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PJSC MOSENERGO

IFRS CONSOLIDATED FINANCIAL STATEMENTS WITH INDEPENDENT AUDITOR'S REPORT

31 December 2021

Moscow | 2022

Contents

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Independent Auditor's Report

To the Shareholders and the Board of Directors
of Public Joint Stock Company for power and electrification Mosenergo

Opinion

We have audited the accompanying consolidated financial statements of Public Joint Stock Company for power and electrification Mosenergo (PJSC Mosenergo) and its subsidiaries (hereinafter – the Group), which comprise the consolidated statement of financial position as at 31 December 2021 and the consolidated statements of comprehensive income, of cash flows and of changes in equity for the year ended 31 December 2021, and notes to the consolidated financial statements comprising a summary of significant accounting policies and other explanatory information.

In our opinion, the accompanying consolidated financial statements present fairly, in all material respects, the consolidated financial position of the Group as at 31 December 2021 and consolidated financial performance and its consolidated cash flows for the year ended 31 December 2021 in accordance with International Financial Reporting Standards ("IFRSs").

Basis for Opinion

We conducted our audit in accordance with International Standards on Auditing ("ISAs"). Our responsibilities under those standards are further described in the *Auditor's Responsibilities for the Audit of the Consolidated Financial Statements* section of our report. We are independent of the Group in accordance with the Rules of Independence of the Auditors and Audit Organizations and the Code of Professional Ethics of the Auditors, which are in accordance with International Ethics Standards Board for Accountants' Code of Ethics for Professional Accountants (including International Independence Standards) (IESBA Code), and we have fulfilled our other ethical responsibilities in accordance with these requirements. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

Key Audit Matters

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

Impairment of property, plant and equipment

Due to the material carrying amount of property, plant and equipment, continuing volatility of macroeconomic parameters and prices of raw materials, the impact of the spread of coronavirus as well as the high level of subjectivity of the underlying assumptions, judgments and estimates of the Group's management we consider this area to be one of the most significance in the audit.

As of 31 December 2021, the Group's management identified indicators of impairment of property, plant and equipment related to individual cash-generating units and tested these assets for impairment in accordance with the requirements of IAS 36 "Impairment of Assets". As a result of the testing, an impairment loss was recognised for several cash-generating units.

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We assessed the input data in the calculations, such as the volume of production and tariffs for heat and electric energy, and main key assumptions, such as discount rate, management forecasts, macroeconomic assumptions. We engaged our valuation experts to assist us in carrying out these procedures who, among other things, analysed the methodology used by the Group when performing impairment testing of property, plant and equipment and the consistency of its application by the Group and analysed the sensitivity of the models applied for testing purposes to changes in key assumptions.

Based on the results of the audit procedures we believe that the significant assumptions and methodology applied in calculating the recoverable of amount property, plant and equipment are acceptable.

Information about the approaches applied to measure and recognise impairment of property, plant and equipment is provided in Note 2 "Summary of significant accounting policies" and Note 3 "Critical accounting estimates, assumptions and judgements" to the consolidated financial statements, information about the conducted impairment testing is disclosed in Note 6 "Property, plant and equipment" to the consolidated financial statements.

Allowance for expected credit losses

One of high-risk audit areas is the evaluation of sufficiency of allowance for expected credit losses. This matter is one of most significance in our audit in view of the need to apply professional judgements and estimates to assess the allowance for expected credit losses.

We analysed the method applied to assess the allowance for expected credit losses, which included, inter alia, the use of provision matrix. We analysed judgements and estimates applied by the Group's management to assess the allowance, whether on an individual or collective basis. We focused on critical review of information used by the Group to assess the risk of a default based on input data about defaults and information about current conditions and forecasts of future economic conditions.

Based on the results of the audit procedures we believe that the significant assumptions applied by the management to assess the allowance for expected credit losses are acceptable.

Information about the main accounting policies applied to account for the allowance for expected credit losses is provided in Note 2 "Summary of significant accounting policies" to the consolidated financial statements, and information about the accounts receivable and the allowance for expected credit losses is disclosed in Note 10 "Trade and other receivables" and Note 27 "Financial risk factors to the consolidated financial statements".

Measuring recoverable amount of the investment in an associate

In view of the material carrying amount of the investment in LLC GEH Industrial Assets (an associate) and the complexity of measuring its recoverable amount, its calculation model providing for forecasting and discounting of future cash flows, which involves highly subjective assumptions and estimates applied by the Group's management, we consider this area to be one of the most significant audit areas.

As at 31 December 2021, the Group's management identified indications of impairment of the investment in LLC GEH Industrial Assets and tested that investment for impairment in compliance with the requirements of IAS 36 Impairment of Assets by measuring the recoverable amount of the investment based on the calculation of value in use. The testing did not show any impairment loss.

Our audit procedures in respect of this area included:

- testing the principles applied to prepare future cash flow forecasts;

- evaluating appropriateness of expected cash flow forecasts by comparing them to the latest budgets of LLC GEH Industrial Assets;
- involvement of valuation experts, who analysed the methodology used by the Group for impairment testing and consistency of its application by the Group, assessed inputs and assumptions used to calculate the recoverable amount of the investment by the Group's management and analysed sensitivity of the forecasted discounted cash flows to changes in key assumptions.

Based on the results of the audit procedures, we believe that the information and key assumptions applied by the Group's management to calculate the recoverable amount of the investment in LLC GEH Industrial Assets are acceptable.

Information about the applied measurement and accounting methods for investments in associates is disclosed in Note 2 "Significant accounting policies" to the consolidated financial statements and information about the value of the investment in LLC GEH Industrial Assets is disclosed in Note 9 "Investments in associates" to the consolidated financial statements.

Other Information

Management is responsible for the other information. The other information comprises the information included in the Annual report of PJSC Mosenergo for 2021 and the Issuer's report of PJSC Mosenergo for the 12 months of 2021, but does not include the consolidated financial statements and our auditor's report thereon. The Annual report of PJSC Mosenergo for 2021 and the Issuer's report of PJSC Mosenergo for the 12 months of 2021 are expected to be made available to us after the date of this auditor's report.

Our opinion on the consolidated financial statements does not cover the other information and we do not and will not express any form of assurance conclusion thereon.

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

If, based on the work we have performed, we conclude that there is a material misstatement of this other information, we are required to report that fact.

When we read the Annual report of PJSC Mosenergo for 2021 and the Issuer's report of PJSC Mosenergo for the 12 months of 2021, if we conclude that there is a material misstatement therein, we are required to communicate the matter to those charged with governance.

Responsibilities of Management and Those Charged with Governance for the Consolidated Financial Statements

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

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

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

Auditor’s Responsibilities for the Audit of the Consolidated Financial Statements

Our objectives are to obtain reasonable assurance about whether the consolidated financial statements as a whole are free from material misstatement, whether due to fraud or error, and to issue an auditor’s report that includes our opinion. Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with ISAs will always detect a material misstatement when it exists.

Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of these consolidated financial statements.

As part of an audit in accordance with ISAs, we exercise professional judgement and maintain professional scepticism throughout the audit. We also:

a) identify and assess the risks of material misstatement of the consolidated financial statements, whether due to fraud or error, design and perform audit procedures responsive to those risks, and obtain audit evidence that is sufficient and appropriate to provide a basis for our opinion. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control;

b) obtain an understanding of internal control relevant to the audit in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the Group’s internal control;

c) evaluate the appropriateness of accounting policies used, and the reasonableness of accounting estimates and related disclosures made by the Group’s management;

d) conclude on the appropriateness of the Group management’s use of the going concern basis of accounting and, based on the audit evidence obtained, whether a material uncertainty exists related to events or conditions that may cast significant doubt on the Group’s ability to continue as a going concern. If we conclude that a material uncertainty exists, we are required to draw attention in our auditor’s report to the related disclosures in the consolidated financial statements or, if such disclosures are inadequate, to modify our opinion. Our conclusions are based on the audit evidence obtained up to the date of our auditor’s report. However, future events or conditions may cause the Group to cease to continue as a going concern;

e) evaluate the overall presentation, structure and content of the consolidated financial statements, including the disclosures, and whether the consolidated financial statements represent the underlying transactions and events in a manner that achieves fair presentation;

f) obtain sufficient appropriate audit evidence regarding the financial information of the entities or business activities within the Group to express an opinion on the consolidated financial statements. We are responsible for the direction, supervision and performance of the Group audit. We remain solely responsible for our audit opinion.

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

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

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

Engagement partner
on the audit resulting
in this independent auditor's report
acting on behalf of the audit firm under
power of attorney No. 50/22
dated 28 February 2022

K.S. Shirikova, FCCA
(registration number 21606042126)

Date of Independent Auditor's Report
3 March 2022

Audited entity

Name:

Public Joint Stock Company for power and electrification Mosenergo (PJSC Mosenergo).

State registration:

The registration entry was made in the Unified State Register of Legal Entities on 11 October 2002 under principal state registration number 1027700302420.

Auditor

Name:

FBK, LLC.

Address of the legal entity within its location:

44/1 Myasnitskaya St, Bldg 2AB, Moscow, 101990, Russian Federation.

The registration entry was made in the Unified State Register of Legal Entities on 24 July 2002 under primary state registration number 1027700058286.

Primary number of registration entry in the register of auditors and audit organizations of the self-regulatory organization of auditors 11506030481.

PJSC Mosenergo
Consolidated statement of financial position
as of 31 December 2021
(in millions of Russian Rubles)

	Notes	31 December 2021	31 December 2020
Assets			
Non-current assets			
Property, plant and equipment	6	247 368	275 107
Investment property	7	1 226	1 449
Intangible assets	8	1 110	872
Investments in associates	9	23 173	23 617
Accounts receivable and prepayments	10	610	1 435
Financial assets	11	11 733	11 518
Total non-current assets		**285 220**	**313 998**
Current assets			
Inventories	12	14 587	16 100
Accounts receivable and prepayments	10	29 917	32 909
Income tax receivable		297	297
Cash and cash equivalents	13	68	7 679
Financial assets	11	48 062	36 008
		92 931	**92 993**
Non-current assets held for sale	14	907	-
Total current assets		**93 838**	**92 993**
Total assets		**379 058**	**406 991**
Equity and liabilities			
Equity			
Share capital	15	166 124	166 124
Share premium	15	48 661	48 661
Revaluation reserve	15	138 366	152 290
Accumulated loss and other reserves		(37 187)	(37 284)
Total equity		**315 964**	**329 791**
Non-current liabilities			
Borrowings	16	-	15 100
Provision for post-employment benefits	17	355	425
Accounts payable and other liabilities	18	856	834
Lease liabilities		5 553	4 899
Deferred tax liabilities	19	28 479	35 454
Total non-current liabilities		**35 243**	**56 712**
Current liabilities			
Borrowings	16	7 510	11
Accounts payable and other liabilities	18	14 032	15 181
Income tax payable		602	956
Other taxes payable	20	2 852	2 471
Lease liabilities		739	403
Provisions	21	2 116	1 466
Total current liabilities		**27 851**	**20 488**
Total liabilities		**63 094**	**77 200**
Total equity and liabilities		**379 058**	**406 991**

A.A. Butko
Managing director
3 March 2022

E.Y. Novenkova
Chief Accountant
3 March 2022

The accompanying notes on the pages 13 to 55 are an integral part of these consolidated financial statements.

PJSC Mosenergo
Consolidated statement of comprehensive income
for the year ended 31 December 2021
(in millions of Russian Rubles)

	Notes	Year ended 31 December 2021	2020
Revenue	22	225 158	180 908
Operating expenses	23	(220 603)	(172 235)
Impairment loss on financial assets	23	(1 969)	(1 075)
Operating profit		**2 586**	**7 598**
Finance income	24	3 417	4 533
Finance expense	24	(1 436)	(2 875)
Share of (loss) profit of associates	9	(444)	917
Loss on disposal of equity investments		-	(3)
Profit before income tax		**4 123**	**10 170**
Income tax expense	19	(1 229)	(2 125)
Profit for the period		**2 894**	**8 045**
Other comprehensive income:			
Items that will not be reclassified subsequently to profit or loss, net of tax:			
Remeasurement of post-employment benefit obligations	17	46	(1)
Gain arising from change in fair value of financial assets measured at fair value through other comprehensive income		208	614
Impairment loss on property, plant and equipment	6	(9 872)	(533)
Total other comprehensive (loss) income that will not be reclassified to profit or loss		**(9 618)**	**80**
Other comprehensive (loss) income for the period		**(9 618)**	**80**
Comprehensive (expense) income for the period		**(6 724)**	**8 125**
Profit for the period attributable to:			
Owners of PJSC Mosenergo		2 894	8 045
Comprehensive (loss) income for the period attributable to:			
Owners of PJSC Mosenergo		(6 724)	8 125
Basic and diluted earnings per share attributable to the owners of PJSC Mosenergo (in Russian Rubles)	25	**0,073**	**0,202**

A.A. Butko
Managing director
3 March 2022

E.Y. Novenkova
Chief Accountant
3 March 2022

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(in millions of Russian Rubles)

	Notes	Year ended 31 December 2021	Year ended 31 December 2020
Cash flows from operating activities			
Profit before income tax		**4 123**	**10 170**
Adjustments to profit before income tax			
Amortisation and depreciation	23	24 093	22 874
Impairment loss on financial assets	23	1 969	1 075
Impairment loss on non-financial assets	23	49	42
Change in fair value of non-financial assets	23	12 942	1 715
Change in provisions	23	412	307
Share of loss (profit) of associates	9	444	(917)
Loss on disposal of equity investments		-	3
Loss on disposal of property, plant and equipment and other assets	23	672	1 005
Finance income	24	(3 417)	(4 533)
Finance expense	24	1 436	2 875
Total effect of adjustments		38 600	24 446
Cash flows from operating activities before working capital changes		42 723	34 616
Working capital changes			
Change in accounts receivable and prepayments		(2 393)	(3 908)
Change in inventories		(795)	(124)
Change in accounts payable and other liabilities		2 123	2 797
Change in other taxes payable		(172)	190
Change in provision for post-employment benefits		(12)	11
Total effect of working capital changes		(1 249)	(1 034)
Income tax paid		(5 906)	(3 990)
Interest paid		(1 378)	(1 676)
Net cash from operating activities		**34 190**	**27 916**
Cash flows from investing activities			
Acquisitions of property, plant and equipment and intangible assets		(22 661)	(15 883)
Proceeds from sale of property, plant and equipment		116	392
Loans issued		(19 037)	(981)
Repayment of loans issued		5 029	1 255
Interest received		2 974	3 825
Dividends received		38	231
Disposal of associates		-	2 784
Placement of short-term deposits		(50)	(15 900)
Repayment of short-term deposits		7 050	8 900
Net cash used in investing activities		**(26 541)**	**(15 377)**
Cash flows from financing activities			
Repayment of borrowings		(7 600)	(11 529)
Repayment of lease liabilities		(586)	(351)
Dividends paid		(7 074)	(4 766)
Net cash used in financing activities		**(15 260)**	**(16 646)**
Effect of foreign exchange rate changes on cash and cash equivalents		-	128
Decrease in cash and cash equivalents		**(7 611)**	**(3 979)**
Cash and cash equivalents at the beginning of the period	13	7 679	11 658
Cash and cash equivalents at the end of the period	13	**68**	**7 679**

A.A. Butko
Managing director
3 March 2022

E.Y. Novenkova
Chief Accountant
3 March 2022

The accompanying notes on the pages 13 to 55 are an integral part of these consolidated financial statements.

