68	-	-	4
Megadex Expo sp. z o.o.	2021	339	-	-	-
	2020	680	-	73	-
Polkomtel sp. z o.o.	2021	98 484	6 052	8 486	1 491
	2020	116 570	7 220	13 227	1 087
Polkomtel Infrastruktura sp. z o.o.	2021	-	-	-	-
	2020	114	-	24	-
Laris Investments sp. z o.o.	2021	492	579	21	-
	2020	556	362	46	44
Laris Technologies sp. z o.o.	2021	2 546	-	189	-
	2020	2 580	-	68	-

(in thousand PLN)

CPE sp. z o.o.	2021	1	394	-	145
	2020	1	1 230	11	96
Plus Flota sp. z o.o.	2021	-	1 415	-	160
	2020	-	2 587	2	314
Cyfrowy Polsat S.A.	2021	3 392	4	706	-
	2020	4 486	9	752	2
Esoleo sp. z o.o.	2021	2 410	124 711	-	1 330
	2020	546	26 722	455	480
Maciej Nietopiel	2021	-	490	-	25
	2020	-	20	-	-
Andrzej Janiszowski	2021	-	-	-	-
	2020	-	38	-	46
Tomasz Zadroga	2021	-	240	-	25
	2020	-	240	-	25
KD Management Krzysztof Dziaduszyński	2021	-	60	-	6
	2020	-	130	-	6
Doradztwo Strategiczne Maciej Koński	2021	-	300	-	31
	2020	-	275	-	31
Paweł Markowski	2021	-	330	-	34
	2020	-	41	-	51
Impact Paweł Lisowski	2021	-	330	-	34
	2020	-	41	-	51
Total	**2021**	**107 721**	**135 025**	**9 406**	**3 281**
	2020	**125 601**	**39 035**	**14 658**	**2 237**

Elektrim SA is the parent company in relation to the ZE PAK SA Group. Other companies are subsidiaries or affiliates of Elektrim SA.

Transactions with Polkomtel sp. z o.o. mainly concern the sale of electricity.

Transactions with ESOLEO sp. z o.o. mainly concern the construction of photovoltaic farm with a capacity of 70 MWp.

Transactions with related entities are made on market terms.

37.1. Loan granted to a member of the Management Board

Both in the financial year ended 31 December 2021 and in the one ended 31 December 2020, the Parent Company did not grant any loans and similar benefits to members of the management and supervisory staff.

37.2. Other transactions involving members of the Management Board

Both in the financial year ended December 31, 2021 and in the year ended December 31, 2020, there were no transactions with the participation of members of the management and supervisory bodies, apart from those described in Note 37.

(in thousand PLN)

37.3. Remuneration of Chief executive Staff of the Group

37.3.1. Remuneration paid or payable to the members of the Management Board and to the members of the Supervisory Council of the Group

	Year ended *31 December 2021*	Year ended *31 December 2020*
Management Board of the parent company		
Short-term employee benefits	4 375	4 383
Post-employment benefits	-	285
Benefits for termination of the contract of employment	1	41
Remuneration for the provision of consulting services	490	58
Supervisory Board of the parent company		
Short-term employee benefits	1 244	1 133
Management Boards of subsidiaries		
Short-term employee benefits	3 356	3 117
Post-employment benefits	-	-
Remuneration for the provision of consulting services	1 260	727
Supervisory Board of subsidiaries		
Short-term employee benefits	6	6
Total	10 732	9 750

37.3.2. Remuneration paid or entitled to other members of the main management

	Year ended 31 December 2021	*Year ended 31 December 2020*
Short-term employee benefits	11 259	11 604
Jubilee awards	58	22
Post-employment benefits	13	74
Benefits for termination of the contract of employment	254	65
Total amount of remuneration paid to the chief executive staff (except for members of the Management Board and the Supervisory Board)	11 584	11 765

The main management team includes directors and senior management.

38. Information about the remuneration of the statutory auditor or the entity entitled to audit accounts

The following table presents the remuneration of an entity entitled to audit accounts paid or due to the year ended 31 December 2021, and for the year ended 31 December 2020, divided into types of services:

	Year ended 31 December 2021	*Year ended 31 December 2020*
Compulsory examination and unit review and consolidated financial statements	720	620
Other services	28	133
Total	748	753

39. Goals and rules of financial risk management

The main financial instruments, used by the Group, consist of bank credits, loans received from related entities and other institutions, funds, and short-term deposits. The main goal of these financial instruments is to obtain funds for the Group's activities. The Group also has other financial instruments, such as receivables and liabilities due to supplies and services created directly within its conducted activities.

The main kinds of the risk resulting from the Group's financial instruments include the interest rate risk, liquidity risk, foreign currency risk, and credit risk. The Management Board verifies and consults the rules of management of each of these kinds of risk – these rules were discussed shortly below. The Group also monitors the market price risk regarding all its held financial instruments.

