

JSC “TVEL”

**Consolidated Financial Statements
for the year ended
31 December 2019
and Independent Auditors’
Report**

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Independent Auditors' Report

To the Shareholder and the Board of Directors of Joint Stock Company "TVEL"

Opinion

We have audited the consolidated financial statements of Joint Stock Company "TVEL" (the "Company") and its subsidiaries (the "Group"), which comprise the consolidated statement of financial position as at 31 December 2019, the consolidated statements of profit or loss and other comprehensive income, changes in equity and cash flows for the year then ended, and notes, comprising 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 2019, and its consolidated financial performance and its consolidated cash flows for the year then ended in accordance with International Financial Reporting Standards (IFRS).

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 *Auditors' Responsibilities for the Audit of the Consolidated Financial Statements* section of our report. We are independent of the Group in accordance with the independence requirements that are relevant to our audit of the consolidated financial statements in the Russian Federation and with the International Code of Ethics for Professional Accountants (including International Independence Standards), and we have fulfilled our other ethical responsibilities in accordance with the requirements in the Russian Federation and the International Code of Ethics. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

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 IFRS, 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.

Audited entity: Joint Stock Company "TVEL"

Registration No. in the Unified State Register of Legal Entities 1027739121475.

Moscow, Russia

Independent auditor: JSC "KPMG", a company incorporated under the Laws of the Russian Federation, a member firm of the KPMG network of independent member firms affiliated with KPMG International Cooperative ("KPMG International"), a Swiss entity.

Registration No. in the Unified State Register of Legal Entities 1027700125628.

Member of the Self-regulatory Organization of Auditors Association "Sodruzhestvo" (SRO AAS). The Principal Registration Number of the Entry in the Register of Auditors and Audit Organisations: No. 12006020351.



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

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

Auditors' 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 auditors' 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 judgment and maintain professional scepticism throughout the audit. We also:

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



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

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

The engagement partner on the audit resulting in this independent auditors' report is:

Samovich V.V.

JSC "KPMG"
Moscow, Russia

1 June 2020



JSC "TVEL"
Consolidated Statement of Financial Position as at 31 December 2019

(in thousands of Russian Roubles)

| | Note | 31 December 2019 | 31 December 2018 restated* | 1 January 2018 restated* |
|--|------|---------------------|----------------------------------|--------------------------------|
| ASSETS | | | | |
| Non-current assets | | | | |
| Property, plant and equipment | 16 | 150 016 396 | 138 194 858 | 138 485 792 |
| Intangible assets | 17 | 6 263 660 | 4 633 472 | 4 297 195 |
| Advances for non-current assets | | 2 314 308 | 2 303 366 | 1 298 797 |
| Other long-term investments | 18 | 8 548 444 | 10 868 759 | 11 882 752 |
| Investments in equity accounted investees | 10 | 7 153 020 | 4 853 113 | 6 100 906 |
| Trade and other receivables | 22 | 2 092 347 | 1 215 196 | 1 088 299 |
| Non-current bank deposits | 20 | 3 989 711 | - | - |
| Deferred tax assets | 15 | 14 677 542 | 13 593 544 | 13 387 796 |
| Other non-current assets | | 1 528 095 | 1 053 150 | 390 451 |
| Total non-current assets | | 196 583 523 | 176 715 458 | 176 931 988 |
| Current assets | | | | |
| Inventories | 21 | 88 217 087 | 71 059 974 | 73 045 591 |
| including: | | | | |
| <i>Asset relating to enrichment services</i> | | <i>136 982</i> | <i>378 631</i> | <i>331 396</i> |
| Trade and other receivables | 22 | 44 928 390 | 38 911 468 | 54 218 080 |
| Income tax receivables | | 1 378 863 | 1 321 727 | 733 281 |
| Current bank deposits | 20 | 17 769 958 | 31 871 | - |
| Other short-term investments | 19 | 80 960 949 | 97 762 328 | 82 160 854 |
| Cash and cash equivalents | 23 | 28 042 947 | 14 264 176 | 11 912 208 |
| Total current assets | | 261 298 194 | 223 351 544 | 222 070 014 |
| Total assets | | 457 881 717 | 400 067 002 | 399 002 002 |

The consolidated statement of financial position is to be read in conjunction with the notes to, and forming part of, the consolidated financial statements set out on pages 13 – 76.

*Restatement relates to change in accounting policy of provision for site restoration and territory rehabilitation. See Notes 3 and 16.

JSC "TVEL"

Consolidated Statement of Financial Position as at 31 December 2019

(in thousands of Russian Roubles)

| | Note | 31 December 2019 | 31 December 2018 restated* | 1 January 2018 restated* |
|---|------|---------------------|----------------------------------|--------------------------------|
| EQUITY AND LIABILITIES | | | | |
| Equity | | | | |
| Share capital | 24 | 45 191 | 45 191 | 45 191 |
| Share premium | | 91 414 451 | 91 414 451 | 91 414 451 |
| Reserves | | 5 919 590 | 6 346 692 | 5 804 587 |
| Retained earnings | | 237 315 834 | 211 477 320 | 202 231 512 |
| Equity attributable to owners of the Company | | 334 695 066 | 309 283 654 | 299 495 741 |
| Non-controlling interests | 8 | 26 250 886 | 22 008 649 | 23 240 463 |
| Total equity | | 360 945 952 | 331 292 303 | 322 736 204 |
| Non-current liabilities | | | | |
| Employee benefits | 13 | 4 963 247 | 4 247 221 | 5 032 137 |
| Non-current provisions | 27 | 30 340 013 | 19 508 466 | 22 501 177 |
| Deferred tax liabilities | 15 | 252 149 | 46 630 | 81 171 |
| Deferred income, non-current | 28 | 5 289 046 | 4 557 717 | 5 098 937 |
| Lease liabilities, long-term | 29 | 1 644 941 | 2 358 684 | 3 782 479 |
| Trade and other payables | 31 | 2 152 258 | 270 887 | 1 071 338 |
| Total non-current liabilities | | 44 641 654 | 30 989 605 | 37 567 239 |
| Current liabilities | | | | |
| Short-term loans and borrowings | 26 | 4 275 013 | 121 605 | 392 350 |
| Trade and other payables | 31 | 43 018 464 | 33 113 527 | 34 264 649 |
| Lease liabilities, short-term | 29 | 1 270 546 | 1 465 905 | 1 461 975 |
| Income tax payable | | 248 025 | 168 263 | 405 503 |
| Deferred income, current | 28 | 3 464 288 | 2 736 113 | 1 979 965 |
| Current provisions | | 17 775 | 179 681 | 194 117 |
| Total current liabilities | | 52 294 111 | 37 785 094 | 38 698 559 |
| Total liabilities | | 96 935 765 | 68 774 699 | 76 265 798 |
| Total equity and liabilities | | 457 881 717 | 400 067 002 | 399 002 002 |

Vice-President of Economy and Finance



/Mikhailov D.E. /

Director of Accounting department - Chief Accountant

/ Guseva M. N./

The consolidated statement of financial position is to be read in conjunction with the notes to, and forming part of, the consolidated financial statements set out on pages 13 – 76.

*Restatement relates to change in accounting policy of provision for site restoration and territory rehabilitation. See Notes 3 and 16.

JSC "TVEL"

Consolidated Statement of Profit or Loss and Other Comprehensive Income for the year ended 31 December 2019 (in thousands of Russian Roubles)

| | Note | 2019 | 2018 restated* |
|--|-------|-------------------|-------------------|
| Revenue | 11 | 198 517 131 | 166 739 292 |
| Personnel costs | 14 | (29 769 464) | (30 070 592) |
| Raw materials | | (71 153 873) | (18 360 459) |
| Depreciation and amortization | 16,17 | (15 357 935) | (13 312 499) |
| Electricity, gas and fuel, water supply costs | | (9 214 083) | (8 989 026) |
| Taxes other than income taxes | | (1 087 201) | (3 127 524) |
| Research and development costs | | (3 706 844) | (4 203 186) |
| Transportation costs | | (3 100 154) | (2 607 452) |
| Repairs and maintenance | | (3 051 650) | (4 457 173) |
| Insurance | | (1 161 929) | (1 117 866) |
| Change in finished goods and work in progress | | 13 529 358 | (11 591 128) |
| Other operating income | 12 | 5 690 311 | 4 270 529 |
| Other operating expenses | 12 | (23 985 978) | (22 333 017) |
| Results from operating activities | | 56 147 689 | 50 839 899 |
| Finance income | 12 | 8 250 737 | 10 659 142 |
| Finance costs | 12 | (6 714 419) | (4 794 536) |
| Share of profit/(loss) of equity accounted investees (net of income tax) | 10 | 1 234 700 | (1 244 902) |
| Profit before income tax | | 58 918 707 | 55 459 603 |
| Income tax expense | 15 | (11 237 135) | (11 287 899) |
| Profit for the year | | 47 681 572 | 44 171 704 |
| Other comprehensive (loss)/income | | | |
| <i>Items that will never be reclassified to profit or loss :</i> | | | |
| Defined benefit plan actuarial (losses)/gains | 13,15 | (656 480) | 781 505 |
| Deferred tax on defined benefit plan actuarial gains and losses | 15 | 131 296 | (156 301) |
| <i>Total items that will never be reclassified to profit or loss</i> | | <i>(525 184)</i> | <i>625 204</i> |
| Total other comprehensive (loss)/income for the year, net of income tax | | (525 184) | 625 204 |
| Total comprehensive income for the year | | 47 156 388 | 44 796 908 |
| Profit attributable to: | | | |
| Owners of the Company | | 46 815 428 | 43 988 964 |
| Non-controlling interests | | 866 144 | 182 740 |
| | | 47 681 572 | 44 171 704 |
| Total comprehensive income attributable to: | | | |
| Owners of the Company | | 46 391 176 | 44 531 069 |
| Non-controlling interests | | 765 212 | 265 839 |
| | | 47 156 388 | 44 796 908 |

These consolidated financial statements were approved by management on 1 June 2020 and were signed on its behalf by:

Vice-President of Economy and Finance



/ Mikhailov D.E./

Director of Accounting department - Chief Accountant



/ Guseva M. N./

The consolidated statement of profit or loss and other comprehensive income is to be read in conjunction with the notes to, and forming part of, the consolidated financial statements set out on pages 13 – 76.

*Restatement relates to change in accounting policy of provision for site restoration and territory rehabilitation. See Notes 3 and 16.

JSC “TVEL”
Consolidated Statement of Changes in Equity for the year ended 31 December 2019

(in thousands of Russian Roubles)

| | Note | Attributable to equity holders of the Company | | | | | Non-controlling interests | Total equity |
|--|------|---|-------------------|---|------------------|---------------------|---------------------------|---------------------|
| | | Share capital | Share premium | Property, plant and equipment revaluation reserve | Other reserves | Retained earnings | | |
| Balance at 1 January 2018 | | 45 191 | 91 414 451 | 4 390 944 | 1 413 643 | 198 282 066 | 21 827 498 | 317 373 793 |
| Impact of change in accounting policy | | - | - | - | - | 3 949 446 | 1 412 965 | 5 362 411 |
| Balance at 1 January 2018 (restated*) | | 45 191 | 91 414 451 | 4 390 944 | 1 413 643 | 202 231 512 | 23 240 463 | 322 736 204 |
| Total comprehensive income for the year | | | | | | | | |
| Profit for the year | | - | - | - | - | 43 988 964 | 182 740 | 44 171 704 |
| Actuarial gain of defined benefit liability | | - | - | - | 677 631 | - | 103 874 | 781 505 |
| Income tax on other comprehensive income | 15 | - | - | - | (135 526) | - | (20 775) | (156 301) |
| Total other comprehensive income | | - | - | - | 542 105 | - | 83 099 | 625 204 |
| Total comprehensive income for the year | | - | - | - | 542 105 | 43 988 964 | 265 839 | 44 796 908 |
| Transactions with owners of the Company | | | | | | | | |
| Contributions and distributions | | | | | | | | |
| Dividends | | - | - | - | - | (35 069 092) | (2 528 919) | (37 598 011) |
| Total contributions and distributions | | - | - | - | - | (35 069 092) | (2 528 919) | (37 598 011) |
| Changes in ownership interests | | | | | | | | |
| Changes in non-controlling interests in subsidiaries | 9 | - | - | - | - | 325 936 | 1 031 266 | 1 357 202 |
| Total changes in ownership interests | | - | - | - | - | 325 936 | 1 031 266 | 1 357 202 |
| Total transactions with owners of the Company | | - | - | - | - | (34 743 156) | (1 497 653) | (36 240 809) |
| Balance at 31 December 2018 (restated*) | | 45 191 | 91 414 451 | 4 390 944 | 1 955 748 | 211 477 320 | 22 008 649 | 331 292 303 |

The consolidated statement of changes in equity is to be read in conjunction with the notes to, and forming part of, the consolidated financial statements set out on pages 13 – 76.

*Restatement relates to change in accounting policy of provision for site restoration and territory rehabilitation. See Notes 3 and 16.

JSC "TVEL"

Consolidated Statement of Changes in Equity for the year ended 31 December 2019

(in thousands of Russian Roubles)

| | | Attributable to equity holders of the Company | | | | | | | |
|--|------|---|---------------|---|----------------|-------------------|--------------|---------------------------|--------------|
| | Note | Share capital | Share premium | Property, plant and equipment revaluation reserve | Other reserves | Retained earnings | Total | Non-controlling interests | Total equity |
| Balance at 1 January 2019* | | 45 191 | 91 414 451 | 4 390 944 | 1 955 748 | 211 477 320 | 309 283 655 | 22 008 649 | 331 292 303 |
| Total comprehensive income for the year | | | | | | | | | |
| Profit for the year | | - | - | - | - | 46 815 428 | 46 815 428 | 866 144 | 47 681 572 |
| Actuarial losses of defined benefit liability | | - | - | - | (530 314) | - | (530 314) | (126 166) | (656 480) |
| Income tax on other comprehensive income | 15 | - | - | - | 106 063 | - | 106 063 | 25 233 | 131 296 |
| Total other comprehensive loss | | - | - | - | (424 251) | - | (424 251) | (100 933) | (525 184) |
| Total comprehensive income for the year | | - | - | - | (424 251) | 46 815 428 | 46 391 177 | 765 213 | 47 156 388 |
| Transactions with owners of the Company | | | | | | | | | |
| Contributions and distributions | | | | | | | | | |
| Dividends | | - | - | - | - | (20 994 050) | (20 994 050) | (125 560) | (21 119 610) |
| Total contributions and distributions | | - | - | - | - | (20 994 050) | (20 994 050) | (125 560) | (21 119 610) |
| Changes in ownership interests | | | | | | | | | |
| Changes in non-controlling interests in subsidiaries | 9 | - | - | - | (2 851) | (997 746) | (1 000 597) | 3 562 259 | 2 561 662 |
| Effect of dilution of the share in JSC OTEK | | - | - | - | - | 1 014 882 | 1 014 882 | 40 325 | 1 055 207 |
| Total changes in ownership interests | | - | - | - | (2 851) | 17 136 | 14 285 | 3 602 584 | 3 616 869 |
| Total transactions with owners of the Company | | - | - | - | (2 851) | (20 976 914) | (20 979 765) | 3 477 024 | (17 502 740) |
| Balance at 31 December 2019 | | 45 191 | 91 414 451 | 4 390 944 | 1 528 646 | 237 315 834 | 334 695 066 | 26 250 886 | 360 945 952 |

Vice-President of Economy and Finance

/ Mikhailov D.E./

Director of Accounting department - Chief Accountant

/ Guseva M. N./

The consolidated statement of changes in equity is to be read in conjunction with the notes to, and forming part of, the consolidated financial statements set out on pages 13 – 76.

*Restatement relates to change in accounting policy of provision for site restoration and territory rehabilitation. See Notes 3 and 16.

JSC "TVEL"**Consolidated Statement of Cash Flows for the year ended 31 December 2019**

(in thousands of Russian Roubles)

| | 2019 | 2018 restated* |
|---|-------------------|---------------------------|
| OPERATING ACTIVITIES | | |
| Profit before income tax | 58 918 707 | 55 459 603 |
| <i>Adjustments for:</i> | | |
| Depreciation and amortization | 15 357 935 | 13 312 499 |
| (Gain)/loss on disposal and impairment of property, plant and equipment | (326 937) | 2 778 022 |
| Loss on disposal of intangible and other assets | 756 776 | 1 090 523 |
| Loss on disposal of investments | 46 179 | 564 025 |
| Share in (profit)/loss of equity accounted investees (net of tax) | (1 234 700) | 1 244 902 |
| Net finance income | (1 536 318) | (5 864 606) |
| Losses from changes in estimates of provision for asset retirement obligation | 508 393 | 427 664 |
| Reversal of impairment losses on inventories | (924 936) | (329 798) |
| Changes in estimated allowance for expected credit losses | (609 810) | (522 977) |
| Other income | (1 321 752) | (1 942 641) |
| Cash from operating activities before changes in working capital | 69 633 537 | 66 217 216 |
| Change in inventories | (15 761 963) | 3 090 836 |
| Change in trade and other receivables | (6 304 655) | 16 415 602 |
| Change in employee benefits | 27 811 | (10 054) |
| Change in trade and other payables | 11 433 108 | (888 968) |
| Proceeds from targeted financing funds | 3 076 183 | 1 857 610 |
| Cash flows from operations before income taxes and interest paid | 62 104 021 | 86 682 242 |
| Income tax paid | (11 214 508) | (12 113 588) |
| Interest paid | (1 500 818) | (1 006 679) |
| Net cash flows from operating activities | 49 388 695 | 73 561 975 |

The consolidated statement of cash flows is to be read in conjunction with the notes to, and forming part of, the consolidated financial statements set out on pages 13 – 76.

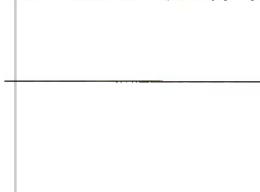
*Restatement relates to change in accounting policy of provision for site restoration and territory rehabilitation. See Notes 3 and 16.

JSC "TVEL"
Consolidated Statement of Cash Flows for the year ended 31 December 2019

(in thousands of Russian Roubles)

| | 2019 | 2018 restated* |
|---|---------------------|---------------------|
| INVESTING ACTIVITIES | | |
| Interest received | 8 298 548 | 7 624 894 |
| Acquisition of property, plant and equipment | (19 262 956) | (25 673 542) |
| Acquisition of intangible assets | (3 023 974) | (2 003 195) |
| Proceeds from repayments of loans given to other entities | 373 813 225 | 152 871 282 |
| Proceeds from disposal of property, plant and equipment | 1 530 246 | 2 903 738 |
| Proceeds from disposal of investments | 1 551 | 185 671 |
| Loans given to other entities | (356 595 829) | (169 126 434) |
| Proceeds on disposal of intangible assets | 381 404 | 128 276 |
| Placement of deposits with maturity more than 3 months | (21 753 129) | 1 620 |
| Purchase of investments | (115 613) | - |
| Net cash flows used in investing activities | (16 726 527) | (33 087 690) |
| FINANCING ACTIVITIES | | |
| Proceeds from borrowings | 4 267 813 | 590 855 |
| Repayment of borrowings | (133 650) | (983 204) |
| Dividends paid to shareholders and owners of non-controlling interests | (21 120 186) | (37 597 919) |
| Repayment of lease liabilities | (909 102) | (1 415 935) |
| Proceeds from disposal of interests in subsidiaries | 272 410 | 465 430 |
| Net cash flows used in financing activities | (17 622 715) | (38 940 773) |
| Net increase in cash and cash equivalents | 15 039 453 | 1 533 512 |
| Cash and cash equivalents at the beginning of the year | 14 264 176 | 11 927 489 |
| Effect of exchange rate fluctuations on cash and cash equivalents | (1 260 682) | 821 321 |
| Estimated provision for expected credit losses on short-term deposits estimated at fair value | - | (2 865) |
| Cash and cash equivalents at the end of the year | 28 042 947 | 14 264 176 |

Vice-President of Economy and Finance



/ Mikhailov D.E./

Director of Accounting department - Chief Accountant

/ Guseva M. N./

The consolidated statement of cash flows is to be read in conjunction with the notes to, and forming part of, the consolidated financial statements set out on pages 13 – 76.