PJSC Mosenergo
Consolidated statement of changes in equity
for the year ended 31 December 2021
(in millions of Russian Rubles)

	Notes	Share capital	Share premium	Treasury shares	Revaluation reserve	Accumulated loss and other reserves	Total Equity
		Equity attributable to the owners of the PJSC Mosenergo					
Balance as of 1 January 2020		**166 124**	**48 661**	**-**	**153 210**	**(41 545)**	**326 450**
Profit for the period		-	-	-	-	8 045	8 045
Other comprehensive income (loss):							
Remeasurement of post-employment benefit obligations	17	-	-	-	-	(1)	(1)
Gain arising from change in fair value of financial assets measured at fair value through other comprehensive income		-	-	-	-	614	614
Impairment loss on property, plant and equipment	6	-	-	-	(533)	-	(533)
Transfers from revaluation surplus on property, plant and equipment to accumulated loss and other reserves		-	-	-	(387)	387	-
Comprehensive income (loss) for the period		**-**	**-**	**-**	**(920)**	**9 045**	**8 125**
Transactions with the owners of PJSC Mosenergo							
Dividends declared	15	-	-	-	-	(4 784)	(4 784)
Balance as of 31 December 2020		**166 124**	**48 661**	**-**	**152 290**	**(37 284)**	**329 791**
Balance as of 1 January 2021		**166 124**	**48 661**	**-**	**152 290**	**(37 284)**	**329 791**
Profit for the period		-	-	-	-	2 894	2 894
Other comprehensive income (loss):							
Remeasurement of post-employment benefit obligations	17	-	-	-	-	46	46
Gain arising from change in fair value of financial assets measured at fair value through other comprehensive income		-	-	-	-	208	208
Impairment loss on property, plant and equipment	6	-	-	-	(9 872)	-	(9 872)
Transfers from revaluation surplus on property, plant and equipment to accumulated loss and other reserves		-	-	-	(4 052)	4 052	-
Comprehensive income (loss) for the period		**-**	**-**	**-**	**(13 924)**	**7 200**	**(6 724)**
Transactions with the owners of PJSC Mosenergo							
Dividends declared	15	-	-	-	-	(7 103)	(7 103)
Balance as of 31 December 2021		**166 124**	**48 661**	**-**	**138 366**	**(37 187)**	**315 964**

A.A. Butko
Managing director
3 March 2022

E.Y. Novenkova
Chief Accountant
3 March 2022

The accompanying notes on the pages 13 to 55 are an integral part of these consolidated financial statements.

(in millions of Russian Rubles)

1 General information

1.1 Organisation and operations

Public Joint-Stock Company of Power Supply and Electrification Mosenergo (hereafter referred to as the "PJSC Mosenergo" or the "Company") was registered and conducts its activities in the Russian Federation.

The primary activities of the Company and its subsidiaries (together referred to as the "Group" or the "Mosenergo Group") are the production of the generation of heat and electric power, capacity and heat distribution services in Moscow and the Moscow region.

The operation of the Group for the generation of electricity and heat is provided by 15 power plants, the average annual installed electric and heat capacity of which for the year ended 31 December 2021 amounted to 12 825 MW and 43 820 GCal/h (for the year ended 31 December 2020: 12 825 MW and 43 777 GCal/h), respectively.

The Company is registered at the location in the Inspectorate of the Federal Tax Service No. 29 in Moscow, and also as the largest taxpayer in the Interregional Inspectorate of the Federal Tax Service for the largest taxpayers No. 6. PJSC Mosenergo registered office is located at 101/3, Prospekt Vernadskogo, Moscow, 119526, the Russian Federation.

PJSC Mosenergo and its following subsidiaries form the Mosenergo Group:

Name organisation	Nature of business	Percentage of ownership 31 December 2021	Percentage of ownership 31 December 2020
LLC Centralny remontno-mekhanicheskiy zavod	Repair and reconstruction services	100,00%	100,00%
LLC Mosenergoproject	Electrical engineering	100,00%	100,00%
LLC Remontproject	Electrical engineering	99,00%	99,00%

As at 31 December 2021 there are no significant restrictions on the ability to access the assets of subsidiaries or use them to settle the liabilities of subsidiaries.

1.2 Relations with the Government and influence on the Group activities

At the date of consolidated financial statements PJSC Gazprom owns 100% of LLC Gazprom Energoholding. . As of 31 December 2021 LLC Gazprom Energoholding owns 53.85% shares of PJSC Mosenergo (as 31 December2020: 53.78%). Therefore, PJSC Gazprom is the party with ultimate control.

The number of consumers of electric and heat generation produced by the Group includes a great number of enterprises controlled by the state or directly related to it. The list of the Group's major fuel suppliers includes subsidiaries of PJSC Gazprom. The state also controls a number of suppliers of the Group.

The Government of the Russian Federation directly affects the Group's operations through regulations of wholesale electricity (capacity) market and retail heat market by the Federal Antimonopoly Service (the "FAS") and the executive authorities in the utility rate regulation.

JSC System Operator of the Unified Energy System (SO UES), which is controlled by the Russian Federation through the Federal Agency for State Property Management, regulates operations of generating assets of the Group.

Government policies in the economic, social and other fields can have a significant influence on the Group, see Note 26.

1.3 Business environment

The economy of the Russian Federation displays certain characteristics of an emerging market. Tax, currency and customs legislation of the Russian Federation continues to develop, is subject to frequent changes and allows for different interpretations. Fluctuations in oil prices, continuing political tensions in the region, as well as international sanctions against some Russian organisations and citizens have had and can continue to affect the economy of the Russian Federation. The financial markets continue to be volatile and are characterised by frequent significant price movements and increased trading spreads. These events can have a significant impact on the Group's operations and financial position in the future, the consequences of which are difficult to predict. The future economic situation and regulatory environment may differ from the current expectations of the management.

On the impact of the COVID-19 pandemic. The coronavirus pandemic (COVID-19), which occurred in the 2020, has had a significant negative impact on the world economy. Restrictive measures taken to curb the spread of coronavirus infection have reduced the economic activity of electricity market participants. Certain restrictive measures were subsequently relaxed, but as of 31 December 2021, the level of spread of coronavirus infection remains high and there is a risk of introducing additional restrictions in subsequent periods, including due to the emergence of new varieties of the virus. In 2021 the economy of the Russian Federation demonstrated positive dynamics of recovery from the pandemic. This was also facilitated by the recovery of the global economy and the increase in prices on world commodity markets. The scale and duration of these events remain uncertain and may affect the Group's financial position and results of operations.

The Group's management believes that it is taking all necessary measures to support the sustainability and development of the Group's business in the current environment. In the process of spreading the pandemic, the company took prompt preventive measures to prevent the spread of coronavirus infection at the Group's facilities, because of which it was possible to exclude the impact of the spread of the virus on the stability of the group's technological and functional processes. Currently, the Group's management is taking measures to optimize fixed costs and reallocate expenses for the company's investment program.

Currently, it is not possible to reliably estimate the duration and extent of the impact of the consequences of the pandemic on the Group's financial position and results of operations in subsequent reporting periods. The future economic situation in the Russian Federation depends on external factors and measures taken by the Government of the Russian Federation. Its impact on the Group's operations may differ from management's current expectations.

2 Significant accounting policies

2.1 Statement of compliance

These consolidated financial statements have been prepared in accordance with, and comply with, International Financial Reporting Standards (“IFRS”), including International Accounting Standards and Interpretations issued by the International Accounting Standards Board and effective in the reporting period.

The consolidated financial statements are prepared on the historical cost basis except for property, plant and equipment revalued periodically; separate financial instruments and investment property is measured at fair value; and the carrying amounts of equity items in existence at 31 December 2021 included adjustments for the effects of hyperinflation, which were calculated using conversion factors derived from the Russian Federation Consumer Price Index published by the Russian Statistics Agency. The economy of the Russian Federation ceased to be hyperinflationary for purposes of preparing the consolidated financial statements at 1 January 2003.

The accounting policies used in the preparation of these consolidated financial statements are described below.

2.2 General provisions

2.2.1 Functional and presentation currency

The national currency of the Russian Federation is the Russian Ruble (RUB), which is the Group’s functional currency and the presentation currency of these consolidated financial statements. All financial information presented in RUB has been rounded to the nearest million unless otherwise stated.

2.2.2 Foreign currency transactions

Monetary assets and liabilities of the Group denominated in foreign currencies at the reporting date are translated into Russian rubles at the official exchange rates at the end of the reporting period. Non-monetary assets and liabilities denominated in foreign currencies that are measured at fair value are translated to the functional currency at the exchange rate ruling at the date their fair value was determined. Transactions in foreign currencies are accounted for at the exchange rate at the date of the transactions. Gains or losses arising from the settlement of such transactions, as well as at the reporting date from the translation of monetary assets and liabilities denominated in foreign currencies, are recognised in the consolidated statement of comprehensive income in profit or loss.

As of 31 December 2021 the official exchange rate set by the Central Bank of the Russian Federation was 74,2926 RUB per 1 US dollar (as of 31 December 2020 – 73,8757 RUB per 1 US dollar) and 84,0695 RUB per 1 Euro (as of 31 December 2020 – 90,6824 RUB per 1 Euro).

2.3 Consolidation

2.3.1 Subsidiaries

The consolidated financial statements include the financial statements of the Company and the financial statements of those organizations whose activities are controlled by the Company.

Subsidiaries are those investees that the Group controls because the Group (i) has power to direct relevant activities of the investees that significantly affect their returns, (ii) has exposure, or rights, to variable returns from its involvement with the investees, and (iii) has the ability to use its power over the investees to affect the amount of investor’s returns. The existence and effect of substantive rights, including substantive potential voting rights, are considered when assessing whether the Group has power over another entity.

For a right to be substantive, the holder must have practical ability to exercise that right when decisions about the direction of the relevant activities of the investee need to be made. The Group may have power over an investee even when it holds less than majority of voting power in an investee. In such a case, the Group assesses the size of its voting rights relative to the size and dispersion of holdings of the other vote holders to determine if it has de-facto power over the investee.

The financial statement of subsidiaries are consolidated from the date on which control is transferred to the Group and are deconsolidated from the date on which control ceases.

When control of a subsidiary is lost, the Group derecognises its assets and liabilities, as well as its non-controlling interests and other components of equity. Any positive or negative difference resulting from the loss of control is recognised in profit or loss for the period. In addition, all amounts previously recognized in other comprehensive income are transferred to profit or loss.

If the Group retains a portion of the investment in a former subsidiary, that portion is measured at fair value at the date of loss of control. Subsequently, this interest is accounted for as an investment in an associate (using the equity method), or a financial asset measured at fair value through profit or loss, or a financial asset measured at fair value through other comprehensive income.

2.3.2 Associates

Associates are those entities in which the Group has significant influence, but not control, over the financial and operating policies. Associates are accounted for using the equity method and are recognised initially at cost. The Group’s investment in associates includes goodwill identified on acquisition, net of any accumulated impairment losses. Other post-acquisition changes in Group’s share of net assets of an associate are recognised as follows: the Group’s share of profits or losses of associates is recorded in the consolidated profit or loss for the period as share of income (loss) of associates, the Group’s share of other comprehensive income is recognised in other comprehensive income and presented separately, all other changes in the Group’s share of the carrying value of net assets of associates are recognised in profit or loss within the share of income (loss) of associates. When the Group’s share of losses of associates accounted for using the equity method exceeds its interest in an equity accounted investee, the carrying amount of that interest (including any long-term investments) is reduced to nil and the recognition of further losses is discontinued except to the extent that the Group has an obligation or has made payments on behalf of the investee.

On derecognition or disposal of an asset, the revaluation surplus included in equity for an item of property, plant and equipment is transferred directly to retained earnings. In the event of loss of significant influence over the associate, the Group measures and recognizes the remaining investment at fair value. Any difference between the carrying amount of the associate after loss of significant influence and the fair value of the retained investment and proceeds from disposal is recognised in the consolidated statement of profit (loss) and other comprehensive income.

2.3.3 Business combination transactions

Business combinations are accounted for using the acquisition method. Consideration transferred for an acquired entity is measured at the fair value of the assets transferred, equity interests issued, and liabilities incurred or assumed, including the fair value of assets and liabilities arising from contingent consideration agreements, but not including acquisition-related costs, such as consulting, legal, valuation, and similar professional services. Transaction costs incurred in the issuance of equity instruments are deducted from equity; transaction costs incurred in connection with the issuance of debt securities in a business combination are deducted from their carrying amount, and all other transaction costs associated with the acquisition are expensed.

Consideration is measured at fair value, which is calculated as the sum of the fair values of assets transferred by the Group at the date of acquisition of the business, liabilities assumed by the Group to the former owners of the acquired business, and equity securities issued by the Group in exchange for taking control of the acquired business.

Identifiable assets acquired and liabilities assumed, other than those acquired from parties under common control, are recognized at fair value at the acquisition date.

The Group measures non-controlling interest that represents present ownership interest and entitles the holder to a proportionate share of net assets in the event of liquidation, on a transaction by transaction basis at the non-controlling interest's proportionate share of net assets of the acquiree. Non-controlling interests that are not present ownership interests are measured at fair value.

Non-controlling interest is that part of the net results and of the equity of a subsidiary attributable to interests that are not owned, directly or indirectly, by PJSC Mosenergo. Non-controlling interest forms a separate component of the Group’s equity.

2.3.4 Goodwill

Goodwill is measured by deducting the net assets of the acquiree from the aggregate of the consideration transferred for the acquiree, the amount of non-controlling interest in the acquiree and fair value of an interest in the acquiree held immediately before the acquisition date. Any negative amount (“negative goodwill”) is recognised in profit or loss, after management reassesses whether it identified all the assets acquired and all liabilities and contingent liabilities assumed and reviews appropriateness of their measurement.

The consideration transferred for the acquiree is measured at the fair value of the assets given up, equity instruments issued and liabilities incurred or assumed, including fair value of assets or liabilities from contingent consideration arrangements but excludes acquisition related costs such as advisory, legal, valuation and similar professional services. Transaction costs related to the acquisition and incurred for issuing equity instruments are deducted from equity; transaction costs incurred for issuing debt as part of the business combination are deducted from the carrying amount of the debt and all other transaction costs associated with the acquisition are expensed.

Goodwill is carried at cost less accumulated impairment losses, if any. The Group tests goodwill for impairment at least annually and whenever there are indications that goodwill may be impaired. Impairment losses on goodwill are recognised directly in the consolidated statement of profit or loss and other comprehensive income in profit or loss. An impairment loss on goodwill is not recoverable in subsequent periods.

Goodwill is allocated to the cash-generating units, or groups of cash-generating units, that are expected to benefit from the synergies of the business combination. Such units or groups of units represent the lowest level at which the Group monitors goodwill and are not larger than an operating segment.

2.3.5 Transactions eliminated on consolidation

Intra-group balances and transactions, and any unrealised gains and losses arising from intra-group transactions, are eliminated in preparing the consolidated financial statements. Unrealised gains arising from transactions with associates are eliminated against the investment to the extent of the Group's interest in the investee. Unrealised losses are eliminated in the same way as unrealised gains, but only to the extent that there is no evidence of impairment.

2.3.6 Business combinations of entities under common control

The acquisition of subsidiaries from entities under common control is accounted for using the valuation method of the predecessor entity (the transferor). The consolidated financial statements include the results of the acquired entity from the date of acquisition. The corresponding indicators of the previous period are not recalculated. Assets and liabilities of a subsidiary transferred between entities under common control are carried at the carrying amount recognized in the financial statements of the transferor. The predecessor entity is considered to be the reporting entity at the highest level at which the financial statements of the subsidiary prepared in accordance with IFRS were consolidated. If such consolidated statements are not available, the carrying amounts of assets and liabilities from the subsidiary's financial statements are used. Any difference between the carrying amount of net assets, including the amount of goodwill generated by the immediate parent company, and the amount of the consideration paid is recognised in the consolidated financial statements as an adjustment in equity/net assets attributable to the Company's participants.

2.4 Financial instruments

Financial assets and financial liabilities admit when the Group becomes party to the contractual provisions of the instrument.

Except for trade receivables do not contain a significant financing component in accordance with IFRS 15 Revenue from Contracts with Customers at initial recognition, the Group measures a financial asset or financial liability at at fair value adjusted, transaction costs that are directly attributable to the acquisition or issue of the financial asset or financial liability.

Fair value is the price that can be obtained on the sale of an asset or paid on the transfer of a liability in a normal transaction between market participants at the measurement date.

The fair value of financial assets and liabilities is determined as follows:

Financial instruments included in Level 1. The fair value of financial instruments traded in active markets is determined on the basis of market quotations at the close of trading on the nearest reporting date.

Financial instruments included in Level 2. The fair value of financial instruments that are not traded in active markets is determined in accordance with various valuation methods, mainly based on a market-based or income-based approach, in particular using the present value of cash flows method. These valuation techniques maximize the use of observable market prices, in the event of their availability, and to a lesser extent rely on assumptions that are typical for the Group. If all material inputs for the measurement of a financial instrument at fair value are based on observable market prices, the instrument is included in Level 2.