39.1. Interest rate risk

Potential exposure of the Group to risk caused by the changes of interest rates mainly concerns financial liabilities.

Interest rate risk – the sensitivity gap

In the interest rate sensitivity gap analysis, the Group uses yield curve shift by potential possible change of benchmark interest rates during the coming year. For the needs of the interest rate sensitivity gap analysis, average levels of benchmark interest rates in a given year were used. The scale of potential interest rate sensitivity gap was estimated on the basis of volatilities implied of ATMF ("At-the-Money-Forward" forward option to determine the volatility of financial instruments) options for the interest rate quoted on the inter-bank market for foreign currencies, for which the Group has the exposition to interest rate risk from the balance sheet date.

(in thousand PLN)

Classes of financial instruments	***31 December 2021***		***Interest rate risk sensitivity analysis study as of 31 December 2021***							
			WIBOR				***EURIBOR***			
			WIBOR + 12 pb		***WIBOR - 12 pb***		***EURIBOR + 58,43 pb***		***EURIBOR - 58,43 pb***	
	Carrying amount	***value at risk***	***Profit/loss***	***Other comprehensive income***	***Profit/loss***	***Other comprehensive income***	***Profit/loss***	***Other comprehensive income***	***Profit/loss***	***Other comprehensive income***
Other financial assets	22 772	3 983	5	-	(5)	-	-	-	-	-
Trade and other receivables	1 394 784	-	-	-	-	-	-	-	-	-
Derivative financial instruments	10 540	10 540	13	-	(13)	-	-	-	-	-
Cash and cash equivalents	506 669	506 669	323	-	(323)	-	1 386	-	(1 386)	-
Interest-bearing loans and borrowings	(451 771)	(451 771)	(542)	-	542	-	-	-	-	-
Trade payables and other financial liabilities	(252 354)	-	-	-	-	-	-	-	-	-
Lease liabilities	(47 830)	-	-	-	-	-	-	-	-	-
Derivative financial instruments	(3 606)	(3 606)	(4)	-	4	-	-	-	-	-
Total	**1 179 204**	**65 815**	**(205)**	**-**	**205**	**-**	**1 386**	**-**	**(1 386)**	**-**

Lease liabilities mainly relate to the presentation of perpetual usufruct rights to land in accordance with IFRS 16.

(in thousand PLN)

Classes of financial instruments	31 December 2020		Interest rate risk sensitivity analysis study as of 31 December 2020							
			WIBOR				EURIBOR			
			WIBOR + 214 pb		WIBOR - 214 pb		EURIBOR + 15,57 pb		EURIBOR - 15,57 pb	
	Carrying amount	value at risk	Profit/loss	Other comprehensive income	Profit/loss	Other comprehensive income	Profit/loss	Other comprehensive income	Profit/loss	Other comprehensive income
Other financial assets	5 091	3 470	74	-	(74)	-	-	-	-	-
Trade and other receivables	385 056	-	-	-	-	-	-	-	-	-
Derivative financial instruments	6 550	-	-	-	-	-	-	-	-	-
Cash and cash equivalents	497 861	497 861	9 834	-	(9 834)	-	60	-	(60)	-
Interest-bearing loans and borrowings	(55 003)	(55 003)	(1 177)	-	1 177	-	-	-	-	-
Trade payables and other financial liabilities	(193 509)	-	-	-	-	-	-	-	-	-
Trade payables and other financial liabilities	(51 495)	(51 495)	(1 102)	-	1 102	-	-	-	-	-
Derivative financial instruments	-	-	-	-	-	-	-	-	-	-
Total	**594 551**	**394 833**	**7 629**	**-**	**(7 629)**	**-**	**60**	**-**	**(60)**	**-**

39.2. Currency risk

The Group is exposed to currency risk due to concluded transactions.

As at December 31, 2021 one company of the Group used instruments to mitigate the risk resulting from changes in foreign exchange rates. ZE PAK SA hedged the euro exchange rate for part of the flows related to the purchase of CO_2 emission allowances. ZE PAK SA used forward transactions with the settlement 2022 to secure the exchange rate.

Potential possible changes in exchange rates were calculated on the basis of implied annual volatilities for currency options quoted on the interbank market for a given pair of currencies as at the balance sheet date.

(in thousand PLN)

The Group identifies the exposure to EUR/PLN exchange rate changes. The below table presents the gross financial result sensitivity for exchange rate changes rationally possible to occur, assuming non-variability of other risk factors for these classes of financial instruments exposed to the exchange rate change risk.