*Restatement relates to change in accounting policy of provision for site restoration and territory rehabilitation. See Notes 3 and 16.

1. Background

(a) Conditions for the conduct of economic activity in the Russian Federation

The Group’s operations are primarily located in the Russian Federation. Consequently, the Group is exposed to the economic and financial markets of the Russian Federation, which display characteristics of an emerging market. The legal, tax and regulatory frameworks continue development, but are subject to varying interpretations and frequent changes which together with other legal and fiscal impediments contribute to the challenges faced by entities operating in the Russian Federation.

Since 2014, the United States of America, the European Union and some other countries have introduced and gradually tightened economic sanctions against a number of Russian citizens and entities. The imposition of sanctions entailed an increase in economic uncertainty, including high volatility in the capital exchange markets, falling rouble exchange rate, reduction of foreign and domestic direct investments, and a significant reduction in the availability of debt financing sources. In particular, some Russian companies may experience difficulties in gaining access to the international stock market and the debt capital market, which may increase their dependence on government support. The long-term estimation of the sanctions consequences and the possibility of imposing new sanctions is difficult.

The consolidated financial statements reflect management’s assessment of the impact of the Russian business environment on the operations and the financial position of the Group. The future business environment may differ from management’s assessment.

(b) Organisation and operations

JSC “TVEL” (the “Company”) and its subsidiaries (the “Group”) consist of the Russian Joint Stock Companies and Limited Liability Companies, in accordance with the legislation of the Russian Federation.

The Company was established as a state-owned company on 12 September 1996 in compliance with the Decree of the President of the Russian Federation dated 8 February 1996 No. 166 “Concerning Improvement of Nuclear Fuel Cycle Entities Management”.

The Company is registered by the Moscow Registration Chamber on 12 September 1996 at:

24/26 Bolshaya Ordynka St., Moscow, Russian Federation, 119017.

The sole shareholder of the Company is JSC “Atomic Energy Power Corporation” (hereinafter referred to as JSC “Atomenergoprom”), which in turn is 100% owned by the State Corporation “Rosatom” (hereinafter referred to as the SC “Rosatom”).

In September 2009, under the decision of the SC “Rosatom” the Fuel Company of SC “Rosatom” was established on the basis of OJSC “TVEL”. In 2010 establishment of the Fuel Company was completed. The entities of separation and sublimation and gas-centrifuge complex, as well as research and development organizations were integrated into the Company.

Thus, as at 31 December 2010 the Company became responsible for the whole value cycle of nuclear fuel in the Russian nuclear industry and combined the following:

- entities of nuclear fuel fabrication complex which produce components for fuel elements, nuclear fuel in the form of fuel assemblies and their components in the form of fuel elements and fuel pellets, control and regulative rods for reactors of various types;
- entities of separation-sublimation complex which provide services for conversion and enrichment of uranium and isotopes;
- entities of gas-centrifuge complex which produce main and auxiliary equipment for uranium enrichment;
- entities of research and development complex.

The main activities of the Group include:

- production and sale of nuclear fuel and its components;

JSC “TVEL”

Notes to the Consolidated Financial Statements for the year ended 31 December 2019

(in thousands of Russian Roubles)

- production (conversion) of uranium tetrafluoride and hexafluoride, enrichment of natural and reprocessed uranium and its compounds used to make fuel for nuclear power plants, ships and nuclear research facilities and for the supply of enriched uranium products to external customers;
- production and sale of components technologically related to production of nuclear fuel, nuclear and non-nuclear components of complex processing of raw materials;
- implementation of research, development, design and survey works in various fields.

The Group's activities are conducted in the following cities of the Russian Federation: Angarsk, Vladimir, Glazov, Zelenogorsk, Kovrov, Krasnoyarsk, Moscow, Novouralsk, Novosibirsk, Seversk, Elektrostal. The products are sold in the Russian Federation and abroad

2. Basis of accounting

(a) Statement of compliance

These consolidated financial statements (hereinafter referred to as “financial statements”) were prepared in accordance with International Financial Reporting Standards (hereinafter - IFRS).

This is the first set of the Group's annual financial statements, prepared using the requirements of IFRS 16 “Leases”. Changes to significant accounting policies are explained in Note 3.

Certain comparative amounts have been restated to conform with current year presentation.

Basis for measurement

The consolidated financial statements have been prepared on the historical cost basis except for the following:

- The revaluation of fixed assets was carried out as part of the transition to IFRS as at 1 January 2002 in order to determine their imputed initial cost;
- The book value of non-monetary assets, articles of liabilities and equity, which existed as of 31 December 2002, includes inflation adjustments calculated using coefficients based on consumer price indices published by the State Statistics Committee of the Russian Federation, the state statistics body of the Russian Federation. As applied to the preparation of financial statements in accordance with IFRS, the economy of the Russian Federation has ceased to be considered hyperinflationary since 1 January 2003;
- Investments that are carried at fair value and are classified as investments at fair value through profit or loss.

(b) Functional and presentation currency

The national currency of the Russian Federation is the Russian Ruble (“RUB”), which is the Company's functional currency and its subsidiaries and the currency in which these consolidated financial statements are presented. All figures are reflected in the consolidated financial statements in thousands of roubles, unless otherwise indicated.

(c) Use of estimates and judgments

The preparation of consolidated financial statements in conformity with IFRSs requires management to make judgments, estimates and assumptions that affect the application of accounting policies and the reported amounts of assets, liabilities, income and expenses and contingencies. Actual results may differ from those estimates.

Estimates and underlying assumptions are reviewed on an ongoing basis. Revisions to accounting estimates are recognized in the period in which the estimates are revised and in any future periods affected.

Information on the most important judgments formed in the process of applying accounting policies and having the most significant effect on the amounts reflected in the consolidated financial statements is presented in the following explanations:

- The useful lives of property, plant and equipment – Note 4 (c) (iii);

- Provision for impairment of inventories - Note 21;
- Other long-term investments - Note 18;
- Long-term reserves - Note 27;
- Employee remuneration obligations - Note 13.

Measurement of fair values

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:

- Level 1: quoted prices (unadjusted) in active markets for identical assets or liabilities.
- Level 2: inputs other than quoted prices included in Level 1 that are observable for the asset or liability, either directly (i.e. as prices) or indirectly (i.e. derived from prices).
- Level 3: inputs for the asset or liability that are not based on observable market data (unobservable inputs).

If the inputs used to measure the fair value of an asset or a liability might be categorised in different levels of the fair value hierarchy, then the fair value measurement is categorised in its entirety in the same level of the fair value hierarchy as the lowest level input that is significant to the entire measurement.

The Group recognises transfers between levels of the fair value hierarchy at the end of the reporting period during which the change has occurred.

Further information about the assumptions made in measuring fair values is included in the following note:

- Note 32 – Fair value and risk management.

3. Changes in significant accounting policies

The Group has consistently applied the accounting policies set out in Note 4 to all periods presented in these consolidated financial statements, except as indicated below.

The Group has applied IFRS 16 “Leases” for the first time since 1 January 2019. The application of other amendments to the standards effective from 1 January 2019 did not have a significant impact on these financial statements.

(i) IFRS 16 Leases

IFRS 16 Leases replaces existing leases guidance, including IAS 17 Leases, IFRIC 4 Determining Whether an Arrangement Contains a Lease, SIC-15 Operating Leases – Incentives and SIC-27 Evaluating the Substance of Transactions in the Legal Form of a Lease.

IFRS 16 introduces a single lessee accounting model and requires a lessee to recognise it in its balance sheet. According to this model, a lessee is required to recognise a right of use asset representing its right to use the underlying leased asset and a lease liability representing its obligation to make lease payments. For lessors, accounting rules are substantially unchanged – they will continue to classify leases as financial and operating.

The Group applied IFRS 16 retrospectively using the cumulative effect method, with the effect of the initial application of this standard recognised at the date of initial application (i.e. 1 January 2019). Accordingly, the information provided for 2018 has not been restated, thus it is presented in accordance with IAS 17 and relevant interpretations.

Previously, the Group determined at contract inception whether an arrangement was or contained a lease under IFRIC 4. The Group now assesses whether a contract is or contains a lease. Under IFRS 16 a contract is, or contains, a lease if the contract conveys a right to control the use of an identified asset for a period of time in exchange for consideration.

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The Group applied IFRS 16 only to contracts that were previously identified as leases. Contracts that were not identified as leases under IAS 17 and IFRIC 4 were not reassessed. Therefore, the definition of a lease under IFRS 16 has been applied only to contracts entered into or changed on or after 1 January 2019.

The Group has elected not to separate non-lease components and account for the lease and associated non-lease components as a single lease component.

The Group used practical expedients when applying IFRS 16 to leases previously classified as operating leases under IAS 17. In particular, the Group did not recognise right-of-use assets and liabilities for leases of low value assets (e.g. IT equipment).

The impact of the initial adoption of IFRS 16 on non-current assets and liabilities in the Group’s consolidated financial statements amounted to 255 415 thousand roubles (increase). Right-of-use assets are presented as property, plant and equipment (see Note 16).

(ii) Provision for site restoration and territory rehabilitation (TR)

In current reporting period the Group changed its accounting policy in respect of provision for site restoration and territory rehabilitation. In previous reporting periods this obligation was recognised in operating expenses of the reporting period, in the revised accounting policy this obligation is included in the cost of the asset of property, plant and equipment to which it relates. Due to the fact that contamination of land occurs as a result of work of radioactive production facilities of the Group which are located on this land, the extent of contamination and, consequently, the cost of remediation works of these territories are directly related to the radioactive production. The Group believes that application of the new accounting policy will provide presentation of more reliable and relevant information.

This change has been reflected retrospectively and prior period information has been restated. Provision for site restoration and territory rehabilitation was recorded within buildings (see Note 16). The following tables summarize the impact of this change on the Group’s consolidated financial statements.

(a) Consolidated statement of financial position

| Impact of change in accounting policy | | | |
|--|-------------------------------|--------------------|--------------------|
| | As previously reported | Adjustments | As restated |
| 1 January 2018 | | | |
| Total assets | 393 639 591 | 5 362 411 | 399 002 002 |
| Property, plant and equipment | 133 123 381 | 5 362 411 | 138 485 792 |
| Total liabilities | 76 265 798 | - | 76 265 798 |
| Retained earnings | 198 282 066 | 3 949 446 | 202 231 512 |
| Non-controlling interest | 21 827 498 | 1 412 965 | 23 240 463 |
| Total equity | 317 373 793 | 5 362 411 | 322 736 204 |
| | | | |
| | As previously reported | Adjustments | As restated |
| 31 December 2018 | | | |
| Total assets | 394 297 833 | 5 769 169 | 400 067 002 |
| Property, plant and equipment | 132 425 689 | 5 769 169 | 138 194 858 |
| Total liabilities | 68 774 699 | - | 68 774 699 |
| Retained earnings | 207 327 078 | 4 150 242 | 211 477 320 |
| Non-controlling interest | 20 389 722 | 1 618 927 | 22 008 649 |
| Total equity | 325 523 134 | 5 769 169 | 331 292 303 |

(b) Consolidated statement of profit or loss and other comprehensive income

| | Impact of change in accounting policy | | |
|-------------------------------------|---------------------------------------|----------------|-------------------|
| | As previously reported | Adjustments | As restated |
| For the year ended 31 December 2018 | | | |
| Depreciation and amortization | 13 189 710 | 122 789 | 13 312 499 |
| Other operating expenses | 23 974 998 | (529 547) | 23 445 451 |
| Profit for the year | 43 764 946 | 406 758 | 44 171 704 |
| Other comprehensive income | 625 204 | - | 625 204 |

There is no material impact on the Groups total cash flows from operating, investing or financing activities for the years ended 31 December 2019 and 2018.

4. Significant accounting policies

The accounting policies set out below have been applied consistently to all periods presented in these consolidated financial statements and have been applied consistently by Group entities.

(a) Basis of consolidation**(i) Business combinations, except for transactions between entities under common control**

Business combinations except for transactions between entities under common control are accounted for using the acquisition method as at the acquisition date, which is the date on which control is transferred to the Group.

The Group measures goodwill at the acquisition date as:

- the fair value of the consideration transferred; plus
- the recognized amount of any non-controlling interests in the acquiree; plus
- if the business combination is achieved in stages, the fair value of the pre-existing equity interest in the acquiree, less
- the net recognized amount (generally fair value) of the identifiable assets acquired and liabilities assumed.

When the excess is negative, a bargain purchase gain is recognized immediately in profit or loss.

The consideration transferred does not include amounts related to the settlement of pre-existing relationships. Such amounts are generally recognized in profit or loss.

Transaction costs, other than those associated with the issue of debt or equity securities, that the Group incurs in connection with a business combination are expensed as incurred.

Any contingent consideration payable is recognized at fair value at the acquisition date. If the contingent consideration is classified as equity, it is not subsequently remeasured and settlement is accounted for within equity. Otherwise, contingent consideration is remeasured to fair value at each reporting date and subsequent changes in fair value of the contingent consideration are recognized in profit or loss.

(ii) Business combinations between entities under common control

Business combinations arising from transfers of interests in entities that are under the control of the same shareholder that controls the Group are accounted for as if the acquisition had occurred at the beginning of the earliest comparative periods presented or, if later, at the date that common control was established; for this purpose comparatives are revised. The assets and liabilities acquired are recognised at the carrying amounts recognised previously in the Group's controlling shareholder's consolidated financial statements.

(iii) Acquisition of investments between enterprises under common control

Investments acquired as a result of transactions between entities under common control, classified as associates, are accounted for using the equity method from the date that significant influence commences, comparative

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information for prior periods is not restated. Assets and liabilities acquired are recognised at the carrying amounts recognised previously in the Group’s controlling shareholder’s consolidated financial statements.

(iv) *Non-controlling interests*

Non-controlling interests are measured at their proportionate share of the acquiree’s identifiable net assets at the acquisition date.

Changes in the Group’s interest in a subsidiary that do not result in a loss of control are accounted for as equity transactions.

Acquisitions (disposals) of non-controlling interests are accounted for as transactions with owners in their capacity as owners and therefore no goodwill is recognised as a result. Adjustments to non-controlling interests arising from transactions are based on the proportionate amount of the net assets of the subsidiary. The difference between the carrying amounts of the acquired (disposed) non-controlling interest and the consideration paid (transferred) is recognised directly in equity.

(v) *Subsidiaries*

Subsidiaries are entities controlled by the Group. The Group controls an entity when it is exposed to, or has rights to, variable returns from its involvement with the entity and has the ability to affect those returns through its power over the entity. The financial statements of subsidiaries are included in the consolidated financial statements from the date that control commences until the date that control ceases. The accounting policies of subsidiaries have been changed when necessary to align them with the policies adopted by the Group. Losses applicable to the non-controlling interests in a subsidiary are allocated to the non-controlling interests even if doing so causes the non-controlling interests to have a deficit balance.

(vi) *Loss of control*

Upon the loss of control the Group derecognises the assets and liabilities of the subsidiary, any non-controlling interests and the other components of equity related to the subsidiary. Any surplus or deficit arising on the loss of control is recognised in profit or loss for the period except for transactions under common control, when difference between transaction amount and fair value of subsidiary is recognised in retained earnings. If the Group retains any interest in the former subsidiary, then such interest is measured at fair value at the date the control is lost. Subsequently it is accounted for as an equity-accounted investee or as an available-for-sale financial asset depending on the level of influence retained.

(vii) *Interests in equity-accounted investees*

The Group’s interests in equity-accounted investees comprise interests in associates and joint ventures.

Associates are those entities in which the Group has significant influence, but not control, over the financial and operating policies. Significant influence is presumed to exist when the Group holds directly or indirectly (for example, through subsidiaries) between 20% and 50% of the voting power of another entity except for the situations when there is evidence to the contrary. Joint ventures are those entities over activities of which the Group has joint control, established by contractual agreement and requiring unanimous consent for strategic financial and operating decisions. The Group doesn’t have claims on assets of equity-accounted investees and is not liable for their obligations.

Interests in associates and joint ventures are accounted for using the equity method and are recognized initially at cost. The cost of the investment includes transaction costs.

The consolidated financial statements include the Group’s share of the profit or loss and other comprehensive income of equity accounted investees, after adjustments to align the accounting policies with those of the Group, from the date that significant influence or joint control commences until the date that significant influence or joint control ceases.

When the Group’s share of losses exceeds its interest in an equity-accounted investee, the carrying amount of that interest including any long-term investments, is reduced to zero, and the recognition of further losses is discontinued, except to the extent that the Group has an obligation on compensation of losses or has made payments on behalf of the investee.

(viii) Transactions eliminated on consolidation

Intercompany balances and transactions, and any unrealised profit or loss arising from intercompany transactions, are eliminated in preparing the consolidated financial statements. Unrealised gains arising from transactions with equity-accounted investees 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 and only in terms of the depreciated value of the corresponding (underlying) asset.

(b) Foreign currency

(i) Foreign currency transactions

Transactions in foreign currencies are translated to the respective functional currencies of Group entities at exchange rates at the dates of the transactions. Monetary assets and liabilities denominated in foreign currencies at the reporting date are converted to the functional currency at the exchange rate at that date.

Non-monetary assets and liabilities denominated in foreign currencies that are measured at fair value are converted to the functional currency at the exchange rate at the date the fair value was determined. Non-monetary items in a foreign currency that are measured based on actual cost are converted using the exchange rate at the date of the transaction.

Foreign currency differences arising from conversion are recognised in profit or loss, except for differences arising on the conversion of available-for-sale equity instruments which are recognised in other comprehensive income.

(c) Property, plant and equipment

(i) Recognition and measurement

Items of property, plant and equipment, except for land and property, plant and equipment of certain divisions, are measured at actual cost less accumulated depreciation and any accumulated impairment losses. Under preparation of consolidated financial statements as at 1 January 2002, date of transition to IFRS, the Group recorded fixed assets at fair value and used it as deemed cost at this date. In order to identify fair value of fixed assets at the date of transition to IFRS, results of evaluation by independent appraiser were used.

The actual cost includes expenditures that are directly attributable to the acquisition of the asset. The actual cost of constructed (built) assets includes the cost of materials, direct labour costs, all other costs directly attributable to bringing the asset to a working condition for its intended use, and the costs of dismantling, removing the items and restoring land that they occupy at the end of their useful lives. Purchased software that is integral to the functionality of the related equipment is capitalized as part of that equipment. Borrowing costs attributable to the acquisition or construction of qualifying assets are capitalized in the value of such assets. A qualifying asset is an asset with substantial period of preparation for its intended use.

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.

Any gain or loss on disposal of an item of property, plant and equipment is recognised net within other income/other expenses respectively in profit or loss, and in other comprehensive income for the period.

(ii) Subsequent costs

The cost of replacing a component of an item of property, plant and equipment increases the carrying amount of the item if it is probable that the future economic benefits embodied within the component will flow to the Group, and its cost can be measured reliably. The carrying amount of the replaced component is derecognized. The costs of the day-to-day maintenance of property, plant and equipment are recognized in profit or loss as incurred.

Costs of performing mandatory technical inspections and capital repairs of property, plant and equipment are identified and accounted for as separate component, if the component is used for more than one reporting period. Costs of mandatory inspections and capital repairs, recognised as separate components of property,

plant and equipment, are depreciated over the period until the subsequent inspection or capital repair is performed.

(iii) Depreciation

Items of property, plant and equipment are depreciated from the date that they are installed and are ready for use, constructed assets, from the date that the asset is completed and ready for use. Depreciation is based on the cost of an asset less its residual value. Significant components of individual assets are assessed. If a component has a useful life that is different from the remaining part of that asset, that component is depreciated separately.

Depreciation is recognized in profit or loss on a straight-line basis over the estimated useful life of each part of an item of property, plant and equipment, since this method most closely reflects the expected pattern of consumption of the future economic benefits embodied in the asset and amortised deductions are included in profit or loss for the period. Leased assets are depreciated over the shorter of the lease term and their useful lives unless it is reasonably certain that the Group will obtain ownership by the end of the lease term. Land is not depreciated.

