CONSOLIDATED FINANCIAL STATEMENTS

of Zespół Elektrociepłowni Wrocławskich KOGENERACJA S.A.
for the period from 1 January to 31 December 2022

in accordance with EU IFRS (in PLN thousand)

ZESPÓŁ ELEKTROCIEPŁOWNI WROCŁAWSKICH
KOGENERACJA SA

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I. Consolidated statement of comprehensive income for the period ended 31 December 2022

	Note	For the year ended 31 December 2022 current period	For the year ended 31 December 2021 previous period
Revenue from sales	1	1 812 201	1 434 506
Cost of sales	3	(1 544 492)	(1 233 460)
Revenue/(cost) of compensation for stranded costs	2	1 996	(57 655)
Gross profit on sales		**269 705**	**143 391**
Other operating income	4	17 243	21 476
Selling and distribution expenses	3	(62 082)	(31 741)
General and administrative expenses	3	(60 355)	(62 658)
Other operating expenses	4	(3 742)	(3 664)
Operating profit		**160 769**	**66 804**
Finance income		36 243	9 279
including: interest income		*36 145*	*3 084*
Finance expenses		(7 474)	(3 309)
Net finance income	5	**28 769**	**5 970**
Profit before tax		**189 538**	**72 774**
Income tax	6	(37 556)	(15 987)
Net profit		**151 982**	**56 787**
Other comprehensive income, net of tax		**(1 694)**	**3 886**
Items that may be reclassified to profit or loss in the future:			
Valuation of hedging instruments		(2 405)	3 769
Deferred tax	6a	457	(716)
Items that will not be reclassified to profit or loss in the future:			
Actuarial gains related to employee benefits		314	1 029
Deferred tax	6a	(60)	(196)
Total comprehensive income		**150 288**	**60 673**
Net profit attributable to			
the ordinary shareholders	22	149 534	56 254
non-controlling interests		2 448	533
Total comprehensive income attributable to			
the ordinary shareholders		147 871	60 091
non-controlling interests		2 417	582
Basic earnings per share attributable to shareholders of the Parent Company *(in PLN)*	22	10,04	3,78
Diluted earnings per share attributable to shareholders of the Parent Company *(in PLN)*	22	10,04	3,78

KOGENERACJA S.A. Group Consolidated financial statements for the period from 1 January to 31 December 2022, in accordance with EU-adopted IFRS (in PLN thousand)

II. Consolidated statement of financial position as at 31 December 2022

	Note	As at 31 December 2022 current period	As at 31 December 2021 previous period *(transformed data)*
Non-current assets			
Property, plant and equipment	7	2 043 288	1 660 523
Intangible assets, including:	8	42 215	42 353
- goodwill on related parties		*41 559*	*41 559*
Right-of-use assets	9	99 807	67 885
Investment property	10	13 380	14 047
Financial receivables	11	4 800	5 086
Other non-current assets	12	83 273	126 221
Shares, interests and other capital instruments	13	19	19
Carbon-dioxide emission rights acquired for redemption	17	4 028	15 756
Deferred tax assets	15	73 120	73 760
Total non-current assets		**2 363 930**	**2 005 650**
Current assets			
Inventories	16	94 034	63 970
Carbon-dioxide emission rights acquired for redemption	17	168 653	202 502
Derivatives and other assets measured at fair value through profit or loss	18	-	2 731
Income tax receivables	15	-	11 222
Trade receivables and other financial receivables	11	770 611	856 515
Other current assets	12	128 440	42 343
Cash and cash equivalents	19	5 170	21 924
Total current assets		**1 166 908**	**1 201 207**
Total assets		**3 530 838**	**3 206 857**

KOGENERACJA S.A. Group Consolidated financial statements for the period from 1 January to 31 December 2022, in accordance with EU-adopted IFRS (in PLN thousand)

Consolidated statement of financial position as at 31 December 2022 (continued)

	Note	As at 31 December 2022 current period	As at 31 December 2021 previous period
Equity	21		
Share capital		252 503	252 503
Share premium		251 258	251 258
Hedging reserve		-	1 917
Other reserve capital		782 672	763 977
Retained earnings		596 303	469 978
Equity attributable to ordinary shareholders		**1 882 736**	**1 739 633**
Non- controlling interests		9 185	6 768
Total equity		**1 891 921**	**1 746 401**
Liabilities			
Non-current liabilities			
Long-term borrowings and lease liabilities	23	104 915	55 632
Deferred tax liability	15	24 515	73 788
Deferred income and government grants	24	83 116	88 000
Other financial liabilities	25	374 918	436 981
Employee benefit liabilities	26	1 027	1 475
Long-term provisions	27	24 388	27 750
Total non-current liabilities		**612 879**	**683 626**
Current liabilities			
Short-term borrowings and lease liabilities	23	7 516	2 335
Derivatives	18	148	2
Income tax payables	15	49 314	11 436
Deferred income and government grants	24	5 873	6 388
Trade payables and other financial liabilities	25	400 286	463 952
Other non-financial liabilities	25	25 749	20 193
Employee benefit liabilities	26	21 727	19 719
Short-term provisions	27	515 425	252 805
Total current liabilities		**1 026 038**	**776 830**
Total liabilities		**1 638 917**	**1 460 456**
Total equity and liabilities		**3 530 838**	**3 206 857**

KOGENERACJA S.A. Group Consolidated financial statements for the period from 1 January to 31 December 2022, in accordance with EU-adopted IFRS (in PLN thousand)

III. Consolidated statement of cash flows for the period ended 31 December 2022

	Note	For the year ended 31 December 2022 current period	For the year ended 31 December 2021 previous period (transformed data)
Cash flows from operating activities			
Profit before tax		**189 538**	**72 774**
Income tax paid		(36 690)	(34 732)
Adjustments for:			
Depreciation, amortisation and impairment losses	3	202 993	185 934
Profit on investing activity		65	-
Profit on disposal of property, plant and equipment		(342)	(596)
Interest and dividends		(29 913)	(453)
Change in trade receivables and other financial receivables	30	27 852	(97 934)
Change in other assets		(86 582)	(32 942)
Change in inventories		(30 064)	56 326
Change in carbon-dioxide emission rights acquired for redemption		45 577	(159 178)
Change in trade payables and other financial and non-financial liabilities except for loans and borrowings	31	(110 932)	260 092
Change in deferred income and government grants		(7 077)	(5 737)
Change in employee benefits		1 560	775
Change in provision		259 572	36 007
Other adjustments		-	(86)
Net cash from operating activities		**425 557**	**280 250**
Cash flows from investing activities			
Proceeds from disposal of intangible and tangible fixed assets		4 102	621
Proceeds from disposal of financial assets		80	-
Receipt of lease instalments and interest		309	311
Interest received under cash pooling		29 983	2 900
Funds transferred under cash pooling		(115 622)	(18 114)
Purchases of intangible assets and property, plant and equipment	32	(548 538)	(324 836)
Purchases of financial assets		-	(19)
Net cash from investing activities		**(629 686)**	**(339 137)**
Cash flows from financing activities			
Proceeds from loans		21 290	-
Receipts from cash pooling		176 913	65 506
Grants received		1 679	4 255
Dividends and other payments to shareholders		(4 768)	-
Interest paid on cash pooling		(234)	-
Repayment of lease liabilities		(7 505)	(3 033)
Net cash from financing activities	33	**187 375**	**66 728**
Total net cash flows		**(16 754)**	**7 841**
Net change in cash and cash equivalents		**(16 754)**	**7 841**
Cash and cash equivalents at the beginning of the period	19	21 924	14 083
Cash and cash equivalents at the end of the period	19	5 170	21 924

KOGENERACJA S.A. Group Consolidated financial statements for the period from 1 January to 31 December 2022, in accordance with EU-adopted IFRS (in PLN thousand)

IV. Consolidated statement of changes in equity for the period ended 31 December 2022

	Share capital	Share premium	Hedging reserve	Other reserve capital	Retained earnings	**Share capital attributable to ordinary shareholders**	Non-controlling interest	**TOTAL equity**
Equity as at 1 January 2022	**252 503**	**251 258**	**1 917**	**763 977**	**469 978**	**1 739 633**	**6 768**	**1 746 401**
Net profit	-	-	-	-	149 534	**149 534**	2 448	**151 982**
Other comprehensive income	-	-	(1 917)	-	254	**(1 663)**	(31)	**(1 694)**
Total comprehensive income	-	-	**(1 917)**	-	**149 788**	**147 871**	**2 417**	**150 288**
Transactions with owners:								
Dividends due or paid to shareholders	-	-	-	-	(4 768)	**(4 768)**	-	**(4 768)**
Distribution of profit to other capital reserves	-	-	-	18 695	(18 695)	-	-	-
Equity as at 31 December 2022	**252 503**	**251 258**	-	**782 672**	**596 303**	**1 882 736**	**9 185**	**1 891 921**

	Share capital	Share premium	Hedging reserve	Other reserve capital	Retained earnings	**Share capital attributable to ordinary shareholders**	Non-controlling interest	**TOTAL equity**
Equity as at 1 January 2021	**252 503**	**251 258**	**(1 087)**	**764 413**	**412 455**	**1 679 542**	**6 186**	**1 685 728**
Net profit	-	-	-	-	56 254	**56 254**	533	**56 787**
Other comprehensive income	-	-	3 004	-	833	**3 837**	49	**3 886**
Total comprehensive income	-	-	**3 004**	-	**57 087**	**60 091**	**582**	**60 673**
Transactions with owners:								
Coverage of losses from other reserve capital	-	-	-	(436)	436	-	-	-
Equity as at 31 December 2021	**252 503**	**251 258**	**1 917**	**763 977**	**469 978**	**1 739 633**	**6 768**	**1 746 401**

KOGENERACJA S.A. Group Consolidated financial statements for the period from 1 January to 31 December 2022, in accordance with EU-adopted IFRS (in PLN thousand)

B. Notes to the consolidated financial statements

I. General information

1. Basic information about the Group

Zespół Elektrociepłowni Wrocławskich KOGENERACJA S.A. (KOGENERACJA S.A., "Parent Company," "Company") is the parent company of Zespół Elektrociepłowni Wrocławskich KOGENERACJA S.A. Group ("Group," "KOGENERACJA S.A. Group").

The Parent Company was registered in Poland and entered into the Register of Entrepreneurs in the District Court for Wroclaw-Fabryczna, 6th Business Division of the National Court Register on 19 February 2001 under KRS No. 0000001010. The Parent Company is seated in Wrocław at ul. Łowiecka 24. The Company's duration is unlimited.

Zespół Elektrociepłowni Wrocławskich KOGENERACJA S.A.	
Address:	ul. Łowiecka 24, 50-220 Wrocław
Phone:	71/32-38-111
Fax:	71/32-93-521
Company's website:	http://www.kogeneracja.com.pl
E-mail address:	kogeneracja@kogeneracja.com.pl
REGON:	931020068
NIP:	896-000-00-32
KRS:	0000001010
LEI:	529900IIZX8UAI8MJ703

Business activities of the Parent Company and its consolidated subsidiary include the following:

- production of electricity and heat,
- wholesale and retail sales of electricity, heat, power industry products and services, distribution of heat and electricity.

The business operations of the Parent Company are conducted on the basis of relevant licences granted to KONGREGACJA S.A. in production plants in Wrocław and Siechnice (near Wrocław).

Since 13 November 2017, the KOGENERACJA S.A. Group belongs to the PGE Polska Grupa Energetyczna S.A Group.

The parent shareholder of the Company is PGE Energia Ciepła S.A.

As at 31 December 2022, KOGENERACJA S.A. and its subsidiary, EC Zielona Góra S.A., were consolidated under the full method by the ultimate parent company, PGE Polska Grupa Energetyczna S.A. with its registered office in Lublin. On 1 July 2022, the registered office of PGE S.A. was moved from Warsaw to Lublin on the basis of Resolution No. 4 of the Extraordinary General Meeting of 6 April 2022.

The consolidated financial statements for the period ended 31 December 2022 include financial statements of the Parent Company and its subsidiary (collectively referred to as the "Group").

The Company's accounting books are kept by PGE Energia Ciepła S.A.

KOGENERACJA S.A. Group Consolidated financial statements for the period from 1 January to 31 December 2022, in accordance with EU-adopted IFRS (in PLN thousand)

2. Composition of the Parent Company's Management Board

As at 1 January 2022, 31 December 2022, and at the date of publication of these financial statements, theParent Company's Management Board was composed of the following persons:

Andrzej Jedut – President of the Management Board,
Krzysztof Kryg – Vice-President of the Management Board.

3. Shareholders

Table: List of shareholders holding directly or indirectly through subsidiaries at least 5% of the total number of votes at the General Meeting of KOGENERACJA S.A.

	Share (%)	
	As at 31 December 2022	**As at 31 December 2021**
PGE Energia Ciepła S.A.	58,07	58,07
Aviva OFE Aviva Sandander *	9,99	9,99
OFE PZU "Złota Jesień"	8,02	8,02
Aegon OFE	5,78	5,86
Nationale-Nederlanden OFE	5,01	5,01

* On 2 January 2023, Aviva Otwarty Fundusz Emerytalny Aviva Santander changed its name to Second Allianz Polska Otwarty Fundusz Emerytalny.

The shareholding status was updated according to data gathered after the Parent Company's Extraordinary General Meeting held on 28 October 2022 (*Current Report 34/2022*) and on the basis of the notice provided by Powszechne Towarzystwo Emerytalne Allianz Polska S.A.(*Current Report 2/2023*).

4. Subsidiaries

Accounting policies

Subsidiaries are entities which the Group controls. The Group exercises control when:
- it has authority over a given entity,
- it is exposed to variable returns or has rights to variable returns on its investment in a given entity,
- it can use its authority in order to shape the level of returns.

The Parent Company verifies the control over entities in case of a change in one or more of the above-mentioned conditions of control.

KOGENERACJA S.A. Group Consolidated financial statements for the period from 1 January to 31 December 2022, in accordance with EU-adopted IFRS (in PLN thousand)

Table: The percentage share of the Parent Company in the consolidated subsidiary is as follows (direct share):

	Share (%)	
	As at 31 December 2022	**As at 31 December 2021**
EC Zielona Góra S.A.	98,40	98,40

EC Zielona Góra S.A. is a company that produces electricity as well as produces and distributes heat. The company's registered office is located in Zielona Góra at al. Zjednoczenia 103.

As at 31 December 2022 and 31 December 2021, the share of the total number of votes held by the Group in the subsidiary is equal to the Group's interest in the entity capital.

On 1 March 2021, EC Zielona Góra S.A. held an Extraordinary General Meeting, which resolved on a compulsory buyout of minority shareholders representing in total less than 5% of the company's share capital. KOGENERACJA S.A. is obliged to purchase all the shares subject to the compulsory buyout. The compulsory buyout covers 8 849 shares of EC Zielona Góra S.A. The adoption of the resolution on the compulsory buyout of minority shareholders constitutes the execution of the right of the majority shareholder provided for in Article 418 of the Code of Commercial Companies.

The General Meeting appointed an auditor to determine the price for the buyout of shares through compulsory buyout of minority shareholders.

On 10 May 2021, the subsidiary EC Zielona Góra S.A. received a copy of the decision of the Regional Court in Poznań, 9th Business Division, on securing the claims indicated in the lawsuit filed by the City of Zielona Góra regarding:

- repealing Resolution No. 2 of the Extraordinary General Meeting of 1 March 2021 on the compulsory buyout of minority shareholders,
- invalidity of Resolution No. 3 of the Extraordinary General Meeting of 1 March 2021 on the appointment of an expert to determine the price of the compulsory buyout of minority shareholders.

On 24 May 2021, the subsidiary filed a reply to the lawsuit of the City of Zielona Góra of 1 April 2021. On 29 June 2021, the subsidiary filed a complaint against the decision of the Regional Court in Poznań, 9th Business Division, of 22 April 2021 on securing the claims of the City of Zielona Góra.

By a decision of the Regional Court in Poznań, 9th Business Division, of 24 September 2021, the order was revoked and the application for security was dismissed. In view of the elimination from legal circulation of the security, the said resolutions are enforceable.

On 2 March 2023, the Management Board of EC Zielona Góra S.A. announced in Monitor Sądowy i Gospodarczy the share buyout price of PLN 1 108,5 per share as determined by an expert. Within 3 weeks of the announcement of the buyout price, KOGENERACJA S.A. paid EC Zielona Góra S.A. the entire buyout price to 8 849 minority shareholders. The Management Board of EC Zielona Góra S.A. will pay the buyout price to minority shareholders and, in accordance with Article 418 of the Code of Commercial Companies, they will lose their rights under the shares. Subsequently, the Management Board of EC Zielona Góra S.A. will transfer the shares of minority shareholders to KOGENERACJA S.A. in the shareholder register of PGE Dom Maklerski, as a result of which KOGENERACJA S.A. will hold 100% of shares in the share capital of EC Zielona Góra S.A.

5. Companies covered by the consolidated financial statements

As at 31 December 2022, KOGENERACJA S.A., the Parent Company of the Group, included its subsidiary, EC Zielona Góra S.A. in the consolidated financial statements (full consolidation).

6. Changes in the Group's structure in 2022

In 2022, there were no changes in the KOGENERACJA S.A. Group's structure.

II. Basis for preparation of the financial statements

1. Statement of compliance

The KOGENERACJA S.A. Group has prepared the separate financial statements in accordance with the International Financial Reporting Standards approved by the European Union (hereinafter referred to as the EU IFRSs), and, to the extent not regulated in the above standards, in accordance with the requirements set forth in the Accounting Act of 29 September 1994 and related implementing provisions.

EU IFRSs include all International Accounting Standards (IAS), International Financial Reporting Standards (IFRS), and related Interpretations except for Standards and Interpretations that are awaiting approval by the European Union as well as Standards and Interpretations that have been approved by the European Union, but have not yet come into force.

The consolidated financial statements have been prepared on the historical cost basis, except for assets and liabilities measured at fair value: derivatives, financial instruments measured at fair value through profit or loss or other comprehensive income.

These consolidated financial statements were drawn up based on the assumption that the Group's companies will continue its operation in the foreseeable future. As at the date of approval of these consolidated financial statements, there are no circumstances indicating a threat to the continued operation of the Group's companies.

These consolidated financial statements of the KOGENERACJA S.A. Group cover the period from 1 January 2022 to 31 December 2022 and comparative data for the period from 1 January 2021 to 31 December 2021.

The consolidated financial statements present fairly the financial position and assets of the Group as at 31 December 2022, its operating results, and its cash flows for the year ended 31 December 2022.

These consolidated financial statements use the accounting policies and calculation methods applicable to companies within PGE S.A. Group.

The accounting policies used in the preparation of these financial statements are described in the individual detailed notes and have been applied for all periods presented in the consolidated financial statements. The accounting policies have been applied by all Group entities directly in their accounting books or by means of appropriate restatements in the data prepared in accordance with the Accounting Act and included in the consolidation documentation.

2. Presentation and functional currency

The data in the consolidated financial statements are given in Polish zloty (PLN) (the functional currency of the Parent Company and the presentation currency of these consolidated financial statements), rounded to the nearest thousands.

Transactions denominated in foreign currencies are translated, at initial recognition, into the functional currency at the average exchange rate of the National Bank of Poland prevailing on the day before the transaction date.

At least on each reporting date:

- monetary items expressed in a foreign currency are translated using the closing rate (the closing rate is the average rate for a given currency as quoted by the National Bank of Poland on that date),
- non-monetary items measured at historical cost in a foreign currency are translated using the exchange rate at the date of the original transaction (the rate of the bank used by the entity),
- non-monetary items measured at fair value in a foreign currency are translated using the exchange rate at the date the fair value was determined.

3. New standards and interpretations that have been issued but are not yet effective

The following standards, amendments to existing standards, and interpretations have not been adopted by the European Union or are not effective as of 1 January 2022.

- Amendments to IAS 1 *Presentation of financial statements* address liabilities classified as current or non-current, effective for annual periods beginning on or after 1 January 2023.
- Amendments to IAS 1 *Presentation of financial statements* address disclosures about accounting policies applied, effective for annual periods beginning on or after 1 January 2023.
- Amendments to IAS 8 *Accounting policies, changes in accounting estimates, and errors*, concerning the introduction of a definition of accounting estimates, effective for annual periods beginning on or after 1 January 2023.
- Amendments to IAS 12 *Income Taxes*, concerning deferred tax related to assets and liabilities arising from a single transaction, effective for annual periods beginning on or after 1 January 2023.
- IFRS 17 *Insurance contracts*, as amended, effective for annual periods beginning on or after 1 January 2023. The Standard defines a new approach to recognition of revenues and profit/loss in the period of insurance services.
- Amendments to IFRS 17 *Insurance contracts*, address the first-time adoption of IFRS 17 and IFRS 9 (comparative information), effective for annual periods beginning on or after 1 January 2023.
- Amendments to IFRS 16 *Leases* address how to measure the liability for sale and leaseback transactions, effective for annual periods beginning on or after 1 January 2024.
- IFRS 14 *Regulatory Deferral Accounts* – according to the decision of the European Commission, the process of adoption of the draft standard will not be initiated before the publication of the final version of the standard – not adopted by the European Union by the date of approval of these financial statements.
- Amendments to IFRS 10 *Consolidated financial statements* and IAS 28 *Sales or contributions of assets between an investor and its associate/joint venture* – the effective date has been postponed indefinitely.

KOGENERACJA S.A. Group Consolidated financial statements for the period from 1 January to 31 December 2022, in accordance with EU-adopted IFRS (in PLN thousand)

The effective dates are the dates arising from the standards published by the International Financial Reporting Board. The effective dates of the standards in the European Union may differ from the effective dates arising from the standards and are announced upon the adoption of the standards by the European Union.

The Parent Company estimates that the above-mentioned new standards and amendments to existing standards would not have a significant impact on the financial statements, if they had been applied by the Group's companies as at the balance sheet date.

4. Changes in accounting policies and data presentation

In the consolidated financial statements for the year ended 31 December 2022, the KOGENERACJA S.A. Group applied the same accounting policies as in the consolidated financial statements for the year ended 31 December 2021 with the following exceptions: application of new or amended standards and interpretations applicable to annual periods beginning on 1 January 2022 and later, and change of the comparative data in order to adjust them to the accounting policies of the PGE S.A. Group.

New rules and interpretations effective as of 1 January 2022

- Amendments to IFRS 1, IFRS 9, IFRS 16, and IAS 41. The amendments provide explanation and clarify the standards' guidance on recognition and measurement. For IFRS 16 *Leases*, the example illustrating the treatment of lease incentives has been amended.
- Amendments to IAS 37 *Provisions, contingent liabilities, and contingent assets* concern clarification of the range of costs to be taken into account in assessing whether a contract results in net liabilities.
- Amendments to IAS 16 *Property, plant and equipment* deal with how to recognize revenue earned before a non-current asset is commissioned.
- Amendments to IFRS 3 *Business combinations* relate to updating the references to the conceptual assumptions.

The above amendments do not significantly affect the consolidated financial statements.

The Group has not opted for early adoption of any other standard, interpretation, or amendment that has been published but is not yet effective.

Change in data presentation

Upon verification of the accounting and reporting recognition of the individual items of the statements with the accounting policy of the PGE S.A. Group, in the statement of financial position as at 31 December 2021, CO_2 emission rights acquired for cancellation for 2024 and 2025 in the amount of PLN 15 756 thousand were reclassified from current assets to non-current assets.

Table: Change in data presentation in the *Statement of Financial Position* as at 31 December 2021

	As at 31 December 2021 previous period *(approved data)*	**Resteatments**	**As at 31 December 2021** previous period *(transformed data)*
Carbon-dioxide emission rights acquired for redemption (long-term)	-	15 756	15 756
Carbon-dioxide emission rights acquired for redemption (short-term)	218 258	(15 756)	202 502

The changes had no impact on the Group's net profit.

5. Professional judgement and uncertainty over estimates and assumptions

For the financial statements to be drawn up in accordance with the International Financial Reporting Standards as adopted by the European Union (EU IFRSs), the Management Board has to give its opinions and make assessments and assumptions which influence the accepted policies and presented values of assets, liabilities, revenues, and expenses. Estimates and the related assumptions are based on the historical experience and other factors deemed reasonable under given circumstances. Their results constitute a basis for an opinion as to the balance sheet value of the assets and liabilities which do not result directly from other sources. The actual value may vary from the estimate. Estimates and the related assumptions are regularly reviewed. Changes in the accounting estimates are disclosed in the period in which the estimate was changed or in the current and future periods if the change made in the estimate refers to both the current period and future periods. Details of the opinions, estimates, and assumptions made are set out below or in the relevant notes.

- Depreciation – every year, the Group verifies the expected useful lives of its fixed assets and changes the depreciation rates of fixed assets based on the verification.
- The compensation for covering the stranded costs of KDTs are presented in Chapter III *Notes to the financial statements*, item 2.
- The Group operates in one operating segment "Production and distribution of electricity and heat". The Parent Company's Management Board makes a professional judgement in identifying the segments in accordance with IFRS 8. The detailed approach to identification of segments and basic financial data are presented in Note 34 to these consolidated financial statements.
- For the purpose of impairment testing, the Group identified cash-generating units. Two cash-generating units were identified for the Group: Zespół Elektrociepłowni Wrocławskich KOGENERACJA S.A. and EC Zielona Góra S.A. The impairment testing for cash-generating units to which goodwill was allocated is presented in Note 8.
- Revenue comprises gross inflows of economic benefits for a given period arising from the (ordinary) business activities of the Company, resulting in increasing the Company's equity.
- During the reporting period, the Group updated its asset impairment losses. Detailed information on impairment losses is presented in chapter III *Notes to the financial statements*, item 20.
- The Group estimates actuarial liabilities (provisions) for pension benefits. The assumptions relating to these liabilities are presented in chapter III *Notes to the financial statements*, item 27.
- Provisions are liabilities with uncertain amount or due dates. During the reporting period, the Group changed its estimates regarding the validity or the amount of certain provisions. In particular, the provision for CO_2 emission rights deficiency the provision for reclamation costs, and the provision for employee benefits were revaluated during the reporting period due to the increase in the discount rate. Details are presented in chapter III *Notes to the financial statements*, item 27.
- Classification of the leases and detailed information on the lease agreements are presented in chapter III *Notes to the financial statements*, item 35.
- The Group monitors issues related to the war in Ukraine and assesses the risk of its impact on the Company's operations and financial performance. Details of these risks are described in chapter III *Notes to the financial statements*, item 29.
- Uncertainties related to tax settlements are described in chapter III *Notes to the financial statements*, item 39.
- The Group analyzes and monitors climate-related issues and assesses the impact of climate risks on the operations and financial performance. Details of the climate change risks are described in chapter III *Notes to the financial statements*, item 29.