	31 December 2021		***Analysis of sensitivity to interest rate risk as of 31 December 2021***			
			EUR/PLN			
Classes of financial instruments			**EUR / PLN exchange rate + 5,825%**		**EUR / PLN exchange rate - 5,825%**	
			4,8673		**4,3315**	
	Carrying amount	***Value at risk***	***Profit/loss***	***Other comprehensive income***	***Profit/loss***	***Other comprehensive income***
Other financial assets	22 772	-	-	-	-	-
Trade and other receivables	1 394 784	3 848	224	-	(224)	-
Derivative financial instruments	10 540	-	-	-	-	-
Cash and cash equivalents	506 669	237 211	13 818	-	(13 818)	-
Interest-bearing loans and borrowings	(451 771)	-	-	-	-	-
Trade payables and other financial liabilities	(252 354)	(2 997)	(175)	-	175	-
Lease liabilities	(47 830)	-	-	-	-	-
Derivative financial instruments	(3 606)	(3 606)	(210)	-	210	-
Total	**1 179 204**	**234 456**	**13 657**	**-**	**(13 657)**	**-**

Lease liabilities mainly relate to the presentation of perpetual usufruct rights to land in accordance with IFRS 16.

(in thousand PLN)

	31 December 2020		***Analysis of sensitivity to interest rate risk as of 31 December 2020***			
			EUR/PLN			
Classes of financial instruments			**EUR / PLN exchange rate + 5,775%**		**EUR / PLN exchange rate - 5,775%**	
			4,8813		**4,3483**	
	Carrying amount	***Value at risk***	***Profit/loss***	***Other comprehensive income***	***Profit/loss***	***Other comprehensive income***
Other financial assets	5 091	-	-	-	-	-
Trade and other receivables	385 056	88 902	5 134	-	(5 134)	-
Derivative financial instruments	6 550	-	-	-	-	-
Cash and cash equivalents	497 861	38 310	2 212	-	(2 212)	-
Interest-bearing loans and borrowings	(55 003)	-	-	-	-	-
Trade payables and other financial liabilities	(193 509)	(17 249)	(996)	-	996	-
Lease liabilities	(51 495)	-	-	-	-	-
Derivative financial instruments	-	-	-	-	-	-
Total	**594 551**	**109 963**	**6 350**	**-**	**(6 350)**	**-**

39.3. Commodity prices risk

The group is exposed to influence and the adverse impact of risk factors associated with the volatility of cash flows and financial results due to the changes in the prices of commodity prices. Exposure to the commodity prices risk is reflected by the volume of purchases of basic raw materials, which are mostly lignite and biomass of wood and agricultural origin.

The volume and consumption costs of the main raw materials purchased from external suppliers are presented in the table below:

	2021		*2020*	
	Volume (tons)	*Consumption cost (in PLN thousand)*	*Volume (tons)*	*Consumption cost (in PLN thousand)*
Fuel:				
Lignite	420 329	37 433	167 892	15 401
Forestry biomass	439 399	76 402	399 867	74 911
Agricultural biomass	49 544	9 358	45 398	9 675
Fuel oil	9 509	19 077	3 470	7 703
Sorbent	94 853	6 742	75 954	8 915

Significant risk factors are also the costs of purchasing CO_2 emission allowances and the costs of electricity purchase.

	2021		*2020*	
	CO_2 Emission (tons)	*Emission costs (thousands PLN)*	*CO_2 emission (tons)*	*Emission costs (thousands PLN)*
CO_2 emission costs	4 870 451	792 344	5 510 260	640 431

	2021		*2020*	
	Quantity (MWh)	*Purchase cost (thousands PLN)*	*Quantity (MWh)*	*Purchase cost (thousands PLN)*
Purchase of electricity	1 394 491	444 163	1 868 192	475 885

39.4. Credit risk

The credit risk is a potential credit event, which may be materialised in the form of the following factors: the counterparty's insolvency, partial repayment of receivables, significant delay in repayment of receivables, or another not predicted derogation from contractual terms.

The Group concludes transactions only with reputable companies of good credit rating. All clients who want to use trade credit terms, are subject to procedures of initial verification. Moreover, thanks to current monitoring of receivables, the Group's exposure to the risk of unrecoverable receivables is insignificant.

The main recipient of the Group's electricity is Towarowa Giełda Energii SA. The transactions made on the stock exchange are settled on a daily basis, which minimizes the credit risk. For this reason, the Group does not apply any additional security resulting from the phenomenon of concentration of receivables.

In relation to other financial assets of the Group, such as funds and their equivalents, financial assets available for sale, and some derivatives, the Group's credit risk occurs as a result of incapability of payment by the other party of the agreement, and the maximum exposure to this risk is equal to the balance sheet value of these derivatives.