Financial instruments included in Level 3. If one or more significant inputs used in the model to measure the fair value of an instrument are not based on observable market prices, such an instrument is included in Level 3.

For the purposes of fair value disclosure, the Group has classified financial instruments based on the appropriate level of the fair value hierarchy, as indicated above (Note 28).

2.4.1 Classification and measurement of financial assets

The Group classifies financial assets into three measurement categories:

- those measured subsequently at amortised cost,
- those measured subsequently at fair value with changes recognised in other comprehensive income,
- and those measured subsequently at fair value with changes recognised in profit or loss.

Classification of financial assets one or another category takes place on the basis of the business model used by Group for management of the financial assets connected with the cash flows provided by the contract.

Financial assets measured subsequently at amortised cost

Such category of financial assets includes assets held to obtain contractual cash flows and it is expected that they will result in cash flows being payments of principal and interest.

The loans issued, receivables, deposits, cash and cash equivalents belong to this category of financial assets of the Group. The loans issued and receivables include financial assets with the fixed or determinable payments that are not quoted in an active market. After initial recognition the loans issued and receivables are estimated at the amortised cost using the effective interest method.

Cash and cash equivalents include cash on hand, banks accounts and highly liquid financial assets with original maturity no more than three months.

Amortised cost represents the amount at which a financial instrument was measured at initial recognition, less principal repayments, reduced or increased by the amount of accrued interest, and for financial assets, less the amount of impairment losses (direct or through the use of an allowance account). Accrued interest includes amortization of transaction costs deferred at initial recognition, as well as any premium or discount on the repayment amount using the effective interest method. Accrued interest income and accrued interest expense, including accrued coupon income and amortised discount or premium (including deferred commission, if any), are not shown separately, but are included in the carrying amount of the respective items in the statement of financial position.

The effective interest method is a method of allocating interest income or interest expense over the relevant period in order to ensure a constant interest rate in each period (the effective interest rate) on the carrying amount of the instrument. The effective interest rate is the rate used to accurately discount estimated future cash payments or receipts (not including future credit losses) over the expected lifetime of a financial instrument or, where appropriate, a shorter period to the net carrying amount of the financial instrument. The effective interest rate is used to discount the cash flows of floating-rate instruments until the next interest change date, except for the premium or discount that reflects the credit spread at the floating rate specified for the instrument or other variable factors that are set independently of the market value. Such premiums or discounts are amortised over the expected life of the instrument. The present value calculation includes all fees and amounts paid or received by the parties under the contract that form an integral part of the effective interest rate.

Financial assets measured subsequently at fair value with changes recognised in other comprehensive income (FVTOCI)

Such category of financial assets includes debt-type assets held within business models whose objective is achieved by both collecting contractual cash flows and selling financial assets and it is expected that they will result in cash flows being payments of principal and interest. Gains and losses associated with this category of financial assets are recognised in other comprehensive income, except for impairment gains or losses, interest income and foreign exchange gains and losses, which are recognised in profit or loss. When a financial asset is disposed of, cumulative previous gain or loss that has been recognised in other comprehensive income is reclassified from equity to profit or loss in the consolidated statement of comprehensive income. Interest income from these financial assets is calculated using the effective interest method and included in financial income.

The Group's management has made a decision to recognise changes in fair value of equity instruments in other comprehensive income if the instrument is not held for trading. The Group's management has decided to reflect changes in fair value in other comprehensive income for most of the available equity instruments, as these assets are considered as long-term strategic investments that are not expected to be sold in the short and medium term. Other comprehensive income (loss) from changes in fair value of such instruments shall not be subsequently reclassified to profit or loss in the consolidated statement of comprehensive income.

Financial assets measured subsequently at fair value with changes recognised through profit or loss (FVTPL)

Financial assets that do not meet the criteria of recognition as financial assets measured at amortised cost or measured at fair value through other comprehensive income are measured at fair value through profit or loss. Such financial assets of the Group include certain equity instruments for which the Group has not decided to reflect changes in their fair value in other comprehensive income.

2.4.2 Impairment of financial assets

The Group applies the expected credit loss model to financial assets measured at amortised cost using effective interest rate and at fair value through other comprehensive income, except for investments in equity instruments, and to contract assets.

The allowance for expected credit losses for a financial asset is measured at an amount equal to the lifetime expected credit losses if the credit risk on that financial asset has increased significantly since initial recognition.

If, at the reporting date, the credit risk on a financial asset has not increased significantly since initial recognition, the allowance for expected credit losses for that financial asset is measured at an amount equal to 12-month expected credit losses.

With respect to Group's receivables and contract assets, a simplified approach to assessing expected credit losses is adopted, which provides for a loss allowance equal to the expected credit losses over the entire term. The expected credit losses represent calculation appraisal of the credit losses throughout the expected period of validity of a financial instrument measured on degree of probability of approach of a default. As the expected credit losses consider the amount and date of disbursement, the credit loss also arises if the Group expects to receive all amounts in full, than it is provided by the contract.

The Group estimates the expected credit losses in this way:

- the impartial and measured based on probability amount determined by the analysis of range of possible results,
- time value of money,
- and the proved and confirmed information on previous events, the current conditions and the predicted future business environment available for reporting date without excessive costs.

2.4.3 Classification and measurement of financial liabilities

The Group classifies all financial liabilities as measured subsequently at amortised cost. The Group's financial liabilities include trade, lease liability and borrowings, other payables.

2.4.4 Derecognition of financial instruments

The Group derecognises a financial asset when and only when the contractual rights to the cash flows from the financial asset expire, or when the financial asset and substantially all the risks and rewards of ownership of the financial asset are transferred.

The Group derecognises a financial liability when and only when it is settled, i.e. when the contractual obligation is fulfilled, cancelled or terminated at the end of the term.

If an existing financial liability is replaced by another liability to the same lender on substantially different terms, or the terms of an existing liability are substantially changed, such an exchange or change is accounted for as a write-off of the original liability and the recognition of a new liability. Differences in carrying amounts are recognised in the consolidated statement of comprehensive income.

2.5 Property, plant and equipment

2.5.1 Recognition and measurement

Property, plant and equipment are stated at revalued amounts, which are the fair value at the date of revaluation, less any subsequent accumulated depreciation and impairment losses (where it is necessary).

Property, plant and equipment are subject to revaluation on a regular basis to ensure that the carrying amount does not differ materially from that, which would be determined using fair value at the reporting date. Increase in the carrying amount of property, plant and equipment as a result of revaluation is credited directly to other comprehensive income under the heading "Asset revaluation surplus", unless the decrease of the reserve was previously recognised in profit or loss. Decrease in the carrying amount shall be debited to other comprehensive income to the extent of any credit balance existing in the revaluation reserve. Any accumulated depreciation at the date of revaluation is eliminated against the gross carrying amount of the asset, and the net amount is restated to the revaluated amount of the asset.

The tax effects from the revaluation of property, plant and equipment are recognised in other comprehensive income and accumulated in equity.

Cost of acquired assets includes expenditure that is directly attributable to the acquisition of the asset. The cost of self-constructed assets includes the cost of materials, staff costs and any other expenses directly attributable to bringing the asset to a working condition for its intended use, and the costs of dismantling and removing the items and restoring the site on which they are located. Purchased software that is integral to the functionality of the related equipment is capitalised as part of that equipment.

When parts of an item of property, plant and equipment have different useful lives, they are accounted for as separate items (major components) of property, plant and equipment.

Gains and losses on disposal of an item of property, plant and equipment are recognised net in the line "Other operating expenses (income)" in operating expenses. Increase in the carrying amount as a result of revaluation is transferred from the revaluation surplus to retained earnings (accumulated loss) when the assets are disposed.

The revaluation surplus included in equity in respect of an item of property, plant and equipment may be transferred directly to retained earnings when the asset is derecognised or is disposed.

2.5.2 Capitalisation of borrowing costs

Borrowing costs that are directly attributable to the acquisition or construction of an asset that necessarily takes a substantial period of time to get ready for its intended use or sale are capitalised as part of the cost of that asset.

The commencement date for capitalisation is when (a) the Group incurs expenditures for the qualifying asset; (b) it incurs borrowing costs, and (c) it undertakes activities that are necessary to prepare the asset for its intended use or sale.

Capitalisation of borrowing costs continues up to the date when the assets are substantially ready for their use or sale.

For borrowings raised specifically to obtain a qualifying asset, the amount of capitalized costs is determined as the amount of actual costs incurred on these borrowings during the period, less investment income from the temporary investment of these borrowed funds.

For borrowings raised for general purposes and used, among other things, to obtain a qualifying asset, capitalized costs are calculated based on the average cost of financing the Group, calculated without taking into account borrowings raised specifically to obtain a qualifying asset (weighted average interest costs are applied to expenses on qualifying assets). If the estimated amount of capitalized costs exceeds the amount of actual borrowing costs, then the actual costs incurred on borrowing during the period are capitalized, less any investment income from the temporary investment of these borrowed funds.

(in millions of Russian Rubles)

2.5.3 Subsequent cost

The costs associated with the replacement of each item of property, plant and equipment is recognised in the carrying amount of that item if it is probable that future economic benefits will flow to the Group from the continued use of the item and its cost can be estimated reliably. The carrying amount of the replaced item is derecognised. Expenses related to routine maintenance and repair of property, plant and equipment are recognised in profit or loss as incurred.

2.5.4 Depreciation of property, plant and equipment

Depreciation is recognised in profit or loss on a straight-line basis over the estimated useful lives of each item of property, plant and equipment. Depreciation of an asset begins when it is available for use.

Depreciation methods, useful lives and residual values are reviewed at each reporting date. Land and construction in progress items are not depreciated.

As part of revaluation as of 31 December 2019 useful lives of certain classes of property, plant and equipment were revised and were as follows:

Types of property, plant and equipment	Useful life, years
Buildings and constructions	30 - 70
Plant and equipment	25 - 40
Transmission networks	30
Other	5 - 25

2.5.5 Reclassification to investment property

When the use of property changes from owner-occupied to investment property, the property is remeasured to fair value and reclassified as investment property. Any gain arising on remeasurement is recognised in profit or loss to the extent the gain reverses previous impairment loss on a specific property, with any remaining gain recognised in the revaluation reserve directly in other comprehensive income. Any revaluation loss is recognised in the revaluation reserve directly in other comprehensive income to the extent that an amount of revaluation is included in other comprehensive income relating to a specific property, with any remaining loss recognised immediately in profit or loss.

2.6 Lease

At inception of a contract, the Group estimates whether the contract is or contains a lease. In other words, the Group determines whether the contract conveys the right to control the use of an identified asset for a period of time in exchange for consideration.

The Group applies a common approach to recognition and measurement of all lease agreements, except for short-term leases the term of which does not exceed 12 months and for leased assets with of low value. Lease payments for short-term leases and leased assets with of low value are recognised in profit or loss on a straight-line basis over the period of the lease.

2.6.1 Rights-of-use assets

The Group recognises right-of-use assets at the commencement date (i.e. the date on which an underlying asset is available for use). The right-of-use assets are measured at cost less any accumulated depreciation and any accumulated impairment losses and adjusted for any revaluations of the lease liabilities. The cost of the right-of-use assets comprises the amount of the initial measurement of the lease liabilities, any initial direct costs incurred by the lessee, any lease payments made at or before the commencement date less any lease incentives received. The right-of-use assets are depreciated using the straight-line method to the earlier of the end of the lease term or the end of the useful life of the right-of-use asset. Depreciation of right-of-use-assets reflects on the line “Depreciation and amortisation” in operating expenses.

The Group presents right-of-use assets within property, plant and equipment.

2.6.2 Lease liabilities

At the commencement date of the lease, the Group recognises lease liabilities which are measured at the present value of the lease payments to be made over the lease term. The lease payments include fixed payments (including in-substance fixed payments) less any lease incentives receivable, variable lease payments that depend on an index or a rate, and amounts expected to be payable under residual value guarantees. Variable lease payments that do not depend on an index or a rate are recognised as expenses (except when incurred for producing inventories) in the period in which an event or condition occurs that leads to such payments.

To measure the present value of the lease payments, the Group uses incremental borrowing rate at the commencement date, as the interest rate implicit in the lease cannot be readily determined. After the commencement date, the lease liabilities are increased to reflect the accrual of interest and are reduced to reflect the lease payments made. Moreover, the Group remeasures the carrying amount of lease liabilities in case of lease modifications, changes in the lease term, changes in lease payments (e.g., a change in future payments resulting from a change in the index or a rate used to determine those payments) or changes in the assessment of an option to purchase the underlying asset. Lease interest expense reflects in finance expenses.

2.7 Intangible assets

Intangible assets that are acquired by the Group, which have finite useful lives, are measured at cost less accumulated amortisation and accumulated impairment losses (where it is necessary).

The Group's intangible assets have definite useful lives and primarily include capitalised expenses for the acquisition of computer software and licenses.

Amortisation is recognised in profit or loss on a straight-line basis over the estimated useful lives of intangible assets, other than goodwill, from the date that they are available for use. The estimated useful lives of the software for the current and comparative periods equal to 7 years.

Purchased computer software licenses are capitalized in the amount of the costs incurred for their acquisition and commissioning.

2.8 Investment property

Investment property is property or construction in progress held or constructed either to earn rental income or for capital appreciation or for both, but not for sale in the ordinary course of business, use in the production or supply of goods or services or for administrative purposes. Investment property is initially recognised at cost, including transaction costs, and subsequently remeasured at fair value updated to reflect market conditions at the end of each reporting period. Any change in fair value is recognised in profit or loss.

When the use of a property changes such that it is reclassified as property, plant and equipment, its fair value at the date of reclassification becomes its cost for subsequent accounting.

When the carrying amount of property is to be recovered principally through a sale transaction rather than through continuing use the property is remeasured to fair value and reclassified as assets held for sale. A gain or loss on the remeasurement is recognised in profit or loss.

2.9 Share capital

2.9.1 Ordinary shares

Ordinary shares are classified as share equity. Incremental costs directly attributable to the issue of new shares are recognised in equity as a deduction, net of tax, from the proceeds. Any excess of the fair value of consideration received over the par values issued is reflected as share premium in equity.

2.9.2 Treasury shares

Where the Company or its subsidiaries purchase the Company's equity instruments, the consideration paid, including any directly attributable incremental costs, net of income taxes, is deducted from equity attributable to the Company's owners until the equity instruments are cancelled, reissued or disposed of. Where such shares are subsequently sold or reissued, any consideration received, net of any directly attributable incremental transaction costs and the related income tax effects, is included in equity attributable to the Company's owners.

2.9.3 Dividends

Dividends are recognised as liabilities and deducted from equity in the period when they are recommended by the Board of Directors and approved at the General Meeting of Shareholders.

2.10 Impairment of non-financial assets

The carrying amounts of the Group’s non-financial assets, other than inventories and deferred tax assets, are reviewed at each reporting date to determine whether there is any indication of impairment. If any such indication exists, then the asset’s recoverable amount is estimated.

The recoverable amount of an asset or cash-generating unit is the greater of its value in use and its fair value less costs to sell. In assessing value in use, the estimated future cash flows are discounted to their present value using a pre-tax discount rate that reflects current market assessments of the time value of money and the risks specific to the asset. For the purpose of impairment testing, assets are grouped together into the smallest group of assets that generates cash inflows from continuing use that are largely independent of the cash inflows of other assets or groups of assets (“cash-generating unit”).

To calculate the recoverable amount in respect of a specific group of assets, the Group uses the fair value method, based on the possibility of alternative use. The goodwill acquired in a business combination, for the purpose of impairment testing, is allocated to cash-generating units that are expected to benefit from the synergies of the combination.

An impairment loss is recognised if the carrying amount of an asset or its cash-generating unit exceeds its estimated recoverable amount. Impairment losses are recognised in other comprehensive income if revaluation reserve existing to such assets, otherwise in profit or loss. Impairment losses recognised in respect of cash-generating units are allocated first to reduce the carrying amount of any goodwill allocated to the units and then to reduce the carrying amounts of the other assets in the unit (groups of units) on a pro rata basis.

2.11 Inventories

Inventories are measured at the lower of cost and net realisable value. The actual cost of acquisition includes the costs associated with the acquisition of inventory, its production and processing, as well as other costs aimed at bringing the inventory to a state of readiness for use and delivering it to the place of use.

In the case of manufactured inventories and work in progress, cost includes an appropriate share of production overheads. Inventory is written off at a weighted average cost.