Depreciation methods, useful lives and residual values are reviewed at the end of each financial year.

The estimated useful lives of significant items of property, plant and equipment for the current and comparative periods are as follows:

- Buildings 10 – 100 years;
- Plant and equipment 1 – 44 years;
- Installations and transmission devices 2 – 58 years;
- Transport vehicles 1 – 28 years;
- Other 1 – 40 years.

(d) Intangible assets

(i) Recognition and measurement

Intangible assets with finite useful lives acquired by the Group are measured at cost less accumulated amortization and accumulated impairment losses.

(ii) Subsequent expenditures

Subsequent expenditures are capitalized only when they increase the future economic benefits embodied in the specific asset to which they relate. All other expenditure are recognized in the profit or loss as incurred.

(iii) Amortization

Amortisation is calculated based on the initial (actual) cost of the asset, or other amount substituting for the initial cost, less its liquidation value. Amortisation is recognized in profit or loss on a straight-line basis over the estimated useful lives of intangible assets, from the date that they are available for use since this method most closely reflects the expected pattern of consumption of future economic benefits embodied in the asset.

The estimated useful lives for the current and comparative periods are as follows:

- Development expenditure 1 – 4 years;
- Computer software 1 – 16 years;
- Other licenses 3 – 8 years.

(iv) Research and development

Expenditure on research activities, undertaken with the prospect of gaining new scientific or technical knowledge and understanding, is recognized in profit or loss as incurred.

Development activities involve a plan or design for the production of new or substantially improved products and processes. Development expenditure is capitalized only if development costs can be measured reliably, the product or process is technically and commercially feasible, future economic benefits are probable, and the Group has sufficient resources and intends to complete development and to use or sell the asset. The capitalized expenditure includes the cost of materials, direct labour and overhead costs that are directly attributable to preparing the asset for its intended use. Other development expenditure is recognized in the profit or loss as incurred.

Capitalized development expenditure is measured at cost less accumulated amortization and accumulated impairment losses.

(e) Financial instruments

(i) Financial assets

Financial assets include following categories:

- Financial assets measured at amortized cost;
- Financial assets at fair value through other comprehensive income;
- Financial assets at fair value through profit or loss.

A financial asset is measured at amortized cost if it meets both of the following conditions:

- It is held within a business model whose objective is to hold assets to collect contractual cash flows; and
- Its contractual terms give rise on specified dates to cash flows that are solely payments of principal and interest on the principal amount outstanding.

A financial asset is measured at fair value through profit and loss if it meets both of the following conditions:

- It is held within a business model whose objective is to hold assets to collect contractual cash flows; and
- Its contractual terms give rise on specified dates to cash flows that are solely payments of principal and interest on the principal amount outstanding.

A financial asset is measured at fair value through profit and loss, unless it is measured at amortized cost or at fair value through other comprehensive income.

Cash and cash equivalents include cash on hand and demand deposits, as well as bank deposits and high liquidity investments with a maturity of three months or less from the acquisition date, affected by a slight risk of change in their fair value. Bank overdrafts that are repayable on demand and used as part of the Group's cash management policy are included in cash and cash equivalents for the purpose of preparing a cash flow statement.

The entity classifies financial assets as subsequently measured at amortized cost or fair value based on:

- business models used by an entity to manage financial assets, and
- characteristics of a financial asset associated with the contractual cash flows.

(ii) Financial liabilities

Financial liabilities include the following categories:

- financial liabilities measured at amortized cost;
- financial liabilities at fair value through profit or loss.

(iii) Initial recognition

Financial instruments are recognized when the entity becomes the party to which the terms of the relevant financial instrument are envisaged in the contract.

At initial recognition of a financial asset or financial liability, excluding trade receivables, is measured at fair value increased or decreased in the case if a financial asset or financial liability is not accounted for at fair value through profit or loss, by the amount of transaction costs that directly relate to acquisition or issue of a financial asset or financial liability.

At initial recognition, trade receivables are measured at the transaction price if trade receivables do not contain a significant financing component in accordance with IFRS 15.

(iv) Subsequent measurement

After initial recognition, a financial asset is measured at:

- amortized cost; or
- fair value through other comprehensive income; or
- fair value through profit or loss.

In the subsequent measurement of a financial asset at fair value through profit or loss, all changes in fair value, including corresponding foreign exchange gains and losses and / or interest income and expenses, are presented in the financial statements as a single amount on a net basis.

After initial recognition, financial liabilities are measured at amortized cost, excluding financial liabilities at fair value through profit or loss.

(v) Derecognition of financial assets

The Group derecognises a financial asset when the contractual rights to the cash flows from the financial asset expire, or it transfers the rights to receive the contractual cash flows in a transaction in which substantially all of the risks and rewards of ownership of the financial asset are transferred or in which the Group neither transfers nor retains substantially all of the risks and rewards of ownership and it does not retain control of the financial asset.

The Group enters into transactions whereby it transfers assets recognised in its statement of financial position, but retains either all or substantially all of the risks and rewards of the transferred assets. In these cases, the transferred assets are not derecognised.

The Group derecognises a financial liability when its contractual obligations are discharged or cancelled, or expire. The Group also derecognises a financial liability when its terms are modified and the cash flows of the modified liability are substantially different, in which case a new financial liability based on the modified terms is recognised at fair value.

On derecognition of a financial liability, the difference between the carrying amount extinguished and the consideration paid (including any non-cash assets transferred or liabilities assumed) is recognised in profit or loss.

(vi) Offsetting financial instruments

Financial assets and financial liabilities are offset and the net amount presented in the consolidated statement of financial position when, and only when, the Group currently has a legally enforceable right to set off the amounts and it intends either to settle them on a net basis or to realise the asset and settle the liability simultaneously.

(f) Inventory

Inventories are measured at the lower of cost and net realisable value. The cost of inventories is determined using the following cost formulas:

- for nuclear and fission materials – individual cost of an inventory batch;
- for all other inventories – weighted average cost method.

The cost of inventories includes expenditure incurred in acquiring the inventories, production or conversion costs and other costs incurred in bringing them to their existing location and condition. In the case of manufactured inventories and work in progress, cost includes an appropriate share of production overheads based on normal operating capacity and a standard (planned) volume of production.

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

(g) Share capital

(i) Ordinary shares

Ordinary shares are classified as equity. Incremental costs directly attributable to the issue of ordinary shares and share options are recognized as a deduction from equity, net of any tax effects.

(h) Impairment

(i) Financial assets

Allowance for expected credit losses is recognized for:

- financial assets measured at amortized cost or at fair value through other comprehensive income;
- commitments to provide loans not at fair value through profit or loss;
- financial guarantee contracts that are within the scope of IFRS 9 and are not measured at fair value through profit and loss;
- lease receivables recognized in accordance with IAS 17;
- contractual assets recognized under IFRS 15.

At each reporting date, an assessment is made of the availability of objective evidence that the credit risk of financial instruments has increased significantly since their initial recognition (lifetime expected credit losses). The assessment takes into account changes in the risk of a default over the expected life of the financial instruments. For the assessment, the risk of default at the reporting date is compared with the risk of default at the date of initial recognition. The analysis is carried out based on internal and external ratings, market and statistical data or forecast based on the information available without undue cost or effort.

If at the reporting date there is no significant increase in the credit risk of a financial instrument since the initial recognition, then the organization estimates the provision for losses on this financial instrument in an amount equal to the 12-month expected credit losses (losses resulting from defaults possible during 12 months after the reporting date).

The Group assumes that the credit risk on a financial asset has increased significantly if it is more than 30 days past due.

The Group considers a financial asset to be in default when:

- the borrower is unlikely to pay its credit obligations to the Group in full, without recourse by the Group to actions such as realising security (if any is held); or
- the financial asset is more than 90 days past due.

The expected credit losses allowance is always estimated at an amount equal to the expected credit losses over the entire term, in the case of trade receivables or contractual assets, arising from transactions within the scope of IFRS 15 that do not contain a significant financing component in Compliance with IFRS 15.

The amount of expected credit losses (or their recovery) is recognized in distribution expenses in the statement of profit and loss in the amount necessary to adjust the expected credit losses allowance as of the reporting date to the amount that is to be recognized.

Additional information regarding the Group's calculation of impairment allowance, can be found in Note 32(b).

(ii) 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. For goodwill and intangible assets that have indefinite lives or that are not yet available for use, the recoverable amount is estimated at the end of each year.

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 the current market assessments of the time value of money and the

risks specific to the asset. For the purpose of impairment testing, assets that cannot be tested individually 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 CGU (an asset or cash generating unit). An impairment loss is recognised if the carrying amount of an asset or its related cash-generating unit exceeds its estimated recoverable amount. Impairment losses are recognised in profit or loss as a part of profit (loss) for the period. An impairment loss in respect of goodwill is not reversed. In respect of other assets, impairment losses recognised in prior periods are assessed at each reporting date for any indications that the loss has decreased or no longer exists. An impairment loss is reversed if there has been a change in the estimates used to determine the recoverable amount. An impairment loss is reversed only to the extent that the asset's carrying amount does not exceed the carrying amount that would have been determined (net of depreciation or amortisation) if no impairment loss had been recognised.

(i) Employee benefits

(i) Defined contribution plans

A defined contribution plan is a post-employment benefit plan under which an entity pays fixed contributions into a separate (independent) entity and will then have no legal or constructive obligation to pay further amounts.

Obligations for contributions to defined contribution pension plans, including Russian State pension fund, are recognised as an employee benefit expense in profit or loss in the periods during which services are rendered by employees. Prepaid contributions are recognised as an asset to the extent that a cash refund or a reduction in future payments is available. Contributions to a defined contribution plan that are due more than 12 months after the end of the period in which the employees render the services are discounted to their present value.

(ii) Defined benefit plans

A defined benefit plan is a post-employment benefit plan other than a defined contribution plan. The Group's net obligation in respect of defined benefit pension plans is calculated separately for each plan by estimating the amount of future benefits 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 plan assets are deducted. The discount rate is the yield at the reporting date on government bonds of the Russian Federation that have maturity dates approximating the terms of the Group's obligations and that are denominated in the same currency in which the benefits are expected to be paid.

A qualified actuary using the projected unit credit method performs the calculation annually. When the results of the calculations obtained reveal a potential asset for the Group, the recognised asset is limited to the present value of economic benefits available in the form of any future refunds from the plan or reductions in future contributions to the plan. In order to calculate the present value of economic benefits, consideration is given to any minimum funding requirements that apply to any plan in the Group. An economic benefit is available to the Group if it is realisable during the life of the plan, or on settlement of the plan liabilities.

Remeasurements of the net defined benefit liability, which comprises actuarial gains and losses, the return on plan assets (excluding interest) and the effect of the asset ceiling (excluding interest), are recognised immediately in OCI. The Group determines the net interest expense (income) on the net defined benefit liability (asset) for the period by applying the discount rate used to measure the defined benefit obligation at the beginning of the annual period to the net defined benefit liability (asset), taking into account any changes in the net defined benefit liability (asset) during the period as a result of contributions and benefit payments. Net interest expense and other expenses related to defined benefit plans are recognised in profit or loss.

When the benefits of a plan are changed or when a plan is curtailed, the resulting change in benefit that relates to past service or the gain or loss on curtailment is recognised immediately in profit or loss. The Group recognises gains and losses on the settlement of a defined benefit plan when the settlement occurs.

(iii) Other long-term employee benefits

The Group's net obligation in respect of long-term employee benefits other than pension plans is the 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 government bonds that have maturity dates approximating the

terms of the Group's obligations and that are denominated in the same currency in which the benefits are expected to be paid. The calculation is performed using the projected unit credit method - accumulation of future payments. Remeasurements are recognised in profit or loss in the period in which they arise.

(iv) Termination benefits

Termination benefits are expensed at the earlier of when the Group can no longer withdraw the offer of those benefits and when the Group recognises costs for a restructuring. If benefits are payable more than 12 months after the reporting date, then they are discounted to their present value.

(v) 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 recognized 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 if the obligation can be estimated reliably.

(j) Provisions

A provision is recognized 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. 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.

(i) Provision for decommissioning of property, plant and equipment (DPPE)

The provision for decommissioning an item of property, plant and equipment is included in its cost during initial recognition and is depreciated over the estimated useful life using the method applied for depreciation of the asset.

The provision for decommissioning of property, plant and equipment is calculated based on estimated costs of activities aimed at the release of nuclear energy objects from control under state regulatory bodies in part of nuclear and radiation safety.

The provision for decommissioning of property includes deactivation of radionuclides contaminated facilities and buildings, dismantlement of equipment and buildings (if deep radionuclides contamination of constructions detected), conversion, conditioning, containerization and transportation to the radwaste depositary and disposal of radioactive waste resulted from decommissioning of property.

The costs of creating infrastructure facilities are not included in the calculation of the estimated provision.

The provisions are reconsidered at the end of each reporting date taking account of changes in the estimates of future cash flows (for example, the cost of item dismantling) or discount rates. Any changes in the amount of the obligation due to the above reasons are included in the cost of item of property, plant and equipment. The cost of an item of property, plant and equipment cannot be negative or exceed its recoverable amount. Moreover, if the carrying amount of a fixed asset exceeds the recoverable amount, the amount of provision change that exceeds the recoverable amount is recognized as other expenses. If while recording a change in the amount of provision, the carrying amount of the property, plant and equipment becomes negative, then a negative amount shall be recognized as other income.

When an asset, which includes a provision for decommissioning of nuclear facilities, reaches the end of its useful life, all subsequent changes to provision as they arise are recognized as other income or expenses.

(ii) Provision for site restoration and territory rehabilitation (TR)

The Group recognizes a provision in respect of the Group's obligation to rectify any environmental damage arising as a result of the operating activity of other Group entities. The obligation to rectify environmental damage is recognised in the value of the property, plant and equipment to which it relates as soon as the respective damage is incurred. The obligation is calculated based on estimated decontamination costs at current prices.

These provisions are revised at the end of each reporting period when estimates of future cash flows or discount cost change. Changes in the amount of the provision due to stated reasons are included in the cost of the fixed

asset, and the cost of the fixed asset cannot be negative and cannot exceed the recoverable amount of the fixed asset. Moreover, if the carrying amount of a fixed asset exceeds the recoverable amount, the amount of the provision change that exceeds the recoverable amount is recognized as other expenses. If while recording a change in the amount of the provision, the carrying amount of the property, plant and equipment becomes negative, then a negative amount shall be recognized as other income.

When an asset, which includes an provision for territory rehabilitation, reaches the end of its useful life, all subsequent changes to the provision as they arise are recognized as other income or expenses.

(iii) Provision for decommissioning of radioactive waste (RAW)

The amount of the provision for decommissioning RAW is determined by the estimation of future cost of storage, conversion, conditioning, containerisation, RAW transportation to burial sites and burying of the RAW formed as a result of mining and processing of uranium ore, and the operating activity of the Group's entities that use the nuclear facilities and nuclear-related items. The obligation for decommissioning RAW is recognized in other operating expenses as incurred. Special features of the recognition of these liabilities in the consolidated financial statements are disclosed in Note 27.

(iv) Compensation of expenses

If it is expected with a high degree of confidence that the obligation stated in Note 4 (k) (i) – (iii) will be financed by any third party, for example the state, than the amount of such compensation is recognized as a non-current asset. The asset is discounted, using the same rate and schedule as the appropriate part of the recognized provision for decommissioning of property, plant and equipment, except for cases when the dates/periods of repayment of the obligation and assets are not consistent.

(k) Revenue

The main types of revenue for TVEL and its subsidiaries are:

- Revenue from sale of goods
- Revenue from realization of electric energy
- Revenue from realization of enrichment services

(i) Identification of the contract and determination of the transaction price

For the purposes of revenue recognition, an analytical five-step model is applied:

- identification of the contract with a customer;
- identification of the performance obligations in the contract;
- determination of the transaction price;
- allocation of the transaction price to the performance obligations in the contract;
- revenue recognition.

The contract is an agreement with a customer if the contracting party entered into the contract in order to purchase goods or services of the TVEL entities which is the result of their primary activities in exchange for consideration.

Two or more contracts concluded entered into at or near the same time with the same customer (or related parties of the customer) are accounted for as a single contract if one or more criteria are met:

- the contracts are negotiated as a package with a single commercial objective;
- the amount of consideration to be paid in one contract depends on the price or performance of the other contract;
- the goods or services promised in the contracts (or some goods or services promised in each of the contract) are a single performance obligation.

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The transaction price is the amount of consideration to which an entity expects to be entitled in exchange for transferring promised goods or services to a customer, excluding amounts collected on behalf of third parties. When determining the transaction price, an entity shall consider the effects of all of the following:

- variable consideration;
- constraining estimates of variable consideration;
- the existence of a significant financing component in the contract;
- non-cash consideration;
- consideration payable to a customer.

A. An entity shall estimate an amount of variable consideration by using either of the following methods, depending on the circumstances:

- the expected value method;
- the most likely amount method.

B. An entity shall include in the transaction price some or all of an amount of variable consideration only to the extent that it is highly probable that a significant reversal in the amount of cumulative revenue recognised will not occur when the uncertainty associated with the variable consideration is subsequently resolved.

C. For the contracts containing a significant financing component, amount of consideration per contract is adjusted using the discount rate that reflects the credit characteristics of the party receiving financing in the contract. An entity shall present the effects of financing (interest revenue or interest expense) separately from revenue from contracts with customers in the statement of profit and loss. Interest revenue or interest expense is recognised only to the extent that a contract asset (or accounts receivable) or a contract liability is recognised in accounting for a contract with a customer.

Adjustment of the promised consideration amount taking into account core component of funding is not carried out if at the time the contract is concluded the organization expects the period between the transfer of the promised goods or services to the customer and the customer's payment of such goods or services is no more than one year.

D. If consideration payable to a customer (or to other parties that purchase the entity's goods or services from the customer) includes cash amounts that an entity pays, or expects to pay, to the customer, or credit or other items that can be applied against amounts owed to the entity, it shall be accounted for as a reduction of the transaction price unless the payment to the customer is in exchange for a distinct good or service.

(ii) Revenue recognition

An entity shall recognise revenue when (or as) the entity satisfies a performance obligation by transferring a promised good or service (ie an asset) to a customer. An asset is transferred when (or as) the customer obtains control of that asset.

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

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

(iii) Representation

When either party to a contract has performed, an entity shall present the contract in the statement of financial position as a contract asset or a contract liability, depending on the relationship between the entity's performance and the customer's payment. An entity shall present any unconditional rights to consideration separately as an accounts receivable.

(l) Grants and other financing

Grants and other financing, including funds received from government bodies and international organisations, are recognised initially as deferred income at fair value when there is reasonable assurance that they will be received and that the Group will comply with the conditions associated with the grant. Grants and other financing received in the form of assets or cash for acquisition of assets are recognised in profit or loss as other income (loss) on a systematic basis over the useful life of the asset. Grants that compensate the Group for expenses incurred are recognised in profit or loss as other income on a systematic basis in the same periods in which the expenses are recognised.

(m) Other expenses

Social expenditure

To the extent that the Group's contributions to social programs benefit the community at large and are not restricted to the Group's employees, they are recognised in profit or loss as incurred.

(n) Finance income and costs

The structure of financial income includes interest income on invested funds: dividend income, gains on the disposal of investments at fair value through profit and loss, interest income on financial leases, changes in the fair value of financial assets measured at fair value through profit and loss, income from discounting financial assets and liabilities, as well as foreign currency gains. Interest income is recognized in profit and loss for the period at the time of occurrence and its amount is calculated using the effective interest method. Dividend income is recognized in profit or loss for the period when the Group becomes eligible to receive the appropriate payment.

Finance costs include interest expenses on loans, excluding interest expenses capitalized in the cost of the Group's qualifying assets, unwinding of the discount on provisions, interest expenses on lease obligations, losses from changes in the fair value of financial instruments held at fair value through profit and loss, foreign currency loss, as well as recognized impairment losses on financial assets (other than receivables from trading operations), losses on disposal of investments at fair value through profit or loss. All costs associated with raising borrowed funds (except for capitalized costs that are recognized as part of property, plant and equipment) are recognized in the statement of profit or loss and other comprehensive income in profit (loss) and other comprehensive income for the period using the effective interest method. Gains and losses from changes in foreign currency exchange rates are recorded at net basis.