6. Principles of consolidation

a. Subsidiaries

Subsidiaries are companies controlled by the Parent Company. Control takes place when the Parent Company, due to its involvement, is exposed or entitled to variable financial results and can affect the amount of variable financial results through its power over the subsidiary. In assessing control, the existing rights and potential voting rights that are exercisable or convertible at the balance sheet date are taken into consideration. The Group verifies the control over other entities in case of a change in one or more of the above-mentioned conditions of control.

The financial statements of subsidiaries included in the consolidated financial statements cover the period from the date the control is obtained until the date the control expires.

The financial statements of the subsidiaries, after adjustments to ensure compliance with IFRS, are prepared for the same reporting period as the financial statements of the Parent Company, using consistent accounting policies, based on uniform accounting policies used for business transactions and events of a similar nature. In order to eliminate any discrepancies in the accounting policies, the adjustments are made.

b. Consolidation adjustments

Balances of internal settlements between Group companies, transactions within the Group, and all related unrealized gains or losses, income and expenses are eliminated in preparing the consolidated financial statements.

III. Notes to the financial statements

Notes to the statement of comprehensive income

1. Revenues from sale

Accounting policies

In accordance with IFRS 15, revenues are recognized when goods and services are transferred to the customer at a value that reflects the price expected by the entity in exchange for the transfer of those goods and services. Revenues are recognized when the performance obligation is met by transferring the promised good (product) to the customer. The transfer of a good occurs when the customer gains control over that good.

Identifying the contract with the customer
The Group recognizes a contract with a customer only if all the following criteria are met:

- the parties to the contract have approved the contract (in writing, orally, or in accordance with other customary business practices) and are required to perform their respective obligations,
- the Group can identify each party's rights and obligations regarding the goods or services to be transferred,
- the Group can identify the payment terms for the goods or services to be transferred,
- the contract has commercial substance (i.e. the risk, timing or amount of the entity's future cash flows is expected to change as a result of the contract), and
- it is probable that the Group will collect the consideration due to it in exchange for the goods or services to be transferred to the customer.

In evaluating whether collectability of an amount of consideration is probable, the Group shall consider only the customer's ability and intention to pay that amount of consideration when it is due. The amount of consideration due to the Group may be less than the price stated in the contract if the consideration is variable because the entity may offer the customer a price concession.

Identification of performance obligations
At contract inception, the Group assesses the goods or services promised in a contract with a customer and identifies as a performance obligation each promise to transfer to the customer a good or service (or a bundle of goods or services) that is distinct or a series of distinct goods or services that are substantially the same and that have the same pattern of transfer to the customer.

The Group recognizes revenue upon fulfilling (or during fulfilment) of the performance obligation by transferring the promised goods or services (i.e. assets) to the customer. An asset is transferred when the customer obtains control over the asset, i.e. when the customer is able to directly manage the asset and to obtain substantially all the remaining benefits from it.

The Group transfers control over a good or service over time and, therefore, satisfies a performance obligation and recognizes revenue over time, if one of the following criteria is met:

- the customer simultaneously receives and consumes the benefits provided by the Group's performance as the Company performs;
- the Group's performance creates or enhances an asset (e.g. work in progress) that the customer controls as the asset is created or enhanced; or
- the Group's performance does not create an asset with an alternative use to the Group and the Group has an enforceable right to payment for performance completed to date.

For each performance obligation satisfied over time, the Group recognizes revenue over time by measuring the progress towards complete satisfaction of that performance obligation. The objective of the measurement is to depict the Company's performance in transferring control of goods or services promised to a customer (i.e. the satisfaction of the Company's performance obligation).

Determination of the transaction price

When (or as) a performance obligation is satisfied, the Group recognizes as revenue the amount of the transaction price that is allocated to that performance obligation. The transaction price includes a part of or the whole amount of estimated variable consideration only to the extent that it is highly probable that a significant reversal in the amount of cumulative revenue recognized will not occur when the uncertainty associated with the variable consideration is subsequently resolved. Revenue is recognized net of value added tax (VAT), excise duty, other sales taxes and charges, discounts, and rebates.

The Group considers the terms of the contract and its customary business practices to determine the transaction price. The transaction price is the amount of consideration to which an entity expects to be entitled in exchange for transferring promised goods or services to the customer, excluding amounts collected on behalf of third parties (e.g. some sales taxes). The consideration promised in a contract with the customer may include fixed amounts, variable amounts, or both.

Revenues from sale of electricity

Revenues from the sale of electricity are recognized based on the month of the sale to which the invoice relates.

Revenues from sale of electricity distribution services

Revenues from the sale of the electricity distribution services are derived from sales documented by invoices. Revenues from the sale of electricity distribution services are presented net of the value of fees collected on behalf of third parties for which the Company acts as the payer, i.e. the transitory charge and the cogeneration charge.

Revenues from sale of heat and distribution of heat

Revenues from the sale of heat are measured at the currently applicable tariff rates, which are subject to approval by the President of the Energy Regulatory Office. Tariff rates relate to the ordered heat power, sold heat energy, heat carrier, fixed transmission, and variable transmission. Revenues invoiced for the sale of heat are the product of the tariff rates described above and the sales volumes. The sales of heat in terms of quantity are derived from the measurement and settlement readings. Readings are taken on the indicated working days of each calendar month. Revenue from the sale of heat is recognized when heat is delivered in accordance with the readings.

Revenues from the Capacity Market

The Capacity Market was introduced in Poland on the basis of the Capacity Market Act adopted by the Sejm on 8 December 2017. Under the Act, Power Suppliers may offer the Operator (PSE S.A.) a capacity obligation for a specified supply period by means of capacity auctions. The capacity obligation is the obligation of the Power Supplier to remain ready, during the supply period, to supply the specified electric power to the system through the capacity market entity and to supply the specified electric power to the system during periods of emergency. According to Article 90(3) of the Act, the first supply period was in 2021.

Revenues from sale of certificates

Energy origin certificates (green and red energy certificates) are recognized as inventory, at the end of month in which certified energy has been produced, and as revenue from the sale of products. Certificates are measured at fair value, determined based on market selling prices as at date of initial recognition.

Revenues from sale of rental services

Revenues from the sale of rental services from investment property is recognized in the statement of comprehensive income on a straight-line basis over the period of rental agreement.

Revenues from sale of services

Revenues from the sale of services are recognized in the statement of comprehensive income proportionally to the completion of the service as at the end of reporting period.

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Table: Revenues from sales for the year ended 31 December 2022 and 31 December 2021

	For the year ended 31 December 2022	For the year ended 31 December 2021
Revenues from sale of finished goods	**1 733 857**	**1 323 891**
Revenue from sale, distribution and trade of electricity	1 040 597	615 653
Revenue from sale and distribution of heat	611 818	624 073
Revenue from Capacity Market	55 016	63 364
Revenue from energy origin certificates	16 971	13 464
Revenue from support for high-efficiency gas cogeneration	2 419	470
Revenue from rental of investment property	5 992	5 693
Revenue from sale of other products	1 044	1 174
Revenues from sale of merchandise and raw materials	**78 344**	**110 615**
Revenue from resale of electricity	65 192	86 495
Revenues from sale of CO_2 emission right	11 215	21 545
Revenue from sale of merchandise and raw materials	1 937	2 575
	1 812 201	**1 434 506**

Higher revenues from the sale of electricity (increase by PLN 424 944 thousand) result primarily from a higher electricity sales price and a lower sales volume.

According to the *Act of 7 October 2022 on special solutions for the protection of electricity consumers in 2023 in connection with the situation in the electricity market*, a power company engaged in the business of electricity trading is obliged to apply, with respect to household consumers, prices equal to those contained in the tariff in effect on 1 January 2022 for individual tariff groups up to specified consumption limits. For other eligible consumers, a rate of PLN 785 per MWh (the price does not include VAT and excise tax) was set. The prices are effective from 1 December 2022 to 31 December 2023. At the KOGENERACJA S.A. Group, electricity end-users are not households or other eligible customers and thus the Group is not entitled to compensation for the period of the act was in force in 2022. Therefore, the Group has not recognized revenue on this account in the 2022 financial statements.

Lower revenues from heat sales in 2022 by PLN 12 255 thousand is mainly due to lower sales volume caused by higher average temperatures in 2022, higher average heat sales prices, and an increase in the number of heat customers.

From 1 January 2021, the Group's companies earn revenues from the Capacity Market. In 2022, the revenues amounted to PLN 55 016 thousand, including the Parent Company PLN 32 350 thousand and the subsidiary PLN 22 666 thousand (2021: PLN 63 364 thousand). Lower revenues from the Capacity Market result from a longer shutdown of the gas and steam power unit in 2022 related to the upgrade of the gas turbine and thus a lower volume of power at the subsidiary EC Zielona Góra S.A.

Higher revenues from energy origin certificates in 2021 (an increase of PLN 3 507 thousand) are mainly due to higher revenues from the sale of green certificates produced in 2020–2022 and lower production from biomass of about 34% in 2022.

Based on the Act of 14 December 2018 on promoting electricity from high-efficiency cogeneration, the KOGENERACJA S.A. Group received revenues from the support of high-efficiency gas cogeneration in the amount of PLN 2 419 thousand (2021: PLN 470 thousand).

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Lower revenues from the resale of electricity (a decrease by PLN 21 303 thousand) result from the lower volume of resale of purchased electricity.

Lower revenues from the sale of CO_2 emission rights (a decrease by PLN 10 330 thousand) are due to the lower volume and the higher price of the rights sold.

In 2022, revenue from property rental (lease payments recognized as revenue) amounted to PLN 5 992 thousand (2021: PLN 5 693 thousand). The Group had no operating lease income relating to variable lease payments that are not dependent on index or rate.

In 2022, costs relating to property rental (depreciation) amounted to PLN 1 274 thousand (2021: PLN 1 354 thousand).

The KOGENERACJA S.A. Group operates in one operating segment "Production and distribution of electricity and heat," only domestically.

Table: Revenues from contracts with customers for the year ended 31 December 2022 and 31 December 2021

	For the year ended 31 December 2022	For the year ended 31 December 2021
Revenue from contracts with customers	1 803 790	1 428 343
Revenue from support for high-efficiency gas cogeneration	2 419	470
Revenue from rental of investment property	5 992	5 693
	1 812 201	**1 434 506**

2. Compensations to cover stranded costs in the subsidiary EC Zielona Góra S.A.

Accounting policies

EC Zielona Góra S.A., similarly to other producers of electricity which acceded to the program for early termination of long-term contracts for the sale of power and electricity ("KDTs"), is entitled to receive compensation (quarterly advance payments) to cover stranded costs. After each year, the annual adjustment is performed. Upon expiry of the period for which KDT was concluded, the final adjustment is performed.

The Company recognizes as revenue the amounts received in advance, adjusted as appropriate for the annual adjustment and the appropriate part of the anticipated final adjustment. The final adjustment to a given reporting period is allocated in fixed prices, based on the anticipated distribution of revenue from the sale of electricity and system-related services over the adjustment period, taking into account the final adjustment. The medium-term risk-free rate was adopted for discounting.

If accumulated profit or loss from KDTs as at the balance sheet date exceeds the estimated cash flows to be received to settle the program, the company applies a limiting condition. Cash flows in excess of the limiting condition due ti the return do not represent the company's revenue and are recognized directly in the final adjustment liability.

The final adjustment liability is calculated as the difference between the discounted amount of cash flows received under KDTs for the duration of the program and the estimated amount of stranded costs. The amount of the anticipated final adjustment is determined based on the model developed to calculate KDT compensations. The key parameters used in the model which affect the revenue, costs, and settlements recognized in the financial statements are electricity selling prices and the interest rate used for discounting the long-term liability. Changes in the interpretation of the provisions of the KDT Act or assumptions may materially affect the estimates and result in significant changes in the company's assets, financial position, and performance. The final adjustment to a given reporting period is allocated based on the planned distribution of revenue for the sale of electric energy over the adjustment period (in practice, the part of the final adjustment to be recognized in a given year depends on the ratio of sales revenue for that year and the sum of revenue for the entire KDT period).

In accordance with Article 6 of the Act of 29 June 2007 on the rules of covering producers' costs in connection with early termination of long-term contracts for the sale of power and electricity, the total sum of cash flows transferred to a producer to cover stranded costs, discounted as at 1 January 2007, cannot exceed the maximum amount of such stranded costs determined for the producer, as specified in Appendix 2 to the Act, in fixed prices as at 1 January 2007.

Changes in estimates due to the calculation of the final adjustment are taken into account prospectively by recognizing them in the statement of comprehensive income for the period in which the change has occurred and in future periods provided that the change applies to all such periods.

Pursuant to the Act of 29 June 2007 on the principles of covering costs at generators in connection with early termination of long-term power and electricity sales contracts (Dz. U. [Journal of Laws] of 2007, No. 130, item 905) (KDT Act), the subsidiary EC Zielona Góra S.A. is entitled to funds to cover stranded costs (the so-called KDT compensations).

Pursuant to the KDT Act, EC Zielona Góra S.A. receives compensations (quarterly advances) to cover stranded costs. After each year, the annual adjustment is performed. Upon expiry of the period for which KDT contract was entered into (KDT settlement period), the final adjustment is performed.

The amount of revenue, costs, and settlements recognized in a given year in relation to KDT compensation is an estimate of the Management Board. The estimate is determined on the basis of the Company's interpretation of the provisions of the KDT Act and the expected amounts of annual adjustments and the final adjustment set out by way of decisions issued by the President of the Energy Regulatory Office. Changes in the interpretation of the provisions of the KDT Act or assumptions may materially affect the estimates and result in significant changes in the company's assets, financial position, and performance.

The amounts of the expected annual adjustments and the final adjustment are determined based on the model developed to calculate KDT compensations. The key parameters used in the calculation model that affect the revenue, costs, and settlements recognized in the financial statements include electricity selling prices and the interest rate used for discounting the long-term liability. For the purposes of the calculation model, the price paths based on best available knowledge were adopted (based on the report prepared by the third party – Agencja Rynku Energii S.A.).

Pursuant to Article 18.1 of the KDT Act, the legislator defines the discount rate for the j-th period as the update rate equal to the yield on five-year treasury bonds issued as at the nearest day preceding 30 June of a given "j" year, according to data published by the minister competent for public finance and the Central Statistical Office, increased by the difference between the rediscount credit rate and the deposit rate of the National Bank of Poland valid as at 30 June of a given "j" year. The effective discount rate shall be understood as the average rate constant over the entire forecast period. As of 31 December 2022, the effective discount rate for the entire program is 3,45%.

Following the update of the assumptions adopted in the calculation model for KDT compensation, it was estimated that EC Zielona Góra S.A. will have to return all the funds received under the KDT compensation in the remaining settlement period.

The Group recognizes as the KDT costs the amount corresponding to the amount of financial costs during the reporting period and the change in estimates. The change in estimate was impacted by the update of the data based on actual performance in 2022.

As at 31 December 2022, in accordance with the accounting principles, the part of the program results attributable to the current reporting period was recognized.

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The revenues from KDT compensations for the period from 1 January to 31 December 2022 amounted to PLN 1 996 thousand (the costs from KDT compensations for the period from 1 January to 31 December 2021: PLN 57 655 thousand).

The financial costs from KDT compensations for the period from 1 January to 31 December 2022 amounted to PLN 1 996 thousand (the financial revenues for the period from 1 January to 31 December 2021: PLN 6 194 thousand).

The value of the liabilities due to KDT compensations as at 31 December 2022 amounted to PLN 430 049 thousand, including a long-term liability: PLN 374 904 thousand; short-term liability: PLN 55 145 thousand (as at 31 December 2021: PLN 447 337 thousand).

3. Costs by nature and by function

Accounting policies

The prime cost of sales includes:

- manufacturing cost of products incurred in the reporting period, adjusted for the change in products (finished goods, semi-finished goods, and work in progress) and the manufacturing cost of products for own needs,
- the value of electricity sold and certificates of origin for energy, fuels, coal, gas, and other goods and materials at purchase prices.

Costs that can be directly attributed to the revenues generated by the Group affect the financial result for the reporting period in which these revenues occurred.

Costs that can only be indirectly attributed to revenues or other benefits achieved by the Group affect the financial result in the part in which they relate to a given reporting period, ensuring compliance with the accrual principle and taking into account the principles of valuation of fixed assets and inventories.

a. Cost of goods, merchandise, and raw materials sold

Table: Cost of goods, merchandise, and raw materials sold for the year ended 31 December 2022 and 31 December 2021

	For the year ended 31 December 2022	For the year ended 31 December 2021
Cost of goods sold	(1 406 744)	(1 098 043)
Cost of merchandise and raw materials sold	(137 748)	(135 417)
	(1 544 492)	**(1 233 460)**

KOGENERACJA S.A. Group Consolidated financial statements for the period from 1 January to 31 December 2022, in accordance with EU-adopted IFRS (in PLN thousand)

b. Costs by nature

Table: Expenses by nature for the year ended 31 December 2022 and 31 December 2021

	For the year ended 31 December 2022	For the year ended 31 December 2021
Depreciation, amortisation and impairment losses	(202 993)	(185 934)
Materials and energy	(508 838)	(500 976)
External services	(165 624)	(150 190)
Taxes and charges, including:	(561 476)	(276 437)
CO_2 allowances	*(507 520)*	*(242 653)*
Costs of employee benefits	(81 943)	(70 768)
Other expenses by nature	(8 307)	(8 137)
Total expenses by nature	**(1 529 181)**	**(1 192 442)**
Cost of merchandise and raw materials sold	(137 748)	(135 417)
Total cost of goods, merchandise and raw material sold, selling expenses and general and administrative expenses	**(1 666 929)**	**(1 327 859)**
Selling and distribution expenses	62 082	31 741
General and administrative expenses	60 355	62 658
Cost of sales	**(1 544 492)**	**(1 233 460)**

The increase in depreciation costs by PLN 17 059 thousand is mainly due to the settlement of capital expenditures on property, plant, and equipment in the amount of PLN 293 346 thousand (2021: PLN 114 472 thousand) and higher depreciation related to the right of use of assets on rail infrastructure lease. Depreciation related to the right of use of assets amounted to PLN 5 488 thousand (2021: PLN 1 454 thousand).

In the current period, the Group recognized an amount of PLN 4 746 thousand for the net value of liquidated property, plant and equipment under *Depreciation and impairment losses*.

A higher level of costs of materials and energy consumption (an increase by PLN 7 862 thousand) results from the increase in fuel consumption costs in the Parent Company due to higher prices of raw materials and chemicals and a lower cost of gas consumption in the subsidiary EC Zielona Góra S.A. by PLN 18 531 thousand due to the shutdown of the gas and steam power unit, related to the modernization of the gas turbine plant (a lower gas consumption volume by 20% and higher gas price by 14%).

The increase in the cost of services by PLN 15 434 thousand is mainly due to higher costs of waste management services, higher costs of coal and biomass transport in the Parent Company, and higher costs of services under the agreement for commercial management of production capacity.

The increase in taxes and fees by PLN 285 039 thousand is mainly due to the increase in the provision for the shortage of CO_2 emission rights (an increase of PLN 264 867 thousand). This results from higher average purchase prices for CO_2 emission rights by about 113% compared to 2021 and a lower limit of free rights granted.

KOGENERACJA S.A. Group Consolidated financial statements for the period from 1 January to 31 December 2022, in accordance with EU-adopted IFRS (in PLN thousand)

In 2022, the *Act of 27 October 2022 on emergency measures to curb electricity prices and support certain consumers in 2023* (Emergency Measures Act) came into force. The act establishes the maximum selling price of electricity in settlements with eligible customers and the rules for granting and paying compensation due to eligible entities for the introduction of the maximum price in the period from 1 December 2022 to 31 December 2023. Under the act, electricity generators and electricity trading companies are obliged to make monthly charges to the account of the Price Difference Payment Fund (the Fund). According to the act, a charge to the Fund is the product of the volume of electricity sales and the positive difference of the volume-weighted average market price of electricity sold and the volume-weighted average price limit of electricity sold. As *Costs of sales* by calculation and *Taxes and charges* by comparison, in December 2022, the KOGENERACJA S.A. Group recognized a charge to the Fund in the amount of PLN 20 789 thousand (including KOGENERACJA S.A. PLN 603 thousand and EC Zielona Góra S.A. PLN 20 186 thousand). The funds were transferred to Zarządcy Rozliczeń S.A. in January and February 2023.

The value of goods and materials sold increased by PLN 2,331 thousand. This is the result of a higher price of purchased electricity, with a lower volume of energy purchased on the market for the purposes of the contract in the event of failures, repairs or weather conditions.

c. Employee benefit costs

Table: Employee benefit costs for the year ended 31 December 2022 and 31 December 2021

	For the year ended 31 December 2022	For the year ended 31 December 2021
Payroll expenses	(69 210)	(60 087)
Social security contributions	(13 514)	(11 770)
Change in employee benefits	(519)	(17)
Cost of Voluntary Leave Programme	95	(53)
Other post-employment benefits	(449)	(245)
Other employee benefits	(7 898)	(7 664)
	(91 495)	**(79 836)**
Payroll costs reclassified to capital expenditures	9 552	9 068
	(81 943)	**(70 768)**

The higher costs of wages and social security relate to an increase in the wages of employees under agreements signed between the Management Board and the Trade Unions.

KOGENERACJA S.A. Group Consolidated financial statements for the period from 1 January to 31 December 2022, in accordance with EU-adopted IFRS (in PLN thousand)

4. Other operating revenues and costs

Accounting policies

Other operating income and costs are recognized in the financial statements in accordance with prudence and matching principle.

a. Other operating income

Table: Other operating income for the year ended 31 December 2022 and 31 December 2021

	For the year ended 31 December 2022	For the year ended 31 December 2021
Provision reclamation of landfill	3 329	8 295
Settlement of grants received	7 072	5 724
Reversal of impairment losses on inventories and receivables	644	2 978
Property tax refund	2 092	-
Sale of scrap	1 464	1 968
Lease of heat centers	728	1 093
Gain on sale of property, plant and equipment	1 092	685
Penalties, fines and compensations	282	489
Other	540	244
	17 243	**21 476**

In 2022, the effect of a change in the discount rate and projected inflation in the amount of PLN 3 329 thousand (discount rate as of 31 December 2022: 7,0%; 31 December 2021: 3,6%) was recognized in *Other operating revenues* under *Provision for reclamation of ash sites*. Other information on the provision for reclamation is presented in chapter III *Notes to the financial statements*, item 27b.

On 5 July 2022, KOGENERACJA S.A. applied for a declaration of overpayment in property tax for the period from 1 January 2017 to 31 December 2021 in the total amount of PLN 2 092 thousand. The overpayment was due to the Company's exercise of its right to exempt rail infrastructure from property tax. On the basis of the Company's application, the Wrocław Municipal Office, by way of a decision of 5 September 2022, decided to recognize the amount of PLN 2 092 thousand against future liabilities.

In 2022, the Group generated revenues from the sale of scrap metal in the amount of PLN 1 464 thousand (2021: PLN 1 968 thousand).

In 2022, KOGENERACJA S.A. generated revenues from the sale of the right of perpetual usufruct to a plot of land in Siechnice (PLN 909 thousand), heat centers, and a remote meter reading system (PLN 183 thousand).

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b. Other operating costs

Table: Other operating costs for the year ended 31 December 2022 and 31 December 2021

	For the year ended 31 December 2022	For the year ended 31 December 2021
Loss on sale of property, plant and equipment	(750)	-
Impairment loss on inventory and receivables	(159)	(531)
Write off of fixed assets under construction	-	(400)
Settlement of inventory shortages	(1 001)	(844)
Costs of liquidation of current assets	(227)	-
Donations	(545)	(545)
Penalities, compensations and fines paid	(28)	(28)
Maintenance costs of ESP Młoty	(110)	(69)
Maintenance costs of social facilities	(111)	(83)
Receivables' write-offs	(35)	(53)
Provision for the other costs	(80)	-
Costs of leased assets	(489)	(1 030)
Other	(207)	(81)
	(3 742)	**(3 664)**

5. Net finance income

Accounting policies

Finance income and costs comprise interest due on debt determined by applying effective interest rate, interest due on cash invested by the Group, dividends receivable, foreign exchange gains and losses, and gains and losses on hedging instruments recognized in the statement of comprehensive income.

Interest income and expenses are recognized in the statement of comprehensive income based on accrual basis using effective interest rate method. Dividend income is recognized in the statement of comprehensive income when the right to receive the dividend is obtained by the Group. In the statement of comprehensive income, the Group, as a lessee, presents the interest expense on the lease liability as a component of financial costs.

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Table: Net finance income for the year ended 31 December 2022 and 31 December 2021

	For the year ended 31 December 2022	For the year ended 31 December 2021
Interest income on loans, receivables and on bank deposits	35 719	2 870
Unwinding of discount from compensation of stranded costs	-	6 194
Interest on leasing	426	214
Other finance income	98	1
Finance income	**36 243**	**9 279**
Interest on lease liabilities	(3 272)	(2 466)
Other interest expense on financial liabilities	(549)	(227)
Interest expense on employee benefits	(207)	(76)
Discount from compensation of stranded costs	(1 996)	-
Unwinding the discount on provision for reclamation	(767)	(157)
Other finance expenses	(683)	(383)
Finance expenses	**(7 474)**	**(3 309)**
Net finance income	**28 769**	**5 970**

Higher interest revenues result from the higher level of excess cash made available by the Group companies under cash pooling.

Interest paid on lease liabilities amounted to PLN 3 272 thousand. Other information on lease agreements is presented in chapter III *Notes to the financial statements*, item 35.

As a result of the update of long-term assumptions, the estimated balance of the program for early termination of long-term contracts for the sale of power and electricity ("KDTs") and the amount of the final adjustment have changed. Therefore, it was necessary to adjust the financing costs booked since the beginning of the program. The cumulative financial cost adjustment reported in the 2022 report amounted to PLN 1 996 thousand.

6. Income tax

Accounting policies

Income tax recognized in the statement of comprehensive income comprises current tax and deferred tax. Income tax is recognized in the statement of comprehensive income except for the amounts recognized directly in equity (in which case it is recognized in equity) and in other comprehensive income as the amounts not subject to reclassification to profit or loss.