Net realisable value is the estimated selling price in the ordinary course of business, less the estimated costs of completion and selling expenses.

A provision for depreciation of inventories is created in the amount of potential losses from the write-off of obsolete inventory and inventory with low turnover, taking into account the expected life of such inventory and the future sale price.

2.12 Prepayments and advances issued

Prepayments are recorded in the consolidated financial statements at cost less any provision for impairment. A prepayment is classified as long-term if the expected period of receipt of the goods or services related to it exceeds one year, or if the prepayment relates to an asset that will be recorded as non-current at initial recognition, and the amount of the prepayment for the acquisition of the asset is included in its carrying amount when the Group gains control of the asset and it is probable that future economic benefits associated with it will be received by the Group. If there is an indication that the assets, goods or services related to the prepayment will not be received, the carrying amount of the prepayment is reduced and the corresponding impairment loss is recognized in profit or loss for the reporting period.

Advances made to construction contractors and suppliers of property, plant and equipment are recorded as property, plant and equipment in the consolidated statement of financial position, net of VAT. VAT on advances made to construction contractors and suppliers of property, plant and equipment is included in the carrying amount of non-current assets, under the line accounts receivable, if the expected tax refund period exceeds one year. If the term of VAT refund on advances issued does not exceed one year, VAT is recorded in accounts receivable as part of current assets. Other prepayments/advances issued are credited upon receipt of goods or services related to them. If there is an indication that the assets, goods or services related to the prepayment/advance issued will not be received, the carrying amount of the prepayment/advance issued is written off and the corresponding impairment loss is recognized in the consolidated statement of profit or loss and other comprehensive income.

2.13 Non-current assets held for sale

Non-current assets and disposal groups (which may include long-term and short-term assets) are recorded in the consolidated statement of financial position as "Non-current assets held for sale" if their carrying amount is recovered primarily through sale (including loss of control of the subsidiary that owns the assets) within 12 months after the reporting date.

Non-current assets or disposal groups classified as held for sale in the consolidated statement of financial position during the reporting period are not transferable and do not change the presentation in the comparative data of the consolidated statement of financial position to conform to the classification at the end of the reporting period.

A disposal group is a group of assets (short-term and long-term) to be disposed of, whether by sale or otherwise, together as a group in a single transaction, and liabilities directly related to those assets that will be transferred as a result of that transaction. Goodwill is accounted for in a disposal group if the disposal group is the cash-generating unit to which the goodwill was allocated at the time of acquisition. Non-current assets are assets that include amounts that are expected to be recovered or received more than 12 months after the reporting date. If there is a need to change the classification, such a change is made for both the short-term and long-term part of the asset.

Held-for-sale disposal groups are generally measured at the lower of their carrying amounts and fair value less costs to sell. Property, plant and equipment, investment property and intangible assets held for sale are not amortised.

Reclassified non-current financial instruments, deferred taxes and investment property carried at fair value are not written off to the lower of the carrying amount and fair value less costs to sell. Liabilities directly associated with disposal group that will be transferred in the disposal transaction are reclassified and presented in the consolidated statement of financial position as a separate line.

2.14 Government subsidies

Subsidies are provided by the Government of Moscow Region to compensate for losses incurred by the Group as a result of the supply of heat to the population at regulated preferential tariffs, and are recorded in profit or loss in the period to which they relate under the line "Revenue".

Grants related to compensation for expenses incurred are recognised in other operating income on a rolling basis.

2.15 Provisions

Provisions are recognised if, as a result of a past event, the Group has a present legal or constructive obligation that can be estimated reliably, and it is probable that an outflow of economic benefits will be required to settle the obligation. If the effect of the time money is material, then the provisions are determined by discounting the expected future cash flows at a pre-tax rate that reflects current market assessments of the time value of money and the risks specific to the liability.

2.16 Revenues

Revenue from contracts with customers is measured at the fair value of the consideration received or receivable. Revenue is recognised when the Group fulfils the performance obligation by transferring the promised product or service to the customer. An asset is transferred when the customer obtains control of such an asset. The timing of the transfer of control varies depending on the terms of the contract with the customer.

Revenue from the sale of electricity, power and heat energy is recognised at the time when it is supplied to consumers.

Certain groups of the population receive state subsidies based on specific conditions (eg disability, war veteran status, etc.), which are provided in the form of a reduction in the amount of payment for heat energy, which the Group collects directly from the consumer. The Group receives compensation payments from the relevant municipal authorities.

Revenues are recognised in the amount of consideration that the Group expects to receive in return for the transfer of the promised goods or services to the customer.

Revenue under contracts for the provision of services and performance of work is recognised in profit or loss in the part that relates to the completed stage of services and works under the contract as of the reporting date. The stage of completeness is defined as the share of expenses under the contract incurred in connection with the performance of services and works completed at the reporting date in the total planned amount of the contract costs.

The proceeds from the leasing of property are recognised evenly throughout the term of the lease in profit or loss.

Revenue from the sale of goods other than electricity, power and heat energy is recognised at the time of delivery. Revenue is represented net of VAT and discounts.

The ordinary conditions for settlements with customers include payment upon delivery.

A receivable is recognised when the amount of consideration that is unconditional (that is, the point at which such consideration becomes payable is due only to the passage of time) becomes payable by the customer. Accounting policies for financial assets are discussed in section 2.4.

2.17 Employee benefits

2.17.1 Defined contribution pension plans

A defined contribution plan is a pension plan under which the Group pays fixed contributions into a separate entity. The Group has no legal or constructive obligations to pay further contributions if the fund does not hold sufficient assets to pay all employees the benefits relating to employee service in the current and prior periods.

2.17.2 Defined benefit plans

A defined benefit plan is a pension plan that is not a defined contribution plan. Defined benefit plans define an amount of pension benefit that an employee will receive on retirement, usually dependent on one or more factors such as age, years of service and compensation.

The liability recognised in the balance sheet in respect of defined benefit pension plans is the present value of the defined benefit obligation at the end of the reporting period less the fair value of plan assets. The defined benefit obligation is calculated annually by independent actuaries using the projected unit credit method.

The net value of the defined benefit obligation is determined by discounting the estimated future cash outflows using interest rates of government bonds that are denominated in the currency in which the benefits will be paid, and that have terms to maturity approximating to the terms of the related pension obligation.

Actuarial gains and losses arising from experience adjustments and changes in actuarial assumptions are charged or credited in other comprehensive income in the period in which they arise.

Current service cost, interest on employee benefit obligations, past service cost, effect of curtailment and settlement are recognised in profit or loss.

2.17.3 Other long-term employee benefits

The Group's net obligation in respect of long-term employee benefits other than pension plans is amount of future benefit that employees have earned in return for their service in the current and prior periods; that benefit is discounted to determine its present value, and the fair value of any related assets is deducted. The discount rate is the yield at the reporting date on Russian government bonds that have maturity dates approximating the terms of the Group's obligations. The calculation is performed using the projected unit credit method. Any actuarial gains or losses are recognised in profit or loss in the period in which they arise.

2.17.4 Termination benefits

Termination benefits are payable when employment is terminated by the Group before the normal retirement date, or whenever an employee accepts voluntary redundancy in exchange for these benefits. The Group recognises termination benefits at the earlier of the following dates: (a) when the Group can no longer withdraw the offer of those benefits; and (b) when the Group recognises costs for a restructuring that is within the scope of IAS 37 Provisions, Contingent Liabilities and Contingent Assets and involves the payment of termination benefits. In the case of an offer made to encourage voluntary redundancy, the termination benefits are measured based on the number of employees expected to accept the offer. Benefits falling due more than twelve months after the end of the reporting period are discounted to their present value.

2.17.5 Short-term benefits

Short-term employee benefit obligations are measured on an undiscounted basis and are expensed as the related service is provided.

A liability is recognised for the amount expected to be paid under short-term cash bonus or profit-sharing plans if the Group has a present legal or constructive obligation to pay this amount as a result of past service provided by the employee and the obligation can be estimated reliably.

2.18 Finance income and expense

Finance income comprises interest income on funds invested, dividend income, expenses related to discount on financial. Interest income is recognised as it accrues in profit or loss, using the effective interest method. Dividend income is recognised in profit or loss on the date that the Group's right to receive payment is established.

Finance expense comprises interest expense on borrowings, unwinding of the discount on financial obligation, interest expense on lease obligations. All borrowing costs are recognised in profit or loss using the effective interest method except for those which are capitalised.

Gains and losses on exchange differences on operating items are reflected in the operating expenses on net basis, and others – are separately in financial income and expenses.

2.19 Segment reporting

Operating segments are reported in the consolidated financial statements in a manner consistent with the internal reporting provided to the Chief operating decision-maker. The Chief operating decision-maker responsible for allocating resources and assessing performance of the operating segments has been identified as the Board of Directors and Managing Director who makes strategic decisions. Segments whose revenue, profit or assets account for 10% or more of all segments are presented separately.

2.20 Income tax expense

Income tax expense comprises current and deferred tax. Income tax expense is recognised in profit or loss except to the extent that it relates to items recognised in other comprehensive income, in which case it is recognised in other comprehensive income.

Current income tax represents the tax amount expected to be paid to taxation authorities (recovered by tax authorities) in respect of the taxable profit or loss for the current period adjustments value of the obligation to pay profit tax for previous periods.

Deferred income tax is charged on a balance sheet basis for temporary differences arising between the tax bases of assets and liabilities and their carrying amounts in the financial statements.

In accordance with the exception for initial recognition, deferred taxes are not recognized for temporary differences arising on the initial recognition of an asset or liability in transactions not related to business combinations, if they do not affect either accounting or taxable profit, as well as differences related to investments in subsidiaries and associates, if it is highly probable that these temporary differences will not be reversed in the foreseeable future. In addition, deferred tax is not recognized for taxable temporary differences arising on the initial recognition of goodwill.

The carrying amount of deferred tax is calculated using tax rates that are effective or substantially effective at the end of the reporting period and that are expected to apply to the period when the temporary differences are reversed or the tax loss carried forward is used.

Deferred tax assets and liabilities can be offset when the law provides for the right to set off current tax assets and liabilities, and when the deferred tax assets and liabilities relate to income tax paid to the same tax authority, either by the same taxable person, or by different taxable persons, provided that there is an intention to settle on a net basis. Deferred tax assets can only be offset against deferred tax liabilities within each individual entity of the Group.

Deferred tax assets for all deductible temporary differences and deferred tax losses are recognised only to the extent that it is probable that future taxable profit will be available against which the deductible temporary difference can be offset.

2.21 Uncertain tax positions

The Management are reassessed the Group's uncertain tax positions are reassessed at the end of each reporting period. Liabilities are recorded for income tax positions that are determined by the Management as more likely than not to result in additional taxes being levied if the positions were to be challenged by the tax authorities. The assessment is based on the interpretation of tax laws that have been enacted or substantively enacted by the end of the reporting period, and any known court or other rulings on such issues. Liabilities for penalties, interest and taxes other than on income are recognised based on the Management's best estimate of the expenditure required to settle the obligations at the end of the reporting period.

2.22 Earnings per share

The Group presents basic and diluted earnings (loss) per share (EPS) data for its ordinary shares. Basic EPS is calculated by dividing the profit (loss) attributable to ordinary shareholders of PJSC Mosenergo by the weighted average number of ordinary shares outstanding during the period. Diluted EPS is determined by adjusting profit (loss) attributable to ordinary shareholders and the weighted average number of ordinary shares outstanding for the effects of all dilutive potential ordinary shares, which comprise convertible notes and share options granted to employees. There are no dilutive potential ordinary shares in the Group as of 31 December 2021 and 31 December 2020.

2.23 Application of Interpretations and Amendments to existing Standards

The following interpretation and amendments to current IFRSs became effective for the periods beginning on or after 1 January 2020 or later:

- The amendments to IFRS 16 Leases (issued in May 2020 and effective for annual reporting periods beginning on or after 1 June 2020). The amendments permit lessees, as a practical expedient, not to assess whether particular rent concessions occurring as a direct consequence of the COVID-19 pandemic are lease modifications and instead to account for those rent concessions as if they are not lease modifications. The amendment does not affect lessors. The amendment was intended to apply until 30 June 2021, but due to the continued impact of the Covid-19 pandemic on 31 March 2021, the IASB decided to extend the application of the practical expedient until 30 June 2022. The new amendment applies to annual reporting periods beginning on or after 1 April 2021.

- The amendments to IFRS 9 Financial Instruments, IAS 39 Financial Instruments: Recognition and Measurement and IFRS 7 Financial Instruments: Disclosures and IFRS 16 Leases - «Base Interest Rate Reform – Stage 2» (issued in August 2020and applicable for annual reporting periods beginning on or after 1 January 2021). The amendments provide temporary exemptions that are applied to address the financial reporting implications when the Interbank Offered Rate (IBOR) is replaced by an alternative substantially risk-free interest rate.

The Group has reviewed these interpretation and amendments to standards for the preparation of the consolidated financial statements. The interpretation and amendments to standards have no significant impact on the Group's consolidated financial statements.

2.24 Amendments to existing Standards that are not yet effective and have not been early adopted by the Group

Certain amendments have been issued that are mandatory for the annual periods beginning on or after 1 January 2022. In particular, the Group has not early adopted the amendments:

- The amendments to IAS 1 Presentation of Financial Statements (issued in January 2020 and effective for annual reporting periods beginning on or after 1 January 2023). Amendments clarify the criteria for classifying obligations as short-term or long-term.
- The amendments to IFRS 9 Financial Instruments (issued in May 2020 and effective for annual reporting periods beginning on or after 1 January 2022). The amendments clarify which fees included when assessing whether the terms of a new or modified financial liability are substantially different from the terms of the original financial liability.
- The amendments to IAS 37 Provisions, Contingent Liabilities and Contingent Assets (issued in May 2020 and effective for annual reporting periods beginning on or after 1 January 2022). The amendments specify which costs are included in determining the cost of fulfilling a contract for assessing whether the contract is onerous.
- The amendments to IAS 16 Property, Plant and Equipment (issued in May 2020 and effective for annual reporting periods beginning on or after 1 January 2022). The amendments prohibit deducting from the cost of property, plant and equipment amounts received from selling items produced while the asset is preparing for its intended use. Instead, such sales proceeds and related cost are recognised in profit or loss.
- Amendments to IFRS 3 Business Combinations (issued in May 2020 and applicable for annual periods beginning on or after 1 January 2022) update the reference to the 2018 financial reporting Framework to determine what constitutes an asset or liability in a business combination, and add a new exception for liabilities and contingent liabilities.
- The amendments to IAS 8 Accounting Policies, Changes in Accounting Estimates and Errors (issued in February 2021 and effective for annual reporting periods beginning on or after 1 January 2023). The amendments clarify how distinguish changes in accounting estimates from changes in accounting policies.
- The amendments to IAS 12 Income Taxes (issued in May 2021 and effective for annual reporting periods beginning on or after 1 January 2023). The amendments clarify that the recognition exemption does not apply to transactions in which equal deductible and taxable temporary differences arise on initial recognition.

The Group is currently assessing the impact of the amendments on its financial position and results of operations.

3 Professional judgments, estimates and assumptions

The preparation of consolidated financial statements requires management to make estimates and assumptions that may affect the reported amount of assets and liabilities as well as information in notes to the consolidated financial statements. Management also makes certain judgements in the process of applying the accounting policies. These estimates and judgements are continually analysed based on historical experience and other information, including forecasts and expectations of future events that are believed to be reasonable under the circumstances. Actual results may differ from specified estimates, and management's estimates can be revised in the future, either negatively or positively, depending upon the outcome of changes in expectations based on the facts surrounding each estimate.

Judgements that may have the most significant effect on the amounts recognised in the consolidated financial statements and estimates that can cause significant adjustments to the carrying amount of assets and liabilities within the next financial year are reported below.

3.1 Significant judgments used in accounting for leases

In calculating the present value of the lease payments, the Group uses judgment to determine the incremental borrowing rate if the lease agreement does not include a discount rate. When determining the incremental borrowing rate, the Group's management analyses the availability of borrowings raised for the same term in the same period. In the absence of borrowings with similar characteristics, the discount rate is determined based on the risk-free rate adjusted for the Group's credit risk, which is determined on the basis of its quoted bonds/bank borrowings.
Estimating the length of the non-cancellable lease period is a matter of management's judgment, taking into account all relevant facts and circumstances that would cause the Group to have an economic incentive to exercise or not exercise the option to extend the lease. These facts and circumstances include the need to extend the lease in order to carry out production activities, the duration of construction and operation of facilities on the leased land, the useful lives of the leased facilities, the potential costs of dismantling and relocating the asset.