(o) Income tax

Income tax expense comprises current and deferred tax. Current tax and deferred tax are recognised in profit and loss except to the extent that they relate to a business combination, or items recognised directly in equity.

Current tax is the expected tax payable or receivable on the taxable income or loss for the year, using tax rates enacted or substantively enacted at the reporting date, and any adjustment to tax payable in respect of previous years, including provisions accrued in respect of possible tax claims. The calculation of the current income tax liability also includes the amount of the tax liability resulting from the declaration of dividends, as well as all adjustments to the value of the income tax payable for previous periods.

Deferred tax is recognised in respect of temporary differences between the carrying amounts of assets and liabilities for financial reporting purposes and the amounts used for taxation purposes. Deferred tax is not recognised for:

- Temporary differences on the initial recognition of assets or liabilities in a transaction that is not a business combination and that affects neither accounting nor taxable profit or loss.
- Temporary differences related to investments in subsidiaries, associates and joint arrangements to the extent that it is probable that they will not reverse in the foreseeable future and
- taxable temporary differences arising on the initial recognition of goodwill.

A deferred tax asset is recognised for unused tax losses, tax credits and deductible temporary differences, to the extent that it is probable that future taxable profits will be available against which they can be utilised. The amount of future taxable profit is determined based on the value of the corresponding taxable temporary

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differences to be recovered. If there is no sufficient amount of relevant taxable temporary differences to recognize the deferred tax asset in full, additional taxable profit is taken into account, which is determined separately for each subsidiary of the Group based on its business plans and does not take into account the effect of reversing existing temporary differences. The amount of deferred tax assets is analysed as of each reporting date and decreases to the extent that the realization of the respective tax benefits is no longer probable. Such write-offs are subject to recovery in the event of an increase in the likelihood of future taxable profits.

Unrecognized deferred tax assets are re-valued at each reporting date and recognized to the extent that it becomes probable that future taxable profits will allow for the reimbursement of this deferred tax asset.

The deferred tax valuation reflects the tax consequences that would follow from the way in which the Group intends to recover or pay off the book value of its assets or settle the obligations at the end of the reporting period.

The amount of deferred tax is determined on the basis of tax rates that will be applied in the future, at the time of the reversal of temporary differences, based on the existing or substantially enacted laws as of the reporting date.

When determining the amount of current and deferred income tax, the Group takes into consideration the effect of undetermined tax positions and the possibility of additional taxation and accrual of fines and penalties for late payment of tax. Based on the results of their valuation of a number of factors, as well as on the interpretation of Russian tax legislation and past experience, the Group believes that the obligation to pay taxes for all tax periods for which the tax authorities have the right to verify the completeness of calculations with the budget is reflected in full volume. This valuation is based on estimates and assumptions and may include the formation of a number of professional judgments about the impact of future events. Over time, the Group may receive new information, in connection with which the Group may need to amend the prepared judgments regarding the completeness of the tax liabilities recorded. Such changes in the amount of tax payment obligations will affect the amount of tax for the period in which the relevant calculation of the amount of current and deferred income taxes was made.

Deferred tax assets and liabilities are offset when there is a legally enforceable right to offset current tax assets against current tax liabilities and these assets and liabilities relate to income taxes, collected by the same tax authority from the same taxable enterprise, or from different taxable enterprises, but these enterprises intend to settle the current tax liabilities and assets on a net basis or the sale of tax assets of these enterprises will be carried out simultaneously with the settlement of their tax liabilities.

(p) Dividends declared

Dividends and related tax liabilities are recorded as liabilities in the period in which they were declared and legally payable.

(q) Leases

The Group has applied IFRS 16 using the modified retrospective approach and therefore the comparative information has not been restated and continues to be reported under IAS 17 and IFRIC 4.

Policy applicable from 1 January 2019

At inception of a contract, the Group assesses whether a contract is, or contains, a lease. A contract is, or contains, a lease if the contract conveys the right to control the use of an identified asset for a period of time in exchange for consideration. To assess whether a contract conveys the right to control the use of an identified asset, the Group uses the definition of a lease in IFRS 16.

This policy is applied to contracts entered into, on or after 1 January 2019.

(i) As a lessee

the Group has elected not to separate non-lease components and account for the lease and non-lease components as a single lease component.

The Group recognises a right-of-use asset and a lease liability at the lease commencement date. The right-of-use asset is initially measured at cost, which comprises the initial amount of the lease liability adjusted for any lease payments made at or before the commencement date, plus any initial direct costs incurred and an estimate

of costs to dismantle and remove the underlying asset or to restore the underlying asset or the site on which it is located, less any lease incentives received.

The right-of-use asset is subsequently depreciated using the straight-line method from the commencement date to the end of the lease term, unless the lease transfers ownership of the underlying asset to the Group by the end of the lease term or the cost of the right-of-use asset reflects that the Group will exercise a purchase option. In that case the right-of-use asset will be depreciated over the useful life of the underlying asset, which is determined on the same basis as those of property and equipment. In addition, the right-of-use asset is periodically reduced by impairment losses, if any, and adjusted for certain remeasurements of the lease liability.

The lease liability is initially measured at the present value of the lease payments that are not paid at the commencement date, discounted using the interest rate implicit in the lease or, if that rate cannot be readily determined, the Group's incremental borrowing rate. Generally, the Group uses its incremental borrowing rate as the discount rate.

The Group determines its incremental borrowing rate by obtaining interest rates from various external financing sources and makes certain adjustments to reflect the terms of the lease and type of the asset leased.

Lease payments included in the measurement of the lease liability comprise the following:

- fixed payments, including in-substance fixed payments;
- variable lease payments that depend on an index or a rate, initially measured using the index or rate as at the commencement date;
- amounts expected to be payable under a residual value guarantee;
- the exercise price under a purchase option that the Group is reasonably certain to exercise, lease payments in an optional renewal period if the Group is reasonably certain to exercise an extension option, and penalties for early termination of a lease unless the Group is reasonably certain not to terminate early.

The lease liability is measured at amortised cost using the effective interest method. It is remeasured when there is a change in future lease payments arising from a change in an index or rate, if there is a change in the Group's estimate of the amount expected to be payable under a residual value guarantee, if the Group changes its assessment of whether it will exercise a purchase, extension or termination option or if there is a revised in-substance fixed lease payment.

When the lease liability is remeasured in this way, a corresponding adjustment is made to the carrying amount of the right-of-use asset, or is recorded in profit or loss if the carrying amount of the right-of-use asset has been reduced to zero.

(ii) As a lessor

At inception or on modification of a contract that contains a lease component, the Group allocates the consideration in the contract to each lease component on the basis of their relative stand-alone prices.

When the Group acts as a lessor, it determines at lease inception whether each lease is a finance lease or an operating lease.

To classify each lease, the Group makes an overall assessment of whether the lease transfers substantially all of the risks and rewards incidental to ownership of the underlying asset. If this is the case, then the lease is a finance lease; if not, then it is an operating lease. As part of this assessment, the Group considers certain indicators such as whether the lease is for the major part of the economic life of the asset.

When the Group is an intermediate lessor, it accounts for its interests in the head lease and the sub-lease separately. It assesses the lease classification of a sub-lease with reference to the right-of-use asset arising from the head lease, not with reference to the underlying asset. If a head lease is a short-term lease to which the Group applies the exemption described above, then it classifies the sub-lease as an operating lease.

The Group applies the derecognition and impairment requirements in IFRS 9 to the net investment in the lease. The Group further regularly reviews estimated unguaranteed residual values used in calculating the gross investment in the lease.

The Group recognises lease payments received under operating leases as income on a straight-line basis over the lease term as part of “other revenue”.

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Generally, the accounting policies applicable to the Group as a lessor in the comparative period were not different from IFRS 16.

Policy applicable before 1 January 2019

For contracts entered into before 1 January 2019, the Group determined whether the arrangement was or contained a lease based on the assessment of whether:

- fulfilment of the arrangement was dependent on the use of a specific asset or assets; and
- the arrangement had conveyed a right to use the asset. An arrangement conveyed the right to use the asset if one of the following was met:
- the purchaser had the ability or right to operate the asset while obtaining or controlling more than an insignificant amount of the output;
- the purchaser had the ability or right to control physical access to the asset while obtaining or controlling more than an insignificant amount of the output; or
- facts and circumstances indicated that it was remote that other parties would take more than an insignificant amount of the output, and the price per unit was neither fixed per unit of output nor equal to the current market price per unit of output.

(i) As a lessee

In the comparative period, as a lessee the Group classified leases that transferred substantially all of the risks and rewards of ownership as finance leases. When this was the case, the leased assets were measured initially at an amount equal to the lower of their fair value and the present value of the minimum lease payments. Minimum lease payments were the payments over the lease term that the lessee was required to make, excluding any contingent rent. Subsequent to initial recognition, the assets were accounted for in accordance with the accounting policy applicable to that asset.

Assets held under other leases were classified as operating leases and were not recognised in the Group's statement of financial position. Payments made under operating leases were recognised in profit or loss on a straight-line basis over the term of the lease. Lease incentives received were recognised as an integral part of the total lease expense, over the term of the lease.

(ii) As a lessor

When the Group acted as a lessor, it determined at lease inception whether each lease was a finance lease or an operating lease.

To classify each lease, the Group made an overall assessment of whether the lease transferred substantially all of the risks and rewards incidental to ownership of the underlying asset. If this was the case, then the lease was a finance lease; if not, then it was an operating lease. As part of this assessment, the Group considered certain indicators such as whether the lease was for the major part of the economic life of the asset.

(r) Guarantees and sureties

The Group considers that financial guarantee contracts entered into by the Group to guarantee the indebtedness of other parties are insurance arrangements, and accounts for them as such. In this respect, the Group treats the guarantee contract as a contingent liability until such time as it becomes probable that the Group will be required to make a payment under the guarantee.

5. New standards and interpretations not yet adopted

A number of new standards are effective for annual periods beginning after 1 January 2019, and their earlier application is allowed; The Group has not early adopted new or amended standards anticipatorily in preparing these consolidated financial statements.

The following amended standards and interpretations are not expected to materially affect the Group's consolidated financial statements:

- Amendments to References to Conceptual Framework in IFRS Standards.

- Definition of a Business (Amendments to IFRS 3).
- Definition of Material (Amendments to IAS 1 and IAS 8)
- IFRS 17 Insurance Contracts.

6. Determination of fair values

A number of the Group's accounting policies and disclosures require the determination of fair value, for both financial and non-financial assets and liabilities. Fair values have been determined for measurement or/and for disclosure purposes based on the methods described below. When applicable, further information about the assumptions made in determining fair values is disclosed in the notes specific to that asset or liability.

(a) Property, plant and equipment

The fair value of property, plant and equipment recognized as a result of a business combination is based on market values. The market value of property, plant and equipment is the estimated amount for which an item of property, plant and equipment could be exchanged on the date of valuation between a willing buyer and a willing seller in an arm's length transaction after proper marketing wherein the parties had each acted knowledgeably and willingly. The property, plant and equipment fair value is based on a market approach using quoted market prices for similar items when available or on a cost approach.

When no quoted market prices are available, the fair value of property, plant and equipment is primarily determined using depreciated replacement cost. This method considers the cost to reproduce or replace the property, plant and equipment, adjusted for physical, functional or economical depreciation, and obsolescence.

(b) Intangible assets

The fair value of patents and trademarks acquired in a business combination is based on the discounted estimated royalty payments that have been avoided as a result of the patent or trademark being owned.

The fair value of other intangible assets is based on the discounted cash flows expected to be derived from the use and eventual sale of the assets.

(c) Inventories

The fair value of inventories acquired in a business combination is determined based on its estimated selling price in the ordinary course of business less the estimated costs of completion and sale, and a reasonable profit margin based on the effort required to complete and sell the inventories.

(d) Equity and debt securities

The fair value of equity and debt securities is determined by reference to their quoted closing bid price at the reporting date, or if unquoted, determined using a valuation technique. Valuation techniques employed include market multiples and discounted cash flow analysis using expected future cash flows and a market-related discount rate.

(e) Trade and other receivables

The fair value of trade and other receivables is estimated as the present value of future cash flows, discounted at the market rate of interest at the reporting date. This fair value is determined for disclosure purposes or when acquired in a business combination.

(f) Non-derivative financial liabilities and assets

Fair value, which is determined only for disclosure purposes, is calculated based on the present value of future principal and interest cash flows, discounted at the market rate of interest at the reporting date. In respect of liability component of convertible notes, the market rate of interest is determined by reference to similar liabilities that do not have a conversion option. For leases the market rate of interest is determined by reference to similar lease agreements.

7. Significant subsidiaries

Significant subsidiaries included into these consolidated financial statements are presented below:

| Subsidiary | Country of incorporation | Ownership/voting | |
|--|--------------------------|------------------|------------------|
| | | 31 December 2019 | 31 December 2018 |
| JSC "Chepetsk mechanical plant" | Russia | 86,50% | 100,00% |
| JSC "Industrial innovations" | Russia | 100,00% | 100,00% |
| JSC "TVEL-Stroy" | Russia | 81,89% | 81,89% |
| JSC "Moscow Plant of Polymetals" | Russia | 100,00% | 100,00% |
| JSC "A.A. Bochvar High-Technology Scientific Research Institute for Inorganic Materials" | Russia | 87,90% | 88,02% |
| JSC "United Company "Razdelitelno-Sublimatny Kompleks" | Russia | 100,00% | 100,00% |
| JSC "Angarsk electrochemical plant" | Russia | 100,00% | 100,00% |
| JSC "Siberian chemical plant" | Russia | 94,04% | 94,04% |
| JSC "Ural electrochemical plant" | Russia | 87,50% | 87,50% |
| JSC "Production Association "Electrochemical Plant" | Russia | 100,00% | 100,00% |
| JSC "Engineering Center "Russian Gas Centrifuge" | Russia | 100,00% | 100,00% |
| JSC "Vladimir Production Association "Tochmash" | Russia | 100,00% | 100,00% |
| JSC "Commercial Center" | Russia | 97,82% | 97,82% |
| PJSC "Novosibirsk chemical concentrates plant" (NZKhK) | Russia | 88,51% | 88,51% |
| PJSC "Machine building plant" (MSZ) | Russia | 73,09% | 73,54% |
| PJSC "Kovrovsk mechanical plant" (KMZ) | Russia | 96,80% | 96,80% |
| LLC "RME Centrotech" | Russia | 100,00% | 100,00% |

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8. Non-controlling interests

The following table summarises the information relating to each of the Group’s subsidiaries that has material NCI, before any intra-group eliminations.

31 December 2019

| | JSC “SKhK” | JSC “UEKhK” | PJSC “MSZ” | PJSC “NZKhK” | JSC “CHMZ” | Other group companies | Intra-group eliminations | Total |
|---|-------------------|-------------------|-------------------|-------------------|-------------------|--------------------------|-----------------------------|-------------------|
| NCI percentage | 5,96% | 12,50% | 26,91% | 11,49% | 13,50% | | | |
| Non-current assets | 15 404 141 | 57 294 407 | 25 118 079 | 14 025 957 | 17 255 258 | | | |
| Current assets | 14 247 280 | 23 185 246 | 37 012 265 | 12 593 608 | 17 909 396 | | | |
| Non-current liabilities | (7 170 811) | (4 362 769) | (10 751 352) | (5 281 267) | (2 632 220) | | | |
| Current liabilities | (3 667 619) | (4 300 253) | (2 723 093) | (1 437 753) | (5 117 297) | | | |
| Net assets | 18 812 991 | 71 816 631 | 48 655 899 | 19 900 545 | 27 415 137 | | | |
| Carrying amount of NCI | 1 121 254 | 8 977 079 | 13 093 302 | 2 286 573 | 3 701 043 | (1 672 462) | (1 255 903) | 26 250 886 |
| Revenue | 12 014 507 | 23 559 860 | 18 155 855 | 8 701 796 | 16 363 382 | | | |
| Profit | 1 610 954 | 7 240 249 | 767 108 | 854 389 | 2 179 498 | | | |
| Other comprehensive income | (75 882) | (124 689) | (155 554) | (60 254) | (22 512) | | | |
| Total comprehensive income | 1 535 072 | 7 115 560 | 611 554 | 794 135 | 2 156 968 | | | |
| Profit/(loss) allocated to NCI | 96 013 | 905 031 | 206 429 | 98 169 | 294 232 | 664 326 | (1 398 056) | 866 144 |
| Other comprehensive loss allocated to NCI | (4 523) | (15 586) | (41 860) | (6 923) | (3 039) | (29 001) | - | (100 932) |
| Cash flows from operating activities | 1 043 341 | 2 863 619 | 2 322 957 | 2 024 745 | 4 482 334 | | | |
| Cash flows used in investment activities | (4 154 495) | (1 594 152) | (358 357) | (1 979 614) | (4 667 838) | | | |
| Cash flows from/(used in) financing activities | 3 088 203 | (1 068 232) | 256 465 | 39 218 | (125 239) | | | |
| Effect of exchange rate fluctuations on cash and cash equivalents | (2) | (41 812) | (80 723) | (24 965) | (36 089) | | | |
| Net (decrease)/increase in cash and cash equivalents | (22 953) | 159 423 | 2 140 342 | 59 384 | (346 832) | | | |

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31 December 2018

| | JSC “SKhK” | JSC “UEKhK” | PJSC “MSZ” Restated* | PJSC “NZKhK” Restated* | Other group companies | Intra-group eliminations | Total |
|---|-------------------|-------------------|-------------------------|---------------------------|--------------------------|-----------------------------|-------------------|
| NCI percentage | 5,96% | 12,50% | 26,46% | 11,49% | | | |
| Non-current assets | 14 114 095 | 55 683 348 | 19 273 732 | 13 256 843 | | | |
| Current assets | 12 327 538 | 17 148 194 | 37 313 009 | 11 426 408 | | | |
| Non-current liabilities | (5 769 633) | (3 318 850) | (7 023 147) | (4 001 509) | | | |
| Current liabilities | (3 468 996) | (4 912 552) | (1 997 122) | (1 679 477) | | | |
| Net assets | 17 203 004 | 64 600 140 | 47 566 472 | 19 002 265 | | | |
| Carrying amount of NCI | 1 025 299 | 8 075 018 | 12 586 088 | 2 183 360 | 1 626 387 | (3 487 503) | 22 008 649 |
| Revenue | 13 837 536 | 22 306 352 | 17 908 869 | 8 003 965 | | | |
| Profit | 2 716 998 | 5 584 872 | 2 786 635 | 15 697 | | | |
| Other comprehensive income | 62 639 | 131 653 | 122 691 | 23 684 | | | |
| Total comprehensive income | 2 779 637 | 5 716 525 | 2 909 326 | 39 381 | | | |
| Profit/(loss) allocated to NCI | 161 933 | 698 109 | 737 344 | 1 804 | 459 781 | (1 876 231) | 182 740 |
| Other comprehensive income allocated to NCI | 3 733 | 16 457 | 32 464 | 2 721 | 27 724 | - | 83 099 |
| Cash flows from operating activities | 895 037 | 11 869 505 | 4 525 616 | 441 692 | | | |
| Cash flows used in investment activities | (6 610 090) | (900 139) | (3 757 546) | (554 098) | | | |
| Cash flows from/(used in) financing activities | 6 429 604 | (11 075 779) | 598 194 | 217 145 | | | |
| Effect of exchange rate fluctuations on cash and cash equivalents | 12 | 64 572 | (1 315) | 26 321 | | | |
| Net increase/(decrease) in cash and cash equivalents | 714 563 | (41 841) | 1 364 949 | 131 060 | | | |

*Restatement relates to change in accounting policy of provision for site restoration and territory rehabilitation. See Notes 3 and 16.