Current tax is the amount of income tax payable in respect to the taxable profit for a year, calculated using tax rates enacted at the reporting date corrected by tax adjustments for prior periods.

a. Income tax recognized in the statement of comprehensive income

Table: Income tax recognized in the statement of comprehensive income for the year ended 31 December 2022 and 31 December 2021

	For the year ended 31 December 2022	For the year ended 31 December 2021
Income tax recognised in statement of profit or loss		
Income tax for the period	(85 790)	(22 934)
Deferred tax	48 234	6 947
Income tax expense recognised in statement of profit or loss	**(37 556)**	**(15 987)**
Income tax expense recognised in other comprehensive income		
From actuarial gains and losses from valuation of provisions for employee benefits	(60)	(196)
From measurement of hedging instruments	457	(716)
Tax benefit/(tax burden) recognised in other comprehensive income (equity)	**397**	**(912)**
Income tax recognized in the statement of comprehensive income	**(37 159)**	**(16 899)**

b. Effective tax rate

Table: Reconciliation of income tax on gross profit before taxes at the statutory tax rate to income tax calculated at the effective tax rate for the year ended 31 December 2022 and 31 December 2021

	For the year ended 31 December 2022 %	For the year ended 31 December 2022 PLN thousand	For the year ended 31 December 2021 %	For the year ended 31 December 2021 PLN thousand
Profit before income tax		189 538		72 774
Income tax using the Group's binding tax rate	19,00%	(36 012)	19,00%	(13 827)
Non-deductible expenses (permanent differences)	1,62%	(3 068)	4,95%	(3 600)
Tax exempt income (permanent differences)	(0,83%)	1 569	(1,46%)	1 060
Settlement of CIT-8 declarations	0,02%	(45)	(0,52%)	380
	19,81%	**(37 556)**	**21,97%**	**(15 987)**

Notes to the statement of financial position

7. Property, plant and equipment

Accounting policies

Property, plant and equipment are assets:

- held for use in the production or supply of goods or performance of services, for rental to others, or for administrative purposes, and
- expected to be used for more than one year.

Own property, plant and equipment

Property, plant and equipment are accounted for at their acquisition price or production cost less depreciation and impairment losses. The acquisition price comprises the purchase price of an asset (i.e. amount payable to the seller less deductible taxes: VAT and excise tax), public charges and fees (in the case of imported assets) and costs directly attributable to the asset being acquired and made fit for use, including costs of transport, loading, unloading, and storage. Discounts, volume rebates, and other similar reductions and returns decrease the acquisition price of the asset.

The cost of production of a non-current asset or fixed assets under construction comprises all the costs incurred by the entity during construction, assembly, adjustment, and improvement of such asset until the asset is made available for use (or until the reporting date if the asset is not yet available for use), including non-deductible VAT and excise tax. The production cost also comprises, if so required, the initial estimate of costs relating to the property, plant and equipment being disassembled, removed, and restored to the original condition.

The production cost also includes:

- borrowing costs directly attributable to acquisition, building or construction of the qualified component of property, plant and equipment,
- costs of testing whether the asset is functioning properly, after deducting the net proceeds from selling any items produced while bringing the asset to that location and condition (such as samples produces when testing equipment).

Property, plant and equipment revalued by the Group in accordance with IAS 29 *Financial reporting in hyperinflationary economies* are stated at restated purchase price reflecting the fair value at the revaluation date adjusted by applying the relevant hyperinflation indices.

In EC Zielona Góra S.A., fixed assets were measured at fair value at the date the control was obtained.

If a given property, plant and equipment item comprises individual, significant components of various useful lives, such components are treated as separate assets.

Borrowing costs

Borrowing costs are interest and other costs incurred by the Group in connection with the borrowing of funds. Borrowing costs directly attributable to the acquisition, construction, or production of a qualifying asset are capitalized as part of the acquisition price or production cost of the asset. Other borrowing costs are recognized as costs of the period. In the event of foreign exchange differences arising in connection with foreign currency loans and credits, the Group capitalizes them to the extent that they are recognized as an adjustment to interest expense.

Property, plant and equipment leased out

In order to acquire new users for heat from the heat distribution network, the Group carries out financing, co-financing and building of heat centers which are then leased out to counterparties. Upon the expiration of an agreement, the user has the right to purchase the installation on favorable terms and conditions or to extend the agreement for another period. In addition, lessees are obliged to maintain and repair heat centers on a current basis (transfer of risk). For this reason, the agreements were recognized as financial lease. The lease of heat centers is directly related to the new heating and power agreements. The Group recognizes the leased assets (heat centers leased out) in the statement of financial position and presents them as receivables in an amount equal to a net investment in the lease, i.e. at the total of discounted future cash flows derived from the lease of the heat centers and from the relevant part of sales of heat power.

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Other heat centers not meeting the terms of lease (no purchase option) are the property of the Parent Company, and are presented in the financial statements under property, plant and equipment in the group Plant and equipment and depreciated in accordance with their useful lives.

Reclassification to investment properties
In case of cessation of using the property for own needs and its allocation for investment purposes, the property is reclassified to investment properties.

Subsequent expenditures
The subsequent cost of exchanged parts of an item of property, plant and equipment is recognized if it is probable that the future economic benefits embodied within the part will flow to the Group and its cost can be estimated reliably. Other costs are recognized in the statement of comprehensive income as expense.

Amortization and depreciation
Items of property, plant and equipment, or their major and separate components, are depreciated on a straight-line basis over their estimated useful lives and with consideration of the net sale price expected to be paid upon liquidation for the remaining part of the asset (residual value). Land is not depreciated. The Group assumes the following useful lives for individual property, plant and equipment categories:

Group 1	Buildings	2,5%
Group 2	Engineering structures	1,7% - 5,0%
	excluding:	
	internal technological network wires	2,5% - 10,0%
Group 3	Boilers and power machines	6,0% – 12,5%
Group 4	Machinery and equipment	10,0% – 18,0%
	excluding:	
	computer sets	30,0%
Group 5	Special branch machinery and equipment	4,5% – 20,0%
	excluding:	
	chargers	20,0%
Group 6	Technical equipment	4,5% – 20,0%
Group 7	Vehicles	14,0% - 25,0%
Group 8	Tools, devices, movables, and equipment	10,0% - 20,0%
	excluding:	
	electronic equipment	20,0% - 25,0%

The accuracy of useful lives and depreciation methods is reviewed by the Group annually.

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Table: Change in property, plant and equipment for the year ended 31 December 2022 and 31 December 2021

	Land	Buildings	Plant and equipment	Vehicles	Other tangible assets	Fixed assets under construction	Total
Gross carrying value as at 1 January 2021	**1 849**	**1 411 697**	**3 049 391**	**1 811**	**21 879**	**93 082**	**4 579 709**
Additions (transfer) of assets brought to use	-	40 309	73 186	194	783	(114 472)	**-**
Additions due to purchases	-	-	-	-	-	234 687	**234 687**
Disposals due to liquidation/sale	-	(4 451)	(115 845)	-	(223)	(400)	**(120 919)**
Gross carrying value as at 31 December 2021	**1 849**	**1 447 555**	**3 006 732**	**2 005**	**22 439**	**212 897**	**4 693 477**
Gross carrying value as at 1 January 2022	**1 849**	**1 447 555**	**3 006 732**	**2 005**	**22 439**	**212 897**	**4 693 477**
Additions (transfer) of assets brought to use	-	28 597	262 720	582	1 447	(293 346)	**-**
Additions due to purchases	-	-	-	-	-	582 913	**582 913**
Disposals due to liquidation/sale	-	(4 216)	(149 019)	(325)	(484)	-	**(154 044)**
Reclassifications	-	(64)	(540)	(133)	64	673	**-**
Gross carrying value as at 31 December 2022	**1 849**	**1 471 872**	**3 119 893**	**2 129**	**23 466**	**503 137**	**5 122 346**

	Land	Buildings	Plant and equipment	Vehicles	Other tangible assets	Fixed assets under construction	Total
Accumulated depreciation as at 1 January 2021	**(3)**	**(901 507)**	**(2 047 558)**	**(1 352)**	**(13 508)**	**-**	**(2 963 928)**
Depreciation for the period	-	(43 614)	(138 170)	(99)	(1 518)	-	**(183 401)**
Disposals of depreciation due to liquidation/sale	-	4 449	115 691	-	223	-	**120 363**
Accumulated depreciation as at 31 December 2021	**(3)**	**(940 672)**	**(2 070 037)**	**(1 451)**	**(14 803)**	**-**	**(3 026 966)**
Accumulated depreciation as at 1 January 2022	**(3)**	**(940 672)**	**(2 070 037)**	**(1 451)**	**(14 803)**	**-**	**(3 026 966)**
Depreciation for the period	(1)	(44 209)	(145 204)	(194)	(2 200)	-	**(191 808)**
Disposals of depreciation due to liquidation/sale	-	3 417	136 320	325	457	-	**140 519**
Accumulated depreciation as at 31 December 2022	**(4)**	**(981 464)**	**(2 078 921)**	**(1 320)**	**(16 546)**	**-**	**(3 078 255)**

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	Land	Buildings	Plant and equipment	Vehicles	Other tangible assets	Fixed assets under construction	Total
Accumulated impairment losses as at 1 January 2021	**-**	**-**	**(5 320)**	**-**	**(18)**	**(650)**	**(5 988)**
Accumulated impairment losses as at 31 December 2021	**-**	**-**	**(5 320)**	**-**	**(18)**	**(650)**	**(5 988)**
Accumulated impairment losses as at 1 January 2022	**-**	**-**	**(5 320)**	**-**	**(18)**	**(650)**	**(5 988)**
Utilisation	-	-	5 167	-	18	-	**5 185**
Accumulated impairment losses as at 31 December 2022	**-**	**-**	**(153)**	**-**	**-**	**(650)**	**(803)**
Net carrying value							
As at 1 January 2021	1 846	510 190	996 513	459	8 353	92 432	1 609 793
As at 31 December 2021	1 846	506 883	931 375	554	7 618	212 247	1 660 523
As at 31 December 2022	1 845	490 408	1 040 819	809	6 920	502 487	2 043 288

In 2022, the Group incurred expenditures on property, plant and equipment in the amount of PLN 582 913 thousand, including:

- the Parent Company: in the amount of PLN 481 150 thousand, for, *inter alia*, implementation of the New EC Czechnica project in Siechnice, modernization and repairs of boilers, generators, turbines, and heat units and systems as well as for modernization and long-term repairs of basic and auxiliary production equipment (2021: PLN 121 646 thousand);
- the subsidiary EC Zielona Góra S.A.: in the amount of PLN 101 763 thousand, for, *inter alia*, modernization of the gas turbine, construction and modernization of heating networks and centers, auxiliary devices, generators, and electrical systems (2021: PLN 113 041 thousand).

In 2022, interest in the amount of PLN 65 thousand, on the loan granted by the NFEPWM, was capitalized.

8. Intangible assets

<u>Accounting policies</u>

Goodwill
Goodwill resulting from the settlement of a business acquisition is recognized under intangible assets and is not subject to depreciation. Each year, goodwill is tested for impairment at the balance sheet date as part of the cash-generating unit to which it was initially allocated.

Other intangible assets
Other intangible assets acquired by the Group are measured at purchase price less amortization and impairment losses. Expenditure on internally generated goodwill or trademarks is recognized in the statement of comprehensive income as incurred.

Amortization and depreciation
Intangible assets are amortized on a straight-line basis over their estimated useful lives, unless it has not been specified. Goodwill and intangible assets that have indefinite useful lives are reviewed for impairment at the end of each reporting date. Other intangible assets are amortized since the day when available for use. The estimated useful lives are 8–20 years.

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Table: Change in intangible assets for the year ended 31 December 2022 and 31 December 2021

	Goodwill	Concessions, licenses, software and other	Total intangible assets
Gross carrying value as at 1 January 2021	**54 507**	**3 776**	**58 283**
Gross carrying value as at 31 December 2021	**54 507**	**3 776**	**58 283**
Gross carrying value as at 1 January 2022	**54 507**	**3 776**	**58 283**
Additions	-	4	**4**
Other disposals	-	(1 108)	**(1 108)**
Gross carrying value as at 31 December 2022	**54 507**	**2 672**	**57 179**

	Goodwill	Concessions, licenses, software and other	Total intangible assets
Accumulated depreciation as at 1 January 2021		**(2 840)**	**(2 840)**
Depreciation for the period		(142)	**(142)**
Accumulated depreciation as at 31 December 2021		**(2 982)**	**(2 982)**
Accumulated depreciation as at 1 January 2022		**(2 982)**	**(2 982)**
Depreciation for the period		(142)	**(142)**
Other disposals		1 108	**1 108**
Accumulated depreciation as at 31 December 2022		**(2 016)**	**(2 016)**

	Goodwill	Concessions, licenses, software and other	Total intangible assets
Accumulated impairment losses as at 1 January 2021	**(12 948)**	**-**	**(12 948)**
Accumulated impairment losses as at 31 December 2021	**(12 948)**	**-**	**(12 948)**
Accumulated impairment losses as at 31 December 2022	**(12 948)**	**-**	**(12 948)**
Net carrying value			
As at 1 January 2021	41 559	936	42 495
As at 31 December 2021	41 559	794	42 353
As at 31 December 2022	41 559	656	42 215

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Impairment testing for cash-generating units to which goodwill was allocated

As at 31 December 2022, the Group performed the impairment testing for the subsidiary EC Zielona Góra S.A.

Impairment tests were performed by determining their recoverable amount. Determining fair value for very large groups of assets with no active market and only few comparable transactions is very difficult in practice. For power plants and CHP plants for which the value on the local market has to be determined, there are no observable fair values. Accordingly, the recoverable amount of the assets was determined based on the estimation of their value in use, with the discounted net cash flow method, based on financial projections prepared for the period from 2023 to the end of 2030. Future flows were shown through the residual value calculated according to the Gordon Model.

The energy market, and in particular the heating market, is a regulated market in Poland and as such is subject to many regulations and cannot be freely shaped solely on the basis of business decisions. The objectives of the Energy Law include, among others, effective regulatory actions aimed at ensuring energy security. This means that the regulatory environment aims at stable operation of heat suppliers in a given area to meet the long-term needs of consumers. According to the provisions of the Energy Law, the ERO President may, in extreme cases, order an energy company to carry out activities covered by the license (for a period not longer than 2 years) if the public interest so requires. If such an activity makes a loss, the power company is entitled to loss coverage from the State Treasury.

Since the regulatory environment limits the ability to cease operations, the Parent Company does not assume the end of life of its cash-generating units (CGUs). Therefore, impairment tests assume the continuation of operations in the long term (in the form of residual value), while maintaining expenditures at the replacement level, due to, among others, the public interest, i.e. ensuring heat supply.

The key assumptions influencing the value in use of tested CGUs are as follows:

- The first year of the projections is consistent with the assumptions adopted in the PGE Group Financial Plan for 2023. The PGE Group financial Plan for 2023 is based on assumptions (volume and prices) prepared at the end of 2022.
- Projections for the coming years are presented in the report of Agencja Rynku Energii S.A. entitled *Projection of electricity prices in Poland until 2040*. *Update 2021* ("ARE Report").
- Revenues from the power market for 2023–2030 are based on the results of the resolved master auctions for delivery periods, taking into account mechanisms of the agreement for reallocation of revenues within PGE Group companies and assumptions regarding estimated future flows for generating units based, among others, on the results of resolved auctions. The data was prepared by the Power Market Department of PGE S.A.
- Support system for high-efficiency co-generation for new gas-fired units.
- Weighted average cost of capital after tax (WACC) over the projection period at:

2023	2024	2025	2026	2027	2028	2029	2030
9,74%	8,20%	6,96%	6,89%	6,81%	6,73%	6,65%	6,56%

- Nominal growth rate after the forecast period of 2.5%.
- Maintenance of production capacity as a result of capital expenditure on replacement projects. Capital expenditures for the transformation of production assets to gas-fired assets and the cash generated by these assets are intended to help meet regulatory requirements for the power industry and maintain current generation potential in the long term to meet user needs. Binding decisions on the transformation of assets and incurring appropriate capital expenditures were made before 31 December 2022 as a result of a number of external measures, including the National Energy Policy (PEP 2040), European Union regulations, and internal measures, such as the PGE Group strategy and the PGE Group Strategy Implementation Plan in the Heating Segment,

- Inclusion of capital expenditures in accordance with the investment plan of the PGE Group.
- Value of assets to be tested as of 31 December 2022 adjusted for the value of grants and the stranded cost liability.

As at 31 December 2022, the value of goodwill amounted to PLN 40 120 thousand. The results of the impairment testing indicate that the value in use of the cash-generating unit is higher than its carrying value. The test did not indicate the need to write down the goodwill of Zespół Elektrociepłowni Wrocławskich KOGENERACJA S.A. and its susbsidiary EC Zielona Góra S.A.

9. Right-of-use assets

Accounting policies

As defined by IFRS 16, a contract is, or contains, a lease if the contract conveys the right to control the use of an identified asset for a period of time in exchange for consideration.

The Group defines the lease term as the non-cancellable period of a lease over which the lessee has the right to use the underlying asset, It includes:

- periods covered by an option to extend the lease if the lessee is reasonably certain to exercise that right; and
- periods covered by an option to terminate the lease if the lessee is reasonably certain not to exercise that right.

In determining the lease term and assessing the length of the non-cancellable period of a lease, the Group applies the definition of a contract and determines the period for which the contract is enforceable. A lease is no longer enforceable when the lessee and the lessor each has the right to terminate the lease without permission from the other party with no more than an insignificant penalty. The term "penalty" encompasses all kinds of economic "detriment" forming contract exit barriers.

If only a lessee has the right to terminate a lease, that right is considered to be an option to terminate the lease available to the lessee that an entity considers when determining the lease term. If only a lessor has the right to terminate a lease, the non-cancellable period of the lease includes the period covered by the option to terminate the lease.

The lease term begins at the commencement date (date of transferring the underlying asset for the lessees to use) and includes any rent-free periods provided to the lessee by the lessor.

At the commencement date, the Group considers all relevant facts and circumstances that create an economic incentive to the lessee to exercise, or not to exercise an option to extend the lease, to purchase the underlying asset, or not to exercise an option to terminate the lease.

The lessee recognizes the right-of-use asset at the commencement date.

At the lease commencement date, a lessee measures the right-of-use asset at cost.

After the lease commencement date, a lessee measures the right-of-use asset applying a cost model.

A lessee measures the right-of-use asset at cost:

- less any accumulated depreciation and any accumulated impairment losses. Depreciation is charged over the entire lease term, from the moment of transferring the asset for use. Right-of-use assets classified as non-current assets held for sale are not depreciated.
- adjusted for any remeasurement of the lease liability (e.g. as a result of a change in lease payments).

As a lessee, the Group takes advantage of an exemption in respect of recognition, measurement and presentation in relation to:

- short-term leases, i.e. leases with the lease term not exceeding 12 months and which do not contain the purchase option;
- leases, in respect of which the underlying asset is of low value and which are not subject to further sub-lease. The Group considers that the value of the underlying asset is low (the value of the asset when it is new, regardless of the age of the asset being leased) if it does not exceed PLN 18 thousand.

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Table: Change in the right of use of assets for the year ended 31 December 2022 and 31 December 2021

	Right of perpetual usufruct of land	Tenancy and rental of land	Buildings	Plant and equipment	Vehicles	Other	TOTAL
Gross carrying value at 1 January 2021	**67 875**	**1 483**	**2 438**	**80**	**303**	**1 414**	**73 593**
Additions/disposals	(94)	39	38	34	(9)	246	254
Gross carrying value at 31 December 2021	**67 781**	**1 522**	**2 476**	**114**	**294**	**1 660**	**73 847**
Gross carrying value as at 1 January 2022	**67 781**	**1 522**	**2 476**	**114**	**294**	**1 660**	**73 847**
Additions/disposals	(244)	36 525	36	69	168	843	37 397
Gross carrying value as at 31 December 2022	**67 537**	**38 047**	**2 512**	**183**	**462**	**2 503**	**111 244**
Accumulated depreciation and impairment losses at 1 January 2021	**(3 688)**	**(258)**	**(392)**	**(60)**	**(167)**	**(32)**	**(4 597)**
Depreciation for the period	(929)	(126)	(200)	(31)	(124)	(43)	(1 453)
Disposals	9	42	11	-	26	-	88
Accumulated depreciation and impairment losses at 31 December 2021	**(4 608)**	**(342)**	**(581)**	**(91)**	**(265)**	**(75)**	**(5 962)**
Accumulated depreciation and impairment losses at 1 January 2022	**(4 608)**	**(342)**	**(581)**	**(91)**	**(265)**	**(75)**	**(5 962)**
Depreciation for the period	(967)	(4 130)	(46)	(34)	(99)	(212)	(5 488)
Disposals	13	-	-	-	-	-	13
Accumulated depreciation and impairment losses at 31 December 2022	**(5 562)**	**(4 472)**	**(627)**	**(125)**	**(364)**	**(287)**	**(11 437)**
Net carrying value							
As at 1 January 2021	64 187	1 225	2 046	20	136	1 382	68 996
As at 31 December 2021	63 173	1 180	1 895	23	29	1 585	67 885
As at 31 December 2022	61 975	33 575	1 885	58	98	2 216	99 807

In *Rights of use of assets*, the right to perpetual usufruct of land was recognized. As at the effective date of IFRS 16 *Leases*, i.e. 1 January 2019, it was measured at the value of future discounted payments.

The increase in the value of the right of use of assets in 2022 is due to the signing of a rail infrastructure lease agreement.

The total amortization period for the right of use of assets ranges from 3 to 76 years.

As at 31 December 2022, no impairment risk has been identified for these assets.

Other information on lease agreements is presented in *Notes to the financial statements*, item 35.

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10. Investment property

Accounting policies

Investment property is property held either to earn rental income or for capital appreciation or for both. Investment property is initially recognized at its purchase price taking into account transaction costs. For subsequent measurement, the Group uses the cost model.

Investment property is depreciated on a straight-lines basis over its estimated useful lives. Average useful life of the investment property amounts to approximately 40 years. The useful lives are reviewed annually.

If the manner of property use is changed (the investment property becomes a property occupied by the owner), it is reclassified to property, plant and equipment.

Table: Change in investment properties for the year ended 31 December 2022 and 31 December 2021

	Investment property
Gross carrying value as at 1 January 2021	**52 441**
Additions	36
Reclassifications	(2 058)
Gross carrying value as at 31 December 2021	**50 419**
Gross carrying value as at 1 January 2021	**50 419**
Additions	142
Gross carrying value as at 31 December 2022	**50 561**
Accumulated depreciation and impairment losses as at 1 January 2020	**(37 493)**
Depreciation for the period	(937)
Reclassifications	2 058
Accumulated depreciation and impairment losses as at 31 December 2021	**(36 372)**
Accumulated depreciation and impairment losses as at 1 January 2022	**(36 372)**
Depreciation for the period	(809)
Accumulated depreciation and impairment losses as at 31 December 2022	**(37 181)**
Net carrying value	
As at 1 January 2021	14 948
As at 31 December 2021	14 047
As at 31 December 2022	13 380

The Group's investment properties include the following: office and social buildings partially for rental purposes, residential building, car parks, lorries' car park, scrap and waste disposal facility, and sheds of the total carrying amount of PLN 13 380 thousand as at 31 December 2022 (31 December 2021: PLN 14 047 thousand).

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Impairment loss on investment properties as at 31 December 2022 amounted to PLN 3 590 thousand (31 December 2021: 3 590 thousand) and refers to the canteen building currently leased.

The fair value of investment properties as at 31 December 2022 amounted to PLN 42 507 thousand (31 December 2021: PLN 36 897 thousand), classified as level 3 fair value according to IFRS 13.

11. Trade and other financial receivables

Accounting policies

Financial receivables, including trade receivables, are measured at fair value at inception and subsequently at amortized cost using the effective rate including allowance for expected credit losses. The Company Group uses simplified methods for the valuation of receivables measured at amortized cost if this does not distort the information contained in the statement of financial position, in particular where the period until repayment of the receivables is not long.

For each reporting day, the Group measures the impairment allowance at an amount equal to lifetime expected credit losses.

For trade receivables from significant customers who are subject to the credit risk assessment procedure, the Group estimates expected credit losses based on a model used to assess this risk, relying on ratings assigned to each customer. The ratings are attributed with probability of bankruptcy adjusted for the impact of macroeconomic factors.

For trade receivables from mass market customers or those not covered by the credit risk assessment procedure, the Group estimates expected credit losses based on an analysis of the probability of credit losses in each age bracket.

The Parent Company and its subsidiary EC Zielona Góra S.A. are participants in cash pooling in the PGE Polska Grupa Energetyczna S.A. Group. Under cash pooling, the PGE Group companies make their surplus funds available to other companies or, in the event of cash shortages, use the funds made available by other participants.

Transactions carried out within cash pooling are recognized as transactions with related entities in which the company acting as an agent is the other party to a transaction. Cash pooling funds are presented as short-term financial assets under trade and other receivables, and cash pooling payables are presented as short-term financial liabilities under financial liabilities measured at amortized cost.

a. Financial receivables – non-current receivables

Table: Non-current financial receivables as at 31 December 2022 and 31 December 2021

	As at 31 December 2022	As at 31 December 2021
Leases receivables	4 216	4 400
Receivables due from sale of tangible fixed assets	584	676
Deposits and bid bonds	-	10
	4 800	**5 086**

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b. Trade and other financial receivables – current receivables

Table: Short-term trade and other financial receivables as at 31 December 2022 and 31 December 2021

	As at 31 December 2022	As at 31 December 2021
Trade receivables due from related parties	137 822	85 557
Trade receivables due from other entities	101 585	123 198
Cash pooling receivables	524 735	583 016
Support for cogeneration	788	203
Receivables due from sale of tangible fixed assets	133	256
Receivables related to the guarantee fund	4 665	60 131
Receivables from the redemption fee property rights	367	620
Deposits and bid bonds	110	3 013
Leases receivables	406	521
	770 611	**856 515**

Trade and other receivables are presented in net amounts, decreased by impartment losses of PLN 1 603 thousand (31 December 2021: PLN 1 832 thousand).

Trade and other financial receivables includes receivables under cash pooling agreements in the amount of PLN 524 735 thousand, including Parent Company: PLN 58 579 thousand; subsidiary EC Zielona Góra S.A.: PLN 466 156 thousand (31 December 2021: PLN 583 016 thousand, including Parent Company: PLN 235 312 thousand; subsidiary EC Zielona Góra S.A.: PLN 347 704 thousand).

The value of guarantee fund receivables in the amount of PLN 4 665 thousand (31 December 2021: PLN 60 131 thousand) refers to the deposit held to secure continuity of energy supplies and purchase energy from the market.