3.2 Significant assumptions used to determine the amount of provisions

Impairment of property, plant and equipment and goodwill. At each reporting date, the Group's management assesses whether there is any indication that property, plant and equipment and goodwill are impaired.

The estimation of forecasted cash flows for the purposes of impairment testing involves the application of a number of significant judgements and estimates in relation to certain variables as volumes of sales of electricity and power, prices for electricity and heat energy and power, capital expenditures, and also macroeconomic factors such as inflation and discount rate. In addition, assumptions are applied in determining the cash-generating units assessed for impairment. The effects of the estimates and assumptions made are disclosed in Note 6

Allowance for expected credit losses of accounts receivable. Allowance for expected credit losses of accounts receivable is based on the Group's management's assessment of expected credit losses for the accounts receivable lifetime. If there is significant decrease of major customer creditworthiness or actual defaults exceeds the forecast, the actual results could differ from these estimates. The effects of this assessment are disclosed in Note 10.

3.3 Other significant assumptions

Useful lives of property, plant and equipment. The estimation of the useful lives of items of property, plant and equipment is a matter of professional management judgment based on experience with similar assets. In determining the useful life of an asset, management considers the following factors: the nature of the expected use, assessment of technological obsolescence, physical wear and tear and the operating environment of the assets. Changes in any of these conditions or estimates may result in adjustments for future depreciation rates. The effect of these significant accounting estimates and assumptions are disclosed in Note 6, useful lives are disclosed in Note 6.

Provision for post-employment benefits. The Group uses an actuarial valuation technique to measure the present value of post-employment benefit obligations and the associated value of current employee services. This measurement uses demographic assumptions about the future characteristics of current and former employees eligible for benefits, as well as financial assumptions. The effects of significant accounting estimates and assumptions are disclosed in Note 20.

Provision for tax liabilities. Russian tax legislation is subject to varying interpretations and changes, which can occur frequently (Note 21). Where the Group management believes it is probable that their interpretation of the relevant legislation and the Group's tax positions cannot be sustained, an appropriate provisions is recognised in these consolidated financial statements.

Fair Value Estimation for Acquisitions. In accounting for business combinations, the consideration transferred should be measured at fair value, which is calculated as the sum of the fair values at the acquisition date, the assets transferred to the acquirers, the acquirer's liabilities to the acquiree's previous owners, and the equity interests issued by the acquirer. The excess of the consideration transferred over the net identifiable assets acquired less liabilities at the acquisition date is recognised as goodwill. A significant amount of judgement is involved in estimating the individual fair value of property, plant and equipment and identifiable intangible assets.

The estimates used in determining fair value are based on assumptions believed to be reasonable but which are inherently uncertain. Accordingly, actual results may differ from the projected results used to determine fair value.

Estimating the fair value of assets and liabilities. A number of the Group's accounting policies and disclosures require the measurement of fair values, for both financial and non-financial assets and liabilities. When measuring the fair value of an asset or a liability, the Group uses market observable data as far as possible. Fair values are categorised into different levels in a fair value hierarchy based on the inputs used in the valuation techniques as follows.

Measuring fair values of investment property and non-current assets held for sale is based on unobservable market data available at the valuation date (Level 3 in accordance with the fair value hierarchy) (Note 6, 7, 11, 14 and 28).

The allocation of financial instruments to a particular fair value level is described in Note 2.4.

4 Segment information

The Board of Directors and Managing Director (hereafter referred to as the "Management") is the Chief operating decision-maker, which reviews the Group's internal management report in order to assess performance of the Group and allocate resources.

The operating segments are aggregated into two primary reportable segments - electric and heat energy, which generate revenue from manufacturing and sale of electric and heat energy respectively. The other segments consist of services and products sold by the Group such as rental services, feed water sales and maintenance services.

All reportable segments are located in the Russian Federation.

When evaluating the performance of segments and allocating resources, management analyses the information below, prepared in accordance with IFRS. Differences in items between those reported in the segment information and those reported in the Group`s consolidated financial statements are due to the unallocated items of income and expense (such as financial income and expense, share of income (loss) of associates, profit tax) that cannot be directly allocated to identifiable reportable segments as these are managed on an overall group basis.

Considering that the management responsible for decision-making does not review assets and liabilities by each reportable segment coupled with lack of technical capabilities to present such information, the Group does not disclose assets and liabilities by segments.

(in millions of Russian Rubles)

4.1 Financial results of segments

The segment information for the year ended 31 December 2021 and 31 December 2020 is as follows:

	Notes	Electric energy	Heat energy	All other segments	Total	Intra-group transactions	Total
Year ended 31 December 2021							
Revenue		**126 535**	**95 782**	**4 211**	**226 528**	**(1 370)**	**225 158**
Revenue from external customers	22	126 535	95 782	2 841	225 158	-	**225 158**
Intra-group revenue		-	-	1 370	1 370	(1 370)	-
Segment financial result		**18 708**	**(892)**	**(1 687)**	**16 129**	-	**16 129**
Amortisation and depreciation	23	(12 000)	(10 842)	(1 251)	(24 093)	-	**(24 093)**
(Impairment loss) reversal of impairment loss on financial assets	23	(912)	31	(1 088)	(1 969)	-	**(1 969)**
Year ended 31 December 2020							
Revenue		**101 623**	**76 969**	**4 198**	**182 790**	**(1 882)**	**180 908**
Revenue from external customers	22	101 623	76 961	2 324	180 908	-	**180 908**
Intra-group revenue		-	8	1 874	1 882	(1 882)	-
Segment financial result		**16 517**	**(3 945)**	**(2 620)**	**9 952**	-	**9 952**
Amortisation and depreciation	23	(11 135)	(10 152)	(1 587)	(22 874)	-	**(22 874)**
(Impairment loss) reversal of impairment loss on financial assets	23	280	52	(1 407)	(1 075)	-	**(1 075)**

Reconciliation of the segment financial result to the profit before profit (loss) tax in the consolidated statement of comprehensive income for the year ended 31 December 2021 and 31 December 2020 is provided as follows:

	Notes	Year ended 31 December 2021	2020
Segment result for reportable segments		17 816	12 572
Segment result for other segments		(1 687)	(2 620)
Segment financial result		**16 129**	**9 952**
Revaluation or impairment of property, plant and equipment	23	(12 809)	(1 715)
Change in provisions	23	(412)	(307)
Write-downs of inventories	23	(162)	(1)
Net finance income (expense)	24	1 981	1 658
Share of (loss) profit of associates	9	(442)	917
Other items		(162)	(334)
Profit before income tax		**4 123**	**10 170**

4.2 Core customers

The revenue presented within the electric energy segment includes two customers with the total revenue exceeding 10% of the Group`s revenue for the year ended 31 December 2021 and amounting to RUB 96 578 million (for the year ended 31 December 2020 the total revenue of the same two customers exceeded 10% of the Group`s revenue and amounted to RUB 75 751 million).

The revenue presented within the heat energy segment includes the customer with the revenue exceeding 10% of the Group`s revenue for the year ended 31 December 2021 and amounting to RUB 91 235 million (for the year ended 31 December 2020 the revenue of the same customer exceeded 10% of the Group`s revenue and amounted to RUB 72 825 million).

(in millions of Russian Rubles)

5 Related parties

In these consolidated financial statements, parties are considered to be related parties, one of which has the ability to control or exercise significant influence on the operating and financial decisions of the other, as defined in IAS 24 Related Party Disclosures.

Transactions with related parties were carried out on terms and conditions similar to transactions with third parties in relation to the Group. Gas and capacity prices are based on tariffs set by the Federal Antimonopoly Service and competitive selections on the wholesale electricity (capacity) market. Loans and borrowings are provided on market conditions. Bank deposits are placed on market conditions.

5.1 Transactions with Gazprom Group and its associates

The significant Group's transactions and balances outstanding with Gazprom Group and its associates are detailed below:

	Year ended 31 December	
Transactions with related parties	**2021**	**2020**
Revenue	**102 521**	**79 438**
Heat energy	91 837	73 597
Electricity and capacity	8 571	4 070
Other revenue	2 113	1 771
Operating expenses	**(99 282)**	**(70 938)**
Fuel	(91 116)	(64 002)
Repair, maintenance and service	(4 871)	(3 770)
Electricity and capacity	(1 062)	(841)
Heat energy transmission	(476)	(428)
Software and maintenance	(407)	(379)
Transportation services	(352)	(336)
Cleaning services	(308)	(328)
Other operating expenses	(690)	(854)
Finance income	**2 474**	**3 291**
Interest income on loans issued	2 052	2 548
Effect of discounting financial instruments	313	322
Interest income on bank deposits and cash balances on current accounts	109	187
Income from participation in other organisations	-	234
Finance expense	**(1 125)**	**(1 460)**
Interest expense on borrowings	(842)	(1 128)
Lease interest expense	(251)	(257)
Effect of discounting financial instruments	(32)	(75)
Purchase of non-current and current assets	**10 325**	**9 441**
Purchase of property, plant and equipment	7 636	7 695
Purchase of other assets	2 689	1 746

(in millions of Russian Rubles)

Balances outstanding with related parties	**31 December 2021**	**31 December 2020**
Long-term financial assets	10 423	10 207
Short-term financial assets	48 046	28 927
Long-term accounts receivable and prepayments	534	474
Short-term accounts receivable and prepayments	18 610	22 300
Allowance for impairment loss on short-term receivables	(40)	(65)
Cash and cash equivalents	18	6 990
Total assets	**77 591**	**68 833**
Long-term borrowings	-	(15 100)
Short-term borrowings	(7 510)	(11)
Long-term accounts payable and other liabilities	(857)	(833)
Short-term accounts payable and other liabilities	(6 570)	(8 202)
Long-term lease liabilities	(2 490)	(2 692)
Short-term lease liabilities	(364)	(313)
Total liabilities	**(17 791)**	**(27 151)**

For the year ended 31 December 2021 dividends declared to the parent company amounted to RUB 3 841 million (for the year ended 31 December 2020: RUB 2 559 million).

5.2 Transactions with other state-controlled entities

Information below excludes transactions and outstanding balances with Gazprom Group and its associates as disclosed in Note 5.1.

The significant Group's transactions and balances outstanding with other state-controlled entities are detailed below:

	Year ended 31 December	
Transactions with related parties	**2021**	**2020**
Revenue	**30 516**	**25 723**
Electricity and capacity	29 073	24 384
Heat energy	1 171	1 078
Other revenue	272	261
Operating expenses	**(5 327)**	**(3 152)**
Electricity market administration fees	(1 774)	(1 628)
Water supply	(1 401)	(1 180)
Fuel	(1 333)	(103)
Security and fire safety	(525)	(513)
Fines, penalties and compensation for breach of contract terms	146	491
Other operating expenses	(440)	(219)
Finance income	**205**	**268**
Interest income on bank deposits and cash balances on current accounts	205	268
Finance expense	**(227)**	**(237)**
Lease interest expense	(227)	(237)
Other transactions		
Impairment loss on financial assets	(1 026)	(189)

(in millions of Russian Rubles)

Balances outstanding with related parties	**31 December 2021**	**31 December 2020**
Long-term accounts receivable and prepayments	106	481
Allowance for impairment loss on long-term receivables	-	(164)
Short-term accounts receivable and prepayments	17 714	16 116
Allowance for impairment loss on short-term receivables	(12 403)	(12 441)
Cash and cash equivalents	50	553
Total assets	**5 467**	**4 545**
Short-term accounts payable and other liabilities	(1 518)	(1 416)
Long-term lease liabilities	(2 709)	(2 079)
Short-term lease liabilities	(69)	(68)
Total liabilities	**(4 296)**	**(3 563)**

For the year ended 31 December 2021 dividends declared to the other state-controlled entities amounted to RUB 1 886 million (for the year ended 31 December 2020: RUB 1 265 million).

Some of the transactions on the wholesale electricity and capacity market OREM are conducted through commission agreements with JSC FSC. Current financial system of JSC FSC does not provide the final counterparty with automated information about transactions and outstanding balances with the ultimate consumers. State-controlled entities and Gazprom Group and its associates may also act as counterparties.

The Group's transactions and balances outstanding with JSC FSC are detailed below:

	Year ended 31 December	
Transactions with related parties	**2021**	**2020**
Revenue	**78 720**	**59 621**
Sale of electricity and capacity	78 720	59 621
Expenses	**(15 307)**	**(8 967)**
Purchase of electricity and capacity	(15 307)	(8 967)

Balances outstanding with related parties	**31 December 2021**	**31 December 2020**
Short-term accounts receivable and prepayments	3 572	2 782
Allowance for impairment loss on short-term receivables	-	(1)
Total assets	**3 572**	**2 781**
Short-term accounts payable and other liabilities	(676)	(461)
Total liabilities	**(676)**	**(461)**

5.3 Transactions with other related parties

Other related parties are represented by associates of the Group. The significant Group's transactions and balances outstanding with associates are detailed below:

	Year ended 31 December	
Transactions with related parties	**2021**	**2020**
Revenue	**1 856**	**1 500**
Heat energy	1 856	1 500
Other transactions		
Impairment loss on financial assets	(848)	(1 003)

Balances outstanding with related parties	**31 December 2021**	**31 December 2020**
Long-term financial assets	3 003	2 239
Allowance for impairment loss on long-term financial assets	(3 003)	(2 239)
Short-term financial assets	15	6
Short-term accounts receivable and prepayments	2 947	2 862
Allowance for impairment loss on short-term receivables	(2 947)	(2 862)
Total assets	**15**	**6**

(in millions of Russian Rubles)

5.4 Transactions with key management and managing organisation

Short-term remuneration for the services of key management personnel includes remuneration to members of the Board of Directors for fulfilling their duties in these positions and participation in meetings of the Board of Directors and consisted of a monthly salary, premium, accrued on these taxes and other obligatory payments into the corresponding budgets, health insurance costs.

	Year ended 31 December	
Transactions with related parties	**2021**	**2020**
Wages and salaries	70	69
Social contributions	13	12
Total	**83**	**81**

There are no outstanding balances as of 31 December 2021 and as of 31 December 2020 for transactions with key management.

Remuneration to managing organisation LLC Gazprom energoholding for the year ended 31 December 2021 was in the amount of RUB 129 million (for the year ended 31 December 2020: RUB 130 million).

Accounts payable for managing organisation as of 31 December 2021 is in the amount of RUB 69 million (as of 31 December 2020: RUB 69 million).