The Group analyses and reduces credit risk in relation to cash through ongoing monitoring of financial institution ratings and reduces the risk of concentration of cash surpluses in one financial institution, using internal rules of risk management principles.

(in thousand PLN)

Long-term ratings granted to banks in which the Group has cash:

Name of bank	*Rating granted by Rating Agency*		
	Fitch	S&P	Moody's
PEKAO SA	BBB+	BBB+	A2
PKO BP	-	-	A2
BGK	A-	-	-
mBank	BBB	-	-
Bank Millennium	BBB-	-	Baa1
Santander Bank Polska	BBB+	-	A3
Alior Bank	BB	BB	-
BNP Paribas Bank Polska	-	-	Baa1

GK PAK cash as at December 31, 2020, broken down into individual credit ratings of banks:

Rating level of individual rating agencies			*The amount of cash as at December 31, 2021*
Moody's	*S&P*	*Fitch*	
Aaa	AAA	AAA	-
Aa1	AA+	AA+	-
Aa2	AA	AA	-
Aa3	AA-	AA-	-
A1	A+	A+	-
A2	A	A	10 894
A3	A-	A-	397 742
Baa1	BBB+	BBB+	37 586
Baa2	BBB	BBB	-
Baa3	BBB-	BBB-	53 166
Ba1	BB+	BB+	-
Ba2	BB	BB	7 281
Ba3	BB-	BB-	-
B1	B+	B+	-
B2	B	B	-
B3	B-	B-	-
Caa1	CCC+	CCC	-
Caa2	CCC		-
Caa3	CCC-		-
Ca	CC		-
	C		-
C	D	DDD	-
–		DD	-
–		D	-
TOTAL			506 669

39.5. Liquidity risk

The Group monitors risk to a shortage of funds by means of the tool for periodic planning of liquidity. This tool takes into account maturity dates of both investment and financial assets (e.g. receivables accounts, other financial assets), as well as projected cash flows from operating activities.

The goal of the Group is maintenance of balance between continuity and flexibility of financing through use of various resources of financing, such as overdraft facilities, bank credits, debentures, preferred shares and financial lease agreements.

Risks related to the business, including the risk of liquidity and the ability to generate appropriate cash flows, are also described in note 4.1 regarding the Group's going concern assumption.

The tables below present financial liabilities of the Group as of 31 December 2021 and 31 December 2020 according to the maturity date based on contractual non-discounted payments.

(in thousand PLN)

31 December 2021	*Less than 3 months*	*3 - 12 months*	*1-5 years*	*Over 5 years*	*Total*
Interest bearing loans and borrowings	1 982	190 694	134 043	123 943	450 662
Trade payables and other financial liabilities	217 263	34 624	463	4	252 354
Lease liabilities	5 388	927	23 488	18 027	47 830
Derivative financial instruments	-	675 706	-	-	675 706
Total	**224 633**	**901 951**	**157 994**	**141 974**	**1 426 552**

31 December 2020	*Less than 3 months*	*3 - 12 months*	*1 - 5 years*	*Over 5 years*	*Total*
Interest bearing loans and borrowings	7 713	47 290	-	-	55 003
Trade payables and other financial liabilities	155 351	32 910	5 248	-	193 509
Lease liabilities	5 403	927	25 320	19 845	51 495
Derivative financial instruments	396 972	-	-	-	396 972
Total	**565 439**	**81 127**	**30 568**	**19 845**	**696 979**

Derivative instruments indicated in above tables were presented in gross values of non-discounted payments. However, these contracts can be settled either in gross values, or net amounts.

The tables shown below present agreements of these values to balance sheet values of derivative instruments:

31 December 2021	*On demand*	*Less than 3 months*	*3 – 12 months*	*1 – 5 years*	*Over 5 years*	*Total*
Net present market value (currency forwards)	**-**	**10 540**	**-**	**-**	**-**	**10 540**

31 December 2020	*On demand*	*Less than 3 months*	*3 – 12 months*	*1 – 5 years*	*Over 5 years*	*Total*
Net present market value (currency forwards)	**-**	**6 550**	**-**	**-**	**-**	**6 550**

(in thousand PLN)

40. Financial instruments

40.1. Balance sheet value of particular classes of financial instruments

The table shown below presents a comparison between balance sheet values and fair values of all financial instruments of the Group, divided into particular classes and categories of assets and liabilities according to IFRS 9.