Table: Aging analysis of trade and other receivables as at 31 December 2022 and 31 December 2021

	As at 31 December 2022	As at 31 December 2021
up to 1 month	770 260	855 981
over 1 month up to 3 months	29	201
over 3 months up to 6 months	188	213
over 6 months up to 1 year	134	120
	770 611	**856 515**

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Table: Aging of overdue receivables as at 31 December 2022 and 31 December 2021

	As at 31 December 2022	As at 31 December 2021
Gross overdue receivables		
up to 1 month	205	359
over 1 month up to 3 months	20	223
over 3 months up to 6 months	43	35
over 6 months up to 1 year	35	196
over 1 year	1 353	1 373
	1 656	**2 186**
Allowances for overdue receivables	(1 603)	(1 832)
Net overdue receivables	**53**	**354**

12. Other long-term and short-term assets

Accounting policies

Other assets include, in particular, prepaid expenses, receivables from public and legal settlements, advances for deliveries and services, advances for fixed assets under construction, and receivables from dividends.

The Group recognizes assets as prepaid expenses if the following conditions are met:

- they result from past events – incurring an expense for an entity's operating purpose,
- their amount can be reliably determined,
- they relate to future reporting periods.

Prepayments are set at the amount of incurred, reliably determined expenses that relate to future periods and are associated with future economic benefits.

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Table: Other long-term and short-term assets as at 31 December 2022 and 31 December 2021

	As at 31 December 2022	As at 31 December 2021
Prepayments for fixed assets under construction	79 385	122 819
Deferred costs in respect of the program of connecting buildings to the heat distribution network	3 554	3 357
Other	334	45
Other non-current assets	**83 273**	**126 221**
VAT receivables	105 861	39 792
Prepayments due to uncollected gas	19 518	-
Deferred costs in respect of the program of connecting buildings to the heat distribution network	942	728
Deferred costs in respect of property and civil liability insurance	410	598
Other deferred costs	113	750
Settlements for Social Fund	577	295
Other	1 019	180
Other current assets	**128 440**	**42 343**

Prepayments for fixed assets under construction cover the following items:

- advance payments to the contractor for the construction of Nowa EC Czechnica in Siechnice (PLN 75 752 thousand),
- the fee for connecting the electricity source (cogeneration units in Nowa EC Czechnica) to the power grid (PLN 2 093 thousand),
- advance payments for the delivery, installation, and commissioning of cogeneration units for EC Zawidawie (PLN 1 289 thousand),
- fees for connection to the gas network (PLN 251 thousand).

Due to modernization work related to the replacement of the gas turbine at EC Zielona Góra S.A. and a scheduled maintenance shutdown, the terms of the contract for minimum annual gas supplies were not met. As at 31 December 2022, EC Zielona Góra S.A. recognized an amount of PLN 19 518 thousand as a charge for uncollected gas. In 2023, the uncollected volume from 2022 will be executed and the corresponding charge will be settled.

13. Shares and other equity instruments

The Parent Company and its subsidiary EC Zielona Góra S.A. do not hold any shares in affiliated companies that are not subject to consolidation.

In 2021, the Parent Company and its subsidiary EC Zielona Góra S.A. joined Towarzystwo Ubezpieczeń Wzajemnych Polskiego Towarzystwa Ubezpieczeń Wzajemnych (TUW PZUW). Each company took up one share in the reserve capital of TUW PZUW in the amount of PLN 100 and paid the entry fee for membership in the amount of PLN 9,5 thousand.

14. Impairment testing of assets

Property, plant and equipment are an important asset of Zespół Elektrociepłowni Wrocławskich KOGENERACJA S.A. and its subsidiary EC Zielona Góra S.A. Due to the volatile macroeconomic environment, the Parent Company and its subsidiary periodically review indications that the recoverable amount of its assets may be impaired. In assessing market conditions, companies use both its own analytical tools and support from the PGE Group and independent analytical centers.

In the previous reporting periods, the Parent Company and its subsidiary did not recognize any significant impairment losses on non-current assets. In the current reporting period in the heat segment of the PGE Group, efforts were made to analyze conditions and identify factors that could significantly contribute to changes in the value of assets held, and the need to carry out asset impairment tests in individual companies of the segment, including KOGENERACJA S.A. and EC Zielona Góra S.A., was recognized:

- persistence of PGE S.A. stock market capitalization below the book value of net assets,
- the global energy crisis, which manifests itself in rising price levels for fuel, electricity, and CO_2 emission rights, and previously unobserved levels of price volatility. This crisis was compounded by Russia's invasion of Ukraine on 24 February 2022 and the emergence of the risk of coal and gas shortages in Europe:
  - the average price of electricity for futures contracts for the following year (Y+1) in 2022 was PLN 1 112 per MWh, 188% higher than in 2021,
  - after a sharp slump triggered by the outbreak of the pandemic in mid-March 2020, CO_2 emission rights began to recover until a sharp rise began in November 2021. In 2022, the weighted average price of the EUA DEC 22 instrument was EUR 80.85 per tonne, about 50% higher than the average price of the EUA DEC 21 instrument in 2021,
  - the average price of hard coal at ARA (Amsterdam-Rotterdam-Antwerp) ports in monthly follow-on contracts in 2022 was USD 253 per tonne, an increase by 234% compared to 2021,
  - the average price of natural gas in futures contracts with delivery in 2022 was EUR 118 EUR per MWh, an increase by 293% compared to 2021,
- Pursuant to the Act of 27 October 2022 on emergency measures to curb electricity prices, generators are obliged to make payments to the Price Difference Payment Fund for each month from December 2022 to December 2023. The funds are intended to cover the difference between the maximum energy price adopted by the act and the contractual or reference price to be paid to electricity sellers in the form of compensation,
- Decarbonization Plan.

Climate issues

In 2021, the PGE Group's heating segment adopted the Decarbonization Plan 2050 to meet the regulatory requirements for the power industry and maintain the current generation potential in the long term to meet user needs. The Decarbonization Plan is an operationalisation of the objectives defined directly in the PGE Group strategy and in the strategy implementation plan in the heating segment. The plan sets out the locations of the transformation of the production assets, the schedule of main activities, the planned expenditure, and the results. Transformation of generation capacities through low- or zero-carbon generating units is planned for the 2030 horizon and climate neutrality is planned for the 2050 horizon. In 2022, in light of the energy crisis, rising commodity prices, and inflation levels, the Decarbonization Plan adopted in 2021 was reviewed and updated.

Macroeconomic assumptions adopted for the analysis:

- The main price assumptions, i.e. the price of electricity, CO_2 emission rights, and gas derive from a study prepared by an independent expert.
- The energy price forecast defined as the most probable was adopted; in the part covered by contracts, the prices and settlement conditions resulting from these contracts in the period of their validity were adopted. Electricity price forecasts assume an increase in market prices over the forecast period.
- The forecast of revenues from the Capacity Market for 2023–2027 is based on the results of the resolved master and supplementary auctions for these supply periods, taking into account the mechanisms of joint balancing within PGE Group companies. The forecast from 2028 onwards was developed by a team of PGE S.A. experts based on assumptions about estimated future flows for generating units based on, *inter alia*, the results of resolved auctions and forecasts by an external expert. As of 1 July 2025, all Capacity Market entities that have entered into power contracts after 31 December 2019 (i.e. contracts under the Master

Auction for the 2025 delivery year and thereafter), will be subject to the 550 g CO_2/kWh emission performance standard (EPS 550), which will effectively exclude participation of coal units from subsequent Capacity Market auctions.
- The productive capacity of the units was estimated on the basis of maintenance plans and statistical failure rates.

As a result of the asset impairment testing, the Parent Company and its subsidiary EC Zielona Góra S.A. estimated the surplus of the value in use of the tested assets over their carrying amount, and determined that there was no need to recognize or release impairment losses on these assets.

15. Income tax recognized in the statement of financial position

Accounting policies

Current tax is the amount of income tax payable in respect to the taxable profit for a year, calculated using tax rates enacted at the reporting date corrected by tax adjustments for prior periods.

Deferred tax is recognized in respect of temporary differences between the carrying amounts of assets and liabilities in the statement of financial position and its tax base. No deferred tax liability is recognized in respect to the following: goodwill as its impairment loss is a non-deductible cost, initial recognition of assets or liabilities that affects neither accounting nor taxable profit, and differences relating to investments in subsidiaries to the extent that it is probable that they will not be tax deductible in the foreseeable future. Deferred tax is measured based on expected manner in which the assets or liabilities will be recovered or settled and applying tax rates that are valid or enacted at the end of the period.

Deferred tax assets are recognized to the extent that it is probable the assets will be realized with future taxable profits. Deferred tax assets are reduced to the extent that it is no longer probable the assets will be fully or partly realized with the future profits. Such adjustments are performed upwards to the extent that it is probable sufficient taxable income will be obtained.

The value of the component of assets and liabilities due to deferred income tax in the statement of financial position is verified as at each reporting day. Assets and liabilities due to deferred income tax are treated in their entirety as long-term. The company compensates assets and liabilities due to deferred tax.

The Group does not recognize deferred tax:
- when a deferred tax asset results from the initial recognition of an asset or liability in a transaction which is not a business combination, and at the time of the transaction it affects neither the gross financial result nor taxable income (tax loss), and
- on differences associated with investments in subsidiaries, affiliated companies and interests in joint ventures, where deferred tax assets are recognized only to the extent that it is probable that the temporary differences will reverse in the foreseeable future, and taxable profit against which the deductible temporary differences can be utilised will be available, and
- on differences associated with the initial recognition of goodwill.

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a. Income tax receivable and payable

At the end of the reporting period, the current income tax liability amounted to PLN 49 314 thousand (31 December 2021: current income tax receivable of PLN 11 222 thousand and current income tax liability of PLN 11 436 thousand).

b. Deferred tax assets and liabilities

Table: Deferred tax assets and liabilities as at 31 December 2022 and 31 December 2021

	Assets		Liabilities		Net value	
	As at 31 December 2022	As at 31 December 2021	As at 31 December 2022	As at 31 December 2021	As at 31 December 2022	As at 31 December 2021
Property, plant and equipment and investment property	-	-	(139 102)	(139 911)	(139 102)	(139 911)
Inventories	605	1 202	(539)	(3 824)	66	(2 622)
Receivables	305	190	(1 063)	(853)	(758)	(663)
Employee benefits	3 127	3 982	-	-	3 127	3 982
Provisions	181 976	139 669	-	-	181 976	139 669
Other	3 928	113	(632)	(596)	3 296	(483)
Deferred tax assets/liabilities	**189 941**	**145 156**	**(141 336)**	**(145 184)**	**48 605**	**(28)**
Set off of tax	(116 821)	(71 396)	116 821	71 396	-	-
Net deferred tax assets/liabilities in the statement of financial position	**73 120**	**73 760**	**(24 515)**	**(73 788)**	**48 605**	**(28)**

Unrecognized deferred tax assets and liabilities

As at 31 December 2022, the unrecognized deferred tax liability amounted to PLN 51 082 thousand (31 December 2021: PLN 22 387 thousand) for temporary differences of PLN 268 855 thousand (31 December 2021: PLN 117 828 thousand) related to investment in the subsidiary as the Parent Company controls the moment when the liability arose and believes that the liability will not arise in the foreseeable future.

Set off of deferred tax assets and liabilities

Pursuant to section 74 of IAS 12, deferred tax assets and liabilities may be set off only if:

- the entity has a legally enforceable right to set off deferred tax assets against deferred tax liabilities,
- deferred tax assets and liabilities relate to income tax levied by the same taxation authority on the same tax payer or various tax payers who settle taxes jointly.

As the conditions specified above are met at the level of individual Group companies, assets and liabilities are set off separately for each company. The deferred tax assets amounting to PLN 73 120 thousand and deferred tax liabilities amounting to PLN 24 515 thousand recognized in the statement of financial position result from the set off of deferred tax assets and liabilities for individual companies of the KOGENERACJA S.A. Group.

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c. Changes in temporary differences in the period

Table: Changes in temporary differences for the year ended 31 December 2022 and 31 December 2021

	Balance as at 01.01.2022	Changes in temporary differences recognised in the statement of comprehensive income	Changes in temporary differences recognised in the statement of other comprehensive income	Balance as at 31.12.2022
Property, plant and equipment and investment properties	(736 373)	4 258	-	**(732 115)**
Inventories	(13 800)	14 144	-	**344**
Receivables	(3 485)	(505)	-	**(3 990)**
Employee benefits	20 961	(4 501)	-	**16 460**
Provisions	735 097	222 982	(314)	**957 765**
Other	(2 550)	17 489	2 405	**17 344**
	(150)	**253 867**	**2 091**	**255 808**

	Balance as at 01.01.2021	Changes in temporary differences recognised in the statement of comprehensive income	Changes in temporary differences recognised in the statement of other comprehensive income	Balance as at 31.12.2021
Property, plant and equipment and investment properties	(767 090)	30 717	-	**(736 373)**
Inventories	(870)	(12 930)	-	**(13 800)**
Receivables	(1 285)	(2 200)	-	**(3 485)**
Employee benefits	24 550	(2 560)	(1 029)	**20 961**
Provisions	709 368	25 729	-	**735 097**
Other	3 414	(2 195)	(3 769)	**(2 550)**
	(31 913)	**36 561**	**(4 798)**	**(150)**

16. Inventories

Accounting policies

Inventories are valued at purchase price or production cost not higher than the net realizable value. Net realizable value is the difference between the estimated selling price made in the ordinary course of business and the estimated costs of completion and costs necessary to bring the sale to fruition.

Disbursement of materials (coal, biomass) is measured in accordance with first in first out method.

Acquisition price or production cost of other inventories is determined based on first in first out method. The acquisition price includes the purchase price plus costs directly related to the purchase.

Energy origin rights are recognized as inventory at the end of month in which certified energy has been produced. Certificates are measured at fair value at the end of the month in which the certified energy has been produced and are recognized as inventory and secondarily as revenue from product sales.

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At the time of sale of energy origin certificates, gain/loss on sale, being a difference between the sale value and the corresponding fair value of the certificates as at the day of their valuation, is recognized as revenues from sale of products.

The outflow of CO_2 emission rights, due to the specificity of sales, is valued using the detailed identification method. As the Group enters into transactions concerning the purchase of CO_2 emission rights at the moment of contracting sales, each purchase is assigned to a relevant basket related to the sale contracted for a given year.

Table: Inventories as at 31 December 2022 and 31 December 2021

	As at 31 December 2022	As at 31 December 2021
Raw materials	91 197	47 615
Energy origin certificates	2 837	16 355
	94 034	**63 970**

Inventories were not pledged as security in 2022 and 2021.

Inventories are presented in net amounts decreased by impairment losses in the amount of PLN 3 180 thousand, including a write-down on spare parts of PLN 3 028 thousand and a write-down on production fuels of PLN 152 thousand (31 December 2021: PLN 6 324 thousand, including a write-down on spare parts of PLN 2 696 thousand, a write-down on production fuels of PLN 152 thousand, and a write-down on certificates of PLN 3 476 thousand).

In December 2022, green certificates recognized in the Parent Company's books but not allocated by the Energy Regulatory Office were written off and a write-down on certificates in the amount of PLN 3 476 thousand was released.

In 2022, the value of inventories recognized at cost of sales amounted to PLN 508 838 thousand (2021: PLN 500 976 thousand).

The value of energy origin rights recognized in inventories decreased by PLN 13 518 thousand compared to 31 December 2021, mainly due to the sale of green certificates produced in 2020 and 2021 and a lower volume of certificates produced in 2022.

In 2022, the value of materials, including in particular coal stocks, in the Parent Company increased by PLN 43 582 thousand. The coal stock as at 31 December 2022 was 215,9 thousand tonnes, an increase of 119,7 thousand tonnes compared to 2021 (31 December 2021: 96,2 thousand tonnes).

Coal stocks at EC Wrocław as at 31 December 2022 amounted to 169,5 thousand tonnes, a decrease by 85,2 thousand tonnes compared to 31 December 2021. This was mainly due to:

- rebuilding coal stocks after delays in deliveries in the period from October to December 2021 as a result of nationwide coal transport and availability issues,
- using the executed coal deliveries in the first quarter of 2022 as a security for only the current production during the high heating season (the shortage issues that arose earlier could not be fixed).
- changing the logistics service for coal deliveries, i.e. moving from from mixed rail and water transport to direct rail transport, which allowed the company to maintain high unloading capacity during the winter.

Coal stocks at EC Czechnica as at 31 December 2022 amounted to 46,4 thousand tonnes, a decrease by 34,5 thousand tonnes compared to 31 December 2021. The on-schedule coal deliveries in the period from April to December 2022 made it possible to ensure a safe level of coal stock for use in the 2022–2023 heating season.

17. CO_2 emission rights acquired for redemption

Accounting policies

Emission rights granted free-of-charge through National Allocation Plan of Emission Rights as well as acquired emission rights are presented separately in the statement of financial position as Carbon-dioxide emission rights acquired for redemption. The rights received free of charge are presented at nil value while acquired rights are presented at acquisition price.

Provision for actual CO_2 emission is recognized in the amount exceeding emission rights grants received in the form of free CO_2 emission rights (at market prices). The estimation of expenditure necessary to meet the obligation to redemption of CO_2 emission rights is based on the method of detailed identification, taking into account the allocation of right purchases to a given year.

Revenue from sale of surplus of emission rights is recognized as at the date of rights' sale and presented in the statement of comprehensive income as revenue.

As at 31 December 2022, the statement of financial position includes long-term and short-term CO_2 emission rights acquired for redemption in the total amount of PLN 172 681 thousand (31 December 2021: PLN 218 258 thousand), including the Parent Company: PLN 146 089 thousand; the subsidiary EC Zielona Góra S.A.: PLN 26 592 thousand.

As at 31 December 2022, the rights relating to 2024 and 2025, due for redemption in April 2025 and April 2026, respectively, in the amount of PLN 4 028 thousand, including the Parent Company: PLN 2 937 thousand; the subsidiary EC Zielona Góra S.A.: PLN 1 091 thousand (31 December 2021: PLN 15 756 thousand, including the Parent Company: PLN 13 037 thousand; the subsidiary EC Zielona Góra S.A.: PLN 2 719 thousand) were recognized as long-term CO_2 emission rights acquired for redemption.

18. Derivatives and other assets measured at fair value through profit or loss

Accounting policies

The Group uses derivatives to hedge against the risk relevant to changes in prices of CO_2 emission rights, interest rates, and exchange rates. This includes forward purchase contracts for CO_2 emission rights, contracts for EUA and CER CO_2 emission rights' exchange (SWAP) as well as contracts and transactions to hedge foreign exchange and interest rates.

Such derivatives are designated as financial instruments at fair value.

Fair value of forward purchase contracts for CO_2 emission rights and contracts for EUA and CER CO_2 emission rights' exchange (SWAP) is estimated with reference to current forward contracts of similar maturity dates. Fair value of forward exchange contracts is estimated with reference to the quoted market price, if available. If a quoted market price is not available, then fair value is estimated by discounting the difference between the contractual forward price and the current forward price.

The fair value of foreign exchange forward contracts is determined by checking the conclusion price against current forward prices calculated based on market data. The fair value of interest rate exchange contracts is calculated based on yield curves.

Depending on whether the value of a derivative is positive or negative, it is recognized as financial asset or financial liability, respectively.

Gains and losses from changes in the fair value of derivatives that do not qualify for hedge accounting and the ineffective portion of hedging relationships in cash flow hedge accounting are charged directly to the financial result for the financial year.

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In connection with the contract for the upgrade of the gas turbine at EC Zielona Góra S.A., the price of which is denominated in USD, the Group applies the cash flow hedge accounting from 9 October 2020.

Payments under the contract cover the period from October 2020 to December 2022. Implementation of hedge accounting is aimed at hedging against unfavorable changes in cash flows in the subsidiary resulting from probable future liabilities due to costs of modernization works in foreign currency (fluctuations of the USD exchange rate) and eliminating the accounting mismatch that may occur between hedging instruments and hedged items of the upgrade contract. In the statement of financial position as at 31 December 2022, a derivative instrument on this account in the amount of PLN 146 thousand is shown on the liabilities side (31 December 2021: PLN 2 731 thousand on the assets side).

Derivatives include valuation of contracts for the sale of CO_2 emission rights in the amount of PLN 2 thousand.

19. Cash and cash equivalents

Accounting policies

Cash consists of cash on hand and deposits payable on demand.

Cash equivalents are short-term, highly liquid investments that are easily convertible to specific amounts of cash and exposed to an insignificant risk of change in value.

Cash and short-term deposits reported in the statement of financial position include, in particular, cash at bank and short-term deposits with an original maturity of three months or less.

Cash and cash equivalents' balance disclosed in the cash flow statement comprises cash and cash equivalents referred above, reduced by outstanding overdrafts being an integral part of the cash management system.

Table: Cash and cash equivalents as at 31 December 2022 and 31 December 2021

	As at 31 December 2022	As at 31 December 2021
Cash at bank	3 616	9 810
Cash in VAT accounts	1 554	12 114
Cash and cash equivalents in the statement of financial position	**5 170**	**21 924**
Cash and cash equivalents in the statement of cash flows	5 170	21 924

20. Impairment losses

Accounting policies

Financial assets

The Group assesses expected credit losses on debt instruments measured at amortized cost and fair value through other comprehensive income, regardless of whether there is any indication of impairment.

For trade receivables, the Group applies a simplified approach and measures the loss allowance at an amount equal to lifetime expected credit losses using a provision matrix. The Group uses its historical credit losses experience, adjusted where appropriate for the impact of forward-looking information.

For other financial assets, the Group measures the loss allowance at an amount equal to 12-month expected credit losses. If the credit risk on a financial instrument has increased significantly since initial recognition, the Group measures the loss allowance for a financial instrument at an amount equal to the lifetime expected credit losses.

In the financial result, the Group recognizes as profit or loss on impairment the amount of expected credit losses (or the amount of the reversal of the provision) that is required to adjust the allowance for expected credit losses at the reporting date to the amount to be recognized under IFRS 9 Financial instruments.

Non-financial assets

The carrying amount of the Group's assets other than inventories and deferred tax assets is reviewed at the end of each reporting period to determine whether there is any indication of impairment. If such indications occur, the Group estimates the recoverable amount of individual assets.

For goodwill, intangible assets with indefinite useful lives or intangible assets not yet available for use, the recoverable amount is estimated at the end of reporting period.

Impairment loss is recognized when the carrying amount of an asset or of its cash-generating unit exceeds its estimated recoverable amount. Impairment losses are recognized in the statement of comprehensive income for the period, in the profit and loss section.

Impairment losses recognized in respect of cash-generating units are allocated primarily to goodwill related to the unit (group of units) and then to the carrying amount of the other assets of the unit (group of units) on a pro rata basis.

Reversal of impairment losses

The Group, not later than at the end of each financial year, assesses whether there are any indications that the impairment of an asset recognized in previous periods has ceased to exist or has partially ceased to exist. If such indications exist, the Group estimates the recoverable amount of a given asset.

If there are indications that an asset (other than goodwill) is no longer impaired or has diminished in value, this may indicate that the remaining useful life, amortization method, or residual value should be reassessed and adjusted, even if the impairment on that asset has not been reversed.

Impairment recognized for assets other than goodwill is reversed if there has been a change in the estimates used to determine the asset's recoverable amount since the last impairment recognition. The carrying amount is then increased to the recoverable amount.

The increased carrying amount of an asset, other than goodwill, resulting from a reversal of an impairment loss may not exceed the carrying amount that would have been determined (including amortization) had no impairment loss been recognized in prior periods.

Reversal of impairment loss for assets other than goodwill is recognized directly in the statement of comprehensive income as an adjustment to operating expenses.

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Table: Impairment losses as at 31 December 2022 and 31 December 2021

	1 January 2022	Recognition of impairment allowances	Use/reversal of impairment allowances	31 December 2022
Intangible assets	(12 948)	-	-	(12 948)
Property, plant and equipment	(5 988)	-	5 185	(803)
Investment properties	(3 590)	-	-	(3 590)
Inventories	(6 324)	(561)	3 705	(3 180)
Short-term receivables	(1 832)	(757)	986	(1 603)
Total impairment losses	**(30 682)**	**(1 318)**	**9 876**	**(22 124)**

	1 January 2021	Recognition of impairment allowances	Use/reversal of impairment allowances	31 December 2021
Intangible assets	(12 948)	-	-	(12 948)
Property, plant and equipment	(5 988)	-	-	(5 988)
Investment properties	(3 590)	-	-	(3 590)
Inventories	(5 717)	(748)	141	(6 324)
Short-term receivables	(4 398)	(749)	3 315	(1 832)
Total impairment losses	**(32 641)**	**(1 497)**	**3 456**	**(30 682)**

21. Equity

Accounting policies

Equity is stated at nominal value, classified by type and in accordance with the legal regulations and the Company's Articles of Association.

In the financial statements, share capital is presented in the amount specified in the Articles of Association and registered in the Court Register.

Share capital, share premium account, and other reserves in the consolidated financial statements are capitals of the parent company. Capital from valuation of financial instruments and retained earnings include both the parent company's capitals and the corresponding portion of subsidiaries' capitals, determined in accordance with the principles of consolidation. In the consolidated statement of financial position, shareholders' equity is presented broken down into:

- equity of the shareholders of the Parent Company,
- equity attributable to non-controlling interests.

a. Share capital

Table: Share capital as at 31 December 2022 and 31 December 2021

	As at 31 December 2022	As at 31 December 2021
Number of shares as at opening balance (in thousand of shares)	14 900	14 900
Number of shares as at closing balance (in thousand of shares, fully paid)	14 900	14 900
Nominal value of share (in PLN)	5	5
in PLN thousand		
Nominal value of issue A	54 500	54 500
Nominal value of issue B	20 000	20 000
Hiperinflation	178 003	178 003
	252 503	**252 503**

From the day of registration of the share capital in 1991 until December 1996, the Group operated in the environment of hyperinflationary economy. IAS 29 *Financial reporting in hyperinflationary economies* requires that each component of the shareholders capital (except retained profit and restatement surplus) be restated by applying a general price index during the hyperinflationary period. The retrospective application of IAS 29 resulted in the increase in the share capital by PLN 178 003 thousand and share premium by PLN 56 671 thousand, and the decrease in retained profit in this period by PLN 234 674 thousand.

The changes described above have been recognized in the statement of financial position in share capital, share premium, and retained profit.

The holders of ordinary shares are entitled to obtain dividends as resolved and they hold the right to one vote per share at the Parent Company's General Meeting of Shareholders. All shares are equal as to conferring the right to the Parent Company's property should it be distributed.

b. Other reserve capital

Other reserve capital is raised out of all or any portion of approved profit generated by the Parent Company. The General Meeting can also indicate a specific purpose for which the funds are to be allocated (e.g. investments, restructuring).