5.5 Unrecognised contractual obligations for the construction of property, plant and equipment

	31 December 2021	**31 December 2020**
Gazprom Group and its associates	15 872	12 202
Total	**15 872**	**12 202**

(in millions of Russian Rubles)

6 Property, plant and equipment

Changes in the carrying amount of property, plant and equipment are presented below:

	ROUA	B&C	M&E	TN	Other	CIP	Total
Revalued amount							
Balance as of 1 January 2020	**5 955**	**124 690**	**99 579**	**12 674**	**18 534**	**26 298**	**287 730**
Additions	895	-	1 118	2	2	15 803	17 820
Effect of leases modification	(1 037)	-	-	-	-	-	(1 037)
Disposals	(1)	(256)	(120)	(3)	(20)	(1 105)	(1 505)
Transfers	-	2 388	6 896	19	2 184	(11 487)	-
Transfer from other accounts	-	33	-	-	2	-	35
Balance as of 31 December 2020	**5 812**	**126 855**	**107 473**	**12 692**	**20 702**	**29 509**	**303 043**
Balance as of 1 January 2021	**5 812**	**126 855**	**107 473**	**12 692**	**20 702**	**29 509**	**303 043**
Additions	860	-	3 003	-	35	18 550	22 448
Effect of leases modification	748	-	-	-	-	-	748
Disposals	(58)	(110)	(523)	(47)	(486)	(367)	(1 591)
Transfers	-	3 003	8 591	141	1 516	(13 251)	-
Transfer to other accounts	-	(922)	(3)	-	(48)	-	(973)
Balance as of 31 December 2021	**7 362**	**128 826**	**118 541**	**12 786**	**21 719**	**34 441**	**323 675**
Depreciation and impairment loss							
Balance as of 1 January 2020	**(503)**	**-**	**(1 982)**	**(633)**	**-**	**-**	**(3 118)**
Depreciation charge	(523)	(5 964)	(12 433)	(1 132)	(2 525)	-	(22 577)
Transfers	-	(1)	(138)	-	(8)	147	-
Disposals	1	92	38	-	6	3	140
Charge for impairment loss	-	(557)	(813)	(82)	(265)	(664)	(2 381)
Balance as of 31 December 2020	**(1 025)**	**(6 430)**	**(15 328)**	**(1 847)**	**(2 792)**	**(514)**	**(27 936)**
Balance as of 1 January 2021	**(1 025)**	**(6 430)**	**(15 328)**	**(1 847)**	**(2 792)**	**(514)**	**(27 936)**
Depreciation charge	(579)	(6 226)	(13 479)	(1 111)	(2 332)	-	(23 727)
Transfers	-	(25)	(165)	(5)	(124)	319	-
Disposals	31	17	135	2	162	27	374
Transfer to other accounts	-	100	1	-	30	-	131
Charge for impairment allowance	(191)	(9 640)	(9 177)	(220)	(2 398)	(3 523)	(25 149)
Balance as of 31 December 2021	**(1 764)**	**(22 204)**	**(38 013)**	**(3 181)**	**(7 454)**	**(3 691)**	**(76 307)**
Net book value							
Balance as of 1 January 2020	**5 452**	**124 690**	**97 597**	**12 041**	**18 534**	**26 298**	**284 612**
Balance as of 31 December 2020	**4 787**	**120 425**	**92 145**	**10 845**	**17 910**	**28 995**	**275 107**
Balance as of 1 January 2021	**4 787**	**120 425**	**92 145**	**10 845**	**17 910**	**28 995**	**275 107**
Balance as of 31 December 2021	**5 598**	**106 622**	**80 528**	**9 605**	**14 265**	**30 750**	**247 368**
Net book value of property, plant and equipment had no revaluation taken place							
Balance as of 1 January 2020	**5 452**	**50 262**	**70 006**	**9 681**	**11 756**	**26 146**	**173 303**
Balance as of 31 December 2020	**4 787**	**50 642**	**69 070**	**8 888**	**12 958**	**28 669**	**175 014**
Balance as of 1 January 2021	**4 787**	**50 642**	**69 070**	**8 888**	**12 958**	**28 669**	**175 014**
Balance as of 31 December 2021	**5 598**	**48 378**	**65 936**	**8 152**	**11 482**	**30 587**	**170 133**

Abbreviations used in the headings of the table above are as follows: ROUA – right-of-use assets, B&C - buildings and constructions, M&E - machinery and equipment, TN - transmission networks, CIP - construction in progress.

As of 31 December 2021 property, plant and equipment included right-of-use assets with carrying amount of RUB 5 598 million, related mainly to land and office buildings (as of 31 December 2020: RUB 4 787 million).

The class “Other” includes land, motor vehicles, computer equipment, office supplies and other equipment.

Property, plant and equipment of the Group are not burdened with collateral obligations.

(in millions of Russian Rubles)

6.1 Right-of-use assets

	Buildings and constructions	Other	Total
Balance as of 1 January 2020	**2 619**	**3 336**	**5 955**
Additions as a result of new leases	880	15	**895**
Effect of modification and changes of estimates in lease contracts	4	(1 041)	**(1 037)**
Termination of the leases	(1)	-	**(1)**
Balance as of 31 December 2020	**3 502**	**2 310**	**5 812**
Balance as of 1 January 2021	**3 502**	**2 310**	**5 812**
Additions as a result of new leases	819	41	**860**
Effect of modification and changes of estimates in lease contracts	92	656	**748**
Termination of the leases	(24)	(34)	**(58)**
Balance as of 31 December 2021	**4 389**	**2 973**	**7 362**
Depreciation and impairment loss			
Balance as of 1 January 2020	**(293)**	**(210)**	**(503)**
Depreciation	(391)	(132)	**(523)**
Termination of the leases	1	-	**1**
Balance as of 31 December 2020	**(683)**	**(342)**	**(1 025)**
Balance as of 1 January 2021	**(683)**	**(342)**	**(1 025)**
Depreciation	(449)	(130)	**(579)**
Impairment accrual	(191)	-	**(191)**
Termination of the leases	24	7	**31**
Balance as of 31 December 2021	**(1 299)**	**(465)**	**(1 764)**
Net book value			
Balance as of 1 January 2020	2 326	3 126	**5 452**
Balance as of 31 December 2020	2 819	1 968	**4 787**
Balance as of 1 January 2021	2 819	1 968	**4 787**
Balance as of 31 December 2021	3 090	2 508	**5 598**

Other right-of-use assets include land.

The total cash flow under lease agreements for the year ended 31 December 2021 was in the amount of RUB 1 123 million (Note 27.4), of which RUB 537 million accounted for interest expenses and RUB 586 million to repay the principal amount of the debt (for the year ended 31 December 2020: RUB 861 million, of which RUB 510 million accounted for interest expenses and RUB 351 million to repay the principal amount of the debt).

6.2 Impairment loss of property, plant and equipment

As of 31 December 2021, the Group performed a test for impairment of property, plant and equipment at the cash-generating unit level of individual power plants.

As a result of the impairment test, in 2021 impairment loss in the amount of RUB 12 809 million was recognised within profit or loss and in the amount of RUB 12 340 million within other comprehensive income (for the year ended 31 December 2020: RUB 1 715 million and RUB 666 million, respectively).

The recoverable amount of each cash-generating unit was determined on the basis of the value in use indicator. The value in use was determined by discounting future cash flows that would result from the continued use of the unit. In determining the recoverable amount of future cash flows the following key assumptions were used:

- These calculations used cash flow projections based on the organisation's budgets for a three-year period. Cash flows beyond the three-year period have been extrapolated using projected growth rates. The growth rate does not exceed the long-term average growth rates projected for the energy sector.
- The forecast of gas prices was based on the approved tariffs by the Federal Tariff Service and the growth rate forecasted by the parent company LLC Gazprom energoholding. Power generation of PJSC Mosenergo is carried out at generating facilities, the main type of fuel is gas, in connection with which the increase in gas prices affects the growth of electricity prices.
- The forecast of generation volumes was based on forecast calculations in industry reports.

(in millions of Russian Rubles)

A post-tax discount rate of 10,5% (for the year ended 31 December 2020:9,82%) was applied for the purpose of determining the value in use. The discount rate was calculated on the basis of the industry average weighted average cost of capital.

6.3 Revaluation of property, plant and equipment

The Group changed its accounting policy in respect of property, plant and equipment measurement from a cost model to a revaluation model starting from 1 January 2007 in order to provide users of the consolidated financial statements with more reliable information about the value of the Group's property, plant and equipment.

In 2019 the Group contracted an independent appraiser to estimate the fair value of the Group's property, plant and equipment and investment property at 31 December 2019. The fair value of property, plant and equipment excluding right-of-use assets was determined to be RUB 265 307 million.

As a result of revaluation, the Group's equity increased by RUB 42 405 million, comprising net increase in the carrying value of property, plant and equipment of RUB 53 006 million and the related deferred tax of RUB 10 601 million.

Net increase in the carrying value of property, plant and equipment amounted to RUB 53 006 million consisted of increase in amount of RUB 86 894 million related to revaluation recognized within the other comprehensive income and decrease of RUB 33 888 million of which:

- RUB 25 629 million were recognized within the other comprehensive income as a decrease in revaluation reserve;

- RUB 8 259 million were recognized in profit and loss of consolidated comprehensive income, which consists of impairment loss in the amount of RUB 11 355 million and reversal of previously accrued impairment loss recognized in profit and loss in the amount of RUB 3 096 million.

As of 31 December 2021 property plan and equipment were not revalued.

7 Investment property

	2021	2020
Balance as of 1 January	**1 449**	**1 803**
Transfer to other accounts	(65)	-
Change in fair value	(133)	-
Other movements	(25)	(354)
Balance as of 31 December	**1 226**	**1 449**

As of 31 December 2021 the fair value of investment property was calculated taking into account trends in the commercial real estate market in 2021 and amounted to RUB 1 226 million. As of 31 December 2020 fair value was calculated taking into account trends in the commercial real estate market in 2020 and amounted to RUB 1 449 million.

The fair value measurement for investment property was categorised as a Level 3 fair value (Note 3).

The following table shows the valuation technique used in measuring the fair value of investment property, as well as the significant unobservable inputs used.

Method of evaluation	Observable indicators
Income approach	The forecast of income and expenses and cash flows
Cost approach	Replacement cost new adjusted for physical, functional and impairment loss
Market approach	Market prices for identical assets

Rental income for the year ended 31 December 2021 amounted to RUB 152 million (for the year ended 31 December 2020 amounted to RUB 195 million), was recognised in other revenue in the consolidated statement of comprehensive income.

(in millions of Russian Rubles)

8 Intangible assets

	Software	Other intangible assets	Total
Cost			
Balance as of 1 January 2020	**1 495**	**291**	**1 786**
Additions	254	335	589
Balance as of 31 December 2020	**1 749**	**626**	**2 375**
Balance as of 1 January 2021	**1 749**	**626**	**2 375**
Additions	382	303	685
Transfer to other accounts	-	(81)	(81)
Balance as of 31 December 2021	**2 131**	**848**	**2 979**
Amortisation and impairment loss			
Balance as of 1 January 2020	**(1 173)**	**(33)**	**(1 206)**
Amortisation charge	(258)	(39)	(297)
Balance as of 31 December 2020	**(1 431)**	**(72)**	**(1 503)**
Balance as of 1 January 2021	**(1 431)**	**(72)**	**(1 503)**
Amortisation charge	(296)	(70)	(366)
Balance as of 31 December 2021	**(1 727)**	**(142)**	**(1 869)**
Net book value			
Balance as of 1 January 2020	**322**	**258**	**580**
Balance as of 31 December 2020	**318**	**554**	**872**
Balance as of 1 January 2021	**318**	**554**	**872**
Balance as of 31 December 2021	**404**	**706**	**1 110**

9 Investments in associates

The table below summarises information about country of incorporation and place of business and nature of business of the Group`s investments in associates:

	Country of incorporation	Nature of business	Ownership interest as of 31 December 2021	2020
LLC TSK Mosenergo	Russia	Production, transmission and distribution of steam and hot water (heat energy)	25,36%	25,36%
LLC GEH Industrialniye aktivy	Russia	Development and manufacture of energy-saving turbo-compressor and gas-pumping equipment	42,19%	42,19%

27 December 2019 the Group acquired 43,066% share in the share capital of LLC GEH Industrial Assets for RUB 22 700 million with payment in cash. LLC GEH Industrial Assets and its subsidiaries (GEX Industrialnye aktivy Group operate primarily in the Russian Federation; the main activity is the development and manufacture of energy-conservative turbocharger and gas-transmission equipment. 31 December 2020 the Group's share decreased from 43.066% to 42.185% due to an increase in the authorised capital of LLC GEH Industrial Assets by making an additional contribution by one of the company's participants – JSC Gazprom Energoremont. This investment is accounted for as an investment in an associate of the Group using the equity method.

	LLC TSK Mosenergo	GEH Industrialnye aktivy Group	Total
Year ended 31 December 2021			
Balance as of 1 January	-	**23 617**	**23 617**
Share of loss of associates	-	(444)	**(444)**
Balance as of 31 December	-	**23 173**	**23 173**
Year ended 31 December 2020			
Balance as of 1 January	-	**22 700**	**22 700**
Share of profit of associates	-	917	**917**
Balance as of 31 December	-	**23 617**	**23 617**

(in millions of Russian Rubles)

As of 31 December 2021 the unrecognised share of loss of LLC TSC Mosenergo was in the amount of RUB 1 255 million (as of 31 December 2020: RUB 868 million).

The table shows a summary of the financial performance of the Group's associates:

	LLC TSK Mosenergo		GEH Industrialnye aktivy Group	
	2021	2020	2021	2020
Balance as of 31 December				
Current assets	5 132	8 920	48 660	32 819
Non-current assets	4 511	6 320	38 610	11 695
Current liabilities	4 464	3 210	29 183	14 783
Non-current liabilities	3 646	9 650	6 606	2 199
Year ended 31 December				
Revenue	7 628	9 792	24 372	14 749
(Loss) profit for the period	(1 523)	(781)	(1 050)	2 173
Total comprehensive (loss) income for the period	(1 523)	(781)	(1 050)	2 173

10 Accounts receivable and prepayments

	31 December 2021	31 December 2020
Trade receivables	1	263
Accounts receivable from sale of property, plant and equipment	-	3
Other receivables	86	131
Total financial assets	**87**	**397**
Advances to suppliers and prepaid expenses	469	982
Other receivables	54	56
Total non-financial assets	**523**	**1 038**
Total non-current accounts receivable and prepayments	**610**	**1 435**
Trade receivables	25 564	29 475
Accounts receivable from sale of property, plant and equipment	807	1 091
Other receivables	506	204
Total financial assets	**26 877**	**30 770**
Advances to suppliers and prepaid expenses	1 747	939
Tax prepayments other than income tax	988	945
VAT recoverable	142	142
Other receivables	163	113
Total non-financial assets	**3 040**	**2 139**
Total current accounts receivable and prepayments	**29 917**	**32 909**

Trade receivables are presented net of allowance for impairment as of 31 December 2021 in the amount of RUB 17 023 million (as of 31 December 2020: RUB 16 279 million).

Receivables from sale of property, plant and equipment are presented net of allowance for impairment as of 31 December 2021 in the amount of RUB 40 million (as of 31 December 2020: RUB 65 million).

Other financial receivables are presented net of allowance for impairment as of 31 December 2021 in the amount of RUB 35 million (as of 31 December 2020: RUB 33 million).

Other non-financial receivables are presented net of allowance for impairment as of 31 December 2021 in the amount of RUB 499 million (as of 31 December 2020: RUB 535 million).

Advances to suppliers and prepaid expenses are presented net of allowance for impairment as of 31 December 2021 in the amount of RUB 849 million (as of 31 December 2020: RUB 955 million).

These provisions are mainly related to short-term receivables and prepayments, except for the provision for trade receivables in the amount of RUB nil million, which was formed for long-term trade receivables at 31 December 2021 (as at 31 December 2020: RUB 164 million).

The Group's exposure to credit and foreign exchange risks in relation to trade and other receivables is disclosed in Note 27.

(in millions of Russian Rubles)

11 Financial assets

	31 December 2021	31 December 2020
Loans issued	13 425	9 298
Impairment loss on loans issued	(3 003)	(2 239)
Equity instruments measured at FVTOCI	1 311	4 459
Total non-current assets	**11 733**	**11 518**
Loans issued	48 062	28 933
Deposits	-	7 075
Total current assets	**48 062**	**36 008**

Financial assets measured at fair value through other comprehensive income include the following:

	31 December 2021	31 December 2020
LLC GAZEKS-Management		
Share in equity	28,4%	28,4%
Fair value	1 311	1 311
PJSC OGK-2		
Share in equity	-	3,9%
Fair value	-	3 148

On 29 June 2021 PJSC Mosenergo transferred its share in full PJSC OGK-2 to LLC Gazprom Energoholding, as a partial payment for the acquired right under a monetary obligation to the debtor (PJSC OGK-2) that arose under the purchase and sale agreement of the Adler power plant concluded between LLC Gazprom Energoholding and PJSC OGK-2 on 16 November 2020.

The received monetary obligation to the debtor (PJSC OGK-2) with a significant financing component, outstanding at the reporting date in the amount of RUB 6 750 million, was recorded in the consolidated statement of financial position as “Financial assets” within “Loans issued”.

On 13 January 2020 PJSC Mosenergo transferred a part of the share in the share capital of LLC GAZEKS Management in the amount of 4.92% to LLC Gazprom Mezhregiongaz.

With regard to equity investments in LLC GAZEKS-Management, the management estimated that the Group does not have a significant influence on this company based on the following factors:

- The Group does not have any representative in the Board of Directors and does not have a right to appoint them;
- The Group does not participate in policy-making process including participate does not in managerial process;
- The Group does not enter into significant transactions with LLC GAZEKS-Management, there was s no interchange of managing personnel between the PJSC Mosenergo and there is no sharing of technical information between the companies.