Financial assets	Category acc. to IFRS 9	*31 December 2021*	*31 December 2020*
Other financial assets	AFwgZK	22 772	5 091
Trade receivables and other receivables	AFwgZK	1 394 784	385 056
Derivative financial instruments	WwWGpWF	10 540	6 550
Cash and cash equivalents	AFwgZK	506 669	497 861
Financial liabilities			
Interest-bearing bank credits and loans, including:		451 771	55 003
Long term	PZFwgZK	249 226	-
Short term	PZFwgZK	202 545	55 003
Liabilities due to supplies and services and other financial liabilities	PZFwgZK	252 354	193 509
Lease liabilities	PZFwgZK	47 830	51 495
Derivative financial instruments	WwWGpWF	3 606	-

Used abbreviations:

WwWGpWF – *Financial assets/liabilities evaluated in the fair value by the financial result*
PZFwgZK – *Other financial liabilities evaluated according to the depreciated cost*
AFwgZK – *Financial assets according to amortized costs*

(in thousand PLN)

As of 31 December 2021 and 31 December 2020, the Group had following financial instruments evaluated in the fair value:

	31 December 2021	*Level 1*	*Level 2*	*Level 3*
Derivatives hedging assets	-	-	10 540	-
Derivatives hedging liabilities	-	-	3 606	-

	31 December 2020	*Level 1*	*Level 2*	*Level 3*
Derivatives hedging assets	-	-	6 550	-
Derivatives hedging liabilities	-	-	-	-

The fair value of financial instruments other than derivatives as at December 31, 2021 and December 31, 2020 did not deviate significantly from the carrying amounts, mainly due to the fact that for short-term instruments the effect of discounting is not material and the fact that the transactions are concluded at market conditions; for this reason, the fair value of these instruments has been presented at the carrying amount.

The valuation of interest-bearing loans and credits after the initial recognition is carried out according to the depreciated cost method, taking into account the contractual costs related to obtaining a given loan or borrowing as well as discounts and earned bonuses.

As at December 31, 2021, forward transactions for currency purchase were valued at fair value. For the purposes of valuing foreign exchange contracts, the difference between discounted future cash flows is calculated between the forward price on the valuation day and the transaction price, according to quotations prepared by the relevant bank, multiplied by the nominal value of the contract in a foreign currency. The valuation of these instruments has been classified to level 2 of the fair value measurement hierarchy.

In the period ended 31 December 2021 and the one ended 31 December 2020, there were no shifts between the level 1 and the level 2 of the fair value hierarchy, and none of instruments was shifted to the level 3 of the fair value hierarchy.

(in thousand PLN)

40.2. Items of revenue, costs, profits and losses included in the income statement divided into categories of financial instruments

Year ended 31 December 2021

	Revenues /(costs) due to interests (including effect of valuation with depreciated cost)	*Profits / (losses) due to exchange rate differences*	*Redemption / (creation) of impairment write-downs*	*Profits/(losses) due to derivative instruments*	*Other*	*Total*
Financial assets						
Cash and cash equivalents	1 268	(195)	-	-	-	1 073
Other short-term financial assets	(1 029)	-	-	-	-	(1 029)
Deliveries and services receivables	-	-	-	-	747	747
Other receivables	110	-	-	-	46	156
Derivative instrument	-	-	-	4 865	-	4 865
Financial liabilities						
Credit and loan liabilities (long- and short-term ones)	238	(21)	-	-	(598)	(381)
Deliveries and services liabilities	(44)	(2 322)	-	-	-	(2 366)
Other financial liabilities (without instruments)	(2)	-	(53 544)	-	(343)	(53 889)
Derivative instruments	-	-	-	-	-	-
Other liabilities	(92)	-	(6 528)	-	(251)	(6 871)
Total	449	(2 538)	(60 072)	4 865	(399)	(57 695)

(in thousand PLN)

Year ended 31 December 2020

	Revenues /(costs) due to interests (including effect of valuation with depreciated cost)	*Profits / (losses) due to exchange rate differences*	*Redemption / (creation) of impairment write-downs*	*Profits/(losses) due to derivative instruments*	*Other*	*Total*
Financial assets						
Cash and cash equivalents	1 854	260	-	-	-	2 114
Other short-term financial assets	-	-	-	-	-	-
Deliveries and services receivables	-	10 938	8	-	22	10 968
Other receivables	94	-	-	-	-	94
Derivative instrument	-	-	-	33 103	-	33 103
Financial liabilities						
Credit and loan liabilities (long- and short-term ones)	(2 298)	-	-	-	(269)	(2 567)
Deliveries and services liabilities	(51)	(7 390)	-	-	-	(7 441)
Other financial liabilities (without instruments)	(101)	-	-	-	-	(101)
Derivative instruments	-	-	-	-	-	-
Other liabilities	(38)	-	(10 614)	-	(1 208)	(11 860)
Total	(540)	3 808	(10 606)	33 103	(1 455)	24 310

40.3. Interest rate risk of financial instruments

The below table presents the Group's exposure to interest rate risk and concentration of this risk divided into currencies and kind of interest rate.