Other reserve capital was also increased by the value of shares granted to employees (PLN 4 704 thousand, including PLN 3 384 thousand in KOGENERACJA S.A. and PLN 1 320 thousand in EC Zielona Góra S.A.). The program was finalized in the previous years and was not in force as at 31 December 2022 and 31 December 2021.

c. Share premium

Share premium relates to reserve capital, which was formed, as at the date of change of the Parent Company's legal status from the state-owned entity to joint-stock company, from the founding capital and enterprise fund excluding share capital, and hyperinflationary revaluation and additional issue of shares on the Stock Exchange. The condition set forth in Article 396 of the Code of Commercial Companies relating to the creation of reserve capital to cover losses in the amount of 8% of profit for a given financial year until the reserve funds reach a level of at least one-third of the share capital has been satisfied.

d. Financial instruments measurement reserve

The financial instruments measurement reserve includes the measurement of the derivative due to the implemented hedge accounting. Detailed information is presented in *Notes to the financial statements*, item 18.

e. Dividends proposed by the Management Board

KOGENERACJA S.A.

In 2022, the Parent Company's net loss amounted to PLN 822 thousand. As at the date of publication of the financial statements, the Management Board of KOGENERACJI S.A. had not made a decision on how to cover the loss for 2022.

Pursuant to Resolution No. 6B/2022 of the Ordinary General Meeting of Zespół Elektrociepłowni Wrocławskich KOGENERACJA S.A. of 24 June 2022, the company allocated the amount of PLN 4 768 thousand, i.e. PLN 0,32 per share, from its net profit for 2021 for the payment of a dividend and the amount of PLN 18 695 thousand for the replenishment of other reserve capitals (*Current Report 18/2022*). KOGENERACJA S.A. paid a dividend on 15 September 2022.

EC Zielona Góra S.A.

In 2022, the net profit of the subsidiary EC Zielona Góra S.A. was PLN 153 359 thousand. By the date of publication of the financial statements, the subsidiary's Management Board had not decided to propose the distribution of the financial result for 2022.

Pursuant to Resolution No. 3/2022 of the Ordinary General Meeting of EC Zielona Góra S.A. of 10 June 2022, the subsidiary allocated the net profit for the financial year 2021 in the amount of PLN 33 302 thousand to increase the reserve capital.

22. Earnings per share

Accounting policies

The Parent Company presents basic and diluted earnings per share for its ordinary shares. Basic earnings per share is calculated by dividing the profit or loss attributable to ordinary shareholders by the weighted average number of ordinary shares outstanding during the year. Diluted profit per share is determined by dividing the adjusted profit or loss attributable to ordinary shareholders by the weighted average number of ordinary shares outstanding, adjusted for own shares held and for the effects of all dilutive potential ordinary shares, which may comprise e.g. convertible bonds and share options granted to employees.

The calculation of the profit per share was based on the consolidated net profit attributable to owners of the Parent Company in the amount of PLN 149 534 thousand (31 December 2021: profit in the amount of PLN 56 254 thousand) and weighted average number of shares outstanding as at the date of preparation of the financial statements in the amount of 14 900 thousand pcs (31 December 2021: 14 900 thousand pcs).

Table: Profit per 1 share for the year ended 31 December 2022 and 31 December 2021

	For the year ended 31 December 2022	For the year ended 31 December 2021
Net profit attributable to shareholders of Parent Company	149 534	56 254
Weighted average number of ordinary shares as at closing balance *(in thousands of shares)*	14 900	14 900
Net profit for the period attributable to shareholders of Parent Company per ordinary share *(in PLN)*	10,04	3,78

As at 31 December 2022 and 31 December 2021, there were no diluting instruments.

23. Loan and lease liabilities

Table: Loan and lease liabilities as at 31 December 2022 and 31 December 2021

	As at 31 December 2022		As at 31 December 2021	
	Non-current	Current	Non-current	Current
Loans received	21 290,00	65	-	-
Lease liabilities	83 625,00	7 451	55 632	2 335
	104 915,00	**7 516**	**55 632**	**2 335**

a. Loan liabilities

Entering into an agreement on co-financing the construction of Nowa EC Czechnica

On 27 May 2022, an agreement for a loan to supplement the Company's own contribution to the project *Construction of Nowa EC Czechnica* was entered into with the National Fund for Environmental Protection and Water Management (NFEPWM). The loan was granted up to PLN 50 000 thousand for the period from 1 July 2022 to 20 December 2036. The interest rate on the loan is WIBOR 3M +50 base points, but not less than 2% p.a. The loan is secured with a promissory note with a promissory note declaration. The loan is to be repaid in 48 installments payable at the end of each quarter, starting from 31 March 2025.

Entering into an agreement on co-financing the construction of Nowa EC Czechnica

On 10 December 2021, an agreement for co-financing of the project *Construction of Nowa EC Czechnica* was entered into with the National Fund for Environmental Protection and Water Management (NFEPWM). The subject of the agreement is a subsidy granted to KOGENERACJA S.A. in the form of a loan from NFEPWM funds up to the amount of PLN 300 000 thousand paid in tranches in accordance with the schedule. The loan was granted for the period from 1 July 2022 to 31 March 2036. The loan is to be repaid in 45 installments payable at the end of each quarter, starting from 31 March 2025. The interest rate on the loan is WIBOR 3M +50 base points, but not less than 1,5% p.a. The loan is secured with a promissory note with a promissory note declaration and a promissory note guarantee from PGE Energia Ciepła S.A. (majority shareholder of the Company) together with a promissory note declaration by the promissory note guarantor. The loan is to be repaid in 45 installments payable at the end of each quarter, starting from 31 March 2025.

Table: Dates and conditions of repayment of loans received

Lender	Interest rate	Maturity date	Contract amount (in PLN thousand)	Amount to be repaid as at 31 December 2022 (in PLN thousand)
NFOŚiGW	WIBOR 3M +0,5% but not less than 1,5% p.a.	31.03.2036 r.	300 000	21 355
NFOŚiGW	WIBOR 3M +0,5% but not less than 2% p.a.	20.12.2036 r.	50 000	-

b. Lease liabilities

Accounting policies

At the commencement date, a lessee measures the lease liability at the present value of the lease payments that are not paid at that date. The lease payments shall be discounted using the interest rate implicit in the lease, if that rate can be readily determined. If that rate cannot be readily determined, the lessee uses the lessee's incremental borrowing rate.

At the commencement date, the lease payments included in the measurement of the lease liability comprise the following payments for the right to use the underlying asset during the lease term that are not paid at the commencement date:

- fixed payments (including in-substance fixed payments), less any lease incentives receivable;
- variable lease payments that depend on an index or a rate, initially measured using the index or rate as at the commencement date;
- amounts expected to be payable by the lessee under residual value guarantees;
- the exercise price of a purchase option if the lessee is reasonably certain to exercise that option; and
- payments of penalties for terminating the lease, if the lease term reflects the lessee exercising an option to terminate the lease.

After the commencement date, a lessee measures the lease liability by:

- increasing the carrying amount to reflect interest on the lease liability, which, in each period during the lease term, is the amount that produces a constant periodic rate of interest on the remaining balance of the lease liability;
- reducing the carrying amount to reflect the lease payments made; and
- remeasuring the carrying amount to reflect any reassessment or modification of the lease, or to reflect revised substantially fixed lease payments.

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Lease liabilities mainly refer to the right of perpetual usufruct of land.

Decisions on the right of perpetual usufruct of land are granted for a fixed period of 99 years. If the economic purpose of perpetual usufruct does not require the land to be granted this right for 99 years, a shorter period (at least 40 years) is allowed. The fee for perpetual usufruct of land is set as a percentage of the value of the land (the percentage rate of the fee set depending on the purpose for which the land was granted the right of perpetual usufruct). The amount of the annual fee for perpetual usufruct of land is subject to update no more often than once every 3 years if the value of the property changes. Therefore, the fee is variable depending on the index or rate and is taken into account in the measurement of the lease liability. The updated annual fee shall be determined using the existing percentage rate of the value of the property determined as of the date of updating the fee. The annual fee is updated either routinely or at the request of the perpetual usufructuary of the land property based on the value of the land property as determined by an appraiser.

The annual fee shall be updated by the competent authority by giving a written notice on the cancellation of the previous fee by 31 December of the preceding year and sending an offer to accept the new amount of the annual fee.

The schedule of payments of lease liabilities is presented in chapter III *Notes to the financial statements*, item 35.

24. Deferred income and government grants

Accounting policies

Government grants related to income are recognized as a profit or loss in the period and presented as other operating income when the grant is due.

Other government grants (including grants related to assets) are initially recognized as deferred income at fair value if there is reasonable assurance that the Group will meet the conditions and receive the grant. Grants received as a reimbursement of expenditures incurred by the Group are recognized as profit for the current period and presented as other operating income on a systematic basis in the periods the related costs are recognized. Grants related to assets are recognized as current period income on a systematic basis over the period of the useful life of the granted assets.

Table: Deferred income and government grants as at 31 December 2022 and 31 December 2021

	As at 31 December 2022	As at 31 December 2021
Non-current grants	83 073	87 959
Other	43	41
	83 116	**88 000**
Current grants	5 870	6 377
Other	3	11
	5 873	**6 388**

KOGENERACJA S.A.

- On 17 December 2009, a grant agreement with National Environmental Protection Fund and Water Management seated in Warszawa was entered into under Priority 4.5 *Operating Program: Infrastructure and Environment 2007–2013*. The subject of the agreement is co-financing of the project *Change in combustion technology – conversion of coal combustion chamber OP130/K2 in EC Czechnica to biomass combustion chamber*, which represents 26.75% of total qualified capital expenditures incurred in relation to the project, not exceeding PLN 20 000 thousand. KOGENERACJA S.A. applied for the final payment on 31 July 2011. On 1 February 2011, the Company received a partial payment of PLN 18 930 thousand and the remaining part of PLN 1 070 thousand was paid in June 2011.

  As at 31 December 2022, the value of the above grant presented in the statement of financial position amounted to PLN 1 962 thousand (31 December 2021: PLN 2 942 thousand), including the short-term part in the amount of PLN 981 thousand and the long-term part in the amount of PLN 981 thousand).

- On 11 June 2012, a grant agreement for co-financing the project *Construction of cogeneration source based on the gas in EC Zawidawie* was entered into. The project was settled and finished on 30 June 2014. Financial resources coming from European funds in the amount of PLN 2 771 thousand were granted for the implementation of the project. The grant constitutes a public support in the amount of not more than 40% of total qualified capital expenditures. Total value of the project amounted to PLN 8 945 thousand and the amount of qualified capital expenditures related to the implementation of the project amounted to PLN 6 927 thousand.

  As at 31 December 2022, the value of the above grant presented in the statement of financial position amounted to PLN 1 299 thousand (31 December 2021: PLN 1 392 thousand), including the short-term part of PLN 93 thousand and the long-term part in the amount of PLN 1 206 thousand).

- On 27 May 2013, the Company signed an agreement for co-financing of the project *Extension of the heating network in the south-west part of Św. Katarzyna* under the Regional Operational Program for Lower Silesia for 2007–2013. The total value of the grant from the EU budget amounts to PLN 295 thousand, which accounts for 40% of total qualified capital expenditures. The total value of the project amounts to PLN 1 599 thousand. Own contribution equals to PLN 422 thousand. Share of own funds amounts to PLN 1 304 thousand. Own contribution amounts to at least 25% of total qualified capital expenditures. On 9 May 2014, the project was completed and settled.

  As at 31 December 2022, the value of the above grant presented in the statement of financial position amounted to PLN 230 thousand (31 December 2021: PLN 237 thousand), including the short-term part in the amount of PLN 7 thousand and the long-term part in the amount of PLN 223 thousand).

- On 5 July 2013, an agreement was signed between Zespół Elektrociepłowni Wrocławskich KOGENERACJA S.A. and the National Environmental Protection Fund and Water Management seated in Warszawa, concerning the grant for the project *Flue gas denitrification installation in Elektrociepłownia Wrocław for boiler No. 3*, co-financed by the Operational Program: Infrastructure and Environment, within the scope of priority IV, measure 4.5 for the years 2007–2013. The $DeNO_x$ installation was completed and commissioned on 31 August 2015. According to the grant agreement, the project received the total grant amounting to PLN 10 800 thousand.

  As at 31 December 2022, the value of the above grant presented in the statement of financial position amounted to PLN 6 510 thousand (31 December 2021: PLN 7 446 thousand), including the short-term part in the amount of PLN 805 thousand and the long-term part in the amount of PLN 5 705 thousand).

- On 11 March 2014, Zespół Elektrociepłowni Wrocławskich KOGENERACJA S.A. and National Environmental Protection Fund and Water Management seated in Warszawa signed a grant agreement for co-financing of the project *Execution of the wet flue gas desulfurization installation at Elektrociepłownia Wrocław for boilers K1, K2, K3*, funded by Norwegian Financial Mechanism 2009–2014, in amount of PLN 20 000 thousand. On 3 November 2014, the first tranche of the grant of PLN 3 763 thousand was received. On 15 May 2015, the second tranche of PLN 10 589 thousand was received. On 2 September 2015, the third tranche of PLN 3 706 thousand was received. The remaining amount, i.e. PLN 1 941 thousand, was transferred after the removal of defects identified during the guarantee measurements and after the settlement and preparation of the final report of the investment on 9 June 2017.

As at 31 December 2022, the value of the above grant presented in the statement of financial position amounted to PLN 12 742 thousand (31 December 2021: PLN 14 303 thousand), including the short-term part in the amount of PLN 1 561 thousand and the long-term part in the amount of PLN 11 181 thousand).

- On 21 December 2017, an agreement was signed between Zespół Elektrociepłowni Wrocławskich KOGENERACJA S.A. and the National Fund for Environmental Protection and Water Management seated in Warszawa, regarding co-financing of the project *Construction of heating networks from ul. Bierutowska towards the Zakrzów estate in Wrocław*. The planned total cost of the project implementation is PLN 11 225 thousand and the amount of qualified expenses for the implementation of the project is PLN 9 115 thousand. Project co-financing in the amount not exceeding PLN 3 822 thousand depends on the value of qualified expenditures incurred in the course of the project and approved by NFEPWM.

  As at 31 December 2022, the value of the above grant presented in the statement of financial position amounted to PLN 3 203 thousand (31 December 2021: PLN 2 102 thousand), including the short-term part in the amount of PLN 84 thousand and the long-term part in the amount of PLN 3 119 thousand).

- On 21 December 2017, an agreement was signed between Zespół Elektrociepłowni Wrocławskich KOGENERACJA S.A. and the National Fund for Environmental Protection and Water Management seated in Warszawa, regarding the project *Construction of heating networks in the Siechnice commune around the following streets: ul. Czeremchowa, ul. Kalinowa, and ul. Prawocińska in the area of the Prawocin estate in Siechnice* under the Operational Program: Infrastructure and Environment 2014–2020, as amended. The planned total cost of the project implementation is approximately PLN 2 249 thousand and the amount of qualified expenditures for the implementation of the project is PLN 1 826 thousand. Project co-financing in the amount not exceeding PLN 812 thousand depends on the value of qualified expenditures incurred in the course of the project and approved by NFEPWM.

  As at 31 December 2022, the value of the above grant presented in the statement of financial position amounted to PLN 738 thousand (the long-term part).

- On 12 August 2020, an agreement was signed between Zespół Elektrociepłowni Wrocławskich KOGENERACJA S.A. and the National Fund for Environmental Protection and Water Management seated in Warszawa, regarding the project "Connecting users to the heating system by building district heating networks and connections in Siechnice and Święta Katarzyna." The planned total cost of the project implementation is approximately PLN 5 783 thousand and the amount of qualified expenditures for the implementation of the project is PLN 4 692 thousand. Project co-financing in the amount not exceeding PLN 2 020 thousand depends on the value of qualified expenditures incurred in the course of the project and approved by NFEPWM.

  As at 31 December 2022, the value of the above grant presented in the statement of financial position amounted to PLN 435 thousand, including the short-term part in the amount of PLN 6 thousand and the long-term part in the amount of PLN 429 thousand.

EC Zielona Góra S.A.

- The subsidiary EC Zielona Góra S.A. received government grants from EKO Fund in connection with the construction of the gas and steam power unit in the total amount of PLN 40 000 thousand. The unit was commissioned in August 2004. The grant amount, recognized as deferred revenue, is written off over the useful life of the facility.

  As at 31 December 2022, the value of the above grant presented in the statement of financial position amounted to PLN 5 207 thousand (31 December 2021: PLN 5 979 thousand), including the short-term part in the amount of PLN 137 thousand and the long-term part in the amount of PLN 5 070 thousand.

- In December 2007, EC Zielona Góra S.A. received the first of the two tranches of the grant from NFEPWM concerning the co-financing of the construction of the main line of heat distribution closing the ring around the midtown of Zielona Góra. The first tranche amounted to PLN 3 450 thousand. The second tranche of PLN 1 042 thousand was paid out in July 2008.

  As at 31 December 2022, the value of the above grant presented in the statement of financial position amounted to PLN 1 926 thousand (31 December 2021: PLN 2 067 thousand), including the short-term part in the amount of PLN 141 thousand and the long-term part in the amount of PLN 1 785 thousand.

- In 2011, under the project *Modernization and reconstruction of the heating system in Zielona Góra*, a grant from the National Fund for Environmental Protection was awarded. The grant was recognized in deferred income in the amount of PLN 8 992 thousand. In the following year, as the part of the expenses incurred was not recognized as eligible, the value of the grant was reduced by PLN 2 442 thousand to PLN 6 550 thousand. In 2014, EC Zielona Góra S.A. received a cash grant of PLN 14 445 thousand as part of the expenses incurred in 2012 and 2013. In 2015, a grant in the amount of PLN 8 473 thousand was received as part of the expenses incurred in 2014–2015, of which the amount of PLN 7 268 thousand will be settled after the fixed asset is established. In 2016, the company received a cash grant of PLN 6 750 thousand as part of the expenses incurred in 2015. The grant amount, recognized as deferred revenue, is written off over the useful life of the subsidized part of the assets of the heat.

  As at 31 December 2022, the value of the above grant presented in the statement of financial position amounted to PLN 27 479 thousand (31 December 2021: PLN 28 869 thousand), including the short-term part in the amount of PLN 1024 thousand and the long-term part in the amount of PLN 26 455 thousand.

- In November 2011, the subsidiary EC Zielona Góra S.A. received a grant for the construction of the oil gas water boilers in amount of PLN 1 296 thousand and recognized it as deferred revenue. In 2012, the subsidiary received another tranche of grant in the amount of PLN 11 572 thousand. In 2013, the grant was adjusted and its value decreased to PLN 693 thousand.

  As at 31 December 2022, the value of the above grant presented in the statement of financial position amounted to PLN 9 877 thousand (31 December 2021: PLN 10 292 thousand), including the short-term part in the amount of PLN 414 thousand and the long-term part in the amount of PLN 9 463 thousand.

- On 16 October 2017 and 19 November 2017, the subsidiary, EC Zielona Góra S.A., signed agreements with NFEPWM (National Fund for Environmental Protection and Water Management) on subsidies for ITI projects at companies operating under the Operational Program Infrastructure and Environment 2014–2020. The projects concerned, among others, building and reconstruction of networks, central heating connections, installation of individual heat centers, and conversion of local boiler rooms into heat centers in Zielona Góra. In 2021, as the part of the expenses incurred was not recognized as eligible, the value of the grant was reduced by PLN 203 thousand.

  As at 31 December 2022, the value of the above grant presented in the statement of financial position amounted to PLN 17 355 thousand (31 December 2021: PLN 17 018 thousand), including the short-term part in the amount of PLN 617 thousand and the long-term part in the amount of PLN 16 718 thousand.

25. Trade and other financial and non-financial liabilities

Accounting policies

Liabilities constitute a present obligation of the Group arising from past events, the settlement of which is expected to result in an outflow of resources embodying economic benefits.

Financial liabilities are subject to classification in the following categories:

- financial liabilities measured at fair value through profit or loss,
- other financial liabilities measured at subsequent reporting dates at amortized cost.
- non-financial liabilities.

Short-term trade and other non-financial liabilities are stated at amounts due and payable.

When the effect of the change in the time value of money is material, liabilities are presented at a discounted value.

The Group excludes a financial liability from its balance sheet if the obligation has lapsed, i.e. the obligation specified in the contract has been fulfilled or cancelled, or expired.

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a. Other financial liabilities – long-term

Table: Long-term other financial liabilities as at 31 December 2022 and 31 December 2021

	As at 31 December 2022	As at 31 December 2021
Liabilities due to compensations for stranded costs	374 904	429 997
Deposits, bid bonds and agreement security	-	6 968
Payables due to tangible assets' acquisition	14	14
Other liabilities	-	2
	374 918	**436 981**

Detailed information on liabilities due to KDT compensations is presented in Note 2.

b. Trade and other financial liabilities – short-term

Table: Shot-term trade and other financial receivables as at 31 December 2022 and 31 December 2021

	As at 31 December 2022	As at 31 December 2021
Trade payables due to related entities	250 977	367 760
Trade payables due to other entities	28 841	20 592
Payables due to tangible assets' acquisition	40 805	54 850
Liabilities due to compensations for stranded costs	55 145	17 340
Deposits, bid bonds and agreement security	3 896	3 076
Liabilities from property insurances	833	-
Liability due to uncollected gas	19 518	-
Other payables	271	334
	400 286	**463 952**

Due to modernization work related to the replacement of the gas turbine at EC Zielona Góra S.A. and a scheduled maintenance shutdown, the terms of the contract for minimum annual gas supplies were not met. A charge for uncollected gas in the amount of PLN 19 518 thousand, incurred in January 2023, was recognized under *Trade and other financial liabilities*. As it is possible to collect the uncollected volume of deliveries in the following year, the charge on this account was included in *Other assets*.

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Trade liabilities due to related entities as at 31 December 2022 include liabilities resulting from:

- liabilities to the parent company PGE Polska Grupa Energetyczna S.A. in the amount of PLN 180 801 thousand, to the parent company PGE Energia Ciepła S.A. in the amount of PLN 6 993 thousand, to PGE Systemy S.A. in the amount of PLN 938 thousand, and to PGE Obrót S.A. in the amount of PLN 237 thousand, mainly due to SLAs,
- purchase of production fuel from Polska Grupa Górnicza S.A. in the amount of PLN 21 830 thousand and Jastrzębska Spółka Węglowa S.A. in the amount of PLN 7 843 thousand,
- liabilities for services provided by PGE Ekoserwis S.A. in the amount of PLN 7 272 thousand,
- liabilities to state-owned companies and other related parties in the PGE Group (including, among others, Grupa Tauron Polska Energia S.A., PSE S.A., Grupa Orlen, Grupa Azoty S.A., Grupa PKP) in the amount of PLN 25 063 thousand.

c. Other non-financial liabilities

Table: Other non-financial liabilities as at 31 December 2022 and 31 December 2021

	As at 31 December 2022	As at 31 December 2021
VAT liabilities	-	15 729
Income tax from individuals	1 405	1 333
Environmental fees	3 504	2 877
Charge to the Price Difference Payment Fund	20 789	-
Other	51	254
	25 749	**20 193**

As at 31 December 2022, the Group recognized a liability to Zarządca Rozliczeń S.A. in the amount of PLN 20 789 thousand for a deduction for the Price Difference Payment Fund. Information on the charge to the Fund is presented in the *Notes to the financial statements*, item 3b.

26. Employee benefits

Accounting policies

Provision for unused holidays
The amount of the provision for unused holidays represents the product of the number of holidays proportionally assigned to a given period and the daily rate of the equivalent for unused holidays increased by obligatory social insurance. The provision is utilized in the amount of the equivalent for the holidays taken before the reporting date increased by obligatory social insurance. The provision is reversed in the amount of the surplus if the provision amount exceeds the amounts actually paid. The provision is raised, utilized and reversed against a separate account of costs by nature adjusting payroll expenses.

Annual bonuses
According to the Collective Labor Agreement in force, the Parent Company is obliged to pay its employees an annual bonuses for previous year in amount of 8.5% of salary fund.

The provision covers the estimated costs of future payment attributable to the current period and is raised in the books of the year to which it relates, on a monthly basis, at the rate of 8,5% of the value of salaries and wages due, increased by obligatory social insurance. The provision is utilized in the month of actual payment and in amount increased by obligatory social insurance. The provision is reversed to the extent the provision amount exceeds the amounts actually paid off. The provision is raised, utilized, and reversed against a separate account of costs by nature adjusting payroll expenses.

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Target bonuses
A provision for target bonuses is raised in the books of the year to which it relates at the amount of the expected payment increased by obligatory social insurance. The provision is utilized in month of actual payment and in the amount increased by obligatory social insurance. The provision is reversed in the amount of the surplus if the provision amount exceeds the amounts actually paid. Payments are made after the defined targets are fulfilled by a Group company.

Individual leaving program liabilities
Provision is raised in accordance with the Employees Individual Leavings Program and calculated as a sum of foreseeable payments and other benefits on the basis of program regulations and applicable labor law.

Table: Employee benefit liabilities as at 31 December 2022 and 31 December 2021

	As at 31 December 2022			As at 31 December 2021		
	long-term	short-term	TOTAL	long-term	short-term	TOTAL
Individual leavings programme	344	462	806	792	683	1 475
Annual bonuses	-	6 960	6 960	-	6 078	6 078
Target bonuses	-	1 490	1 490	-	1 385	1 385
Unused holidays	-	1 948	1 948	-	1 639	1 639
Non-competition clause	683	-	683	683	-	683
Performance bonus	-	2 477	2 477	-	2 555	2 555
Payroll liabilities	-	3 912	3 912	-	3 526	3 526
Social insurance benefits	-	4 478	4 478	-	3 853	3 853
TOTAL	**1 027**	**21 727**	**22 754**	**1 475**	**19 719**	**21 194**

27. Provisions

Accounting policies

Provision for post-employment benefits

Employees of the Group companies are entitled to the following post-employment benefits:

- severance pays paid on a one-time basis upon retirement or pension,
- death benefits,
- benefits from the Company Social Benefit Fund,
- medical care.

The Group companies make a provision for future post-employment benefit obligations to allocate costs to the periods to which they relate. The provision is charged to operating expenses in amounts corresponding to the acquisition of future rights by current employees. The present value of these liabilities is calculated by an independent actuary.

Actuarial gains and losses resulting from changes in actuarial assumptions (including from changes in the discount rate) and *ex post* actuarial adjustments are recognized in other comprehensive income.

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Provisions
A provision is recognized when the Group has a present obligation as a result of a past event and it is probable that an outflow of economic benefits will be required to settle the obligation. If the effect of time value of money is material, provisions are estimated by discounting the expected future cash flows based on a pre-tax rate that reflects current market assessments of the time value of money and, if appropriate, the risks specific to the liability.