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1 January 2018

| | JSC “SKhK” | JSC “UEKhK” | PJSC “MSZ” Restated* | PJSC “NZKhK” Restated* | Other group companies | Intra-group eliminations | Total |
|---|-------------------|-------------------|-------------------------|---------------------------|--------------------------|-----------------------------|-------------------|
| NCI percentage | 5,20% | 12,50% | 25,55% | 11,49% | | | |
| Non-current assets | 12 871 554 | 53 899 198 | 20 632 227 | 12 362 659 | | | |
| Current assets | 8 493 873 | 24 292 130 | 35 961 912 | 10 803 636 | | | |
| Non-current liabilities | (6 440 109) | (4 335 911) | (8 323 279) | (2 682 781) | | | |
| Current liabilities | (3 294 255) | (5 085 249) | (3 430 949) | (1 738 916) | | | |
| Net assets | 11 631 063 | 68 770 168 | 44 839 911 | 18 744 598 | | | |
| Carrying amount of NCI | 604 815 | 8 596 271 | 11 456 597 | 2 153 754 | 1 548 993 | (1 119 967) | 23 240 463 |
| Revenue | 14 955 741 | 23 880 992 | 21 623 042 | 8 104 578 | | | |
| (Loss)/profit | (656 754) | 4 489 635 | 5 455 207 | (321 408) | | | |
| Other comprehensive income | (59 074) | (3 301) | (163 060) | (11 680) | | | |
| Total comprehensive income | (715 828) | 4 486 334 | 5 292 147 | (333 087) | | | |
| (Loss)/profit allocated to NCI | (34 151) | 561 204 | 1 393 805 | (36 930) | (14 411) | (739 828) | 1 129 689 |
| Other comprehensive income allocated to NCI | (3 072) | (413) | (41 662) | (1 342) | 929 | - | (45 560) |
| Cash flows from operating activities | 235 997 | 7 757 216 | 16 437 | 1 415 712 | | | |
| Cash flows used in investment activities | (3 773 366) | (6 315 901) | (1 112 194) | (1 504 914) | | | |
| Cash flows from/(used in) financing activities | 3 214 794 | (1 429 146) | 559 672 | 37 974 | | | |
| Effect of exchange rate fluctuations on cash and cash equivalents | (39) | (16 165) | (16 641) | 4 748 | | | |
| Net (decrease)/increase in cash and cash equivalents | (322 614) | (3 996) | (552 726) | (46 480) | | | |

*Restatement relates to change in accounting policy of provision for site restoration and territory rehabilitation. See Notes 3 and 16.

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9. Change in non-controlling interests

In 2019, ownership shares in PJSC "MSZ", JSC "VNIINM", JSC "ChMZ" had changed without loss of control due to additional share issues and purchase of shares by minority shareholders. As a result, the book value of non-controlling share increased by 3 562 261 thousand roubles, an effect in retained earnings is 997 746 thousand roubles (decrease).

In 2018, ownership shares in JSC "SKhK", JSC "UEKhK", PJSC "KMZ", PJSC "MSZ", PJSC "NZHK", JSC "VNIINM", JSC "ChMZ", JSC "Tvel-Stroy" had changed without loss of control due to additional share issues and purchase of shares by minority shareholders. As a result, the book value of non-controlling share increased by 1 031 266 thousand roubles, an effect in retained earnings is 325 936 thousand roubles (increase).

10. Investments in equity accounted investees

| Name | Country of incorporation | Ownership on 31 December 2019 | Ownership on 31 December 2018 |
|-------------------------------------|--------------------------|-------------------------------|-------------------------------|
| JSC "Uranium Enrichment Centre" | Russia | 50% | 50% |
| JSC "Nuclear fuel production plant" | Ukraine | 50% | 50% |
| LLC "MK ChMZ" | Russia | 49% | 49% |
| JSC "United Heat Power Company" | Russia | 33% | 52% |

In 2019, OTEK carried out an additional share issue, which was fully repurchased by another investor. As a result, the share of TVEL in this company decreased from 52% to 33%.

The change of the carrying amount of the Group investments in associates and jointly controlled entities is listed below:

| Name | Carrying value of investments as at 1 January 2019 | Acquisition/ (disposal) | Share of profit/(loss) | Income from dilution of share* | Carrying value of investments as at 31 December 2019 |
|-------------------------------------|--|-------------------------|------------------------|--------------------------------|--|
| Jointly controlled entities | | | | | |
| JSC "Uranium Enrichment Centre" | 2 077 710 | - | 1 205 457 | - | 3 283 167 |
| | 2 077 710 | - | 1 205 457 | - | 3 283 167 |
| Associates | | | | | |
| JSC "Nuclear fuel production plant" | 261 389 | - | (440) | - | 260 949 |
| LLC "MK ChMZ" | 146 048 | - | 582 | - | 146 630 |
| JSC "United Heat Power Company" | 2 321 264 | - | 28 615 | 1 055 207 | 3 405 086 |
| Others | 46 702 | 10 000 | 486 | - | 57 188 |
| | 2 775 403 | 10 000 | 29 243 | 1 055 207 | 3 869 853 |
| | 4 853 113 | 10 000 | 1 234 700 | 1 055 207 | 7 153 020 |

| Name | Carrying value of investments as at 1 January 2018 | Acquisition/ (disposal) | Share of profit/(loss) | Carrying value of investments as at 31 December 2018 |
|-------------------------------------|--|-------------------------|------------------------|--|
| Jointly controlled entities | | | | |
| JSC "Uranium Enrichment Centre" | 3 003 014 | - | (925 304) | 2 077 710 |
| LLL "Inter Smart" | 1 270 | (1 270) | - | - |
| | 3 004 284 | (1 270) | (925 304) | 2 077 710 |
| Associates | | | | |
| JSC "Nuclear fuel production plant" | 262 429 | - | (1 040) | 261 389 |
| LLC "MK ChMZ" | 145 022 | - | 1 026 | 146 048 |
| JSC "United Heat Power Company" | 2 635 465 | - | (314 201) | 2 321 264 |
| Others | 53 706 | (1 621) | (5 383) | 46 702 |
| | 3 096 622 | (1 621) | (319 598) | 2 775 403 |
| | 6 100 906 | (2 891) | (1 244 902) | 4 853 113 |

*Dilution is recorded in equity.

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JSC “Uranium Enrichment Centre” is a joint Russian-Kazakh enterprise. Company’s business relates to handling of nuclear materials and radioactive substances during their transportation and storage through performing works and providing services to the operating company on the territory of the Russian Federation.

JSC “Uranium Enrichment Centre” is a separate entity in the net assets of which JSC “TVEL” has 50% share. In accordance with shareholder Agreement of JSC “Uranium Enrichment Center”, the Group and the other investor of this JV can’t make decisions in relation to JSC “Uranium Enrichment Center” unilaterally. Thus, JSC “TVEL” classified its share in JSC “Uranium Enrichment Center” as an equity accounted investment in the joint venture.

The table below summarizes the financial information of JSC “Uranium Enrichment Center”. In addition, the table provides a reconciliation of the consolidated financial information of JSC “Uranium Enrichment Center” with the book value of share of JSC “TVEL” in this entity.

| | 2019 | 2018 |
|--|--------------|--------------|
| Share of participation | 50% | 50% |
| Non-current assets at the end of the period, thousand roubles | 22 844 695 | 21 587 677 |
| Current assets at the end of the period, thousand roubles | 2 219 197 | 1 533 500 |
| Non-current liabilities at the end of the period, thousand roubles | (12 333 918) | (15 849 729) |
| Current liabilities at the end of the period, thousand roubles | (6 163 640) | (3 116 028) |
| Net assets at the end of the period (100%), thousand roubles | 6 566 334 | 4 155 420 |
| Share of JSC “TVEL” in net assets (50%) at the end of the period, thousand roubles | 3 283 167 | 2 077 710 |
| Revenue, thousand roubles | 188 260 | 620 019 |
| Interest expense and exchange differences, thousand roubles | (819 266) | (3 954 094) |
| Income tax expense, thousand roubles | (463 227) | 544 905 |
| Profit and total comprehensive income (100%), thousand roubles | 2 410 914 | (1 850 608) |
| Share of JSC “TVEL” in profit and total comprehensive income (50%), thousand roubles | 1 205 457 | (925 304) |

JSC “United Heat Power Company” is a division of the State Corporation “Rosatom”, which controls assets of non-nuclear power and utilities complex. The Group accounted for its investment in JSC “United Heat Power Company” as equity accounted investment due to absence of control over this company.

The table below summarizes the financial information of JSC “United Heat Power Company”. In addition, the table provides a reconciliation of the consolidated financial information of JSC “United Heat Power Company” with the book value of share of JSC “TVEL” in this entity.

| | 2019 | 2018 |
|---|-------------|-------------|
| Share of participation | 33,48% | 51,84% |
| Non-current assets at the end of the period, thousand roubles | 7 993 644 | 4 961 022 |
| Current assets at the end of the period, thousand roubles | 3 834 761 | 4 113 524 |
| Non-current liabilities at the end of the period, thousand roubles | (6 351) | (132) |
| Current liabilities at the end of the period, thousand roubles | (1 651 545) | (4 596 667) |
| Net assets at the end of the period (100%), thousand roubles | 10 170 509 | 4 477 747 |
| Share of JSC “TVEL” in net assets (50%) at the end of the period | 3 405 086 | 2 321 264 |
| Revenue, thousand roubles | 11 719 019 | 10 810 652 |
| Interest expense, thousand roubles | (71 738) | (217 879) |
| Income tax expense, thousand roubles | (64 038) | - |
| Profit and total comprehensive income (100%), thousand roubles | 67 072 | (606 097) |
| Share of JSC “TVEL” in profit and total comprehensive income (33,48%), thousand roubles | 28 615 | (314 201) |

11. Revenue

| | 2019 | 2018 |
|---|--------------------|--------------------|
| Revenue from nuclear fuel sales | 109 890 257 | 101 491 408 |
| Revenue from other uranium-containing goods | 42 989 656 | 17 230 196 |
| Revenue from conversion and enrichment services | 17 789 342 | 22 501 822 |
| Revenue from sales of other goods | 16 194 311 | 13 098 626 |
| Revenue from other activities | 7 340 775 | 6 245 649 |
| Revenue from sales of produced electricity, heat and power | 477 006 | 1 347 695 |
| Revenue from sales of research and development | 3 125 731 | 4 241 121 |
| Revenue from sales of special technological equipment | 710 053 | 582 775 |
| Total revenue from contracts with customers | 198 517 131 | 166 739 292 |
| Revenue from goods and services transferred to customers at point in time | 180 727 789 | 144 237 470 |
| Revenue from goods and services transferred over time | 17 789 342 | 22 501 822 |
| Total revenue from contracts with customers | 198 517 131 | 166 739 292 |
| Revenue from contracts with foreign customers | 52 882 119 | 54 336 922 |
| Revenue from contracts with domestic customers | 145 635 012 | 112 402 370 |
| Total revenue from contracts with customers | 198 517 131 | 166 739 292 |

Revenue from sales of other uranium-containing goods comprises proceeds mainly from sales of enriched uranium hexafluoride (HFC) of brand N, absorbing rods of the protection control system (PS CPS), isotopes, metallic uranium, other nuclear materials and products under government contracts.

Revenue from sales of other goods and revenue from other activities comprise proceeds mainly from sales of products and services (works) of processing and non-core activities (lithium metal, calcium, zirconium and products from these metals, pipes and pipelines, calcium injection wire, household devices, chemical products, catalyzators), transport and construction and installation services and also proceeds under government contracts.

The Group has determined that as far as conversion and enrichment services are concerned the customer controls all of the work in-progress as the products are being manufactured. This is because the enrichment services are performed to a customer's specification and if a contract is terminated by the customer, then the Group is entitled to reimbursement of the costs incurred to date, including a reasonable margin. Each contract contains a single performance obligation and determines the price of such obligation. Revenue is recognised over time based on stage of completion method. Invoices are issued according to contractual terms and are usually payable within 30 days. Uninvoiced amounts are presented as contract assets.

All other types of revenue are related to the sale of goods. Customer obtains control over the goods in accordance with the terms of the contract, when the goods are delivered to and have been accepted at the customers' premises. Invoices are generated at that point in time and revenue is recognised. Invoices are usually payable within 30 days. Contracts are concluded for the supply of specified goods and the price is stipulated for each type of the product supplied, each contract contains a single performance obligation.

In 2019 there was a change of work scheme between the companies of the Group and JSC "Tenex". Prior to 2019 the Group provided JSC "Tenex" with services of enrichment of tolling raw materials (these materials were not recorded on the Group's assets). In current reporting period the Group started to purchase raw materials from JSC "Tenex" and to sell back uranium-containing goods. These purchases and sales are not interdependent and occur under different contracts. As part of purchase agreements, ownership of raw materials is transferred to the Group.

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Total expected revenue from long-term contracts with customers as at 31 December 2019 is presented below.

The Group expects to recognize revenue in the following periods:

| Time intervals, years | Denominated in | | |
|------------------------------|-----------------------|-------------------|-------------------|
| | RUB | USD | Euro |
| 31 December 2019 | | | |
| 2020 | 4 056 654 | - | 204 102 |
| 2021-2024 | 8 700 048 | 33 831 524 | 1 439 178 |
| From 2025 onwards | 644 771 | - | 30 994 658 |
| | 13 401 473 | 33 831 524 | 32 637 938 |
| 31 December 2018 | | | |
| 2019 | 6 961 168 | 12 632 | 9 423 |
| 2020-2023 | 10 840 116 | 20 533 140 | 492 435 |
| From 2024 onwards | 2 561 358 | 13 298 385 | 32 145 503 |
| | 20 362 642 | 33 844 157 | 32 647 361 |

Revenue for 2019 includes contract liabilities in the amount of 4 742 488 thousand roubles, which were recognised within “Advances received” line item in Note 31 (in 2018: 9 494 438 thousand roubles).

12. Income and expenses**(a) Other operating income**

| | 2019 | 2018 |
|---|------------------|------------------|
| Grants and financial aid | 1 616 679 | 1 642 682 |
| Gain on disposal of property, plant and equipment | 949 987 | - |
| Reversal of impairment losses on inventories | 924 936 | 329 798 |
| Rent income | 442 737 | 319 071 |
| Income from forfeits and damages received | 217 561 | 312 237 |
| Gain on disposal of intangible assets | 208 614 | - |
| Inventory surplus identified during stocktake | - | 104 022 |
| Changes in estimated allowance for expected credit losses | 609 810 | 522 977 |
| Other operating income | 719 987 | 1 039 742 |
| | 5 690 311 | 4 270 529 |

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(b) Other operating expenses

| | 2019 | 2018 Restated* |
|--|---------------------|---------------------------------|
| Transfer of funds to ensure safety of nuclear production | (7 570 188) | (7 042 261) |
| Other services provided by third parties | (3 699 080) | (2 743 049) |
| Other expenses financed by subsidies | (2 014 622) | (157 575) |
| Software expenses | (1 370 690) | (1 636 460) |
| Loss on disposal of other assets | (965 390) | (820 240) |
| Selling expense | (851 561) | (587 004) |
| Security services | (691 987) | (654 226) |
| Loss from disposal of property, plant and equipment (other than exploration and evaluation assets) | (623 050) | (327 534) |
| Management costs | (515 617) | (229 620) |
| Business trip expenses | (509 258) | (430 943) |
| Losses from changes in estimates of provision for asset retirement obligation | (508 393) | (427 664) |
| Rent expenses | (502 129) | (953 981) |
| Social and cultural sphere expenses | (398 737) | (437 505) |
| Maintenance of objects on conservation | (381 133) | (493 923) |
| Communication services expenses | (294 483) | (291 067) |
| Consulting and other professional services expenses | (285 039) | (238 311) |
| Profits and losses of previous years | (264 654) | (211 313) |
| Charity and financial aid expenses | (257 621) | (236 552) |
| Utilities | (249 903) | (194 671) |
| Environmental expenses | (222 364) | (365 918) |
| License costs | (143 573) | (454 398) |
| Non-refundable VAT | (123 560) | (63 159) |
| Loss on impairment of property, plant and equipment | - | (2 450 488) |
| Other operating expenses | (1 542 946) | (885 154) |
| | (23 985 978) | (22 333 017) |

(c) Net finance income

| | Note | 2019 | 2018 |
|---|-------------|--------------------|--------------------|
| Interest income | | 8 160 653 | 7 672 228 |
| Gain on discounting long-term receivables | | 85 953 | 14 909 |
| Foreign exchange gain | | - | 2 597 268 |
| Other finance income | | 4 131 | 374 737 |
| Total finance income | | 8 250 737 | 10 659 142 |
| Loss from revaluation of investments at fair value through profit or loss | | (2 426 068) | (1 112 434) |
| Unwinding of discount on asset retirement obligation | 27 | (1 700 722) | (1 723 107) |
| Foreign exchange loss | | (1 652 606) | - |
| Interest expenses on retirement benefit plans | | (360 105) | (372 075) |
| Interest expenses on lease and borrowed funds | | (245 841) | (1 007 434) |
| Loss on disposal of investments | | (46 179) | (564 025) |
| Other finance costs | | (282 898) | (15 461) |
| Total finance costs | | (6 714 419) | (4 794 536) |
| Net finance income | | 1 536 318 | 5 864 606 |

*Restatement relates to change in accounting policy of provision for site restoration and territory rehabilitation. See Notes 3 and 16.

13. Employee benefits

Pension and other long-term employee benefit plans are provided by the Group.

Group's program on other long-term employee benefits and retirement benefit plans includes defined benefit retirement plan. Retirement benefit plans include life-long monthly retirement payments or lump-sum retirement payments or both of them.

The Group provides other long-term benefits, including compensation for death caused by discharging professional duties, compensations paid in case of pensioner's death and disability benefits under the defined benefit plan.

All retirement benefit plans are unfunded. The plans described above include payment of retirement benefits. The retirement benefits are accrued if an employee complies with the criteria for retirement benefit accrual stated by law.

A significant number of employees are eligible for early retirement under pension law and early retirement pension accrual order.

(a) Defined benefit obligations recognized in the consolidated statement of financial position

The amount of defined obligations recognized in the consolidated statement of financial position is disclosed below:

| | 31 December 2019 | 31 December 2018 |
|---|---------------------|---------------------|
| Obligations for post-employment defined benefit plans | 4 963 247 | 4 247 221 |
| | 4 963 247 | 4 247 221 |

(b) Movement in discounted value of defined benefit obligations

| | Obligations for post-employment defined benefit plans | |
|---|--|------------------|
| | 2019 | 2018 |
| Balance at 1 January | 4 247 221 | 5 032 137 |
| Included in profit or loss | | |
| Current service cost | 19 889 | 28 447 |
| Past service cost | 5 642 | (39 723) |
| Net interest cost | 360 105 | 372 075 |
| Included in OCI | | |
| Remeasurement (gain)/loss: | | |
| Actuarial gain - experience adjustment | (215 012) | (283 528) |
| Actuarial loss - change in demographic assumptions | 142 522 | 20 903 |
| Actuarial loss/(gain) – change in financial assumptions | 728 970 | (518 880) |
| Other | | |
| Defined benefits paid | (326 090) | (364 210) |
| Balance at 31 December | 4 963 247 | 4 247 221 |

(c) Defined benefit obligations

Change in remeasurement of obligations included in OCI for the period:

| | 2019 | 2018 |
|-------------------------------------|--------------------|--------------------|
| Remeasurement at 1 January | (2 638 165) | (1 856 660) |
| Change in remeasurement | 656 480 | (781 505) |
| Remeasurement at 31 December | (1 981 685) | (2 638 165) |

(d) The principal actuarial assumptions at the reporting date (expressed as weighted averages) are disclosed below:

| | 2019 | 2018 |
|---------------------------------------|---|-------------|
| <i>Financial assumptions</i> | | |
| Discount rate | 6,50% | 8,80% |
| Future salary growth | 6,00% | 6,10% |
| Inflationary rate | 3,90% | 4,00% |
| Social contribution rate | 27,00% | 27,00% |
| <i>Demographic assumptions</i> | | |
| Expected retirement age | Individual expected retirement ages | |
| Staff turnover | Probability distribution depending on age | |
| Mortality | Table of mortality in Russia (2017), adjusted by 30% for employees and 90% for pensioners | |

(e) Sensitivity analysis

Reasonably possible changes at the reporting date to one of the relevant c, holding other assumptions constant, would have affected the defined benefit obligation by the amounts shown below.

| 31 December 2019 | Defined benefit obligations | |
|----------------------------------|------------------------------------|-----------------|
| | Increase | Decrease |
| Discount rate (1 pp) | (381 937) | 451 325 |
| Future wages increase (1 pp) | 247 | (247) |
| Inflation (1 pp) | 458 828 | (394 242) |
| Future mortality adjusted by 10% | (166 927) | 186 725 |

Although the analysis does not take account of the full distribution of cash flows expected under the plan, it does provide an approximation of the sensitivity of the assumptions shown.