	Type of interest	*Carrying amount as of 31 December 2021*	*Carrying amount as of 31 December 2020*
Financial assets at interest rate risk – PLN	Fixed	-	-
	Variable	273 441	463 022
Financial assets at interest rate risk – Other currencies	Fixed	-	-
	Variable	237 211	38 310
Financial liabilities at interest rate risk - PLN	Fixed	-	-
	Variable	451 771	55 003
Financial liabilities at interest rate risk – Other currencies	Fixed	-	-
	Variable	-	-
Net exposure -PLN	Fixed	-	-
	Variable	(178 330)	408 019
Net exposure – other currencies	Fixed	-	-
	Variable	237 211	38 310

Interest rate of financial instrument of variable interest rate is updated in periods shorter than one year. Interests on financial instruments of the fixed interest rate are fixed through the whole period to the date of maturity of these instruments. Other financial instruments of the Group not included in the above tables are not subject to interest and they are not subject to interest rate risk.

40.3.1. Hedging

As at December 31, 2021, one of the Group's companies used instruments to mitigate the risk resulting from changes in foreign exchange rates. ZE PAK SA hedged the euro exchange rate for part of the flows related to the purchase of CO_2 emission allowances. ZE PAK SA used forward transactions with the settlement in March 2022 to secure the exchange rate.

Type of concluded transaction	*Currency cross*	*Transaction amount (nominal value in euro thousand) 31 December 2021*	*Net market value (fair value in złoty thousand) 31 December 2021*	*Maturity*
Purchase of EUR transactions (forward)	(EUR/PLN)	144 800	675 706	March 2022

Type of concluded transaction	*Currency cross*	*Transaction amount (nominal value in euro thousand) 31 December 2020*	*Net market value (fair value in złoty thousand) 31 December 2020*	*Maturity*
Purchase of EUR transactions (forward)	(EUR/PLN)	62 000	279 141	March 2021

The Group also hedges the risk of changes in the prices of CO_2 emission allowances by using forward transactions to purchase allowances for its own needs. The tables below present a summary of the forward transactions active as at December 31, 2021 and December 31, 2020.

31 December 2021

Type of concluded transactions	*Number of purchased allowances*	*Total value of transactions in EUR thousand*	*Currency of transactions*	*Maturity*
Forward transactions	4 892 000	270 762	EUR	Up to 1 year
Forward transactions	2 295 000	133 541	EUR	Over 1 year

31 December 2020

Type of concluded transactions	*Number of purchased allowances*	*Total value of transactions in EUR thousand*	*Currency of transactions*	*Maturity*
Forward transactions	7 460 000	191 189	EUR	Up to 1 year
Forward transactions	1 411 000	35 837	EUR	Over 1 year

41. Capital management

The main goal of the management of the Group's capital is maintenance of good credit rating and safe equity ratios, which would support the Group's operating activities and increased the values for its shareholders.

The Group manages the capital structure, and, as a result of changes of economic conditions, introduces amendments to it. In the period, ended 31 December 2021 and 31 December 2020, there were no introduced amendments to goals, rules and processes applying in this area.

The Group monitors the balance of its capitals using the leverage ratio, which is calculated as a relation of net debt to the sum of capitals enlarged with net debt. The Group includes interest bank credits and loans, liabilities due to supplies and services, and other liabilities, decreased by the cash and cash equivalents in the net debt. The capital includes the equity decreased by reserve capitals due to unrealised net profits.

	31 December 2021	*31 December 2020*
Interest-bearing credits and loans	451 771	55 003
Derivative financial instruments (liabilities)	3 606	-
Trade liabilities and other financial liabilities	252 354	193 509
Minus cash and its equivalents	506 669	497 861
Net debt	**201 062**	**(249 349)**
Equity	524 232	949 463
Capitals from revaluation of security instruments	-	-
Total capital	524 232	949 463
Net capital and debt	**725 294**	**700 114**
Leverage ratio	27,72%	(35,62%)

42. Employment structure

The average employment in the Group for the years ended 31 December 2021 and 31 December 2020 was developing as follows:

(in thousand PLN)

	Year ended 31 December 2021	*Year ended 31 December 2020*
Management Board of the parent company	5	5
Management Boards of the Group's entities	9	7
Administration	101	208
Sales department	83	92
Production division	3 037	3 617
Other	374	378
Total	3 609	4 307

43. Significant events after the balance sheet date

The undertaking by PAK-Polska Czysta Energia sp. z o.o. decisions on taking a loan and granting loans to project companies in order to implement the "Miłosław" wind project

On February 25, 2022, PAK-Polska Czysta Energia sp. z o.o. decided to (i) conclude a loan agreement between PAK-PCE as the borrower and Cyfrowy Polsat S.A. as the lender, (ii) conclusion of a loan agreement between PAK-PCE as the lender and Park Wiatrowy Pałczyn 1 sp. z o.o. as the borrower and (iii) conclusion of a loan agreement between PAK-PCE as the lender and Park Wiatrowy Pałczyn 2 sp. z o.o. as a borrower.