12 Inventories

	31 December 2021	31 December 2020
Fuel	7 835	7 645
Spare parts	4 912	6 622
Materials and supplies	1 585	1 608
Other inventories	255	225
Total	**14 587**	**16 100**

As of 31 December 2021 the amount of the write-down of inventories to net realisable value amounted to RUB 407 million (31 December 2020: RUB 254 million).

As of 31 December 2021 and as of 31 December 2020 the Group does not have pledged inventories.

(in millions of Russian Rubles)

13 Cash and cash equivalents

	31 December 2021	31 December 2020
Cash on hand and bank balances	18	223
Deposits with original maturity of three months or less	50	7 456
Total cash and cash equivalents	**68**	**7 679**

As of 31 December 2021 and 31 December 2020, the Group had no arrested cash amounts.

The Group's exposure to financial risks is disclosed in Note 27.

14 Assets held for sale

	2021	2020
Balance as of 1 January	**-**	**37**
Transfer (to) from other accounts	907	(35)
Sale	-	(2)
Balance as of 31 December	**907**	**-**

As 31 December 2021 the Group was in the process of disposing of non-core assets, comprising property, plant and equipment and investment property classified as held for sale.

The following table shows the valuation technique used in measuring the fair value, as well as the significant unobservable inputs used.

Valuation method	Observable indicators
Cost approach	Replacement cost and index method
Income approach	Forecast profit and loss, and cash flows
Market approach	Market prices for identical assets

15 Equity

15.1 Share capital and share premium

As of 31 December 2021 and 31 December 2020 the declared share capital comprised 39 749 359 700 ordinary shares of RUB 1 par value each. All issued ordinary shares are fully paid.

As of 31 December 2021 and 31 December 2020 the Group has no authorized shares, additionally authorized for placement, but not placed.

Share premium amounted to RUB 48 661 million includes excess of the cash proceeds from the issue of share capital over its par value amounted to RUB 49 220 million net of the transaction costs amounted to RUB 7 million, and a negative result from the subsequent sale of treasure shares amounted to RUB 552 million.

15.2 Treasury shares

Treasury shares as of 31 December 2020 and 31 December 2019 are realised completely.

(in millions of Russian Rubles)

15.3 Dividends

On 23 June 2021 the Annual General Shareholders' Meeting of the PJSC Mosenergo made the decision to pay dividends for the results of Group's activity for 2020. The amount of declared dividends on the issuer shares was RUB 0,17945 per share, total amount of dividends is RUB 7 133 million. The amount of unclaimed dividends for the result of financial year 2017 is RUB 30 million.

On 24 June 2020 the Annual General Shareholders' Meeting of the PJSC Mosenergo made the decision to pay dividends for the results of Group's activity for 2019. The amount of declared dividends on the issuer shares was RUB 0,12075 per share, total amount of dividends is RUB 4 800 million. The amount of unclaimed dividends for the result of financial year 2016 is RUB 16 million.

15.4 Revaluation reserve

As of 31 December 2021 in the line item "Revaluation reserve" were disclosed revaluation reserve for property, plant and equipment in the amount of RUB 138 366 million (as of 31 December 2020: RUB 152 290 million).

16 Borrowings

	31 December 2021	31 December 2020
Bank borrowings	-	15 100
Total long-term borrowings	**-**	**15 100**
Current portion of long-term bank borrowings	7 510	11
Total short-term borrowings	**7 510**	**11**

The terms and conditions of outstanding liabilities at the reporting date are as follows:

	Currency	Interest rate	Year of maturity	31 December 2021	31 December 2020
Bank GPB (JSC)	RUB	from 4,25 to 8,5	2022	7 510	15 111
Total				**7 510**	**15 111**

The interest rate on the loan directly depends on the size of the key rate set by the Bank of Russia (%).

As of 31 December 2021 and 31 December 2020, the Group met financial covenant of loan agreements.

17 Provisions for post-employee benefits

The Group sponsors a post-employment benefit plan and other long-term benefit program that covers the majority of the Group's employees.

The post-employment benefit plan is a defined contribution plan enabling employees to contribute a portion of their salary to the plan and equivalent portion of contribution from the Group. The plan is administrated by non-state pension fund.

To be entitled for participation in this defined contribution pension plan an employee should meet certain age and past service requirements. Maximum possible amount of employer's contribution is limited and depends on employee's position in the Group.

In addition to defined contribution, pension plan the Group maintains several plans of a defined benefit nature which are provided in accordance with collective bargaining agreement and other documents. The main benefits provided under this agreement are a lump sum upon retirement and material assistance.

(in millions of Russian Rubles)

	Post employ-ment benefits	Other long-term benefits	Total
Year ended 31 December 2021			
Balance as of 1 January	**313**	**112**	**425**
Current service cost	16	9	25
Net interest expense	17	6	23
Actuarial gains arising from changes in financial assumptions	-	(19)	(19)
Actuarial gains - experience	-	(2)	(2)
Total included in operating and finance expenses	**33**	**(6)**	**27**
Remeasurements:			
Actuarial gains arising from changes in financial assumptions	(47)	-	(47)
Actuarial losses arising from changes in demographic assumptions	4	-	4
Actuarial gains - experience	(15)	-	(15)
Total recognised in other comprehensive income	**(58)**	**-**	**(58)**
Benefits paid	(25)	(14)	(39)
As of 31 December	**263**	**92**	**355**
Year ended 31 December 2020			
Balance as of 1 January	**303**	**110**	**413**
Current service cost	16	10	26
Net interest expense	18	6	24
Actuarial losses arising from changes in financial assumptions	-	3	3
Actuarial losses arising from changes in demographic assumptions	-	1	1
Actuarial gains - experience	-	(5)	(5)
Total included in operational and financial expenses	**34**	**15**	**49**
Remeasurements:			
Actuarial losses arising from changes in financial assumptions	7	-	7
Actuarial losses arising from changes in demographic assumptions	1	-	1
Actuarial gains - experience	(9)	-	(9)
Total recognised in other comprehensive income	**(1)**	**-**	**(1)**
Benefits paid	(23)	(13)	(36)
As of 31 December	**313**	**112**	**425**

The key actuarial assumptions for the valuation dates is provided below:

	31 December 2021	31 December 2020
Financial assumptions		
Discount rate	8,4%	5,7%
Inflation rate	4,2%	4,0%
Salaries increase	6,2%	6,0%
Duration of liabilities, years	6,5	7,7
Demographic assumptions		
Withdrawal rates for employees with 1 year of past service	20,0%	18,0%
Withdrawal rates for employees who have 20 or more years of service	2,0%	2,0%
Retirement ages for men	65,3	65,1
Retirement ages for women	63,4	62,9

The assessment of financial actuarial assumptions was made on the basis of market forecasts at the end of the reporting period in relation to the period during which the liabilities should be settled. The average estimated maturity of the Group's liabilities is 6.7 years.

(in millions of Russian Rubles)

18 Accounts payable and other liabilities

	31 December 2021	31 December 2020
Accounts payable for acquired property, plant and equipment	800	834
Total financial liabilities	**800**	**834**
Liabilities from contracts with customers	56	-
Total non-financial liabilities	**56**	**-**
Total non-current accounts payable and other liabilities	**856**	**834**
Trade payables	8 265	6 460
Dividends payable	100	96
Accounts payable for acquired property, plant and equipment	3 275	6 224
Other payables	523	523
Total financial liabilities	**12 163**	**13 303**
Liabilities from contracts with customers	692	775
Other payables	1 177	1 103
Total non-financial liabilities	**1 869**	**1 878**
Total current accounts payable and other liabilities	**14 032**	**15 181**

19 Income tax

19.1 Components of income tax

The Group's income tax rate is 20%.

	2021	2020
Year ended 31 December		
Current income tax for the period	(5 558)	(4 311)
Adjustments to current income tax for the previous periods	(1)	8
Change in provision on income tax	(241)	79
Current income tax expense	**(5 800)**	**(4 224)**
Recognition and reversal of temporary differences	4 571	2 099
Deferred income tax profit	**4 571**	**2 099**
Income tax expense	**(1 229)**	**(2 125)**

Profit before tax recognised in the consolidated financial statements is reconciled to income tax as follows:

	2021	2020
Year ended 31 December		
Profit before income tax	4 123	10 170
Theoretical tax expense calculated at applicable tax rates	(825)	(2 034)
Adjustments to current income tax for the previous periods	(1)	8
Change in provision on income tax	(241)	79
Tax effect on other non-taxable expenses	(162)	(178)
Income tax expense	**(1 229)**	**(2 125)**
Current income tax expense	(5 800)	(4 224)
Deferred income tax	4 571	2 099

The tax effect of items in other comprehensive income is presented in the table below:

	Year ended 31 December 2021			Year ended 31 December 2020		
	Before tax	Income tax	After tax	Before tax	Income tax	After tax
Remeasurement of post-employment benefit obligations	58	(12)	46	(1)	-	(1)
Gain arising from change in fair value of financial assets measured at FVOCI	260	(52)	208	771	(157)	614
Impairment loss on property, plant and equipment	(12 340)	2 468	(9 872)	(666)	133	(533)
Total	**(12 022)**	**2 404**	**(9 618)**	**104**	**(24)**	**80**

(in millions of Russian Rubles)

19.2 Tax effects of taxable and deductible temporary differences

Tax effects of taxable and deductible temporary differences for the year ended 31 December 2021 and 31 December 2020 are as follows:

	Opening balance	Recog-nised in P/L[1)]	Recog-nised in OCI[2)]	Closing balance
Year ended 31 December 2021				
Property, plant and equipment	(37 839)	3 896	2 468	(31 475)
Investment property	(226)	36	-	(190)
Financial assets	520	379	(52)	847
Accounts receivable and prepayments	430	142	-	572
Non-current assets held for sale	-	(176)	-	(176)
Accounts payable and other liabilities	101	19	-	120
Lease liabilities	1 038	186	-	1 224
Provision for post-employment benefits	84	(1)	(12)	71
Tax losses carried forward	163	6	-	169
Provisions	204	58	-	262
Borrowings	4	(4)	-	-
Other	67	30	-	97
Total	**(35 454)**	**4 571**	**2 404**	**(28 479)**
Year ended 31 December 2020				
Property, plant and equipment	(40 361)	2 389	133	(37 839)
Investment property	(215)	(11)	-	(226)
Financial assets	401	276	(157)	520
Accounts receivable and prepayments	535	(105)	-	430
Non-current assets held for sale	18	(18)	-	-
Accounts payable and other liabilities	71	30	-	101
Lease liabilities	1 137	(99)	-	1 038
Provision for post-employment benefits	82	2	-	84
Tax losses carried forward	146	17	-	163
Provisions	678	(474)	-	204
Borrowings	(19)	23	-	4
Other	(2)	69	-	67
Total	**(37 529)**	**2 099**	**(24)**	**(35 454)**

[1)]*P/L – profit or loss,* [2)]*OCI – other comprehensive income.*

The tax effect of the movement in these temporary differences is recorded at the rate of 20%, which was enacted by the relevant legislation in the Russian Federation.

20 Other taxes payable

	31 December 2021	31 December 2020
VAT payable	2 159	1 788
Property tax payable	451	427
Social contributions payable	230	245
Other taxes payable	12	11
Total other taxes payable	**2 852**	**2 471**

(in millions of Russian Rubles)

21 Provisions

	Income tax	Property tax	Litigations and claims	Total
Balance as of 1 January 2021	**16**	**1 442**	**8**	**1 466**
Accrued during the period	258	813	10	1 081
Used during the period	-	-	(3)	(3)
Released during the period	(17)	(408)	(3)	**(428)**
Balance as of 31 December 2021	**257**	**1 847**	**12**	**2 116**
Balance as of 1 January 2020	**224**	**2 302**	**-**	**2 526**
Accrued during the period	9	769	8	786
Provisions used during the period	(129)	(1 159)	-	(1 288)
Released during the period	(88)	(470)	-	(558)
Balance as of 31 December 2020	**16**	**1 442**	**8**	**1 466**

22 Revenue

	Year ended 31 December	
	2021	**2020**
Electricity and capacity	126 535	101 623
Heat energy	95 782	76 961
Other revenue	2 841	2 324
Total	**225 158**	**180 908**

Other revenue was primarily received from rental services, feed water sales and maintenance services.

23 Operating expenses

	Year ended 31 December	
	2021	**2020**
Fuel	134 548	108 020
Amortisation and depreciation	24 093	22 874
Electricity and capacity	16 799	9 900
Change in fair value of non-financial assets	12 942	1 715
Employee benefits	12 209	12 070
Repair, maintenance and service	7 523	6 108
Taxes other than income tax	2 005	1 626
Electricity market administration fees	1 795	1 649
Other materials	1 418	1 444
Water supply	1 404	1 186
Security and fire safety	1 095	1 071
Loss on disposal of property, plant and equipment and other assets	672	1 005
Software and maintenance	640	553
Transportation services	540	546
Heat energy transmission	519	461
Change in provisions	412	307
Cleaning services	397	483
Insurance expenses excluding voluntary medical insurance	215	214
Consulting, legal and audit services	204	289
Impairment loss on non-financial assets	49	42
Fines, penalties and compensation for breach of contract terms	(172)	(627)
Other operating expenses	1 296	1 299
Total operating expenses	**220 603**	**172 235**

Impairment loss (reversal of impairment loss) on assets and change in provisions are presented below.

(in millions of Russian Rubles)

	Year ended 31 December 2021	2020
Impairment loss on trade receivables	(1 206)	(77)
Impairment loss on loans given	(763)	(964)
Impairment loss on other financial assets	-	(34)
Total impairment loss on financial assets	**(1 969)**	**(1 075)**
Write-downs of inventories	(162)	(1)
Reversal of impairment loss (impairment loss) on other receivables	104	(104)
Reversal of impairment loss on non-financial assets	9	63
Total impairment loss on non-financial assets	**(49)**	**(42)**
Impairment loss on property, plant and equipment	(12 809)	(1 715)
Changes in fair value of investment property	(133)	-
Total change in value of non-financial assets	**(12 942)**	**(1 715)**
Change in tax provision	(405)	(299)
Change in provisions on claims	(7)	(8)
Total change in provisions	**(412)**	**(307)**

Employee benefits include the following:

	Year ended 31 December 2021	2020
Wages and salaries	9 249	9 159
Social contribution	2 662	2 595
Voluntary medical insurance expenses	211	216
Others	87	100
Total employee benefits	**12 209**	**12 070**

For the year ended 31 December 2021 the average number of employees of the Group was 8 654 (for the year ended 31 December 2020: 8 786).

24 Finance income and expense

	Year ended 31 December 2021	2020
Interest income on loans issued	2 193	2 633
Interest income on bank deposits and cash balances on current accounts	862	782
Effect of discounting financial instruments	319	333
Income from participation in other organisations	43	265
Foreign exchange gain	-	520
Total finance income	**3 417**	**4 533**
Interest expense on borrowings	(841)	(1 164)
Lease interest expense	(537)	(510)
Effect of discounting financial instruments	(35)	(92)
Interest expense on provision for post-employment benefits	(23)	(24)
Foreign exchange loss	-	(992)
Other interest expense	-	(93)
Total finance expense	**(1 436)**	**(2 875)**

(in millions of Russian Rubles)

25 Basic and diluted earnings per share, attributable to PJSC Mosenergo

Earnings per share attributable to owners of PJSC Mosenergo have been calculated by dividing the profit for the period, attributable to the owners of PJSC Mosenergo by the weighted average number of ordinary shares outstanding during the period. The calculation of earnings per share is presented in the table below.

	2021	**2020**
Year ended 31 December		
Issued shares (million of pieces)	39 749	39 749
Profit attributable to the owners of PJSC Mosenergo (in RUB million)	2 894	8 045
Basic and diluted earnings per share attributable to the owners of PJSC Mosenergo (in Russian Rubles)	**0,073**	**0,202**

As of 31 December 2021 and 31 December 2020 there are no dilutive instruments.

26 Contingent and contractual obligations

26.1 Political environment

The operations and earnings of the Group continue, from time to time and in varying degrees, to be affected by political, legislative, fiscal and regulatory developments, including those related to environmental protection, in Russian Federation.

26.2 Legal proceedings

The Group is a party to certain legal proceedings arising in the ordinary course of business. In the opinion of management, there are no current legal proceedings or other claims outstanding, which, upon final disposition, will have a material adverse effect on the position of the Group.