The weighted average duration of the defined benefit obligation is approximately 12 years.

The risks associated with pension and other long-term employee benefit programs reflect the actual development of the situation may differ from the long-term assumptions used in the calculation of pension obligations. Particularly, risk associated with financial losses due to adverse changes in interest rates and risk associated with fees and wages will grow at a rate higher than expected.

14. Personnel costs

| | 2019 | 2018 |
|---|-------------------|-------------------|
| Wages and salaries | 23 197 908 | 23 687 601 |
| Social security contributions and contributions to State pension fund | 6 546 025 | 6 394 267 |
| Income related to defined benefit pension plans | 25 531 | (11 276) |
| | 29 769 464 | 30 070 592 |

15. Income tax expense**(a) Amounts recognised in profit or loss**

The Group's applicable tax rate is the income tax rate of 20% for Russian companies.

| | 2019 | 2018 |
|---|---------------------|---------------------|
| <i>Current tax expense</i> | | |
| Current year | (12 123 451) | (11 587 061) |
| Adjustment for prior years | 134 522 | 59 087 |
| | (11 988 929) | (11 527 974) |
| <i>Deferred income tax expense</i> | | |
| Origination and reversal of temporary differences | 751 794 | 240 075 |
| | (11 237 135) | (11 287 899) |

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(b) Tax recognized in other comprehensive income

| | 2019 | | | 2018 | | |
|---|------------------|----------------|------------------|----------------|------------------|----------------|
| | Before tax | Tax | Net of tax | Before tax | Tax | Net of tax |
| Actuarial gains and losses from defined benefit pension plans | (656 480) | 131 296 | (525 184) | 781 505 | (156 301) | 625 204 |
| | (656 480) | 131 296 | (525 184) | 781 505 | (156 301) | 625 204 |

Reconciliation of effective tax rate:

| | 2019 | | 2018 | |
|---|---------------------|-------------|---------------------|-------------|
| | | % | Restated* | % |
| Profit before income tax | 58 918 707 | 100 | 55 459 603 | 100 |
| Income tax expense at applicable tax rate | (11 783 741) | (20) | (11 091 921) | (20) |
| Non-deductible expense | (699 129) | (1) | (979 505) | (2) |
| Adjustment of income tax CGT | 1 111 213 | 2 | 724 440 | 1 |
| Current tax adjustments in respect of prior periods | 134 522 | 0 | 59 087 | - |
| Current income tax | (11 237 135) | (19) | (11 287 899) | (21) |

* Restatement relates to change in accounting policy of provision for site restoration and territory rehabilitation. See Notes 3 and 16.

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(c) Recognized deferred tax assets and liabilities

Tax effects of temporary differences that give rise to deferred tax assets and liabilities as at 31 December 2019 and 31 December 2018 were as follows:

| | Assets | | Liabilities | | Net amount | |
|--|-------------------|-------------------|--------------------|-----------------|-------------------|-------------------|
| | 2019 | 2018 | 2019 | 2018 | 2019 | 2018 |
| Property, plant and equipment | 5 536 027 | 5 964 911 | (1 943 777) | (963 465) | 3 592 250 | 5 001 446 |
| Intangible assets | 6 170 | 317 965 | (148 291) | (44 043) | (142 121) | 273 922 |
| Other investments | 12 692 | 69 490 | (134 747) | (84 126) | (122 055) | (14 636) |
| Inventories | 3 206 219 | 2 077 078 | (617 037) | (419 399) | 2 589 182 | 1 657 679 |
| Trade and other receivables | 582 237 | 485 168 | - | (34) | 582 237 | 485 134 |
| Loans and borrowings | 3 087 | 154 | - | - | 3 087 | 154 |
| Provisions | 5 756 814 | 3 850 541 | (1 466) | (31 966) | 5 755 348 | 3 818 575 |
| Other | 388 255 | 405 514 | (796 170) | (747 478) | (407 915) | (341 964) |
| Trade and other payables and financial lease liabilities | 2 575 380 | 2 605 639 | - | - | 2 575 380 | 2 605 639 |
| Tax loss carry-forwards | - | 60 965 | - | - | - | 60 965 |
| Tax assets / (liabilities) | 18 066 881 | 15 837 425 | (3 641 488) | (2 290 511) | 14 425 393 | 13 546 914 |
| Tax offset | (3 389 339) | (2 243 881) | 3 389 339 | 2 243 881 | - | - |
| Net tax assets / (liabilities) | 14 677 542 | 13 593 544 | (252 149) | (46 630) | 14 425 393 | 13 546 914 |

(d) Unrecognized deferred tax liabilities

As at 31 December 2019 the Group had unrecognized deferred tax liability amounted to 34 569 863 thousand roubles. (2018: 33 988 076 thousand roubles) for temporary differences related to investments in subsidiaries and the joint venture. However, this liability was not recognised because the Group controls the dividend policy of its subsidiaries and is able to veto the payment of dividends of its joint venture – i.e. the Group controls the timing of reversal of the related taxable temporary differences and management is satisfied that they will not reverse in the foreseeable future.

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(e) Movement in deferred tax balances

| | 1 January 2019 | Recognised in profit or loss | Recognised in other comprehensive income | Disposed of | 31 December 2019 |
|-------------------------------|---------------------------|---|---|--------------------|-----------------------------|
| Property, plant and equipment | 5 001 446 | (1 409 196) | - | - | 3 592 250 |
| Intangible assets | 273 922 | (416 043) | - | - | (142 121) |
| Other investments | (14 636) | (107 419) | - | - | (122 055) |
| Inventories | 1 657 679 | 931 503 | - | - | 2 589 182 |
| Trade and other receivables | 485 134 | 97 103 | - | - | 582 237 |
| Loans and borrowings | 154 | 2 933 | - | - | 3 087 |
| Provisions | 3 818 575 | 1 936 773 | - | - | 5 755 348 |
| Other items | (341 964) | (61 340) | - | (4 611) | (407 915) |
| Trade and other payables | 2 605 639 | (161 555) | 131 296 | - | 2 575 380 |
| Tax loss carry-forwards | 60 965 | (60 965) | - | - | - |
| | 13 546 914 | 751 794 | 131 296 | (4 611) | 14 425 393 |

| | 1 January 2018 | Recognised in profit or loss | Recognised in other comprehensive income | Disposed of | 31 December 2018 |
|-------------------------------|---------------------------|---|---|--------------------|-----------------------------|
| Property, plant and equipment | 3 069 386 | 1 932 060 | - | - | 5 001 446 |
| Intangible assets | (45 049) | 318 971 | - | - | 273 922 |
| Other investments | 333 227 | (347 863) | - | - | (14 636) |
| Inventories | 2 053 041 | (395 362) | - | - | 1 657 679 |
| Trade and other receivables | 689 730 | (204 596) | - | - | 485 134 |
| Loans and borrowings | - | 154 | - | - | 154 |
| Provisions | 4 401 306 | (582 731) | - | - | 3 818 575 |
| Other items | (257 533) | (240 947) | - | 156 516 | (341 964) |
| Trade and other payables | 3 055 218 | (293 278) | (156 301) | - | 2 605 639 |
| Tax loss carry-forwards | 7 298 | 53 667 | - | - | 60 965 |
| | 13 306 624 | 240 075 | (156 301) | 156 516 | 13 546 914 |

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Notes to the Consolidated Financial Statements for the year ended 31 December 2019

(in thousands of Russian Roubles)

16. Property, plant and equipment

| | Land | Buildings Restated* | Machinery and equipment | Installations and transmission devices | Transport vehicles | Other | Construction- in-progress | Total |
|---|------------------|------------------------|----------------------------|--|-----------------------|-------------------|------------------------------|--------------------|
| <i>Cost or deemed cost</i> | | | | | | | | |
| Balance at 1 January 2018 | 958 472 | 52 623 828 | 169 142 784 | 16 375 975 | 2 722 478 | 10 343 611 | 23 553 531 | 275 720 679 |
| Additions | 1 859 | 891 063 | 11 004 041 | 2 053 977 | 67 952 | 465 373 | 10 288 347 | 24 772 612 |
| Disposals | (5 132) | (1 137 173) | (3 015 071) | (551 964) | (258 041) | (260 081) | (3 666 787) | (8 894 249) |
| Transfers | - | 1 051 323 | 3 030 451 | 331 930 | - | 64 728 | (4 478 432) | - |
| Reclassification | - | 5 371 | (21 630) | (223 330) | 10 785 | 228 804 | - | - |
| Net change in asset retirement obligation | - | (1 863 885) | (2 547 548) | (377 067) | - | - | - | (4 788 500) |
| Balance at 31 December 2018 | 955 199 | 51 570 527 | 177 593 027 | 17 609 521 | 2 543 174 | 10 842 435 | 25 696 659 | 286 810 542 |
| Balance at 1 January 2019 | 955 199 | 51 570 527 | 177 593 027 | 17 609 521 | 2 543 174 | 10 842 435 | 25 696 659 | 286 810 542 |
| Effect of reflection of right-of- use assets in accordance with IFRS 16 | 165 685 | 47 222 | 39 020 | - | 3 488 | - | - | 255 415 |
| Balance at 1 January 2019 (including right-of-use assets) | 1 120 884 | 51 617 749 | 177 632 047 | 17 609 521 | 2 546 662 | 10 842 435 | 25 696 659 | 287 065 957 |
| Additions | 262 007 | 3 240 | 13 507 814 | 482 575 | 109 579 | 724 391 | 4 560 756 | 19 650 362 |
| Disposals | (17 146) | (445 537) | (2 279 640) | (93 842) | (141 153) | (167 258) | (727 566) | (3 872 142) |
| Transfers | - | 1 208 350 | 3 681 785 | 1 286 586 | 1 440 | 59 599 | (6 237 760) | - |
| Reclassification | - | - | - | (8 947) | - | 11 791 | (2 844) | - |
| Net change in asset retirement obligation | - | 4 826 665 | 3 349 400 | 532 916 | - | - | - | 8 708 981 |
| Balance at 31 December 2019 | 1 365 745 | 57 210 467 | 195 891 406 | 19 808 809 | 2 516 528 | 11 470 958 | 23 289 245 | 311 553 158 |

*Restatement relates to change in accounting policy of provision for site restoration and territory rehabilitation. See Notes 3 and 16.

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Notes to the Consolidated Financial Statements for the year ended 31 December 2019

(in thousands of Russian Roubles)

| | Land | Buildings Restated* | Machinery and equipment | Installations and transmission devices | Transport vehicles | Other | Construction-in- progress | Total |
|--|------------------|------------------------|----------------------------|--|-----------------------|--------------------|------------------------------|----------------------|
| <i>Depreciation and impairment losses</i> | | | | | | | | |
| Balance at 1 January 2018 | (66) | (22 885 980) | (93 654 593) | (11 277 347) | (2 102 935) | (7 038 986) | (274 980) | (137 234 887) |
| Depreciation for the year | - | (1 631 712) | (10 063 647) | (1 226 916) | (166 811) | (683 960) | - | (13 773 046) |
| Impairment losses | - | 292 627 | (939 038) | (14 927) | 104 109 | 14 467 | 215 228 | (327 534) |
| Reclassification | - | (2 408) | 5 629 | 165 941 | (903) | (168 259) | - | - |
| Disposals | - | 500 198 | 1 280 109 | 517 993 | 218 475 | 203 008 | - | 2 719 783 |
| Balance at 31 December 2018 | (66) | (23 727 275) | (103 371 540) | (11 835 256) | (1 948 065) | (7 673 730) | (59 752) | (148 615 684) |
| Balance at 1 January 2019 | (66) | (23 727 275) | (103 371 540) | (11 835 256) | (1 948 065) | (7 673 730) | (59 752) | (148 615 684) |
| Depreciation for the year | - | (1 282 505) | (11 701 003) | (893 901) | (104 878) | (657 637) | - | (14 639 924) |
| Impairment losses | - | (385 006) | 253 031 | (468 764) | 8 756 | (25 106) | (5 961) | (623 050) |
| Reclassification | - | - | - | 261 | - | (261) | - | - |
| Disposals | 66 | 282 167 | 1 693 242 | 86 999 | 129 500 | 149 922 | - | 2 341 896 |
| Balance at 31 December 2019 | - | (25 112 619) | (113 126 270) | (13 110 661) | (1 914 687) | (8 206 812) | (65 713) | (161 536 762) |
| <i>Net carrying amount</i> | | | | | | | | |
| At 1 January 2018 | 958 406 | 29 737 848 | 75 488 191 | 5 098 628 | 619 543 | 3 304 625 | 23 278 551 | 138 485 792 |
| At 31 December 2018 | 955 133 | 27 843 252 | 74 221 487 | 5 774 265 | 595 109 | 3 168 705 | 25 636 907 | 138 194 858 |
| At 31 December 2019 | 1 365 745 | 32 097 848 | 82 765 136 | 6 698 148 | 601 841 | 3 264 146 | 23 223 532 | 150 016 396 |

*Restatement relates to change in accounting policy of provision for site restoration and territory rehabilitation. See Notes 3 and 16.

JSC "TVEL"**Notes to the Consolidated Financial Statements for the year ended 31 December 2019**

(in thousands of Russian Roubles)

During the year ended 31 December 2019 the Group capitalised borrowing costs related to the acquisition and construction of qualifying assets in the amount of 679 748 thousand roubles.

In 2019 depreciation in the amount of 14 169 710 thousand roubles was included in expenses and depreciation in the amount of 470 214 thousand roubles was capitalized.

In 2018 depreciation in the amount of 12 778 261 thousand roubles was included in expenses and depreciation in the amount of 994 785 thousand roubles was capitalized.

(a) Security

As at 31 December 2019 there were no properties pledged as collateral for bank loans as well as at 31 December 2018.

(b) Loss on impairment

Loss on fixed assets impairment as at 31 December 2018 in the amount of 7 151 085 thousand roubles is represented by book value of fixed assets under full or partial conservation (7 249 191 thousand roubles as at 31 December 2018). Conservation of fixed assets is caused by the fact that the Group does not have any plans to use fixed assets or due to obsolescence or unviability of further use of fixed assets and absence of plans for reconstruction, modernization or liquidation of fixed assets.

(c) Right-of-use assets

Right-of-use assets are presented as a part of property, plant and equipment.

| | Land | Buildings | Machinery and equipment | Installations and transmission devices | Other | Total |
|--------------------------------------|----------------|------------------|--|---|--------------|------------------|
| Balance at 1 Jan. 2019 | 164 151 | 10 578 | 8 034 845 | 3 477 | | 8 213 052 |
| Depreciation for the period | - | (74 476) | (1 026 543) | (2 763) | (27) | (1 103 809) |
| Additions to right-of-use assets | 263 894 | 14 551 | 16 092 | 2 404 | 762 | 297 703 |
| Derecognition of right-of-use assets | (353) | (1 971) | (132) | (832) | - | (3 288) |
| Balance at 31 December 2019 | 427 692 | (51 318) | 7 024 262 | 2 286 | 735 | 7 403 658 |

17. Intangible assets

| | Patents, licenses and other intangible assets | Development expenses | Total |
|------------------------------------|--|---------------------------------|--------------------|
| <i>Cost</i> | | | |
| Balance at 1 January 2018 | 4 021 537 | 3 518 367 | 7 539 904 |
| Additions | 1 226 282 | 412 856 | 1 639 138 |
| Disposals | (669 895) | (164 546) | (834 441) |
| Balance at 31 December 2018 | 4 577 924 | 3 766 677 | 8 344 601 |
| Additions | 1 118 570 | 1 872 633 | 2 991 203 |
| Disposals | (739 099) | (134 862) | (873 961) |
| Balance at 31 December 2019 | 4 957 395 | 5 504 448 | 10 461 843 |
| <i>Amortization</i> | | | |
| Balance at 1 January 2018 | (2 201 335) | (1 041 374) | (3 242 709) |
| Additions | (272 323) | (97 741) | (370 064) |
| Amortization for the year | (445 273) | (88 965) | (534 238) |
| Disposals | 431 640 | 4 242 | 435 882 |
| Balance at 31 December 2018 | (2 487 291) | (1 223 838) | (3 711 129) |
| Amortization for the year | (865 645) | (322 580) | (1 188 225) |
| Disposals | 683 103 | 18 068 | 701 171 |
| Balance at 31 December 2019 | (2 669 833) | (1 528 350) | (4 198 183) |
| <i>Net carrying amounts</i> | | | |
| At 1 January 2018 | 1 820 202 | 2 476 993 | 4 297 195 |
| At 31 December 2018 | 2 090 633 | 2 542 839 | 4 633 472 |
| At 31 December 2019 | 2 287 562 | 3 976 098 | 6 263 660 |

18. Other long-term investments

| | 31 December 2019 | 31 December 2018 |
|--|-----------------------------|-----------------------------|
| Investments at fair value through profit or loss | 8 344 250 | 10 770 318 |
| Loans given valued at amortization cost | 88 292 | 98 441 |
| Other long-term investments | 115 902 | - |
| | 8 548 444 | 10 868 759 |

At 31 December 2019 investments at fair value through profit or loss, include shares of JSC "Atompredmetzoloto" (company under control of SC "Rosatom", its main activity is uranium mining) in amount of 8 344 250 thousand roubles (at 31 December 2018 – 10 770 318 thousand roubles), ownership interest is 14,34% (at 31 December 2018 - 14,34%).

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Notes to the Consolidated Financial Statements for the year ended 31 December 2019

(in thousands of Russian Roubles)

Valuation technique and significant unobservable inputs

In order to assess the fair value of shares of JSC "Atomredmetzoloto" income approach (discounted cash flows method) was used as a primary approach. At the same time, comparative approach was used for reconciliation purposes.

Discounted cash flows method takes into account the amount of revenue for the period from 1 January 2020 and up to depletion of uranium reserves, which the owner plans to earn during the period of assets holding, term of receiving these revenues and risk level related to the revenue flows.

Cash flow forecast on invested capital was made in nominal values in roubles (free cash flow).

Discount for absence of control of 20,2% was applied to the proportional value of shares to determine fair value of the investments.

To determine the fair value the following assumptions regarding forecast prices for uranium and production volumes were used:

- Uranium prices forecast from 2020 to 2055, on the basis of which fair value of investment was determined, was calculated based on the market consensus forecast of analysts;
- Production forecast was based on the data incorporated in the production programs of producing entities.

Expenses that are taken into account at determining fair value of investments are based on the current business plans of the entities and the long-term development program of the SC "Rosatom".

Inflation rate in the Russian Federation in 2019 equalled 4,5% (2018 – 2,9%).

Exchange rate for US dollar as at 31 December 2019 was 61,9057 roubles (exchange rate for US dollar as at 31 December 2018 was 69,4706 roubles).

Tax rate applicable to estimated companies is 20%.

The discount rate (nominal pre-tax rate) used for determination of the fair value equaled to 12,8 % (in 2018 - 13,35%) which was calculated on the basis of capital structure data, cost of equity and cost of debt capital, and taking into account income tax rate.

The effect of changes in assumptions used to calculate fair value of available-for-sale investments in JSC "Atomredmetzoloto" is:

- A 2 pp increase / (decrease) in average discount rate would have (decreased) / increased the amount of fair value of investments as at 31 December 2019 by (1 822 717) thousand roubles / 2 331 183 thousand roubles (as at 31 December 2018 by (1 396 149) thousand roubles / 1 739 349 thousand roubles);
- A 5 pp increase / (decrease) in uranium prices would have increased / (decreased) the amount of fair value of investments as at 31 December 2019 by 1 436 647 thousand roubles / (1 436 699) thousand roubles (as at 31 December 2018 by 949 344 thousand roubles/ (949 977) thousand roubles).