The above-mentioned loan agreements were concluded in order to enable the financing of an investment project consisting in the implementation of renewable energy installations in the form of four wind farms within the commune of Miłosław, Września poviat, Wielkopolskie voivodship.

The loan agreements provide that loans may be taken out in PLN or EUR by PAK-PCE, Pałczyn 1 Wind Park and Pałczyn 2 Wind Park, respectively, on the terms specified taking into account the demand resulting from the investment project implementation schedule, while the loan agreements provide for possibility for borrowers to obtain alternative forms of financing an investment project and potential early repayment of loans granted on the basis of loan agreements. The interest rate of the loans is variable, based on the WIBOR rate.

Acquisition by PAK-Polska Czysta Energia sp. z o.o. the wind project „Przyrów"

On March 4, 2022 PAK-Polska Czysta Energia sp. z o.o. acquired from the KI Foundation, a foundation established and operating in accordance with the laws of the Republic of Malta, 200 (two hundred) shares with a nominal value of PLN 50.00 each, constituting a total of 100% of the share capital of Farma Wiatrowa Przyrów sp. z o.o. based in Warsaw.

PAK-PCE acquired shares from the seller as part of an investment project consisting in the implementation by PAK-PCE of renewable energy installations in the form of a group of 14 (fourteen) wind farms within the Przyrów commune, Częstochowa poviat, Śląskie voivodship.

The investment project provides for the construction of a wind farm consisting of 14 (fourteen) wind turbines with a total capacity of 42 MW in Przyrów. The wind conditions in this region allow the annual production of the farm to be estimated at nearly 105.2 GWh. The project has a complete set of administrative and legal permits allowing the commencement of construction works on wind turbines. The transaction documentation provides for obtaining a complete set of administrative and legal permits allowing for the completion of construction works and connection of the farm to the network. The expected date of launching the farm is the third quarter of 2024 at the latest. The total estimated capital expenditure related to the acquisition and implementation of the farm will amount to nearly PLN 342 million.

Acquisition of project companies and conclusion of a shareholders' agreement with Ørsted Wind Power A/S

On March 8, 2022, the Group concluded a share sale agreement with Ørsted Wind Power A / S based in Fredericia, Denmark (ORS), relating to 5 project companies, as a result of which the Group acquired from ORS 50% of the share capital of the companies: Orsted Polska OF SPV 1 sp. z o.o., Orsted Polska OF SPV 2 sp. z o.o., Orsted Polska OF SPV 3 sp. z o.o., Orsted Polska OF SPV 4 sp. z o.o. and Orsted Polska OF SPV 5 sp. z o.o. (Joint Venture Companies). The parties obtained the consent of the President of the Office of Competition and Consumer Protection for the concentration, consisting in the establishment by ORS and the Company of five joint entrepreneurs on December 16, 2021.

The parties also concluded a shareholders' agreement on March 8, 2022, specifying the principles of corporate governance in the Joint Venture Companies and the terms of further cooperation.

The parties plan to jointly submit applications for the issuance of permits for the construction and use of artificial islands, structures and devices in the maritime areas of the Republic of Poland for offshore wind farm projects in the next resolving procedure, conducted in accordance with Art. 27d et seq. the Act of March 21, 1991 on the maritime areas of the Republic of Poland and maritime administration.

Changes in the composition of the Supervisory Board of the Company

On March 10, 2022, the Extraordinary General Meeting of Shareholders of the Company appointed three new members to the Supervisory Board of the Company: Mr. Jarosław Grzesiak, Mr. Tobias Solorz and Mr. Piotr Żak. The appointment resolutions entered into force upon their adoption.

On March 30, 2022, Mr. Leszek Wysłocki resigned from membership in the Supervisory Board of the Company.

On April 13, 2022, the Supervisory Board of the Company adopted a resolution on entrusting the function of Deputy Chairman to Mr. Piotr Żak. On April 22, 2022, the Extraordinary General Meeting of Shareholders of the Company established a new number of members of the Supervisory Board of the Company and dismissed Mr. Grzegorz Krystek from the function of a member of the Supervisory Board.

The war in Ukraine

On February 24, 2022, Russian troops entered Ukraine, and thus an armed conflict broke out between these countries. The armed conflict in the immediate vicinity of Poland's borders has a very large impact on the social, economic and political situation both in Poland and in the entire region. The impact of this conflict is also significant from the point of view of the geopolitical balance of power in the world.