26.3 Taxation

The Russian Federation tax legislation is characterised by frequent changes in legislative norms, official explanations and court decisions, sometimes unclear and contradictory, which allows for their ambiguous interpretation by various tax authorities. Checks and investigations regarding the correctness of the calculation of taxes are carried out by several regulatory bodies that have the right to impose fines and impose penalties. The correctness of the calculation of taxes in the reporting period can be verified within the next 3 calendar years, but under certain circumstances this period may be extended. Recently, the practice in the Russian Federation is such that the tax authorities have an increasingly strict position in terms of interpreting the requirements for compliance with tax legislation, seeking to identify cases of obtaining unjustified tax benefits.

These circumstances lead to the fact that the tax risks in the Russian Federation are much higher than in other countries. The Group's management, based on its understanding of the applicable Russian tax legislation, official explanations and court decisions, believes that the tax liabilities are reflected in an adequate amount. However, the interpretation of these provisions by the relevant authorities may be different and, if they are able to prove the validity of their position, this may have a significant impact on these consolidated financial statements.

26.4 Insurance

The insurance industry in the Russian Federation is in the process of development and many forms of insurance protection common in other countries are not generally available. The management believes that the Group has adequate property damage coverage for its main production assets. The Group does not have full coverage for business interruption and third party liability. Until the Group obtains adequate insurance coverage, there is a risk that the loss from business interruption and third party liability could have a significant adverse effect on the Group’s operations and financial position.

26.5 Capital commitments

As of 31 December 2021 the Group was involved in a number of contracts for construction and purchase of property, plant and equipment for RUB 19 548 million, include VAT (31 December 2020: RUB 16 957 million, include VAT).

(in millions of Russian Rubles)

26.6 Environmental liabilities

Environmental regulations are currently in the process of development in the Russian Federation. The Group evaluates on a regular basis its obligations due to new and amended legislation. As liabilities in respect of environmental obligations can be measured, they are immediately recognised in profit or loss. Currently the likelihood and amount of potential environmental liabilities cannot be estimated reliably but could be significant. However, the management believes that under existing legislation there are no significant unrecorded liabilities or contingencies, which could have a significant adverse effect on the operating results or financial position of the Group.

27 Financial risk factors

The Group is exposed to various risks, including market risk relating to foreign exchange and interest rate risks, credit risk and liquidity risk. The Group does not use a policy of hedging financial risks.

The Group's overall risk management approach considers the low level of predictability of financial markets and seeks to reduce potential adverse effects on the financial performance of the Group.

Risk management is carried out centrally at the Group level, as well as at the level of subsidiaries in accordance with the adopted local regulations of LLC Gazprom Energoholding and its subsidiaries.

27.1 Credit risk

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

Credit risk arises from cash and cash equivalents, deposits with banks and financial institutions, and an open credit position with respect to the Group's counterparties, including outstanding receivables and contractual obligations.

For the Group, the main financial instruments exposed to credit risk are accounts receivable. The Group's management periodically assesses the credit risk of receivables, taking into account the financial position of customers, their credit history and other factors.

(a) Exposure to credit risk

The carrying amount of financial assets reflects the maximum exposure to the Group's credit risk. The maximum level of credit risk as of reporting date was:

	31 December 2021	**31 December 2020**
Trade and other receivables	26 964	31 167
Cash and cash equivalents	68	7 679
Loans issued	58 484	35 992
Deposits	-	7 075
Total	**85 516**	**81 913**

(b) Receivables and loans

The Group's exposure to credit risk is influenced mainly by the individual characteristics of each customer. Geographically credit risk is concentrated in the city of Moscow and the Moscow region, since most of the sales are made in this region The Group assesses the customers 'creditworthiness based on internal and external information on the financial condition, reputation, past settlement experience.

The existing accounts receivable are constantly monitored in terms of turnover ratios, maturity dates, and measures are taken regularly to collect it in due.

The Group's management believes that the Group's operations are independent of any specific customer. For customer of electricity under regulated contracts, in the "day ahead" market and in the balancing market, there are standard terms of contracts. . The special conditions envisaged by the Russian Federation legislation on Power industry for organisations that cannot be restricted or refused in the supply of electricity and heat, as this can lead to accidents and other negative consequences (hospitals, schools, etc.).

(in millions of Russian Rubles)

Debtors within the two main classes of accounts receivable electricity and heat are quite homogeneous regarding their credit quality and concentration of credit risk

Management believes that the provision for expected credit losses of trade and other receivables recorded in the consolidated financial statements is sufficient to cover the Group's credit risk in respect of this type of financial asset.

The Group is working to minimize the number of contracts concluded with advance payment terms, and if it is necessary to pay advance payments, it requests bank guarantees from counterparties for the return of advances.

The maximum exposure to credit risk for accounts receivable by type of revenue as of reporting date was as follows:

	31 December 2021	31 December 2020
Electricity and power	8 240	7 737
Heat energy	16 411	20 928
Other revenue	914	1 049
Total	**25 565**	**29 714**

Estimated allowance for impairment on receivable and loans issued is calculated by groups of counterparties based on the maturity of payments. Loans issued and accounts receivable as of reporting date fall due as follows:

	Gross book value		Allowance for impairment loss		Net book value	
	31 December 2021	31 December 2020	31 December 2021	31 December 2020	31 December 2021	31 December 2020
Not past due	82 883	58 642	3 432	2 970	79 451	55 672
Past due 0-180 days	6 993	10 970	1 714	242	5 279	10 728
Past due 181-365 days	565	1 218	207	894	358	324
More than one year	15 108	14 945	14 748	14 510	360	435
Total	**105 549**	**85 775**	**20 101**	**18 616**	**85 448**	**67 159**

The movement in the allowance for impairment on financial assets in respect of loans given and receivables during the reporting period was as follows:

	2021	2020
Balance as of 1 January	**18 616**	**17 820**
Allowance for impairment loss recognised during the period	2 027	1 375
Unwinding of the discount on long-term accounts receivable	(58)	(300)
Total recognised in profit or loss	**1 969**	**1 075**
Amounts written-off against previously recognised allowance	(484)	(279)
Balance as of 31 December	**20 101**	**18 616**

(c) Cash in banks and on-demand deposits

All bank balances and on-demand deposits are neither past due nor impaired. Cash and cash equivalents are placed in banks that have a minimal risk of default.

(in millions of Russian Rubles)

27.2 Market risk

27.2.1 Foreign exchange risk

		EUR	
	Note	31 December 2021	31 December 2020
Trade and other payables	18	(1 042)	(1 393)
Total financial liabilities		**(1 042)**	**(1 393)**
Net financial liabilities		**(1 042)**	**(1 393)**

An appreciation of the Russian ruble by 20% against the euro as at 31 December 2021 and 31 December 2020 would have resulted in an increase (decrease) in profit or loss for the period by the amounts indicated below. This analysis is based on changes in the foreign exchange rate that the Group applies at the end of the reporting period. For this purpose, the monetary items available at the balance sheet date, expressed in the respective currencies, were analysed.

	EUR impact	
	31 December 2021	31 December 2020
Decrease in profit	**(208)**	**(279)**

The weakening of the currencies considered above by 20% relative to the functional currency would have the same effect, but with the opposite sign, on the basis that all other variables remain constant.

27.2.2 Interest risk

The Group is exposed to the effects of fluctuations in the prevailing levels of market interest rates on its financial position and cash flows. The Group's interest rate risk primarily arises from long-term borrowings. Borrowings issued at variable rates expose the Group to cash flow interest rate risk. Borrowings issued at fixed rates expose the Group to fair value interest rate risk.

The Group's significant interest-bearing financial instrument are disclosed in Notes 10, 11, 13, 16, 18.

The Group conducts an analysis of current interest rates, and based on the results of this analysis, when raising a new loan, the Group's management decides which loans – at fixed or floating interest rates – are more profitable for the period of their attraction. At the reporting date the interest rate profile of the Group's interest-bearing financial instruments was:

	31 December 2021	31 December 2020
Financial assets	6 885	7 854
Financial liabilities	(7 092)	(6 136)
Total fixed rate instruments	**(207)**	**1 718**
Financial assets	51 736	35 991
Financial liabilities	(7 510)	(15 111)
Total variable rate instruments	**44 226**	**20 880**

(in millions of Russian Rubles)

Fair value sensitivity analysis for fixed rate instruments

The Group does not account for any fixed rate financial assets and liabilities at fair value through profit or loss. Therefore, any change in interest rates at the reporting date would not affect profit or loss.

Cash flow sensitivity analysis for variable rate instruments

An increased (decreased) of 100 basis points in interest rates at the reporting date would result in decreased (increased) in the Group’s profit or loss for the year ended 31 December 2021 by approximately in the amount of RUB 442 million (for the year ended 31 December 2020: RUB 209 million). This analysis assumes that all other variables, in particular foreign currency rates, remain constant.

27.3 Liquidity risk

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

The liquidity risk management is performed on three different levels. Long-term risk management is incorporated in the overall financial model of the Group. Middle-term monitoring is fulfilled during the quarterly and monthly planning of the Group’s budgets. Short-term actions include planning and control of daily cash receipts and payments of PJSC Mosenergo. Liquidity management system includes also drawing up monthly, quarterly and yearly cash budgets, comparing actual amounts to planned and explaining any discrepancies found.

Information about the contractual maturities of financial liabilities, including the estimated amounts of interest payments, as of 31 December 2021 and 31 December 2020 is presented below:

	Carrying amount	Contractual cash flow	Less than 6 months	Between 6 and 12 months	Between 1 and 2 years	Between 2 and 5 years	Over 5 years
Balance as of 31 December 2021							
Borrowings	7 510	8 117	317	7 800	-	-	-
Trade and other payables	12 963	12 963	12 163	-	794	6	-
Other liabilities	6 292	11 706	556	653	1 175	2 681	6 641
Total	**26 765**	**32 786**	**13 036**	**8 453**	**1 969**	**2 687**	**6 641**
Balance as of 31 December 2020							
Borrowings	15 111	16 373	320	7 922	8 131	-	-
Trade and other payables	14 137	14 137	13 303	-	-	834	-
Other liabilities	5 302	9 791	448	449	877	2 620	5 397
Total	**34 550**	**40 301**	**14 071**	**8 371**	**9 008**	**3 454**	**5 397**

The Group's financial liabilities shown in the table above are carried at amortised cost.

(in millions of Russian Rubles)

27.4 Reconciliation of liabilities arising from financing activities

The reconciliation of movements in liabilities arising from the financing activities of the Group for the year ended 31 December 2021 and for the year ended 31 December 2020 is presented below:

	Borrowings	Dividends payable	Lease liability	Total
Balance as of 1 January 2020	**25 963**	**78**	**5 799**	**31 840**
Net cash flow from financing activities	(11 529)	(4 766)	(351)	(16 646)
Net cash flow from operating activities	(1 166)	-	(510)	(1 676)
Dividends declared	-	4 784	-	4 784
Interest expenses	1 164	-	510	1 674
Foreign exchange result	586	-	-	586
Other changes	93	-	(146)	(53)
Balance as of 31 December 2020	**15 111**	**96**	**5 302**	**20 509**
Balance as of 1 January 2021	**15 111**	**96**	**5 302**	**20 509**
Change opening balance	-	-	-	-
Net cash flow from financing activities	(7 600)	(7 074)	(586)	(15 260)
Net cash flow from operating activities	(841)	-	(537)	(1 378)
Dividends declared	-	7 103	-	7 103
Interest expenses	841	-	537	1 378
Other changes	(1)	(25)	1 576	1 550
Balance as of 31 December 2021	**7 510**	**100**	**6 292**	**13 902**

27.5 Capital risk management

The following capital requirements for joint stock companies established by the legislation of the Russian Federation:

- share capital cannot be lower than 100 thousand rubles;
- if the share capital of the entity is greater than net assets of the entity, such entity must take decision either to decrease its share capital to the value not exceeding its net assets, or to liquidate;
- if the minimum allowed share capital is greater than net assets of the entity in accordance with Russian Accounting Standards, such entity is subject to liquidation.

As of 31 December 2021 and 31 December 2020 PJSC Mosenergo was in compliance with the above share capital requirements.

The Group's goal in capital management is to ensure the Group's ability to continue as a going concern, providing its members with an acceptable level of profitability, respecting the interests of other partners and maintaining an optimal capital structure to reduce the cost of capital.

The Group manages its capital structure and makes adjustments to it, in light of changes in economic conditions. To maintain or adjust the capital structure, the Group may adjust the amount of dividends paid to shareholders or sell assets to reduce debt.

The Group did not change its approach to capital management during the year,

The Board of Directors' policy is to maintain a strong capital base so as to maintain investor, creditor and market confidence and to sustain future development of the business. The Board of Directors monitors the return on capital, which the Group defines as net operating profit divided by total shareholders' equity. The Board of Directors also controls the level of dividends attributable to ordinary shareholders.

On the Group level, capital is monitored on the basis of the net debt to adjusted EBITDA ratio. This ratio is calculated as net debt divided by adjusted EBITDA. Net debt is calculated as total debt (borrowings, lease liabilities) less cash and cash equivalents, short-term deposits with the possibility of early withdrawal and long-term deposits with the possibility of early withdrawal.

(in millions of Russian Rubles)

Adjusted EBITDA is calculated using the following formula:

Operating profit

Add back: Depreciation and amortisation

Add back/(Minus): Impairment loss (reversal of impairment loss) on non-financial assets

Add back/(Minus): Reversal of impairment allowance (charge of impairment allowance) on advances paid and prepayments

Add back/(Minus): Decrease (increase) in fair value of non-financial assets

The net debt to adjusted EBITDA ratios as of 31 December 2021 and 31 December 2020 were as follows:

	31 December 2021	31 December 2020
Total debt	7 510	15 111
Less: cash and cash equivalents	(68)	(7 679)
Net debt	7 442	7 432
EBITDA	39 774	32 125
Low Debt (Net debt/EBITDA), x	**0,19**	**0,23**

28 Fair value of financial instruments

There was no change in the fair value measurement methods attributed to Level 1,2 and Level 3 for the year ended 31 December 2021 (31 December 2020: there was no change). There were no transfers between levels for the year ended 31 December 2021 (31 December 2020: there were no transfers).

As of 31 December 2021 and 31 December 2020 the Group had the following assets that are measured at fair value:

	Note	Level 1	Level 2	Level 3	Total
Balance as of 31 December 2021					
Financial assets at FVTOCI	11	-	-	1 311	**1 311**
Balance as of 31 December 2020					
Financial assets at FVTOCI	11	3 148	-	1 311	**4 459**

As of 31 December 2021 and 31 December 2020, the estimated fair value of financial assets and liabilities not recognised at fair value in the consolidated statement of financial position is close to their carrying amount.

29 Events after the reporting period

Financial assets

In January-February 2022 LLC TER repaid the loan dated 07 September 2021 ahead of schedule with a maturity date under the agreement on 17 June 2022 for the total amount of RUB 2 145 million.

Investments in associates

On 24 January 2022 the decrease in the share of participation of PJSC Mosenergo in the authorized capital of LLC Gazprom Energoholding Industrial Assets from 42.185% to 39.958% was registered due to the additional contribution of JSC Gazprom Energoremont to the authorised capital of LLC Gazprom Energoholding Industrial Assets.

Non-current assets held for sale

On 3 February 2022 the non-current assets held for sale were transferred to the customer under the act of acceptance of delivery. The funds were received by the Company in full.

Acquisition of a property complex

On 10 February 2022 PJSC Mosenergo entered into an agreement for the purchase of the property of MP Khimkinskaya Teploset, which was submitted for state registration. As of the date of signing the consolidated financial statements for 2021 the transfer of ownership of the acquired property was not registered.

International sanctions

In February 2022 the United States of America, the European Union and some other countries imposed additional sanctions against the Russia Federation.

These circumstances led to the depreciation of the Russian ruble, increased volatility in financial market and significantly increased the level of economic uncertainty in the conditions of doing business in the Russia Federation. The Group's management is currently analyzing the current economic conditions and their possible impact on the Group's operations. At the time of signing these financial statements, according to the estimates of the Group's Management, the described circumstances do not cast doubt on the going concern of the organization. The management of the Group treats these events as non-adjusting events after the balance sheet date.