19. Other short-term investments

| | 31 December 2019 | 31 December 2018 |
|--|---------------------|---------------------|
| Loans given at amortization cost | 81 110 698 | 98 477 843 |
| Estimated provision for expected credit losses of loans given at amortization cost | (149 748) | (715 515) |
| | 80 960 950 | 97 762 328 |

Terms of existing loans given were as follows:

| Debtor | Currency | Effective rate % | 31 December 2019 | 31 December 2018 |
|----------------------|----------|---------------------|---------------------|---------------------|
| Employees | RUB | 0%-7,5% | 26 189 | 29 590 |
| JSC "Atomenergoprom" | RUB | 6,32%-7,82% | 80 735 813 | 98 171 295 |
| Other | RUB | 5,95% | 348 696 | 276 958 |
| Total | | | 81 110 698 | 98 477 843 |

20. Bank deposits

| | 31 December 2019 | 31 December 2018 |
|--|---------------------|---------------------|
| Bank deposits with maturity from 3 to 12 month | 17 785 000 | 31 871 |
| Estimated provision for expected credit losses of short-term deposits at amortization cost | (15 042) | - |
| Total bank deposits with maturity from 3 to 12 month | 17 769 958 | 31 871 |
| Bank deposits with maturity from 12 month | 4 000 000 | - |
| Estimated provision for expected credit losses of long-term deposits at amortization cost | (10 289) | - |
| Total bank deposits with maturity from 12 month | 3 989 711 | - |

Terms of existing loans given were as follows:

| Debtor | Currency | Effective rate % | 31 December 2019 | 31 December 2018 | Maturity date |
|---------------------------------|----------|------------------|---------------------|---------------------|------------------|
| JSC "Russian Agricultural Bank" | RUB | 6.30%-8.56% | 17 400 000 | - | 2020 |
| JSC "Russian Agricultural Bank" | RUB | 8,5% | 4 000 000 | - | 2021 |
| PJSC "VTB" | RUB | 6.5%-7.4% | 270 000 | 31 871 | 2020 |
| PJSC "Gazprombank" | RUB | 5.72%-7.3% | 115 000 | - | 2020 |
| Total | | | 21 785 000 | 31 871 | |

21. Inventories

| | 31 December 2019 | 31 December 2018 |
|--|-----------------------------|-----------------------------|
| Raw materials | 8 194 342 | 7 812 979 |
| Fuel | 29 735 | 35 662 |
| Spare parts and auxiliary materials | 1 982 701 | 1 694 392 |
| Other materials | 2 005 800 | 1 861 011 |
| Work in progress - nuclear fuel | 57 629 929 | 45 748 679 |
| Work in progress - other goods for nuclear fuel cycle | 2 447 963 | 2 233 659 |
| Asset relating to enrichment services | 136 982 | 378 631 |
| Work in progress - other uranium containing goods | 2 519 170 | 3 322 672 |
| Work in progress - other | 7 038 747 | 4 961 493 |
| Finished goods - nuclear fuel | 5 027 008 | 678 751 |
| Finished goods - other | 1 504 249 | 2 703 878 |
| Goods for resale | 480 300 | 884 869 |
| Goods shipped | 31 729 | 521 047 |
| Total gross inventory | 89 028 655 | 72 837 723 |
| Allowance for impairment of raw materials | (452 970) | (921 313) |
| Allowance for impairment of fuel | (1 094) | (3 832) |
| Allowance for impairment of spare parts and auxiliary materials | (164 416) | (257 871) |
| Allowance for impairment of other materials | (122 972) | (327 841) |
| Allowance for impairment of work in progress - nuclear fuel | (35 064) | (36 131) |
| Allowance for impairment of work in progress - other | (19 370) | (40 317) |
| Allowance for impairment of finished good - nuclear fuel | - | (42 638) |
| Allowance for impairment of finished good -other | (15 682) | (147 806) |
| Allowance for impairment of goods for resale | - | - |
| Allowance for impairment of work in progress -other goods for nuclear fuel cycle | - | - |
| Total allowance for impairment | (811 568) | (1 777 749) |
| Total net inventory | 88 217 087 | 71 059 974 |

Other finished goods include chemical products, pipe products, spare parts and fittings.

Asset relating to enrichment services was presented within inventory caption as at 31 December 2019 and as at 31 December 2018 reflecting unfinished services under uranium enrichment services contracts.

22. Trade and other receivables

Long-term trade and other receivables:

| | 31 December 2019 | 31 December 2018 |
|---|-----------------------------|-----------------------------|
| Advances given to suppliers | 46 642 | 39 113 |
| Trade receivables | 1 869 111 | 1 185 039 |
| Other receivables | 186 051 | - |
| Total (allowance excluded) | 2 101 804 | 1 224 152 |
| Estimated allowance for expected credit losses of trade receivables | (9 457) | (8 956) |
| Total (allowance included) | 2 092 347 | 1 215 196 |

Short-term trade and other receivables:

| | 31 December 2019 | 31 December 2018 |
|---|-----------------------------|-----------------------------|
| Trade receivables from contracts with customers | 30 908 370 | 30 588 451 |
| Advances given | 1 951 395 | 2 581 640 |
| Other receivables | 8 010 145 | 4 154 748 |
| VAT recoverable | 6 092 529 | 3 720 150 |
| Other taxes receivables | 107 035 | 73 250 |
| Other current assets | 51 452 | 52 775 |
| Total (allowance excluded) | 47 120 926 | 41 171 014 |
| Estimated allowance for expected credit losses of trade receivables | (2 192 536) | (2 259 546) |
| Total (allowance included) | 44 928 390 | 38 911 468 |

Information about the Group's exposure to credit and currency risk, and impairment losses on trade and other receivables is disclosed in Note 32.

23. Cash and cash equivalents

| | 31 December 2019 | 31 December 2018 |
|--|-----------------------------|-----------------------------|
| Petty cash, RUB | 689 | 811 |
| Bank balances, RUB | 7 889 631 | 6 802 835 |
| Bank balances, foreign currency | 11 609 131 | 3 812 235 |
| Short-term deposits, RUB | 2 861 000 | 2 495 547 |
| Short-term deposits, foreign currency | 5 668 049 | 1 155 289 |
| Estimated allowance for expected credit losses of short-term deposits (or call deposits) at amortised cost | - | (2 865) |
| Other cash equivalents, RUB | 14 447 | 324 |
| Cash and cash equivalents in the consolidated statement of cash flows and in the consolidated statement of financial position | 28 042 947 | 14 264 176 |

The Group's exposure to credit, interest rate and currency risks and sensitivity analysis of financial assets and liabilities are disclosed in Note 32.

24. Equity

Share capital

| | Ordinary shares | |
|---|---------------------|---------------------|
| | 31 December 2019 | 31 December 2018 |
| Par value (in RUB) | 1 | 1 |
| Authorized shares at the beginning of the period, (shares) | 22 961 670 | 22 961 670 |
| Authorized shares at the end of the period, fully paid, (shares) | 22 961 671 | 22 961 671 |
| Historic value | 22 962 | 22 962 |
| Hyperinflation effect till 31 December 2002 | 22 229 | 22 229 |
| Carrying value | 45 191 | 45 191 |

Up to 31 December 2002, Russian economy was considered hyperinflationary. Therefore, the carrying value of the ordinary shares (RUB 1,97) differs from the nominal value (RUB 1).

As at 31 December 2019 JSC "Atomenergoprom" is the sole shareholder of the Company.

(a) Dividends

In accordance with Russian legislation the Company's distributable reserves are determined based on the amount of retained earnings, reported in the Company's statutory financial statements prepared in accordance with Russian Accounting Principles.

As at 31 December 2019 retained earnings of the Company, including the profit for the current year, amounted to 237 315 834 thousand roubles (2018: 211 477 320 thousand roubles).

Profit earned in 2019 was used for payment of dividends to JSC "Atomenergoprom" in the amount of 8 994 050 thousand roubles (392 RUB per share) also interim dividends for 2020 were accrued in the amount of 12 000 000 thousand roubles.

Profit earned in 2018 was used for payment of dividends to JSC "Atomenergoprom" in the amount of 25 869 092 thousand roubles (1 127 RUB per share), also interim dividends for 2019 were accrued in the amount of 9 200 000 thousand roubles.

(b) Other reserves

As at 31 December 2019, other reserves included actuarial gains / (losses) on pension plans in the amount of (1 981 685) thousand roubles (as at 31 December 2018: (2 638 165) thousand roubles).

25. Capital management

The Group's capital management is aimed at compliance with the requirements of the Russian legislation on joint stock companies. As at reporting date the Group met the requirements in relation to equity.

The Group doesn't have an official internal document with capital management principles. However, management of the Group is taking steps to maintain the capital at a level sufficient to meet operational and strategic needs of the Group, as well as to maintain market confidence. This is achieved through effective cash management, continuous monitoring of the Group's revenue and profit, and long-term investments planning, that are financed with funds provided by the Group operations. With these measures the Group aims for steady profit growth.

26. Loans and borrowing

Short-term loans and borrowings by type of interest rate and maturity are analysed below:

| Debtor | Currency | Rate % | 31 December 2019 | 31 December 2018 | Maturity date |
|--------------|----------|--------|---------------------|---------------------|------------------|
| SC Rosatom | RUB | fixed | (3 707 813) | - | 2020 |
| Others | RUB | fixed | (567 200) | (121 605) | 2020 |
| Total | | | (4 275 013) | (121 605) | |

27. Non-current provisions

| | Decommis- sioning of property, plant and equipment (DPPE) | Site restoration and territory rehabilitation (TR) | Decommis- sioning of radioactive waste (RAW) | Total |
|---|---|---|---|-------------------|
| Balance at 1 January 2018 | 16 076 984 | 6 227 667 | 196 526 | 22 501 177 |
| Change in estimate (Federal Target Program) | 76 385 | - | - | 76 385 |
| Changes in provision estimates due to changes in inflation forecast | (189 774) | (102 343) | (92) | (292 209) |
| Change in provision estimates due to discount rate fluctuations | (4 018 302) | (1 047 412) | (6 476) | (5 072 190) |
| Unwinding of discount | 1 227 244 | 480 776 | 15 087 | 1 723 107 |
| Provisions used during the year | (181 588) | (141 525) | (604 675) | (927 788) |
| Changes in provision due to appearance of new objects | 8 332 | - | 560 163 | 568 495 |
| Other changes in provision estimates | (955 718) | 1 845 542 | 41 665 | 931 489 |
| Balance at 31 December 2018 | 12 043 563 | 7 262 705 | 202 198 | 19 508 466 |
| Change in estimate (Federal Target Program) | 385 713 | - | - | 385 713 |
| Changes in provision estimates due to changes in inflation forecast | (66 758) | (58 540) | (848) | (126 146) |
| Change in provision estimates due to discount rate fluctuations | 6 305 151 | 1 688 337 | 11 830 | 8 005 318 |
| Unwinding of discount | 1 037 705 | 645 130 | 17 888 | 1 700 723 |
| Provisions used during the year | (17 506) | - | (620 379) | (637 885) |
| Changes in provision due to appearance of new objects | - | - | 551 336 | 551 336 |
| Other changes in provision estimates | 160 247 | 768 413 | 23 828 | 952 488 |
| Balance at 31 December 2019 | 19 848 115 | 10 306 045 | 185 853 | 30 340 013 |

(a) Obligations for nuclear and radiation safety

Group companies and companies whose successors are the companies of the Group has been operating in the Soviet Union and the Russian Federation for many years, this led to the necessity of taking specific measures to ensure nuclear and radiation safety. These measures include site restoration and territory rehabilitation, nuclear waste reprocessing, construction and renovation of existing facilities and retirement of plants.

Provision for decommissioning of radioactive waste (RAW)

In accordance with the Federal Law No. 190-FZ “On management of radioactive waste and on amendment of certain legislative acts of the Russian Federation” (further – Federal Law No. 190-FZ), the Group companies, whose operations implied radioactive wastes formation are financially responsible for all stages of RAW management, including RAW burial and safety maintenance till the moment of RAW transfer for burial to the national operator.

Financial responsibility for RAW management arises in respect of RAW formed after entering into force of the Federal Law No. 190-FZ.

In this regard in these financial statements a provision for decommissioning of radioactive waste is accrued in relation to radioactive waste generated starting from 15 July 2011. Separation in 2011 of RAW generated as a result of Group’s operations after the Federal Law No. 190-FZ came into force was performed based on the data of the state system of recording and control of radioactive materials and radioactive waste.

Since 2013 Group entities make contributions to the Special Reserve Fund of the SC Rosatom for financing RAW burial. For estimating the provision on decommissioning of radioactive waste the following information was used: data on the schemes of engineering and production chains of preparing RAW for burial for each Group entity; data on actual expenses of Group entities on certain works of preparation for RAW burial; data on the cost of certain works of preparation for RAW burial, provided by specialised organizations; and estimated terms of putting burial sites into operation and tariffs on burying.

The discount rate applied for calculating this provision was 6,78% as at 31 December 2019, 8,88% as at 31 December 2018.

Provisions for decommissioning of property, plant and equipment (DPPE), site restoration and territory rehabilitation (TR)

In order to assess the provision for assets retirement obligation, site restoration and territory rehabilitation the following information was used: predicted amounts of the costs across the nuclear industry in the Russian Federation, market data on the cost of certain types of works, as well as past experience gained by the enterprises of SC “Rosatom” in this area. The expected timing of the retirement of property, plant and equipment was also taken into account for calculation of the provision.

The discount rate applied for calculating this provision was 6,78% as at 31 December 2019, 8,88% as at 31 December 2018.

For calculation of the required costs for retirement of property, plant and equipment the Group’s management based their estimates on the characteristics of the life cycles of nuclear facilities, as well as on the provisions of the Federal Law No. 190-FZ, as follows:

- The amount of estimated provision is based on the life cycle of nuclear facilities and calculated proportionally to the total estimated costs only in part relating to the period from the date of the Federal Law No. 190-FZ entering into force to the date of expected commencement of the decommissioning process. Also, the liability includes the amount of the estimated expenses at the expense of the Group's own funds, directed during the period 2020-2030. as funding from extrabudgetary sources for the decommissioning and rehabilitation of territories of certain heritage sites, defined in the federal target program "Ensuring nuclear and radiation safety for 2016-2020 and for the period until 2030" (approved by the Government of the Russian Federation of 19 November 2015 No. 1248, hereinafter - the Federal Program)
- Group management believes it is not highly probable that there will be an outflow of economic benefits to cover the proportionate share of total estimated costs relating to the period before the entering into force of the Federal Law No. 190-FZ. Therefore, estimated costs with regard to this period were not included in the amount of the provision. Except for a possible outflow of the Group's funds allocated in the period 2020-2030 as financing from extrabudgetary sources of measures for decommissioning and rehabilitation of territories of certain heritage sites identified in the Federal Target Program.

(b) Changes in provision estimates

Changes are mainly caused by the adjustment of discount rate and also by changes in tariffs on burial of RAW as well as by correction by the entities of the concepts of nuclear facilities retirement, correction of information on production and engineering chains on RAW treatment, including types of containers used for RAW burial.

The changes in estimates of future cash flows (costs of some works) are presented within "Other changes in provision estimates" in this note.

The amount of provision may be subject to significant changes in future periods due to inherent significant assumptions used for calculation that are disclosed in this note.

The effect of changes in estimates in 2019 amounted to 9 217 373 (provision increase) thousand roubles and was recognised within:

- property, plant and equipment (Note 16) in the amount of 8 708 981 thousand roubles;
- the Consolidated statement of profit and loss within other operating expenses line item in the amount of 508 393 thousand roubles.

The effect of changes in estimates in 2018 amounted to 4 356 525 (provision decrease) thousand roubles and was recognised within:

- property, plant and equipment (Note 16) in the amount of 4 784 189 thousand roubles;
- the consolidated statement of profit or loss and other comprehensive income within other operating expenses in the amount of 427 664 thousand roubles.

(c) Assumptions used in calculation of provisions and sensitivity analysis

The Group used the following key assumptions in the calculation of the provisions:

- Life cycle of items of property, plant and equipment is calculated based on the dates of putting them into operation from 1948 to 2019, it is estimated that works on decommissioning of these items of property, plant and equipment operating at the reporting date will be performed during the period from 2020 to 2192. The substantial part of the works will be performed from 2021 to 2064.
- The discount rate applied to calculate the provision for retirement of property, plant and equipment and site restoration is a pre-tax risk-free rate that reflects the current market estimates of the time value of money. The discount rates applied to calculate the provision were 6,78% as at 31 December 2019 and 8,88% as at 31 December 2018.

The amount of the provision for decommissioning of property, plant and equipment changes in case the core assumptions change as follows:

- A 5-year change in the schedule of works to a later date / (earlier date) would have (decreased) / increased the amount of the provision by (3 206 061) thousand roubles / 589 572 thousand roubles as at 31 December 2019;
- A 10% increase / (decrease) in the cost of works without taking into account discounting would have increased / (decreased) the amount of provision by 1 761 550 thousand roubles / (1 761 550) thousand roubles as at 31 December 2019;
- A 1 pp increase / (decrease) in the average discount rate would have (decreased)/increased the amount of provision by (3 480 775) thousand roubles / 4 700 902 thousand roubles as at 31 December 2019.

The amount of provision for land rehabilitation and site restoration changes in case the core assumptions change as follows:

- A 5-year change in the schedule of works to a later date / (earlier date) would have (decreased) / increased the amount of the provision by (611 516) thousand roubles / 589 572 thousand roubles as at 31 December 2019;
- A 10% increase / (decrease) in the cost of works without taking into account discounting would have increased / (decreased) the amount of provision by 648 290 thousand roubles / (648 290) thousand roubles as at 31 December 2019;
- A 1 pp increase / (decrease) in the average discount rate would have (decreased)/increased the amount of provision by (642 788) thousand roubles / 728 646 thousand roubles as at 31 December 2019.

The amount of provisions may be subject to significant changes in future periods due to the value judgments used in the assessment.

28. Deferred income

The deferred income is mainly represented by the assets acquired at the expense of the various government target financing programmes and international financial aid:

| | 31 December 2019 | 31 December 2018 |
|------------------------------|------------------|------------------|
| Non-current | 5 289 046 | 4 557 717 |
| Current | 3 464 288 | 2 736 113 |
| Total deferred income | 8 753 334 | 7 293 830 |

29. Lease liabilities

Lease liabilities are payable as follows:

| | 31 December 2019 | |
|-----------------------|-------------------------------|--|
| | Minimum future lease payments | Interest |
| Less than 1 year | 1 685 077 | (414 531) |
| Between 1 and 5 years | 1 922 109 | (277 168) |
| | 3 607 186 | (691 699) |
| | | Present value of minimum lease payments |
| | | 1 270 546 |
| | | 1 644 941 |
| | | 2 915 487 |

| | 31 December 2018 | |
|-----------------------|-------------------------------|--|
| | Minimum future lease payments | Interest |
| Less than 1 year | 2 145 797 | (679 892) |
| Between 1 and 5 years | 2 818 723 | (646 511) |
| More than 5 years | 217 760 | (31 288) |
| | 5 182 280 | (1 357 691) |
| | | Present value of minimum lease payments |
| | | 1 465 905 |
| | | 2 172 212 |
| | | 186 472 |
| | | 3 824 589 |

Interest rate used for present value estimation

Interest rate used for discounting future cash flows was calculated on the basis of an effective interest rate method where it is applicable. In the reporting period there were the following interest rates:

| | 2019 | 2018 |
|------------------|-----------------|-----------------|
| Lease agreements | 14,83% - 51,15% | 14,83% - 51,15% |

The Group's exposure to liquidity risk related to lease liabilities is disclosed in Note 32.