Provision for deficit of CO_2 emission rights
The provision is made in the amount of the most appropriate estimate of the expenditure necessary to meet the current obligation as of the reporting date. The estimate of the expenditure necessary to meet the obligation to redeem CO_2 emission rights is based on the method of detailed identification, taking into account the allocation of both free and purchased rights to a given year. The cost of the provision is presented in the statement of comprehensive income in operating activities and recorded as cost of sales by function and taxes and fees by nature.

Provision for reclamation
The Parent Company makes a provision for the cost of ash landfill reclamation. The cost of creating the provision is recognized in operating costs in proportion to the degree to which the landfill is filled. Estimates of projected reclamation costs are subject to updating at least once every 5 years. The size of the provision is revised annually in accordance with current assumptions regarding the inflation rate, the discount rate, and the degree to which the landfill is filled. The increase in the provision relating to the year is charged to operating costs. The discount reversing is charged to financial costs. A change in the measurement of provisions resulting from a change in assumptions (e.g. regarding macroeconomic factors, the method of reclamation, deadline, etc.) is recognized in other operating costs or other operating revenues.

Provision for property rights to be redeemed
The provision is created based on the requirement of the percentage of renewable energy and energy generated in cogeneration units in total sales of electricity to the end user and the volume of sales to the end user. The provision is recognized under property rights up to the amount of property rights held for redemption. The provision in the amount not covered by property rights is measured at a reliably estimated amount of the fulfillment of the future obligation to redeem property rights. In making the estimate, the replacement fee and market price are taken into account. The cost of the provision is recognized in cost of sales.

a. Post-employment employee benefit liabilities

Table: Post-employment employee benefit liabilities as at 31 December 2022 and 31 December 2021

	As at 31 December 2022			As at 31 December 2021		
	long-term	short-term	TOTAL	long-term	short-term	TOTAL
Retirement pension benefits	3 633	831	4 464	3 737	757	4 494
Contributions to Social Fund	2 014	178	2 192	2 711	168	2 879
Defined benefits liabilities	**5 647**	**1 009**	**6 656**	**6 448**	**925**	**7 373**

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Table: Change in post-employment employee benefit liabilities for the year ended 31 December 2022 and 31 December 2021

	Retirement pension benefits	Contributions to Social Fund	TOTAL
Present value of obligations as at 1 January 2022	**4 515**	**2 858**	**7 373**
Interest cost	162	103	265
Current service cost	210	25	235
Benefits paid	(482)	(224)	(706)
Actuarial gains (change of actuarial assumptions)	1 267	167	1 434
Actuarial losses (change in discount rate)	(1 031)	(914)	(1 945)
Employee benefit liability as at 31 December 2022	**4 641**	**2 015**	**6 656**
Carrying amount of non-current liabilities	3 788	1 859	5 647
Carrying amount of current liabilities	853	156	1 009

	Retirement pension benefits	Contributions to Social Fund	TOTAL
Present value of obligations as at 1 January 2021	**4 711**	**4 101**	**8 812**
Interest cost	61	53	114
Current service cost	208	50	258
Past service cost	148	-	148
Benefits paid	(290)	(197)	(487)
Actuarial gains and losses (change of actuarial assumptions)	421	(66)	355
Actuarial losses (change in discount rate)	(744)	(1 083)	(1 827)
Employee benefit liability as at 31 December 2021	**4 515**	**2 858**	**7 373**
Carrying amount of non-current liabilities	3 737	2 711	6 448
Carrying amount of current liabilities	778	147	925

In accordance with the labor law provisions, including in particular the Supra-Company Labor Agreement and Collective Labor Agreement, Group companies are obliged to pay the benefits specified in these regulations. Considering the above, the Group measures discounted amounts of these liabilities and discloses them in the statement of financial position. The amounts are calculated using actuarial method and updated on an annual basis.

Basic assumptions for the actuarial calculation of the provisions for pension benefits as at 31 December 2022:

- discount rate of 7% p.a.,
- the probability of remaining the Group's employee was calculated on the basis of historical data about staff turnover and estimated turnover in the industry, taking into account the effect of in-house restructuring programs,
- terms for entitlements to be awarded were determined in accordance with the labor law applicable to the Group,
- normal retirement arrangements were dopted in accordance with the detailed rules of the Pension Act, except for those employees who fulfil the conditions required for early retirement,
- the probability of incapacity for work giving entitlement to the severance grant depends on the age of the worker and mortality,

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- salary increases of 15,4% in 2023, 13,7% in 2024, 5,05% in 2025, 3,0% in 2026, 2,8% in 2027, and 2,5% in 2028–2033 and thereafter,
- mortality rate and life expectancy – according to the Life Expectancy Tables published by the Central Statistical Office, assuming that the Group's employee population corresponds to the average for Poland in terms of mortality. In addition, it is assumed that the fact of having a job results in a 10% reduction in mortality,
- increase in the basis for calculation of charges to the social fund (nominal, including inflation) at the level of 0% in 2023 and 5,0% in 2025–2035 and thereafter.

On the basis of data received from an actuary, the Group estimates that the impact of changes in assumptions on the amount of post-employment provisions would be as follows:

- adoption of the discount rate higher by 1 percentage point (p.p.) would decrease the amount of provisions by PLN 433 thousand, and adoption of a rate lower by 1 p.p. would increase the amount of provisions by PLN 495 thousand,
- adoption of the planned increases in the base by 1 p.p. would increase the amount of provisions by PLN 510 thousand, and adoption of a rate lower by 1 p.p. would decrease the amount of provisions by PLN 452 thousand.

b. Other provisions

Table: Provisions as at 31 December 2022 and 31 December 2021

	Provision for deficit of CO_2 emission rights	Provision for reclamation	Provision for proprietary rights held for redemption	Other provisions	Total
Value as at 1 January 2021	**201 194**	**29 441**	**4 266**	**1 864**	**236 765**
Additions	242 586	-	7 292	788	**250 666**
Utilisation	(201 077)	-	(3 764)	-	**(204 841)**
Reversal	(117)	(8 139)	(1 152)	-	**(9 408)**
Value as at 31 December 2021	**242 586**	**21 302**	**6 642**	**2 652**	**273 182**
Value as at 1 January 2022	**242 586**	**21 302**	**6 642**	**2 652**	**273 182**
Additions	508 005	-	4 072	365	**512 442**
Utilisation	(242 123)	-	(6 519)	-	**(248 642)**
Reversal	(462)	(2 562)	(201)	(600)	**(3 825)**
Value as at 31 December 2022	**508 006**	**18 740**	**3 994**	**2 417**	**533 157**

Provision for deficit of CO_2 emission rights

As at 31 December 2022, the provision amounted to PLN 508 006 thousand (31 December 2021: PLN 242 586 thousand), including the provision in the Parent Company: PLN 385 340 thousand (31 December 2021: PLN 182 637 thousand); the provision in the subsidiary EC Zielona Góra S.A.: PLN 122 666 thousand (31 December 2021: PLN 59 949 thousand). The provision was classified as a short-term provision. The increase in the level of the provision in 2022 results from a higher purchase price of contracted CO_2 emission rights.

Provision for landfill reclamation

Pursuant to Article 137 section 2 of the Waste Management Act of 14 December 2012 (*Dz. U. [Journal of Laws] of 2013, item 21, as amended*), KOGENERACJA S.A., as the managing entity of the landfills in Siechnice and Kamień, creates a reclamation fund for the fulfilment of obligations related to the landfill closure, reclamation, supervision, and monitoring. The provision for landfill reclamation is estimated in such amount as to cover the costs referred to in section 1 of the Act, excluding construction costs. In 2022, due to a change in market interest rates, the Parent Company updated the discount rate and projected inflation used to value the provision for reclamation costs. The discount rate adopted as of 31 December 2022 was 7,0% (31 December 2021: 3,6%). This change, disclosed in *Other operating revenues*, resulted in a decrease in the provision for reclamation costs by PLN 3 329 thousand. An increase in the provision resulting from the approximation of the date of incurring the cost (unwinding the discount) in the amount of PLN 767 thousand was recognized in *Financial costs*. The total change in the provision for landfill reclamation amounted to PLN 2 562 thousand. The value of the provision as at 31 December 2022 was PLN 18 740 thousand (31 December 2021: PLN 21 302 thousand). The provision was classified as a long-term provision.

Provision for property rights to be redeemed

The Parent Company and its subsidiary EC Zielona Góra S.A. create a provision for the value of the rights of energy origin pertaining to the sales that took place in the reporting period or in the previous periods in the part that has not been redeemed by the reporting date. As at 31 December 2022, the provision amounts to PLN 3 994 thousand (31 December 2021: PLN 6 642 thousand), including the provision in the Parent Company: PLN 3 036 thousand (31 December 2021: PLN 5 324 thousand); the provision in the subsidiary EC Zielona Góra S.A.: PLN 958 thousand (31 December 2021: PLN 1 318 thousand). The provision was classified as a short-term provision and recognized in the statement of comprehensive income under *Cost of sales*.

Other provisions

In December 2020, a contractual penalty for delayed performance of the contract in the amount of PLN 1 864 thousand was charged and deducted in the same amount from the supplier's invoice in accordance with the provisions of the contract. As the contractor disputed the validity of the calculation and charging of the contractual penalty for delay, KOGENERACJA S.A. recognized a provision in the amount of PLN 1 864 thousand as at 31 December 2020. KOGENERACJA S.A. created a provision for interest in the amount of PLN 188 thousand in 2021 and in the amount of PLN 259 thousand in 2022. The value of the provision as at 31 December 2022 was PLN 2 311 thousand. The provision was classified as a short-term provision.

In September 2022, KOGENERACJA S.A. received a decision from the District Court. The District Court ordered the amount of PLN 71 thousand to be paid to the contractor and reimbursement of legal costs in the amount of PLN 9 thousand. As at 31 December 2022, the value of the provision for this liability, including interest, was PLN 106 thousand. The provision was classified as a short-term provision.

Notes to the financial instruments

28. Financial instruments

Accounting policies

A financial instrument is any contract that gives rise to a financial asset of one entity and a financial liability or an equity instrument of another entity.

Classification of financial assets
Financial assets are subject to classification in the following categories:
- measured at amortized cost,
- measured at fair value through profit or loss,
- measured at fair value through other comprehensive income.

The Group classifies a financial asset on the basis of a business model for managing the financial assets and the contractual cash flow characteristics of the financial asset.

Measurement at initial recognition
Except for some trade receivables, at initial recognition an entity shall measure a financial asset at its fair value plus, in the case of financial assets not at fair value through profit or loss, transaction costs that are directly attributable to the acquisition of those financial assets.

Derecognition of financial assets
Financial assets are excluded from the books when:
- the rights to obtain cash flows from the financial assets have expired, or
- the rights to obtain cash flows from the financial assets have been transferred and the Group has transferred substantially all the risks and rewards of ownership.

Subsequent measurement
For the purpose of measurement after initial recognition, financial assets are classified into one of four categories:
- debt instruments measured at amortized cost,
- debt instruments measured at fair value through other comprehensive income,
- equity instruments measured at fair value through other comprehensive income,
- financial assets measured at fair value through profit or loss.

Debt instruments – financial assets measured at amortized cost
A financial asset is measured at amortized cost if both of the following conditions are met:
- the financial asset is held within a business model whose objective is to hold financial assets in order to collect contractual cash flows, and
- the contractual terms of the financial asset give rise, on specified dates, to cash flows that are solely payments of principal and interest on the principal amount outstanding.

The Group classifies trade receivables, cash and cash equivalents into the category of financial assets measured at amortized cost.

Debt instruments – financial assets measured at fair value through other comprehensive income
A financial asset is measured at fair value through other comprehensive income if both of the following conditions are met:
- the financial asset is held within a business model whose objective is achieved by both collecting contractual cash flows and selling financial assets, and
- the contractual terms of the financial asset give rise, on specified dates, to cash flows that are solely payments of principal and interest on the principal amount outstanding.

Interest income, foreign exchange differences and impairment losses are recognized in profit or loss and calculated in the same way as financial assets measured at amortized cost. Other changes in fair value are recognized in other comprehensive income. On derecognition of a financial asset, the cumulative gain or loss previously recognized in other comprehensive income is reclassified from equity to profit or loss.

Equity instruments – financial assets measured at fair value through other comprehensive income

As at initial recognition, the Group may make an irrevocable election to recognize in other comprehensive income subsequent changes in the fair value of an investment in an equity instrument that is neither held for trading nor contingent consideration recognized by the acquirer in a business combination to which IFRS 3 applies. This election is made on an instrument-by-instrument basis. The Group has not decided to recognize such equity instruments. Cumulative gains or losses previously recognized in other comprehensive income are not reclassified to profit or loss.

Financial assets measured at fair value through profit or loss

Financial assets that do not meet the criteria for measurement at amortized cost or fair value through other comprehensive income are measured at fair value through profit or loss.
A gain or loss on a debt instruments that are measured at fair value is recognized in profit or loss.

Dividends are recognized in *Financial revenues* in the statement of comprehensive income when the entity's right to receive dividends is established.

The Group classifies unlisted equity instruments into the category of equity instruments measured at fair value through profit or loss.

Financial liabilities

Financial liabilities are subject to classification in the following categories:

- financial liabilities measured at fair value through profit or loss,
- other financial liabilities measured at subsequent reporting dates at adjusted acquisition cost (i.e. at amortized cost).

Financial liabilities measured at fair value through profit or loss include liabilities classified as held for trading or which upon initial recognition were designated as at fair value through profit or loss. This category of liabilities includes in particular:

- derivatives,
- separated embedded derivatives.

The entity classifies the following as other financial liabilities:

- trade liabilities (including the effect of revaluation),
- bonds and other debt securities issued,
- interest-bearing loans and credits,
- lease liabilities,
- liabilities for purchase of property, plant and equipment,
- deposits and bid bonds received.

The Group derecognizes a financial liability when its contractual obligations are discharged or cancelled, or expire. Financial assets and liabilities are offset and the net amount presented in the statement of financial position only if the Group has a legal right to offset the amounts, and intends either to settle on a net basis or to realize the asset and settle the liability simultaneously. The Group classifies non-derivative financial liabilities into the other financial liabilities category. Such financial liabilities are recognized initially at fair value plus any directly attributable transaction costs. Subsequent to initial recognition, these financial liabilities are measured at amortized cost using the effective interest method.

Ordinary shares

Ordinary shares are classified as equity. Costs directly attributable to the issue of ordinary shares are recognized as a deduction from equity, net of any tax effects.

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a. Classification of financial instruments

Table: Classification of financial instruments as at 31 December 2022 and 31 December 2021

	As at 31 December 2022		Total
	long-term	short-term	
Trade receivables	-	239 407	**239 407**
Cash pooling receivables	-	524 735	**524 735**
Leases receivables	4 216	406	**4 622**
Other financial receivables	584	6 063	**6 647**
Cash and cash equivalents	-	5 170	**5 170**
Loans, borrowings and debt instruments	(21 290)	(65)	**(21 355)**
Lease liabilities	(83 625)	(7 451)	**(91 076)**
Derivatives	-	(148)	**(148)**
Trade payables	-	(279 818)	**(279 818)**
Other financial liabilities	(374 918)	(120 468)	**(495 386)**
	(475 033)	**367 831**	**(107 202)**

	As at 31 December 2021		Total
	long-term	short-term	
Derivatives and other assets measured at fair value through profit or loss	-	2 731	**2 731**
Trade receivables	-	208 755	**208 755**
Cash pooling receivables	-	583 016	**583 016**
Leases receivables	4 400	521	**4 921**
Other financial receivables	686	64 223	**64 909**
Cash and cash equivalents	-	21 924	**21 924**
Long-term lease liabilities	(55 632)	(2 335)	**(57 967)**
Derivatives	-	(2)	**(2)**
Trade payables	-	(388 352)	**(388 352)**
Other financial liabilities	(436 981)	(75 600)	**(512 581)**
	(487 527)	**414 881**	**(72 646)**

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b. Effective interest rate and analysis of age categories

Table: Effective interest rate on assets and liabilities by age category as at 31 December 2022 and 31 December 2021

	As at 31 December 2022						
	Effective interest rate	Total	< 6 months	6 -12 months	1-3 years	3-5 years	> 5 years
Leases receivables	4,86%	**4 622**	271	135	707	303	3 206
Cash and cash equivalents	0,44%	**5 170**	5 170	-	-	-	-
Loans received	7,96%	**(21 355)**	(65)	-	(21 290)	-	-
Lease liabilities	4,50%	**(91 076)**	(7 451)	-	(15 144)	(15 772)	(52 709)
Valuation of contracts for the sale of CO_2 emission rights	0,00%	**(148)**	(148)	-	-	-	-
Liabilities due to compensations for stranded costs	3,45%	**(430 049)**	-	(55 145)	(374 904)	-	-
		(532 836)	**(2 223)**	**(55 010)**	**(410 631)**	**(15 469)**	**(49 503)**

	As at 31 December 2021						
	Effective interest rate	Total	< 6 months	6 -12 months	1-3 years	3-5 years	> 5 years
Leases receivables	4,23%	**4 921**	401	120	842	490	3 068
Cash and cash equivalents	1,21%	**21 924**	21 924	-	-	-	-
Loans received	0,00%	**-**	-	-	-	-	-
Lease liabilities	4,50%	**(57 967)**	(2 335)	-	(4 392)	(4 364)	(46 876)
Liability due to foreign currency forward contract	0,00%	**(2)**	(2)	-	-	-	-
Liabilities due to compensations for stranded costs	4,03%	**(447 337)**	-	(17 340)	(96 123)	(333 874)	-
		(478 461)	**19 988**	**(17 220)**	**(99 673)**	**(337 748)**	**(43 808)**

c. Fair value and fair value hierarchy

In determining the fair value of an asset or liability, the Group relies on observable market data. Fair value measurements are classified into different levels depending on the inputs used in the measurement.

- Level 1: Quoted prices (unadjusted) in active markets for identical assets or liabilities.
- Level 2: Inputs other than quoted prices included in Level 1 that are observable for the asset or liability, either directly (e.g. quotes) or indirectly (e.g. data based on quotes).
- Level 3: Inputs to measure an asset or liability that are not based on observable market data (unobservable inputs).

If the inputs used to measure the fair value of an asset or liability are classified into different levels of the fair value hierarchy, the fair value measurement is classified entirely into the lowest level of the fair value hierarchy in which the inputs that are significant to the entire measurement are included.

The Group measures derivatives at fair value using financial instrument valuation models, using generally available exchange rates, interest rates, and discount curves in the respective currencies (also applicable for commodities whose prices are expressed in these currencies) from active markets. The fair value of derivatives is determined based on the discounted future cash flows of the transactions calculated based on the difference between the forward price and the transaction price. Forward exchange rates are not modelled as a separate risk factor. They are derived from the spot rate and the corresponding forward interest rate for the foreign currency against the domestic currency.

In the category of financial assets and liabilities measured at fair value through profit or loss, the Company recognizes financial instruments related to the trading of greenhouse gas emission rights – currency and commodity forwards (Level 2).

The Group recognizes transfers between levels of the fair value hierarchy at the end of the reporting period in which the change occurred. There were no transfers of financial instruments between levels of the fair value hierarchy in the reporting period and in the comparative period.

The carrying amount of assets and liabilities not measured at fair value approximates their fair value.

29. Financial and other operating risk management

The risk management policy of the KOGENERACJA S.A. Group is consistent with the financial risk management strategy of the PGE S.A. Group.

The main objective of market risk management is to maintain the level of trading and financial risk at an acceptable level and to support the implementation of the business strategy and maximization of the Company’s shareholder value.

The Group’s procedures for the management of individual categories of market risk in trading and financial activities cover, *inter alia*:

- purpose, scope, and rules of risk management,
- responsibilities for risk management,
- management and operational processes for risk management in trading (electricity and related product markets) and financial activities,
- ways of identifying sources of risk expansion,
- methods for measuring and monitoring risk expansion.

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The risk management rules also specify how the Group determines its appetite for market risk, limits its exposure to risk based on Profit-at-Risk and Value-at-Risk, and defines mechanisms for hedging exposures when limits are exceeded.

The Company's operations are exposed to the following financial risks:

- credit risk,
- liquidity risk,
- market risk.

a. Credit risk

Credit risk is the risk of financial loss to the Group if a customer, or counterparty to a financial instrument, fails to meet its contractual obligations.

Credit risk is primarily related to Group's receivables from customers and financial investment.

Table: Maximum exposure to credit risk as at 31 December 2022 and 31 December 2021

	As at 31 December 2022	As at 31 December 2021
Cash and cash equivalents	5 170	21 924
Derivatives and other assets measured at fair value through profit or loss	-	2 731
Trade and other financial receivables	775 411	861 601
	780 581	**886 256**

The Group's maximum exposure to credit risk arising from financial assets is equal to the book values of these items.

Investments

The Group executes the following financial investments:

- investments under cash pooling between companies of the PGE S.A. Group,
- long-term investments – shares in non-related entities. As a shareholder, the Company performs a steady supervision to increase the investment's value and minimize the risk of the investment. In case of decrease in investments' value, appropriate impairment losses are recognized.

Trade and other receivables

The Group mitigates and controls credit risk associated with commercial transactions. For commercial transactions that, due to their high value, may generate significant losses as a result of counterparty default, a counterparty assessment is performed prior to entering into the transaction taking into account financial analysis, counterparty credit history and other factors. Based on the assessment, an internal rating is assigned or the Group uses a rating assigned by an independent reputable agency. The rating is used to set a limit for the counterparty. As a rule, entering into contracts that would cause an increase in exposure beyond the limits requires the establishment of collateral compliant with the credit risk management principles. The level of utilization of the limits is monitored on a regular basis. In case of any material excesses, the units responsible for counterparty risk management are obliged to take actions to eliminate them.

Credit risk regarding the KOGENERACJA S.A. Group receivables is different for particular groups of customers:

- receivables from the sale of electricity and heat to large customers distributing and trading with electricity are not exposed to significant credit risk,
- receivables from the sale of heat to individual users include a larger amount of overdue receivables. However, the risk relating to this segment does not pose a major threat to the Group's finances,
- receivables relating to other activities also do not carry a credit risk that would be material to the Group.

The Group monitors the overdue receivables on current basis and, in justified cases, formally claims for payments and raises allowances. Detailed information on the aging of overdue receivables and allowances is presented in the *Notes to the financial statements*, items 11 and 20.

Loans

Only loans to related entities within the Group over which full control is held by the companies are granted. Therefore, repayment of these loans is not exposed to significant credit risk.

Cash

The Group owns cash mainly on bank accounts with minimum credit risk.

Guarantees

The Group reduces granting guarantees to related parties and to key contractors to the Group that ongoing trading cooperation is carried out with.

b. Liquidity risk

Liquidity risk is the risk that the Group will not be able to meet its financial obligations as they fall due.

The policy of the liquidity risk management consists in securing financial resources required for the Group to fulfil its financial and investment obligations by using the most attractive sources of financing. Management of the Group's liquidity risk includes, but is not limited to, planning and monitoring cash flows over the short and long term for its operating, investing, and financing activities as well as ensuring that funds are available to conduct the Group's operations while minimizing the costs of activities.

Managing liquidity risk over the long term helps determine the Group's ability to borrow and supports decisions regarding the financing of long-term investments.

The Group monitors its financial surplus, makes forecasts of future cash flows and, based on these forecasts, implements its investment strategy with respect to free cash.

In the event of cash shortfalls, the Group uses available funding sources: cash management agreements in a group of accounts (actual cash-pooling) and loans.

In 2022, the Group had access to internal financing under cash pooling within the PGE S.A. Group. During periods of shortage of cash, KOGENERACJA S.A. and the subsidiary EC Zielona Góra S.A. benefit from the funds made available by other participants in cash pooling. In case of financial surplus, funds are made available to other participants.

On 10 December 2021, the Parent Company entered into a loan agreement with the National Fund of Environmental Protection and Water Management to finance the Nowa EC Czechnica investment.

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On 17 December 2021, the Parent Company entered into a loan agreement with EC Zielona Góra S.A. (subsidiary) to secure the Company's financial liquidity.

On 27 May 2022, the Company entered into an agreement with the National Fund for Environmental Protection and Water Management for a loan to supplement the Company's own contribution to the project *Construction of Nowa EC Czechnica*.

Detailed information on the loans taken out is presented in the *Notes to the financial statements*, item 23a.

In view of an ongoing risk management as well as the Company's market and financial position, the liquidity risk is maintained at the minimum level.

Table: Maximum exposure to liquidity risk as at 31 December 2022 and 31 December 2021

As at 31 December 2022	Cash flow	< 6 months	6-12 months	1 - 3 years	3-5 years	> 5 years
Financial liabilities, excluding derivative instruments						
Loans received	**(21 355)**	(65)	-	(21 290)	-	-
Trade payables and other financial liabilities	**(775 204)**	(325 623)	(74 663)	(374 918)	-	-
including liabilities due to compensations for stranded costs	***(430 049)***	-	*(55 145)*	*(374 904)*	-	-
Finance lease liabilities	**(91 076)**	(7 451)	-	(15 144)	(15 772)	(52 709)
Financial liabilities - derivative instruments						
Valuation of contracts for the sale of CO_2 emission rights	**(148)**	(148)	-	-	-	-
	(887 783)	**(333 287)**	**(74 663)**	**(411 352)**	**(15 772)**	**(52 709)**

As at 31 December 2021	Cash flow	< 6 months	6-12 months	1 - 3 years	3-5 years	> 5 years
Financial liabilities, excluding derivative instruments						
Trade payables and other financial liabilities	**(900 933)**	(446 612)	(17 340)	(103 107)	(333 874)	-
including liabilities due to compensations for stranded costs	***(447 337)***	-	*(17 340)*	*(96 123)*	*(333 874)*	-
Finance lease liabilities	**(57 967)**	(2 335)	-	(4 392)	(4 364)	(46 876)
Financial liabilities - derivative instruments						
Liability due to foreign currency forward contract	**(2)**	(2)	-	-	-	-
	(958 902)	**(448 949)**	**(17 340)**	**(107 499)**	**(338 238)**	**(46 876)**

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c. Market risk

Market risk includes interest rate risk, currency risk, and commodity risk.

The main objective of market risk management is to protect the financial result, maintain the level of trading and financial risk at an acceptable level, and support the implementation of the business strategy and maximization of the Group's shareholder value.

Implemented procedures for the management of individual categories of market risk in trading and financial activities specify, *inter alia*:

- purpose, scope, and rules of risk management,
- responsibility for risk management,
- management and operational processes for risk management in trading (electricity and related product markets) and financial activities,
- ways of identifying sources of risk exposure,
- methods for measuring and monitoring risk exposure.