Although the Group focuses its activities on the domestic market and there are no direct links with Russia and Ukraine, the impact of the armed conflict on the Group's activities is felt through indirect channels. As both countries play an important role as producers and exporters of a wide range of goods, one of the first consequences of the conflict was the significantly increased volatility in the commodity and financial markets. This applies in particular to the energy resources sector and the agricultural sector. The impossibility of foreseeing all the consequences of the armed conflict in Eastern Europe also makes investors less willing to take risks.

High volatility on the commodity markets (especially on the energy market and the CO_2 emission allowances market) means for the Group the risk of having to replenish the deposits securing open positions on the futures market. In extreme situations, this may lead to problems with ensuring adequate liquidity. In turn, a lower propensity to risk in financial markets may lead to a lower valuation of assets and currencies in markets such as Poland, in the immediate vicinity of war zones, which may mean a worse valuation of the Group's assets and increased operating costs.

Significant from the point of view of the Group's operations is also the scope of sanctions imposed on countries such as Russia or Belarus due to the impact of these sanctions on trade in relation to specific goods, especially energy raw materials. Russia is one of the largest suppliers of gas and oil to Europe. The reduction in the supply of these raw materials translates significantly into the level of electricity prices in Europe and also in Poland, mainly due to the cross-border exchange of electricity. In turn, Belarus is an important supplier of biomass for the energy sector in Poland, and although the Group has never imported biomass from Belarus to its installations, the lack of imports from this direction will affect the increase in biomass prices on the domestic market, which will certainly also affect the supplies carried out by the Group.

In the present situation, it is impossible to precisely predict the scale of the ongoing armed conflict or its duration, and it is also impossible to predict all the consequences of this conflict that could directly or indirectly affect the Group's operations. The development of the situation is monitored by the Group on an ongoing basis, and measures are also taken to mitigate the unfavourable consequences of the unstable situation. The group increased, among others availability of various forms of securing one's positions on the forward energy and CO_2 emission allowances market, talks are also conducted with biomass suppliers in order to develop mutually satisfactory solutions in the field of biomass supplies. In the current situation, the Group assesses the degree of the impact of the consequences of the armed conflict on its activities as moderate. This report does not disclose additional adjustments and provisions for the situation in Ukraine.

Consent to the target regulation of an organized part of the enterprise of ZE PAK SA related to energy activities carried out under the PAK Pątnów Power Plant for PAK Pątnów, i.e. lease and then in-kind contribution to PAK Pątnów sp. z o.o.

On March 10, 2022, the Extraordinary General Meeting of ZE PAK SA adopted a resolution on consenting to the target regulation of an organized part of the enterprise including a group of assets and non-property assets and a team of employees necessary to conduct business activities within the Pątnów Power Plant, which consists in independent and comprehensive production electricity and heat using Pątnów 1 Power Plant (644 MW installed capacity) and Pątnów 2 Power Plant (474 MW installed capacity), hereinafter referred to as "ZCP Pątnów", which will be sold in two stages - lease of ZCP Pątnów to PAK Pątnów sp. z o.o. with headquarters in Konin and contributing ZCP Pątnów in kind to PAK Pątnów sp. z o.o. based in Konin.

The Extraordinary General Meeting of ZE PAK SA authorized the Management Board of the Company to take all steps necessary to implement the adopted Resolution.

Consent for the lease of an organized and sale of a part of the ZE PAK SA enterprise related to energy activities conducted under the Konin Power Plant

On April 22, 2022, the Extraordinary General Meeting of ZE PAK SA adopted a resolution on granting consent to the lease of an organized part of the Company's enterprise, which includes in particular: land real estate owned or in perpetual usufruct by the Company, on which generation assets are located, electrical switchboards with transmission infrastructure, workshops, office buildings and others, accompanying infrastructure, contracts and some employees necessary for running a business by the Konin Power Plant (ZCP Konin), for the company PAK - PCE Biopaliwa i Wodór sp. z o.o.

Also on April 22, 2022, the Extraordinary General Meeting of ZE PAK SA adopted a resolution on granting consent to the disposal of an organized part of the Company's enterprise, which includes in particular: land property or perpetual usufruct of the Company, on which production assets are located, electrical switchboards with transmission infrastructure, workshops, office buildings and others, accompanying infrastructure, contracts and some employees necessary for running a business by the Konin Power Plant (ZCP Konin) for the company PAK - PCE Biopaliwa i Wodór sp. z o.o.

Konin, 28 April 2022

SIGNATURES:

Piotr Woźny
President of the Management Board ………………………………………………………..

Zygmunt Artwik
Vice-President of the Management Board ....

Maciej Nietopiel
Vice-President of the Management Board ....

Andrzej Janiszowski
Vice-President of the Management Board ....

Katarzyna Sobierajska
Vice-President of the Management Board ……………………………………………………………

Aneta Desecka
Chief Accountant ....