The market risk management rules also define how to determine market risk appetite and limit market risk exposures and risk hedging mechanisms when limits are exceeded.

Interest rate risk

Interest rate risk is related to the possibility of deterioration of the financial result due to changes in interest rates.

The Group's exposure to interest rate risk results primarily from the fact that it finances its operations using variable interest rate financing, primarily in the form of loans, and invests its available funds at variable interest rates.

The interest rate on the loans is based on WIBOR + margin. WIBOR is a variable part that is periodically updated according to market quotations. The margins were at market levels. The interest rate on deposits is based on WIBID +/- margin.

Table: Maximum exposure (sensitivity profile) to interest rate risk as at 31 December 2022 and 31 December 2021

	Carrying amount As at 31 December 2022	Carrying amount As at 31 December 2021
Fixed rate instruments		
Financial assets and other assets	250 676	281 317
Financial liabilities and other liabilities	(775 204)	(900 932)
	(524 528)	**(619 615)**
Variable rate instruments		
Financial assets and other assets	529 905	604 939
Financial liabilities and other liabilities	(112 579)	(57 970)
	417 326	**546 969**

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The Group has no fixed interest rate financial instruments measured at fair value through profit or loss and has not designated any derivative instruments (interest rate SWAP) as fair value hedges. As a result, the changes in interest rates do not impact the statement of comprehensive income as at the end of the period.

The Group has analyzed sensitivity of variable interest rate financial instruments to changing market interest rates. The table below shows the effect of interest rate falls and drops by 100 bp on financial results and equity. The analysis was carried out based on the assumption that all other variables, e.g. exchange rates, remain unchanged. The analysis was prepared for the current year and for the comparable period of the previous year.

Table: Sensitivity analysis of financial instruments for the period ended 31 December 2022 and 31 December 2021

	Statement of comprehensive income		Equity*	
	increase by 100 bp	decrease by 100 bp	increase by 100 bp	decrease by 100 bp
from 1 January to 31 December 2022	4 173	(4 173)	-	-
from 1 January to 31 December 2021	5 470	(5 470)	-	-

* equity excludes net profit/loss

Currency risk

Currency risk is associated with transactions in foreign currencies. A change in the exchange rate results in a change in the value of the Group's existing currency receivables and liabilities expressed in national currency. An increase in the exchange rate is beneficial in respect of receivables as their amount in national currency increases. At the same time, it is unfavorable with respect to liabilities to other entities as their equivalent in PLN increases. The decrease in the exchange rate causes the opposite phenomena.

The Company controls foreign exchange risk through a system of limits relating to the maximum potential loss from changes in foreign exchange rates. The measure of foreign exchange risk is based on the Value-at-Risk method understood as the product of the absolute value of the net foreign exchange position and the value of the potential change in the exchange rate.

The Group enters into derivative transactions in currency-based instruments solely for the purpose of hedging identified risk exposure. With respect to currency derivative transactions, the Group's regulations do not allow speculative transactions aimed at generating additional profits resulting from changes in exchange rates, while exposing the Group companies to the risk of potential loss on this account.

Group companies are not exposed to a significant currency risk.

Commodity risk

Commodity risk is related to the possibility of deterioration of the financial result due to changes in commodity rates.
The Group is exposed to the commodity risk primarily in the following areas:

- electricity and heat,
- CO_2 emission rights,
- energy origin rights,
- hard coal,
- natural gas,
- biomass and other fuels.

Table: Selected key commodity risks to which the KOGENERACJA S.A. Group is exposed.

Risk	Description	Examples of exposures
Risk of heat tariffs	Risk relating to the statutory obligation to obtain approval of heat pricing rates	1. Variability of laws and implementing regulations 2. Tariff mechanism based on the guidelines and decisions of the President of the Energy Regulatory Office 3. The specific character of the reference price method resulting in the inability to include costs in the tariff on an ongoing basis 4. Failure to earn a full return on capital
Heat sales volume risk	Risks relating to the execution of the heat sales plan as a result of unfavorable external and internal conditions	1. Competitors' activities and the level of implementation of the new connections plan 2. Weather factors and short-term fluctuations in heat demand 3. Macroeconomic phenomena and economic volatility 4. Technological changes, including, in particular, thermally efficient technologies and the development of alternative ways of generating heat
Capacity Market	Risk associated with obtaining support and fulfilling the obligations assumed by the Company under the Capacity Market mechanisms	1. The degree of effective readiness during the period of planned and declared availability of the capacity market unit 2. Implementation of obligations arising from participation in the Capacity Market
Risk of cogeneration and RES support mechanisms	Risk associated with obtaining support from high-efficiency cogeneration and RES	1. Volatility of laws, especially in terms of the conditions required to obtain energy origin certificates or guaranteed bonus 2. Mechanism for determining unit amounts of guaranteed bonuses 3. Volatility and levels of selling prices of energy origin certificates 4. Level and volatility of biomass fuel purchase prices
Risk of changes in electricity prices	Risk relating to changes in electricity prices; the Company's position is intrinsically long due to its generation assets and its inability to place all of its production on the market at a predetermined price	1. The level of margin generated as a result of changes in electricity prices and electricity generation costs 2. Volatility and levels of electricity selling prices in the market
Volume risk in the long term	Risk relating to changes in demand for electricity in the National Power System	1. The macroeconomic situation, especially in energy-intensive industries 2. Technological changes, especially in energy efficiency and distributed power engineering development 3. Climate change 4. Regulations, including preferences for specific power sectors
Volume risk in the short term	Risk relating to changes in the planned volume of electricity sales due to changes in the demand for electricity for customers	1. Short- and medium-term weather changes (energy production in cogeneration). 2. Risk relating to the energy demand planning model and the quality of the source data used for planning
Fuel cost risk	Risk relating to changes in fuel prices (coal and gas and biomass); the Company's position is short due to the need to buy fuel on the market	1. Level and volatility of fuel purchase prices on the wholesale market
CO_2 emission rights for own use	Risk relating to changes in the prices of CO_2 emission rights and changes in the EURO/PLN exchange rate; The Company's position is short due to the generation of electricity in units participating in the EU-ETS system	1. The use of individual generation sources is different than planned and their emissions vary 2. Level and volatility of purchase prices of CO_2 emission rights on the wholesale market

The Company's exposure to commodity price risk (as it relates to raw materials) is determined by the volume of external purchases of individual raw materials.

Table: Exposure to commodity price risk determined by the volume of external purchases

Commodity	For the year ended 31 December 2022		For the year ended 31 December 2021	
	Tonnage - external purchase (in thousand tonnes)	Purchase costs (in PLN thousand)	Tonnage - external purchase (in thousand tonnes)	Purchase costs (in PLN thousand)
Coal	912	296 526	523	167 994
Natural gas [thousand m^3]	287 272	191 606	360 096	210 169
Biomass	84	35 618	142	29 146
Fuel oil	2	7 338	2	3 890
Razem	**-**	**531 088**	**-**	**411 198**

The Group performed a sensitivity analysis for the prices of main products and commodities, including raw materials for electricity and heat production. The table below presents the impact of the price change (increase/decrease by 100 bp) on the financial result.

Table: Sensitivity analysis as at 31 December 2022 and 31 December 2021

	Statement of comprehensive income for the year ended 31 December 2022		Equity* as at 31 December 2022	
	increase by 100 bp	decrease by 100 bp	increase by 100 bp	decrease by 100 bp
Price of electricity	8 290	(8 290)	-	-
Price of green certificates	254	(254)	-	-
Price of heat	6 119	(6 119)	-	-
Price of used coal	(2 608)	2 608	-	-
Price of used biomass	(304)	304	-	-
Price of used gas	(1 916)	1 916	-	-

	Statement of comprehensive income for the year ended 31 December 2021		Equity* as at 31 December 2021	
	increase by 100 bp	decrease by 100 bp	increase by 100 bp	decrease by 100 bp
Price of electricity	5 886	(5 886)	-	-
Price of green certificates	132	(132)	-	-
Price of heat	6 241	(6 241)	-	-
Price of used coal	(2 435)	2 435	-	-
Price of used biomass	(278)	278	-	-
Price of used gas	(2 071)	2 071	-	-

* equity excludes net profit/loss

Risk relating to the impact of the war on the territory of Ukraine on the availability, supply, and prices of fuels as well as the impact on the electricity market and the market for CO_2 emission rights are presented in Chapter III, *Notes to the financial statements*, Item 29d.

d. Other risks

Climate risk

Global warming, changing precipitation patterns, rising sea levels, and extreme weather events are increasingly posing serious challenges to the resilience of power systems and are increasing the likelihood of disruption. Climate change directly affects every segment of the electric power system: generation potential and capacity, heating and cooling demand, resilience of transmission and distribution networks, and demand patterns.

Climate risk issues are subject to standards and guidelines under the corporate risk management process in the PGE Group. Climate risks are analyzed for the impact of climate change on business and the impact of business on climate change.

Climatic physical hazards have been assessed in the short- and long-term using scientific models (climate scenarios):

- RCP 4.5 – an optimistic scenario assuming that new technologies will be introduced to achieve higher reductions in greenhouse gas emissions than today and the average global temperature will increase by about 2.5°C by the end of the 21st century relative to the pre-industrial era;
- RCP 8.5 – a pessimistic scenario assuming that the current rate of growth of greenhouse gas emissions will be maintained on the "business-as-usual" basis and the Earth's average temperature will increase by 4.5°C by the end of the 21st century relative to the pre-industrial era.

KOGENERACJA S.A. and its subsidiary EC Zielona Góra S.A. analyze and identify risks and improve control tools for effective management and minimization of its impact on the climate, while ensuring the financial performance. The solutions developed by the Group companies ensure their growth and sustainable transformation in line with climate requirements and care for all stakeholders. Climate risk also involves issues related to the lawfulness of the business. This includes primarily the need to meet the environmental requirements applicable to the Group operations and the need to obtain the licenses.

In its analysis of climate risks, the KOGENERACJA S.A. Group addresses not only climate change challenges but also the opportunities that the change may bring. This allows to actively respond to dynamically changing conditions in which the Company operates as well as to build its position on the market and develop it.

Impact of the war in Ukraine on the operations of the KOGENERACJA S.A. Group

In view of the situation in Ukraine, the Crisis Team was established at the central level of the PGE Group to continuously monitor threats and identify potential risks. The Team is involved in monitoring activities to secure electricity and heat generation and supply as well as protect critical infrastructure and IT. Its tasks include reducing the risk of a crisis situation, preparing the Group's companies for a crisis situation as well as planning, organizing, and coordinating works ensuring the continuity of operation of the PGE Group.

In addition, the KOGENERACJA Group has set up an emergency team to carry out continuous monitoring and identify potential risks in order to minimize the threat to supplies of electricity and heat.

The Group has adopted guidelines for the development of business continuity plans (PZCDs). PZCDs have been developed and implemented by the Group (in coordination with PGE Energia Ciepła S.A.). PZCDs address the specific character of each plant. The key assumption of PZCDs is to develop a catalog of risks for critical processes and use it to develop and adopt emergency scenarios (instructions, procedures). Emergency scenarios are tested periodically and updated on an ongoing basis. In the current situation, the Company is obliged to urgently update and revise internal regulations and PZCDs.

In the current geopolitical situation, a focus on cybersecurity is also needed. The PGE Group has implemented special procedures for monitoring data communications networks due to increased activity of criminal groups aimed at attacking ICT (Information and Communication Technologies) and OT (Operational Technology) systems. Due to the CHARLIE-CRP emergency status in effect as of the date of this report, the emergency plans have been revised. A significant change in the Group's operating environment triggered the launch of threat analysis and cyber security incident risk estimation. In addition, there is an increased focus on protecting the supply chain from cyberattacks.

The fact that cyber attacks are a real threat is confirmed by attacks against the PGE Group's ICT infrastructure and information system users. The attacks are repelled with the counter-attack measures (monitoring, incident handling, and system restoration). These activities, combined with adequate governance, lead to building resilience in cyberspace. The security management is being developed and improved in accordance with the identified risks.

The physical security of the Group's facilities has been strengthened. To protect the key energy infrastructure, the PGE S.A. Group cooperates with all services responsible for security in Poland, with particular focus on the Internal Security Agency (ABW).

<u>Key areas in the Group affected by the war in Ukraine include:</u>

- fuel availability and prices,
- supply chain,
- macroeconomics (including rising inflation, rising interest rates, and weakening of the national currency),
- prices of CO_2 emission rights,
- greater pressure for energy transition through the development of RES,
- potential imports of hard coal,
- cybersecurity,
- geopolitics.

<u>Key risks to the operations related to the war in Ukraine include:</u>

- reduced availability of hard coal on the Polish market due to the embargo on its supplies from Russia,
- increase in hard coal and gas prices on the international market,
- logistical disruptions due to high rolling stock utilization and changes to current transit routes,
- reduced availability of biomass on the Polish market,
- reduced availability and increased prices of production components (urea, ammonia water, etc.),
- logistical disruptions in truck transport due to fuel prices and availability of service provider employees.

The Group does not cooperate with any Russian or Belarusian entities.

<u>Gas supply risks:</u>

EC Zielona Góra S.A. is supplied with field gas (Ln gas). Due to the use of dedicated transmission infrastructure to the CHP plant, these generation assets are neutral to supply disruptions to the National Transmission System.

EC Zawidawie, the generating unit of KOGENERACJA S.A., is supplied with high-methane gas (E gas). This gas, drawn from the National Transmission System, is secured by adequate stock of storage facilities, which are at a relatively high level in Poland.

The Group has no influence on the directions of supply and management of fuel transmission. Therefore, the risk of possible disruptions lies with Polski Koncern Naftowy Orlen S.A. – PKN Orlen (formerly PGNiG S.A.) and the Transmission System Operator Gaz – System S.A. (Gaz – System). The Group has established channels of communication with PKN Orlen and Gaz-System in commercial and operational management in cooperation with the relevant location. According to the national gas supply constraint management programs, securing supply for electricity and heat production is favored over other corporate customers.

Impact of fuel availability constraints on electricity and heat production:

- In the case of gaseous fuel, due to the inability to hold stocks of this fuel, the reduction in availability translates into an immediate interruption of electricity and heat production. At EC Zielona Góra, oil boilers are used as a reserve for heat production.
- Polish mining companies are the main suppliers of hard coal for electricity and heat production. Currently, combined heat and power plants have coal reserves that allow uninterrupted production of electricity and heat.

The KOGENERACJA S.A. Group has not identified any risk of electricity or heat supply to residents, institutions, and businesses.

The risk of war's impact on commodity and financial markets:

The energy crisis has spread to Poland, Europe, and around the world. The war in Ukraine is having a significant impact on the heat and power market in Poland. It significantly affects the prices and availability of energy raw materials. As a result, it affects the prices of energy and CO_2 emission rights as well as the prices of goods and services, thus having an impact on the levels of margins generated and the ability to raise capital. The disruption or total shutdown of many manufacturing plants in Ukraine has disrupted the supply chain of components for key investments or significantly increased their prices. The war in Ukraine has also revealed a huge role of renewable energy sources. The development of RES is a response to the cut-off of energy supplies from Russia and high energy prices. This is because renewable energy sources are not burdened by fuel and CO_2 costs. However, high energy prices are forcing improvements in energy and operational efficiency. There is also a growing pressure to accelerate the energy transition in line with European Union climate policy and modernize the Polish economy by shifting away from fossil fuels. The behavioral patterns of energy market customers will also inevitably change, leading to economical energy consumption. The aim is to avoid problems associated with heat and electricity shortages during the winter. The Group mitigates risks by continuing its policy of hedging electricity generation costs along with energy sales on the wholesale market, which is reflected in the hedging of CO_2 emission rights and foreign currencies for transaction purposes.

The Group has also introduced the contractor compliance verification in supply chains that is in line with the current decision to impose war sanctions on Russia and Belarus.

Therefore, the risks described above may have a material impact on particular areas of the Group's operations and future financial results. In particular, the recoverable amount of selected asset items, the level of expected credit losses, and the valuation of financial instruments may change.

The European Union's introduction of an embargo on oil supplies from Russia will affect the broader energy market, especially because of potential increases in fuel prices.

In view of the dynamics of the war in Ukraine and its macroeconomic and market consequences, the Group will monitor its development on an ongoing basis and any events will be reflected accordingly in the Group's future financial statements.

KOGENERACJA S.A. Group Consolidated financial statements for the period from 1 January to 31 December 2022, in accordance with EU-adopted IFRS (in PLN thousand)

Notes to the statement of cash flows

Accounting policies

The statement of cash flows is prepared using the indirect method.

30. Reconciliation of changes in trade and other financial receivables

Table: Change in receivables for the year ended 31 December 2022 and 31 December 2021

	For the year ended 31 December 2022	For the year ended 31 December 2021
Change in long-term financial receivables	286	307
Change in trade receivables and other financial receivables	85 904	(50 797)
Adjustment due to change in cash pooling receivables	(58 281)	(47 640)
Adjustment due to change in receivables due from sale of tangible fixed assets	(174)	266
Impact of lease receivables	117	(70)
	27 852	**(97 934)**

31. Reconciliation of changes in trade and other financial and non-financial liabilities excluding loans and credits

Table: Change in trade and other financial and non-financial liabilities for the year ended 31 December 2022 and 31 December 2021

	For the year ended 31 December 2022	For the year ended 31 December 2021
Change in trade payables and other financial liabilities	(63 666)	223 122
Change in other non-financial liabilities	5 556	3 580
Change in other financial liabilities (long-term)	(62 063)	41 986
Adjustment due to change in liabilities due to acquisition of tangible fixed assets	9 241	(8 596)
	(110 932)	**260 092**

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32. Reconciliation of investment outflows

Table: Investment outflows for the year ended 31 December 2022 and 31 December 2021

	For the year ended 31 December 2022	For the year ended 31 December 2021
Capital expenditures (movement tables)	(583 122)	(234 723)
Change in advances for construction in progress	43 434	(98 709)
Adjustment due to change in liabilities due to acquisition of tangible fixed assets	(9 241)	8 596
Valuation of forward transactions capitalized on property, plant and equipment	326	-
Interest expense on investment loan capitalised to property, plant and equipment	65	-
	(548 538)	**(324 836)**

33. Cash flows from financial activities

Table: Cash flows from financing activities for the year ended 31 December 2022 and 31 December 2021

	For the year ended 31 December 2022	For the year ended 31 December 2021
Proceeds from loans	21 290	-
Receipts from cash pooling	176 913	65 506
Grants received	1 679	4 255
Dividends and other payments to shareholders	(4 768)	-
Interest paid on cash pooling	(234)	-
Repayment of lease liabilities	(7 505)	(3 033)
	187 375	**66 728**

a. Loans and credits

As at 31 December 2022, the liability on the loan from the National Fund for Environmental Protection amounted to PLN 21 355 (including principal of PLN 21 290 thousand and interest of PLN 65 thousand).

Detailed information on the loans taken out is presented in the *Notes to the financial statements*, item 23a.

b. Repayment of loans and credits

In 2022 and 2021, the Group companies did not repay any loans and credits.

c. Other financial liabilities

The Group applied the new IFRS 16 *Leases* as at 1 January 2019. *Perpetual usufruct right to land*, previously classified, in accordance with IAS 17, as operating lease and recognized in off-balance sheet records, currently meets the definition of lease contained in the new IFRS 16. Therefore, the Group included in the statement of financial position a liability arising from the right to use in the amount equal to the lease liability, adjusted for any prepayments or accrued lease fees.

As at 31 December 2022, a long-term financial liability in the amount of PLN 83 609 thousand and a short-term liability in the amount of PLN 7 351 thousand were recognized.
The company car lease in the amount of PLN 116 thousand (long-term liability: PLN 16 thousand; short-term liability: PLN 100 thousand) was recognized as a lease liability.

Other explanatory notes

34. Operating segments

Accounting policies

Operating segment is a separate component of the Group which engages in providing certain products or services (business segment), or providing products or services in a certain economic environment (geographical segment), and is exposed to risks and derives benefits that are different from other segments.

Segment reporting identifies reportable segments as those Group components:

- which engage in business activities which lead to earning revenues and incurring expenses,
- whose results are regularly reviewed by the entity's operating decision maker to make decisions about the resources to be allocated to the segment and to assess its performance, and
- for which separate financial information is available.

Segment revenue
Segment revenue comprises revenue either from sales to external customers or from transactions with other Group segments which are reported in the Group's income statements, and may be directly attributed to a segment together with the appropriate part of the revenue which may be allocated to the segment based on reasonable criteria.

Segment costs
Segment costs comprise costs of sales to external customers and costs of transactions with other Group segments, which result from the operating activity of a segment and may be directly attributed to the segment, including an appropriate part of the costs of a business entity which may be allocated to the segment based on reasonable criteria.

Segment profit or loss
Segment profit or loss is the difference between segment revenue and segment costs.

Segment assets
Segment assets are operating assets used by a segment in its operating activity, which may be attributed to the segment directly or may be allocated to it based on reasonable criteria.
Income tax assets are not classified as segment assets.

Segment liabilities
Segment liabilities are operating liabilities arising from the segment's operating activity which may be attributed to the segment directly or may be allocated to it based on reasonable criteria.
Income tax liabilities are not classified as segment liabilities.

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The KOGENERACJA S.A. Group presents segment information for the current and comparative reporting period in accordance with IFRS 8 *Operating Segments*. The Group operates in one operating segment "Production and distribution of electricity and heat."

Segment identification results from the management structure. It is subject to regular review by the Management Board of the Parent Company ("chief operating decision-maker") and is used to make decisions to allocate resources and assess segment results.

Segment result, assets and liabilities include items directly relating to the segment and appropriate items used jointly that can be allocated to the segment on a reasonable basis.

There are no unallocated items in the KOGENERACJA S.A. Group.

There is no geographical diversification within the Group's activities. The Group operates domestically and thus the activities were not divided into geographical segments.

Segment revenues include revenue from sales, revenue from KDT compensations, and other operating revenue.

Segment costs include cost of sales, expenses from KDT compensations, general and administrative expenses, and other operating expenses.

In the *Production and distribution of electricity and heat* segment, the most significant revenues were generated in transactions with PGE Polska Grupa Energetyczna S.A., PGE Dom Maklerski S.A., and Fortum Power and Heat Polska Sp. z o.o., Wrocław Branch. In the period from 1 January to 31 December 2022, the revenues amounted to PLN 1 500 821 thousand (including PGE Polska Grupa Energetyczna S.A.: PLN 722 209 thousand; PGE Dom Maklerski S.A.: PLN 362 874 thousand; Fortum Power and Heat Polska Sp. z o.o.: PLN 415 738 thousand) accounting for 81,95% of the segment's revenue (in the corresponding period of the previous year, the revenues amounted to PLN 1 165 059 thousand, accounting for 83,31% of the segment's revenue, including PGE Polska Grupa Energetyczna S.A.: PLN 507 835 thousand; PGE Dom Maklerski S.A.: PLN 231 815 thousand; Fortum Power and Heat Polska Sp. z o.o.: PLN 425 409 thousand).

35. Lease agreements

a. Lease agreements under which the Group is a lessee

Rights of use of assets

In accordance with IFRS 16 *Leases* effective for annual periods beginning on 1 January 2019, all contracts which meet the criteria of a lease are presented in the statement of financial position.

Table: Future lease payments for the year ended 31 December 2022 and 31 December 2021

	As at 31 December 2022	As at 31 December 2021
less than 1 year	8 997	2 973
1-2 years	8 910	2 876
2-3 years	8 870	2 863
3-4 years	8 863	2 830
4-5 years	8 863	2 821
over 5 years	161 089	156 864
	205 592	**171 227**

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Table: Present value of lease liabilities as at 31 December 2022 and 31 December 2021

	As at 31 December 2022	As at 31 December 2021
less than 1 year	7 451	2 335
1-2 years	7 516	2 200
2-3 years	7 628	2 192
3-4 years	7 798	2 178
4-5 years	7 974	2 186
over 5 years	52 709	46 876
	91 076	**57 967**

Other information on lease agreements

Lease liabilities were valued at the current value of lease payments. Lease payments were discounted using the lessee's marginal interest rate of 4,5%.

There were no sale and leaseback transactions in the current period.

In 2022, total cash outflows resulting from lease agreements amounted to PLN 7 505 thousand (2021: PLN 3 033 thousand).

The rights to use the assets are described in *Notes to the financial statements*, item 9.

b. Operating lease agreements under which the Group is a lessor

The Group rents office and other assets to providers of legal, IT, and technical services. The duration of the agreements is usually no longer than five years. In most agreements, the period is undefined. In such cases, the Group uses the six-month notice period to estimate future payments. The changes in operating lease value are due to the expiration of the dates of signed lease agreements or amendments and the six-month notice period adopted for calculation.

Table: Future lease payments as at 31 December 2022 and 31 December 2021

	As at 31 December 2022	As at 31 December 2021
less than 1 year	2 447	2 374
1-2 years	711	721
2-3 years	649	690
3-4 years	604	654
4-5 years	213	632
over 5 years	1 438	2 042
	6 062	**7 113**

KOGENERACJA S.A. Group Consolidated financial statements for the period from 1 January to 31 December 2022, in accordance with EU-adopted IFRS (in PLN thousand)

c. Financial lease agreements under which the Group is a lessor

In order to acquire new users for heat from the heat distribution network, the Parent Company carries out financing, co-financing and building of heat centers which are then leased out to counterparties. Lease agreements are usually entered into for 6 or 12 years.

After the lease period, the customer is granted with the right to prolong the lease agreement for next period or the right to acquisition at favorable terms. In addition, lessees are obliged to maintain and repair heat centers on a current basis (the transfer of risk). Lease agreements do not allow conditional payments.

The lease of heat centers is directly related to the new heating and power agreements. Thus, for the purpose of settlement in the books, the approach of multiple deliverables was applied, recognizing both lease instalments and appropriate part of the heating fee in the revenue from lease payments.

As at the end of the reporting period, the Parent Company had 71 financial lease agreements for the lease of heat centers. Mainly housing cooperatives, housing communities and property developers are the lessees. In 2022, 11 heat centers were sold after the end of the lease period for a net amount of PLN 149 thousand.

On 3 September 2014, an agreement between KOGENERACJA S.A. and Renevis Sp. z o.o. (currently PGE Ekoserwis S.A.) was entered into. Under the agreement, KOGENRACJA S.A. leased out an ash valorization facility to PGE Ekoserwis S.A. for the period to 31 December 2039. The receivable as at 31 December 2022 amounted to PLN 3 674 thousand.

Table: Amounts receivable under financial lease agreements as at 31 December 2022 and 31 December 2021

	As at 31 December 2022	As at 31 December 2021
less than 1 year	406	521
1-2 years	422	411
2-3 years	285	431
3-4 years	174	296
4-5 years	129	194
over 5 years	3 206	3 068
	4 622	**4 921**

36. Claims and contingent liabilities

Accounting policies

Contingent claims
According to IAS 37, a contingent claim is a possible asset that arises as a result of past events, but its existence is yet to be confirmed in the future, depending on the occurrence or non-occurrence of uncertain future events beyond the Company's control. Contingent claims are subject to disclosure if the occurrence of economic benefits from them is probable.

Contingent liabilities
Following the provisions of IAS 37 on the recognition and measurement of provisions and contingent liabilities, the likelihood of potential liabilities is assessed. If an unfavorable event is probable, an adequate provision is recognized. If an unfavorable event is possible but not probable, a contingent liability is disclosed.

a. Transaction agreements for the purchase of missing CO_2 emission rights

Until 31 December 2022, KOGENERACJA S.A. entered into transaction agreements on the purchase of the missing CO_2 emission rights for:

- 2022 – to be exercised in April 2023, in the amount of 793 thousand tonnes, for PLN 243 882 thousand;
- 2023 – to be exercised in December 2023, in the amount of 1 175 thousand tonnes, for PLN 471 272 thousand;
- 2024 – to be exercised in December 2024, in the amount of 182 thousand tonnes, for PLN 54 837 thousand;
- 2025 – to be exercised in December 2023, in the amount of 0.6 thousand tonnes, for PLN 252 thousand; to be exercised in December 2024, in the amount of 50 thousand tonnes for PLN 16 059 thousand;
- 2026 – to be exercised in December 2024, in the amount of 0.5 thousand tonnes, for PLN 269 thousand.

Until 31 December 2022, the subsidiary EC Zielona Góra S.A. entered into transaction agreements on the purchase of the missing CO_2 emission rights for:

- 2022 – to be exercised in March 2023, in the amount of 306 thousand tonnes, for PLN 100 371 thousand;
- 2023 – to be exercised in December 2023, in the amount of 488 thousand tonnes, for PLN 195 012 thousand;
- 2024 – to be exercised in December 2024, in the amount of 81 thousand tonnes, for PLN 24 529 thousand;
- 2025 – to be exercised in December 2024, in the amount of 18 thousand tonnes, for PLN 5 754 thousand;
- 2026 – to be exercised in December 2024 in the amount of 191 tonnes for PLN 96 thousand.

The above transactions are classified as standard purchase transactions for own use and shall be recorded in the books at the time of delivery.

Other information on transaction arrangements completed in 2022 is presented in *Notes to the financial statements*, item 17.

b. Other contingent liabilities, pledges, and guarantees

KOGENERACJA S.A.

- On 30 September 2022, PGE's subsidiaries, including Zespół Elektrociepłowni Wrocławskich KOGENERACJA S.A., entered into a framework agreement with Polskie Górnictwo Naftowe i Gazownictwo S.A. (PGNiG) for the sale of gas fuel, along with individual contracts governing the commercial terms of gas supply. This agreement is secured by an agreement with PGE S.A. signed on 23 October 2022. Under the agreement, PGE S.A. agrees to pay to PGNiG S.A. all cash liabilities due to KOGENERACJA S.A. resulting from non-payment of any amount due to PGNiG S.A. under the agreement and the individual contract. The security is in-kind with a validity period from 1 October 2022 to 31 March 2026, and granted up to the amount of PLN 51 250 thousand.

- On 6 July 2022, the Management Board of KOGENERACJA S.A. signed an agreement with PGE Energia Ciepła S.A. on the principles of providing security for the obligations of Zespół Elektrociepłowni Wrocławskich KOGENERACJA S.A. under the grant agreement (a loan for the implementation of the project *Construction of the New EC Czechnica*) of 10 December 2021, entered into with the National Fund for Environmental Protection and Water Management (NFEPWM). Under the surety, PGE Energia Ciepła S.A. agrees to pay to NFEPWM, in accordance with the terms of the surety, all cash liabilities due to KOGENERACJA S.A. resulting from failure to pay any amount due to NFOŚiGW under the agreement. The security is in-kind with a validity period from 1 July 2022 to 30 September 2036, and granted up to the amount of PLN 375 000 thousand, representing a maximum of 125% of the grant amount but no more than 125% of the current outstanding loan principal.

- On 27 May 2022, the Management Board of KOGENERACJA S.A. signed an agreement with NFEPWM on co-financing the construction of a combined heat and power plant in Siechnice by way of a preferential loan in the amount of PLN 50 000 thousand. The loan is secured with a blank promissory note with a "no protest" clause along with a promissory note declaration up to the amount of PLN 50 000 thousand, plus accrued interest in the amount as for tax arrears.

- As of 18 February 2022, a bank guarantee in the amount of PLN 3 000 thousand issued by Bank Gospodarstwa Krajowego in favor of the Energy Regulatory Office is in effect to secure the liabilities in connection with the implementation of the Nowa EC Czechnica investment. The guarantee is valid until 31 December 2025.

- On 10 December 2021, an agreement with the National Fund for Environmental Protection and Water Management (NFEPWM) was entered into for co-financing of the project *Construction of Nowa EC Czechnica*. The subject of the Agreement is the financing, by way of a loan, granted to KOGENERACJA S.A. from NFEPWM, up to the amount of PLN 300 000 thousand paid in tranches in accordance with the schedule of payments. The loan will be granted for the period from 1 July 2022 to 31 March 2036. The loan is to be repaid in 45 installments payable at the end of each quarter, starting from 31 March 2025. The loan is secured with a promissory note with a promissory note declaration and a promissory note guarantee from PGE Energia Ciepła S.A. (majority shareholder of the Company) with a promissory note declaration by the promissory note guarantor.

- As of 23 September 2021, in order to secure the occurrence of negative effects and environmental damage due to the maintenance of a combustion waste landfill site at EC Czechnica in Siechnice, a bank guarantee in the amount of PLN 600 thousand issued by Bank Gospodarstwa Krajowego is in force. The guarantee replaced the previous guarantee valid until 22 September 2021, issued by Bank Polska Kasa Opieki S.A. The guarantee is valid until 22 September 2026.

- As of 26 May 2021, in order to secure the agreement for the connection of gas facilities and installations situated in the newly-built EC Czechnica located in Siechnice to the transmission network entered into with Operator Gazociągów Przesyłowych Gaz – System S.A., a bank guarantee in the amount of PLN 17 347 thousand issued by Bank Gospodarstwa Krajowego is in force. The guarantee secures the payment of obligations under the above agreement and is valid until 21 February 2023.

- On 18 April 2021, KOGENERACJA S.A. and PGE Polska Grupa Energetyczna S.A. entered into *Arrangement concerning the rules of establishing security for the liabilities of Zespół Elektrociepłowni Wrocławskich KOGENERACJA S.A.* (bank guarantees) to ensure the availability of the guarantee line. The arrangement enables the Company to incur liabilities by way of security (bank guarantees issued at the request of PGE Polska Grupa Energetyczna S.A.) for liabilities of Zespół Elektrociepłowni Wrocławskich KOGENERACJA S.A. to third parties up to the maximum amount of PLN 25 000 thousand. The arrangement is valid until 1 January 2024.

- Liabilities on account of reimbursement of subsidies from environmental funds represent possible future reimbursements of funds received by KOGENERACJA S.A. from environmental funds for selected investments. The funds will have to be reimbursed if the investments for which funding was received do not bring the expected environmental results (PLN 32 484 thousand).

EC Zielona Góra S.A.

- In the fourth quarter of 2022, due to fluctuations in the level of security deposits for Izba Rozliczeniowa Giełd Towarowych S.A. (IRGT), EC Zielona Góra S.A. held security guarantees amounting to PLN 80 000 thousand in total as at 31 December 2022.

- On 1 March 2022, EC Zielona Góra S.A. signed Annex No. 1 to the Surety Agreement with the IRGT and PGE Dom Maklerski S.A. The annex increased the amount of the surety from PLN 60 000 thousand to PLN 150 000 thousand and extended the term of the surety until 31 December 2023. The surety covers liabilities incurred by PGE Dom Maklerski S.A. towards IRGT on behalf of PGE Energia Ciepła S.A. and PGE Polska Grupa Energetyczna S.A. and liabilities incurred by PGE GiEK S.A. towards IRGT.

- On 23 September 2021, the guarantee for the benefit of Polskie Sieci Elektroenergetyczne S.A. came into force as a security of EC Zielona Góra S.A. payments pursuant to the agreement for the provision of electricity transmission services. The guarantee in the amount of PLN 1 755 thousand replaced the previous guarantee issued by Bank Pekao S.A. On 23 August 2022, Annex No. 1 to the guarantee was signed, increasing the amount to PLN 5 000 thousand. The guarantee is valid until 22 September 2025.

KOGENERACJA S.A. Group Consolidated financial statements for the period from 1 January to 31 December 2022, in accordance with EU-adopted IFRS (in PLN thousand)

- On 18 January 2021, the subsidiary EC Zielona Góra S.A. and PGE Polska Grupa Energetyczna S.A. entered into the Arrangement concerning the rules of establishing security for the liabilities of EC Zielona Góra S.A. (bank guarantees) to ensure the availability of the guarantee line. The arrangement enables the company to incur liabilities by way of security (bank guarantees issued at the request of PGE Polska Grupa Energetyczna S.A.) for liabilities of EC Zielona Góra S.A. to third parties up to the maximum amount of PLN 25 000 thousand. The arrangement is valid until 1 January 2024.

37. Future liabilities under investment agreements

The value of future liabilities in respect of the most relevant investment agreements entered into by the Group, not yet recognized in the statement of financial position as at 31 December 2022, amounted to PLN 776 868 thousand.

The Parent Company's expenditures in the amount of PLN 766 856 thousand will be primarily allocated to:

- execution of the Nowa EC Czechnica project in Siechnice (PLN 746 523 thousand),
- modernization of the wastewater treatment system, the wet flue gas desulfurization installation,
- implementation of a construction project for the K-1 chamber, including the necessary systems,
- connection to the transmission, distribution, and gas networks.

The subsidiary's expenditures in the amount of PLN 10 012 thousand will be primarily allocated to:

- modernization and servicing of the gas turbine plant,
- design and implementation of a homogeneous fire protection system.

38. Transactions with related parties

a. Related parties

The Group is related to entities owned by PGE Group, state-owned companies, and management personnel, including in particular Members of the Management Board, members of the Supervisory Board, and persons closely related to them.

b. Transactions with management personnel

Short-term employee benefits

Detailed payroll is presented in Note 3c Costs of employee benefits. The total remuneration (total salaries and other benefits) received by the management and supervisory personnel is presented in the table below.

Table: Remuneration (total remuneration and other benefits) earned by the Parent Company's management and supervisory personnel for the year ended 31 December 2022 and 31 December 2021

	For the year ended 31 December 2022	For the year ended 31 December 2021
Management Board- salaries in the period of service	1 227	937
Management Board - potential benefits	754	754
Supervisory Board	381	328
	2 362	**2 019**

KOGENERACJA S.A. Group Consolidated financial statements for the period from 1 January to 31 December 2022, in accordance with EU-adopted IFRS (in PLN thousand)

Detailed information regarding the remuneration of the members of the Management Board and the Supervisory Board is presented in *Report on the Company's activities* in the chapter *Application of corporate governance*, item 11 *Remuneration system*.

Other information

In 2022 and 2021, the Company did not grant loans from social fund (ZFŚS) to members of the Management Board and the Supervisory Board.

c. Transactions with other related parties

Transactions with other related parties include in particular:

- sale of electricity and trade in property rights, support for non-technical functions, consulting services, and cash pooling services (PGE Polska Grupa Energetyczna S.A., PGE Energia Ciepła S.A., PGE Dom Maklerski S.A., PGE Systemy S.A.),
- steam coal and biomass supply services (Polska Grupa Górnicza S.A., Jastrzębska Spółka Węglowa S.A., Węglokoks Kraj Sp. z o.o., PGE Paliwa Sp. z o.o.),
- handling of coal landfill, handling of ash removal equipment, stoking, utilization of production waste, management of the waste landfill (PGE Ekoserwis S.A.),
- sale and distribution of electric energy, purchase of gas, fuel oil, licence fees, railway transport (state-owned companies, including PSE S.A. and companies of the ORLEN Group, including Polskie Górnictwo Naftowe I Gazownictwo S.A., companies of the PKP Group and the TAURON Polska Energia S.A. Group).

The State Treasury is the parent owner of PGE Polska Grupa Energetyczna S.A. Therefore, in accordance with IAS 24 *Disclosure of information on related parties*, state-owned companies are treated as related parties.

The largest transactions with state-owned companies concern the following companies: Jastrzębska Spółka Węglowa S.A., Enea Operator Sp. z o.o., Polskie Sieci Elektroenergetyczne S.A., Instytut Automatyki Systemów Energetycznych Sp. z o.o., and companies belonging to the PKP Group, TAURON Polska Energia S.A. Group, Azoty S.A. Group, and Orlen Group, including Polskie Górnictwo Naftowe i Gazownictwo S.A.

The values presented below do not include significant transactions with Zarządca Rozliczeń S.A., including charges to the Price Differential Payment Fund as well as settled and paid compensation to eligible entities in connection with the introduction of the maximum price, as defined by the Act of 27 October 2022 on emergency measures to curb electricity prices and support certain consumers in 2023. The relevant information in this regard is presented in the *Notes to the financial statements*, item 40.

In the opinion of the Parent Company's Management Board, all transactions with related parties are made on an arm's length basis.

Table: Mutual receivables and liabilities with other related parties as at 31 December 2022 and 31 December 2021

	As at 31 December 2022 r.		**As at 31 December 2021 r.**	
	Receivables	**Liabilities**	**Receivables**	**Liabilities**
Ultimate parent company and Parent company	657 685	187 991	664 756	312 948
Other related entities in the PGE Group	86 749	11 114	179 200	39 840
Units related to the State Treasury	5 003	74 418	5 241	31 034
	749 437	**273 523**	**849 197**	**383 822**

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Table: Revenues, costs, and expenditures under mutual transactions (including finance revenues and costs) for the year ended 31 December 2022 and 31 December 2021

	For the year ended 31 December 2022		For the year ended 31 December 2021	
	Revenue	Costs	Revenue	Costs
Ultimate parent company and Parent company	755 217	388 287	510 492	550 236
Other related entities in PGE Group	376 019	573 684	234 771	177 584
Units related to the State Treasury	31 033	372 384	14 122	266 165
	1 162 269	**1 334 355**	**759 385**	**993 985**

39. Tax settlements

Tax duties and powers are set out in the Constitution, tax laws and ratified international agreements. According to the Tax Code, tax is defined as a public law, unpaid, compulsory and non-returnable cash payment to the State Treasury, a province, a district or a commune, as provided for in a tax act. Based on the subject criterion, taxes in Poland can be divided into five groups: taxation of income, taxation of turnover, taxation of assets, taxation of activities, and other fees, not classified elsewhere.

From the point of view of the activities of business entities, the following forms of taxations are important: taxation of income (corporate income tax), taxation of turnover (value added tax, VAT, excise tax) and taxation of assets (real property tax and tax on means of transport). Other fees and contributions that can be classified as quasi-taxes should also be taken into account. They include, but are not limited to, social security contributions.

The basic tax rates are as follows: corporate income tax rate (19%), a rate of 9% is possible for small enterprises, basic VAT rate (23%), and reduced rates (8%, 5%, and 0%). Some goods and services are exempt from VAT.

Tax regulations of the tax system in Poland are subject to a large variability, high level of complexity and high potential penalties in case of committing a tax offence. Tax settlements and other regulatory areas of activity (e.g. customs or foreign exchange issues) may be inspected by the authorities which are authorized to impose fines and penalties with penal interest. Tax settlements may be inspected for a period of 5 years from the end of the calendar year in which the tax due date has passed.

Split payment in VAT, obligation to make payments to accounts reported to tax offices

The Group companies use funds received from counterparties in VAT accounts to pay its liabilities which include VAT. The amount of funds in the VAT accounts on a given day depends on how many counterparties use the split payment and the time relationships between the payment of receivables and liabilities. As at 31 December 2022, the balance of cash on VAT accounts was PLN 1 554 thousand.

Mandatory Disclosure Rules

According to new regulations introduced in 2019, it is necessary to report the tax scheme under the so-called Mandatory Disclosure Rules (MDRs). As a general rule, a tax scheme should be understood as an activity under which the tax benefit is the main or one of the main benefits. Events with so-called distinctive or other distinctive characteristics, as defined in the regulations, have been designated as a tax scheme. Three types of entities are subject to reporting obligations: promoting entities (promotorzy), supporting entities (wspomagający) and users (korzystający). MDRs are complex and imprecise in many areas, causing uncertainty about how they should be used in practice.

Uncertainty over tax settlements

The regulations concerning goods and services tax, corporate income tax and social insurance charges are subject to frequent changes. As a result of these changes, there are no appropriate points of reference, there are inconsistent interpretations and few established precedents which could be used. The applicable regulations also contain ambiguities which result in differences of opinion as to the legal interpretation of the tax regulations, both between the state authorities and between the State authorities and enterprises.

Tax settlements and other areas of activity (e.g. customs or foreign exchange issues) may be inspected by the authorities which are authorized to impose high penalties and fines, and all additional tax liabilities resulting from such inspections must be paid with high interest. As a result of these conditions, the tax risk in Poland is greater than that in countries with more mature tax systems. In consequence, the amounts presented and disclosed in financial statements may change in the future as a result of the final decision of a fiscal control authority.

The Tax Code contains the provisions of the General Anti-Abuse Rule (GAAR). GAAR is to prevent the rise and utilization of artificial legal structures created to avoid paying taxes in Poland. GAAR defines tax avoidance as an activity carried out first of all to obtain a tax benefit which is contradictory to the provisions of a tax act. According to GAAR, such an activity does not result in obtaining a tax benefit if the course of action was artificial. All the instances of the occurrence of the unjustified division of operations, the involvement of intermediaries without economic or financial justification, elements cancelling or offsetting each other, and other actions with an effect similar to that of those previously mentioned, may be treated as an argument in favor of the existence of artificial activities subject to the provisions of GAAR. The new regulations will require a lot more judgement in assessing the tax implications of individual transactions.

The GAAR clause should be applied to transactions carried out after it came into force and to transactions which were conducted before the GAAR clause came into force but for which, after the effective date of the clause, benefits were or still are being obtained. The implementation of the above regulations will enable the Polish fiscal control authorities to question the legal arrangements and schemes carried out by taxpayers, such as Group restructuring and reorganization.

The Group recognizes and measures current and deferred income tax assets or liabilities by applying the requirements of IAS 12 Income Taxes based on the taxable profit (tax loss), tax base, tax losses carried forward, unutilised tax relief and tax rates, taking into account an assessment of the uncertainty over tax settlements. If there is an uncertainty as to whether or not and to what extent a tax authority will accept individual tax settlements in respect of transactions, the Group recognizes these settlements, taking into account the assessment of the uncertainty.

40. Non-standard transactions

Impact of the war in Ukraine on the operations of the KOGENERACJA S.A. Group

The Group companies monitor threats and identifiy potential risks in connection with the situation in Ukraine.

Detailed information on the impact of the war on the territory of Ukraine on the operations of the KOGENERACJA S.A. Group and the associated risks is presented in Chapter III *Notes to the financial statements*, item 29d.

In view of the ongoing war in Ukraine, Group companies have actively engaged in prosocial activities to assist refugees coming to Poland from Ukraine.

KOGENERACJA S.A. and its subsidiary EC Zielona Góra S.A. provided accommodation for 2 refugee families from Ukraine using their own resources and donated funds in the amount of PLN 100 thousand (including the Parent Company: PLN 68 thousand). In addition, KOGENERACJA S.A. donated in-kind support: camp beds, mattresses, sleeping bags, and sheets, with an estimated value of about PLN 22 000, for the Wrocław Municipal Office which provided accommodation and for Wrocławskie Centrum Opieki i Wychowania [Wrocław Care and Education Center] which took in dozens of Ukrainian children from orphanages.

The Group companies also supported refugees in organizational matters and organized collections of in-kind donations among employees.

Many of our employees also participate in direct relief efforts by volunteering, providing accommodation, participating in collections of in-kind donations, and offering the transportation when delivering donations.

Regulatory changes in the energy market

Due to the crisis situation in the energy market, the legislator has decided to introduce regulations that temporarily introduce exceptional solutions for electricity prices and electricity tariffs in 2023:

- on 18 October 2022, the *Act of 7 October 2022 on special solutions to protect electricity consumers in 2023 in connection with the situation in the electricity market* (Act for Households) came into force,
- on 4 November 2022, the *Act of 27 October 2022 on emergency measures to curb electricity prices and support certain consumers in 2023* (Emergency Measures Act) came into force.

According to the Act for Households, an electricity trading company is obliged to apply, with respect to household consumers, prices equal to those contained in the tariff in effect on 1 January 2022 for individual tariff groups up to specified consumption limits. Once the consumption limits for household customers are exceeded, according to the 2023 Emergency Measures Act, a maximum price of PLN 693 per MWh (the price does not include VAT and excise tax) will be used for the settlement of household customers. This is because electricity prices have been established by law. Therefore, in 2023, tariffs approved by the ERO President will not directly affect electricity prices for households.

In addition, according to the 2023 Emergency Measures Act, the maximum price of electricity for other eligible customers has been set at PLN 785 per MWh (the price does not include VAT and excise tax). In principle, this price will apply from 1 December 2022 to 31 December 2023. The limit of the maximum price for eligible customers also applies to electricity sales contracts that were entered into or amended after 23 February 2022. For these contracts, the maximum price will also apply to settlements for the period from the date of entering into or amendment of the contract until 30 November 2022. Power companies are obliged to make a refund on a regular basis in connection with the use of maximum prices until the end of 2023.

At the KOGENERACJA S.A. Group, electricity end-users are not households or other eligible customers and thus the Group was not subject to the maximum price mechanism.

From 1 December 2022 to 31 December 2023, the Group is subject to the provisions of the 2023 Emergency Measures Act under which electricity generators and electricity trading companies must make monthly charges to the account of the Price Difference Payment Fund (the Fund). A charge to the Fund is the product of the volume of electricity sales and the positive difference of the volume-weighted average market price of electricity sold and the volume-weighted average price limit of electricity sold in accordance with the Regulation of the Council of Ministers of 8 November 2022 on the method of calculating the price limit.

The individual generation sources are subject to the following methods of calculating the price limit:

- For coal-fired power generation units, the price limit is determined based, *inter alia*, on the unit cost of fuel consumed, the cost of CO_2 emission rights, the efficiency of the generation units, the margin, and a certain level of investment and fixed cost allowance of PLN 50 per MWh.
- For units producing energy from renewable sources, the price limit is determined with reference to the reference price referred to in Article 77(3)(1) of the Renewable Energy Sources Act.

Electricity trading companies are subject to the following methods of calculating the price limit:

- For energy sold to end users, the price limit is the product of the volume-weighted average price of electricity purchased on a given day and a margin defined as 1,035 or 1,03 (plus the unit cost of redemption of origin certificates).
- For energy sold to customers other than end users, the price limit is the product of the volume-weighted average price of energy purchased on a given day and a margin defined as 1,015 or 1,01.

In December 2022, the KOGENERACJA S.A. Group recognized a charge to the Fund in the amount of PLN 20 789 thousand (including KOGENERACJA S.A.: PLN 603 thousand; EC Zielona Góra S.A.: PLN 20 186 thousand). The funds were transferred to Zarządcy Rozliczeń S.A. in January and February 2023.

On 20 September 2022, the *Act of 15 September 2022 on special solutions for certain heat sources due to the fuel market situation* came into force. The aim of the act are is to implement protective measures to limit increases in the price of heat and hot water heating costs for households, housing communities, housing cooperatives, and public utilities, referred to as sensitive entities. The act introduced a mechanism to be used by power companies generating heat to set average heat prices with compensation for selected residential and public utility customers upon meeting the conditions set forth in the act. The price is:

- PLN 150.95 per GJ for heat generated from heat sources fired by natural gas or fuel oil,
- PLN 103.82 per GJ net for heat generated from other heat sources.

If there is an increase in the price of heat above the average price of heat generation with compensation, the planned revenue of the power companies resulting from the difference between the average price of heat generation with compensation and the level of reasonable costs of the power companies will be covered by the compensation.

At KOGENERACJA S.A., the price level, set in accordance with the heat tariff did not exceed the average price of heat generation with compensation in 2022. At EC Zielona Góra S.A., the heat price with compensation applied only to heat consumers from local gas boiler plants starting 1 October 2022.

41. Events after the reporting period

Subsequent to 31 December 2022, the following events occurred:

- On 9 January 2023, KOGENERACJA S.A. received a notification from Powszechne Towarzystwo Emerytalne Allianz Polska S.A. about the merger with Aviva Powszechne Towarzystwo Emerytalne Aviva Santander Spółka Akcyjna managing Drugi Allianz Polska Otwarty Fundusz Emerytalny. As a result of the merger, the share in the share capital and total number of votes of KOGENERACJA S.A. in the accounts of Allianz OFE, Allianz DFE, and Drugi Allianz OFE increased above 5% (*Current Report 2/2023*).

- On 2 March 2023, the Management Board of EC Zielona Góra S.A. announced in Monitor Sądowy i Gospodarczy the share buyout price of PLN 1 108,5 per share as determined by an expert. Within 3 weeks of the announcement of the buyout price, KOGENERACJA S.A. will paid EC Zielona Góra S.A. 9 809 thousand PLN i.e. the entire buyout price of 8 849 shares (1.6%). After the buyout of minority shareholders and the change in the register of shareholders of KOGENERACJA S.A. will hold 100% of shares in the share capital of EC Zielona Góra S.A.

- On 3 March 2023, KOGENERACJA S.A. disclosed to the public the estimates of the selected consolidated financial and operating results for 2022 *(Current Report 3/2023).*

C. Approval of the financial statements

These consolidated financial statements of the KOGENERACJA S.A. Group for the period from 1 January to 31 December 2022 were approved for publication by the Management Board of Zespół Elektrociepłowni Wrocławskich KOGENERACJA S.A. on 20 March 2023.

Wrocław, 20 March 2023

Signatures of Members of the Management Board of Zespół Elektrociepłowni Wrocławskich KOGENERACJA S.A.

....
Andrzej Jedut
President of the Management Board

....
Krzysztof Kryg
Vice-President of the Management Board

Signature of the person responsible for preparing the financial statements

....
Małgorzata Gołdyn
Head of the Finance Department