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30. Transcript for verification of the movement of liabilities and equity with the cash flows from financing activities

| | 31 December 2018 | Proceeds from disposal of interests in subsidiaries | Leveraging | Repayment of borrowed funds | Dividends paid | Interest/ dividends accrued | Other changes | 31 December 2019 |
|----------------------|-----------------------------|--|-------------------|--|-----------------------|--|--------------------------|-----------------------------|
| Lease liabilities | 3 824 589 | - | - | (909 102) | - | - | - | 2 915 487 |
| Loans and borrowings | 121 605 | - | 4 267 813 | (133 650) | - | - | 19 245 | 4 275 013 |
| Dividends payable | 200 679 | - | - | - | (21 120 186) | 20 994 050 | - | 74 543 |
| Minority interest | 22 008 649 | 272 410 | - | - | - | - | 3 969 827 | 26 250 886 |
| Total | 26 155 522 | 272 410 | 4 267 813 | (1 042 752) | (21 120 186) | 20 994 050 | 3 989 072 | 33 515 929 |

| | 1 January 2018 | Proceeds from disposal of interests in subsidiaries | Leveraging | Repayment of borrowed funds | Dividends paid | Interest/ dividends accrued | Other changes | 31 December 2018 |
|----------------------|---------------------------|--|-------------------|--|-----------------------|--|--------------------------|-----------------------------|
| Lease liabilities | 5 244 454 | - | - | (1 415 935) | - | - | (3 930) | 3 824 589 |
| Loans and borrowings | 392 349 | - | 590 855 | (983 204) | - | - | 121 605 | 121 605 |
| Dividends payable | 200 587 | - | - | - | (37 597 919) | 37 598 011 | - | 200 679 |
| Minority interest | 23 240 463 | 465 430 | - | - | - | - | (1 697 244) | 22 008 649 |
| Total | 29 077 853 | 465 430 | 590 855 | (2 399 139) | (37 597 919) | 37 598 011 | (1 579 569) | 26 155 522 |

31. Trade and other payables

Long-term trade and other payables:

| | 31 December 2019 | 31 December 2018 |
|-------------------|-----------------------------|-----------------------------|
| Advances received | 2 128 882 | 3 939 |
| Trade payables | 2 994 | 132 638 |
| Other payables | 20 382 | 134 310 |
| | 2 152 258 | 270 887 |

Short-term trade and other payables:

| | 31 December 2019 | 31 December 2018 |
|-----------------------------|-----------------------------|-----------------------------|
| Payables to suppliers | 12 494 917 | 4 843 630 |
| Advances received | 16 717 630 | 14 687 807 |
| Payables to employees | 5 206 938 | 4 912 921 |
| Other payables | 3 640 706 | 4 501 405 |
| VAT payable | 3 302 389 | 1 154 825 |
| Other taxes payable | 524 687 | 1 168 661 |
| Social contribution payable | 1 122 094 | 1 834 599 |
| Dividends payable | 9 103 | 9 679 |
| | 43 018 464 | 33 113 527 |

The Group's exposure to liquidity and currency risks is disclosed in Note 32.

32. Fair value and risk management**(a) Overview**

The Group has exposure to the following risks from its use of financial instruments:

- credit risk;
- liquidity risk;
- market risk.

The information about the Group's exposure to each of the aforementioned risks, the Group's objectives, its risk estimation and risk management policy and procedures as well as the Group's approach to capital management is provided in this Note. Additional quantitative information is disclosed throughout the text of the consolidated financial statements.

General risk management principles

General principles of the corporate risk management system (CRMS) are determined by the Risk management policy:

- security priority: any decisions connected with functioning of CRMS and risks management are made, first of all, taking into account mandatory considerations of necessity to adhere to current standards for all the types of security and assurance of continuity of functioning and improving of the system of security management which is a part of the Group's general managerial system;
- the main planning processes (strategic planning, business planning, investment planning) include potential risks identification procedures;
- risks evaluation is made with consideration of mutual effect of risks within different categories, (financial risks, operational risks, health risks, environmental risks) arising in all the functional areas of the Group.

The architecture of the risk management system is aligned with the current operating model of SC "Rosatom" and its subsidiaries, which determines the extent of risk management operations centralisation.

The Risk Committee of SC "Rosatom" is a permanent collective coordination body overseeing the effective functioning of CRMS. The authority of the Committee includes but is not limited to control over the CRMS

organisational structure and due responsibility delegation as well as coordination of the interaction between the participants of the risk management process at different organisational levels.

The independent assessment of CRMS work is conducted by the internal audit and control department.

Risk readiness (the level of total risk that the Group can bear in order to achieve its goals) is estimated and regularly updated for control purposes.

(b) Credit risk

Credit risk is the risk of financial loss to the Group if a customer or a counterparty to a financial instrument fails to meet its contractual obligations in full amount or within determined terms. The risk arises principally from the Group's loans given, receivables from customers and bank deposits.

(i) Expected credit losses assessment

The Group allocates each exposure to a credit risk grade based on data that is determined to be predictive of the risk of loss (including but not limited to external ratings and audited financial statements). Credit risk grades are defined using qualitative and quantitative factors that are indicative of the risk of default.

Allowances for expected credit losses is recognized for financial assets measured at amortized cost, which include accounts receivable, loans given, bank deposits and cash and cash equivalents. The calculation is carried out on an individual basis for each counterparty (borrower, customer, bank). The amount of the allowance for expected credit losses is calculated based on the adjustment of the balance of debt or cash on current accounts to the probability of default, which is determined based on global average corporate aggregate default rates, depending on the rating of the borrower, customer or bank.

At each reporting date, the Group assesses whether there is objective evidence that the credit risk on financial instruments has increased significantly since their initial recognition. During the assessment, the entity focuses on changes of risk of default over the expected life of financial instruments. For the assessment, the risk of default at the reporting date is compared with the risk of default at the date of initial recognition. The risk of default assessment is based on the probability that the counterparty fails to fulfil obligations to repay the receivables (the probability of default).

(ii) Trade and other receivables

The Group's exposure to credit risk is influenced mainly by the individual characteristics of each customer. However, management also considers the factors that may influence the credit risk of the Group's customer base, including the default risk of the industry and country, in which customers operate, particularly in the currently deteriorating economic circumstances. However, geographically there is no concentration of credit risk.

The Group has established a credit policy under which each new customer is analysed individually for creditworthiness before the Group's standard payment and delivery terms and conditions are offered. The Group's review includes external ratings, when available, bank references and clients' financial statements. The limits are established for each customer and represent the maximum outstanding debt amount without requiring approval from the senior management. These limits are reviewed annually. Customers that fail to meet the Group's benchmark creditworthiness may transact with the Group only upon the decision of the Group's senior management. Internal audit and the Committee for receivables and payables management may require the grounds for a decision for sale.

The Group implemented measures for customer credit risk management which include but are not limited to letters of credit, prepayments, funds reservation, bank guarantees, insurance of non-repayment of receivables.

Most of the Group's customers have been transacting with the Group for an extended period, and losses have occurred infrequently. In monitoring customer credit risk, contractors are grouped according to their credit characteristics, including availability of collateral, aging profile, maturity and existence of previous financial difficulties.

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(iii) Loans given

The Group provides loans to third parties and related parties. As at 31 December 2019 and 31 December 2018, there were no guarantees or collateral received for loans given. Loans given, measured at amortized cost, are mainly given to JSC “Atomenergoprom” which is under control of SC “Rosatom”.

(iv) Cash and cash equivalents

The Group held cash and cash equivalents of 28 042 258 thousand roubles at 31 December 2019 (14 263 365 thousand roubles as at 31 December 2018) including current bank deposits in the amount of 8 529 049 thousand roubles (3 650 836 thousand roubles as at 31 December 2018) which represents its maximum credit exposure on these assets.

Below are the banks, in which the group has the highest amount of cash:

| | 31 December 2019 | 31 December 2018 |
|---|-------------------------|-------------------------|
| JSC “Gazprombank” | 13 176 018 | 10 677 446 |
| PJSC “Sberbank of Russia” | 11 045 489 | 1 283 881 |
| PJSC “VTB” | 2 136 636 | 1 846 909 |
| SC “Vnesheconombank” | 4 559 | 5 742 |
| JSC “ALFA-BANK” | 536 | 1 147 |
| PJSC “Promsvyazbank” | 491 240 | 54 677 |
| JSC “Nordea Bank” | 9 419 | 25 471 |
| Other | 1 178 361 | 370 957 |
| Estimated provision for expected credit losses on short-term deposits estimated at amortized cost | - | (2 865) |
| Total | 28 042 258 | 14 263 365 |

A significant part of the Group's cash and cash equivalents is held with banks and financial institutions which are as at 31 December 2019 rated BB+ (according to the S & P rating agency) and from BBB- and to BB+ (according to the rating agency Fitch Ratings).

Bank deposits in the amount of 8 529 049 thousand roubles at the reporting date are deposits with maturity from 1 to 3 months from the date of purchase. The interest rate on deposits ranged from 0,50% to 7,20% per annum.

As at 31 December 2019 and 31 December 2018, components of the Group issued guarantees in the amount of 391 thousand roubles and 247 thousand roubles respectively. The management of the Group does not expect material liabilities in connection with these guarantees, therefore, no respective provision was created in these consolidated financial statements.

(v) Exposure to credit risk

The carrying amount of financial assets represents the maximum credit risk exposure. The maximum exposure to credit risk at the reporting date was as follows:

| | 31 December 2019 | 31 December 2018 |
|-------------------------------|-------------------------|-------------------------|
| Cash and cash equivalents | 28 042 258 | 14 263 365 |
| Trade and other receivables | 47 020 737 | 40 126 614 |
| Loans given at amortised cost | 81 049 242 | 97 860 769 |
| Bank deposits | 21 769 958 | 31 871 |
| | 177 882 195 | 152 282 619 |

The following table provides an analysis of the credit quality of loans and bank deposits:

| In thousands roubles | Rating agency | Rating | 2019 | 2018 |
|---------------------------------|----------------------|---------------|--------------------|-------------------|
| JSC “Atomenergoprom” | BBB | Fitch | 80 586 065 | 97 455 780 |
| JSC “Russian Agricultural Bank” | BBB- | Fitch | 21 400 000 | - |
| PJSC “VTB” | Baa3 | Moody's | 270 000 | 31 871 |
| PJSC “GPB” | BBB- | Fitch | 108 358 | - |
| Other | | | 454 777 | 404 989 |
| Total | | | 102 819 200 | 97 892 640 |

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As at 31 December 2019, the amount of guarantees and the value of pledged property received in the framework of work execution contracts and on other grounds amounted to 6 850 441 thousand roubles (as at 31 December 2018 – 9 649 088 thousand roubles).

Impairment losses

The aging of trade and other receivables at the reporting date was as follows:

| | 31 December 2019 | | 31 December 2018 | |
|--|-------------------------|---|-------------------------|---|
| | Gross | Estimated allowance for expected credit losses | Gross | Estimated allowance for expected credit losses |
| Normal (not past or past due 1-30 days) | 34 909 096 | (137 043) | 33 127 928 | (127 432) |
| Pre-default (past due 31-90 days) | 4 449 218 | (449 587) | 1 971 702 | (1 186 699) |
| Default (past due for more than 90 days) | 1 615 363 | (1 615 363) | 828 558 | (828 558) |
| Total | 40 973 677 | (2 201 993) | 35 928 188 | (2 142 689) |

The movement in the allowance for impairment in respect of trade and other receivables during the year was as follows:

| | 2019 | 2018 |
|-----------------------------------|--------------------|--------------------|
| Balance at December 31 | (2 142 689) | (2 463 304) |
| Effect from application of IFRS 9 | - | (511 907) |
| Balance at 1 January | (2 142 689) | (2 975 211) |
| Accrual | (292 505) | - |
| Utilisation | 233 201 | 430 680 |
| Reversal | - | 401 842 |
| Balance at 31 December | (2 201 993) | (2 142 689) |

The Group accrues allowances for recognition of an impairment of trade and other receivables, except for cases when the Group is convinced that repayment of due amount is impossible; in these cases the unrecoverable amount is written off by decreasing the cost of the appropriate financial asset.

(c) Liquidity risk

Liquidity risk is the risk that the Group will encounter difficulty in meeting the obligations associated with its financial liabilities that are settled by delivering cash or another financial asset. The Group's approach to managing liquidity is to ensure, as far as possible, that it will always have sufficient liquidity to meet its liabilities when due, under both normal and stressed conditions, without incurring unacceptable losses or risking damage to the Group's reputation.

The Group maintains the level of cash and cash equivalents at an amount in excess of expected cash outflows on operating expenses, including financial liabilities (this excludes the potential impact of extreme circumstances that cannot reasonably be predicted).

The information on contractual maturities of financial liabilities' settlements, including estimated amounts of interest payments and taking into account netting arrangements, is presented below.

It is not expected that the cash flows included in the maturity analysis could occur significantly earlier, or at significantly different amounts.

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| 31 December 2019 | Carrying amount | Contractual cash flows | 0-6 months | 6-12 months | 1-2 years | 2-3 years | Over 3 years |
|---|----------------------------|-----------------------------------|-------------------|--------------------|------------------|------------------|---------------------|
| Non-derivative financial liabilities | | | | | | | |
| Lease liabilities (Note 29) | 2 915 487 | 3 607 186 | 880 814 | 804 263 | 1 519 094 | 178 730 | 224 285 |
| Trade and other payables (Note 31) | 26 324 210 | 26 324 210 | 26 177 798 | 95 363 | 1 170 | 2 531 | 47 348 |
| | 29 239 697 | 29 931 396 | 27 058 612 | 899 626 | 1 520 264 | 181 261 | 271 633 |
| 31 December 2018 | Carrying amount | Contractual cash flows | 0-6 months | 6-12 months | 1-2 years | 2-3 years | Over 3 years |
| Non-derivative financial liabilities | | | | | | | |
| Lease liabilities (Note 29) | 3 824 589 | 5 182 280 | 1 121 639 | 1 024 158 | 1 580 264 | 941 593 | 514 626 |
| Trade and other payables (Note 31) | 18 692 668 | 18 692 668 | 17 868 917 | 741 018 | 60 812 | 19 072 | 2 849 |
| | 22 517 257 | 23 874 948 | 18 990 556 | 1 765 176 | 1 641 076 | 960 665 | 517 475 |

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The gross outflows disclosed in the above table represent the contractual undiscounted cash flows relating to non-derivative financial liabilities held for risk management purposes and which are not usually closed out before contractual maturity. The disclosure shows gross cash inflow and outflow amounts for non-derivatives that have simultaneous gross cash settlement or regular payments upon schedule.

As at 31 December 2019 no secured bank loans including loans with covenants were outstanding.

(d) Market risk

Market risk is the risk that changes in market prices, such as foreign exchange rates, interest rates and equity prices will adversely affect the Group's income or the value of Group's financial instruments. The objective of market risk management is to manage and control market risk exposures within acceptable parameters, while optimising the return.

(i) Currency risk

The Group is exposed to currency risk on sales, purchases and borrowings that are denominated in a currency other than the respective functional currencies of Group entities. The currencies in which these transactions primarily are denominated are U.S. Dollar (USD) and euro (EUR).

Interest on borrowings is denominated in the currency of the borrowing. Generally, borrowings are denominated in currencies that match the cash flows generated by the underlying operations of the Group, primarily USD and EUR

The Group's exposure to foreign currency risk was as follows based on notional amounts:

| | USD- denominated 31 December 2019 | EUR- denominated 31 December 2019 | USD- denominated 31 December 2018 | EUR- denominated 31 December 2018 |
|---|--|--|--|--|
| Current assets | | | | |
| Trade and other receivables | 2 354 984 | 3 365 801 | 2 564 105 | 2 321 049 |
| Cash and cash equivalents | 1 228 990 | 10 380 141 | 1 033 859 | 2 768 679 |
| Current liabilities | | | | |
| Trade and other payables | (308 131) | (157 769) | (282 958) | (132 575) |
| Net exposure in consolidated statement of financial position | 3 275 843 | 13 588 173 | 3 315 006 | 4 957 153 |

The Group controls the currency risk and concludes currency denominated contracts only after ensuring that the planned revenue in foreign currency will fully cover the Group's liabilities under transaction in foreign currency.

The following significant exchange rates have been applied during the year:

| in RUB | USD | EUR |
|------------------|------------|------------|
| 31 December 2019 | 61,906 | 69,341 |
| 31 December 2018 | 69,471 | 79,461 |

| in RUB | USD | EUR |
|-----------------------|------------|------------|
| Average rate for 2019 | 64,736 | 72,502 |
| Average rate for 2018 | 62,708 | 73,955 |

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Sensitivity analysis

A strengthening of the RUB by 10% against the following currencies at the end of the reporting period would have increased/(decreased) profit and equity by the amounts shown below. This analysis was based on the assumption that all other variables, in particular interest rates, remain constant.

| | Equity | Profit/(loss) |
|-------------------------|---------------|----------------------|
| 31 December 2019 | | |
| USD | (262 067) | (262 067) |
| EUR | (1 087 054) | (1 087 054) |

| | Equity | Profit/(loss) |
|-------------------------|---------------|----------------------|
| 31 December 2018 | | |
| USD | (265 200) | (265 200) |
| EUR | (396 572) | (396 572) |

A weakening of the RUB by 10% against the following currencies at the end of the reporting period would have the equivalent reverse impact on the amounts shown above; the result is based on the assumption that all other variables remain constant.

(ii) Interest rate risk

Changes in interest rates impact primarily loans and borrowings by changing either their fair value (fixed rate debt) or their future cash flows (variable rate debt). The management of the Group does not have a formalized policy in terms of the ratio in which the interest risks of the Group are to be distributed between loans with fixed and variable interest rates. At the time of raising new loans or borrowings management uses its judgment to decide whether it believes that a fixed or variable rate would be more favourable to the Group over the expected period until maturity.

As at 31 December 2019 and 31 December 2018 the Group doesn't have financial liabilities with variable rate.

Profile

As at 31 December 2019 the interest rate profile of the Group's interest-bearing financial instruments was the following:

| | 31 December 2019 | 31 December 2018 |
|-------------------------------|-----------------------------|-----------------------------|
| Fixed rate instruments | | |
| Financial assets | 111 380 612 | 101 543 476 |
| Financial liabilities | (4 275 013) | (121 605) |
| Total | 107 105 599 | 101 421 871 |

Fair value sensitivity analysis for fixed rate financial instruments

The Group does not account for any fixed rate financial instruments at fair value through profit or loss changes in which are recognized in profit or loss for the year. Therefore, a change in interest rates at the reporting date would not have an effect on profit or loss for the period.

(e) Fair value and carrying amount

The fair value of financial assets and liabilities approximately equals their carrying amounts.

As at 31 December 2019 and as at 31 December 2018, the Group has no long-term Bank loans and borrowings.

The fair value of trade receivables approximately equals its carrying value net of bad debt allowance due to mainly short-term nature of trade receivables.

(f) Fair value hierarchy

The table below analyses financial instruments carried at fair value, by valuation method. The different levels have been defined as follows:

- Level 1: quoted prices (unadjusted) in active markets for identical assets or liabilities
- Level 2: inputs other than quoted prices included within Level 1 that are observable for the asset or liability, either directly (i.e., as prices) or indirectly (i.e., derived from prices)
- Level 3: inputs for the asset or liability that are not based on observable market data (unobservable inputs).

| | Level 3 | Total |
|--------------------------|-------------------|-------------------|
| 31 December 2019 | | |
| Equity securities | 8 344 250 | 8 344 250 |
| Total assets | 8 344 250 | 8 344 250 |
| Total liabilities | - | - |
| Total | 8 344 250 | 8 344 250 |
| | | |
| | Level 3 | Total |
| 31 December 2018 | | |
| Equity securities | 10 770 318 | 10 770 318 |
| Total assets | 10 770 318 | 10 770 318 |
| Total liabilities | - | - |
| Total | 10 770 318 | 10 770 318 |

As at 31 December 2019 investments at fair value through profit or loss were reflected at Level 3 of the hierarchy due to the fact that regular information on market quotations of such financial assets is not published. Management used technical tools where all key input characteristics were based on unobservable market data to estimate fair value of these financial assets (Note 18).

As at 31 December 2019 investments at fair value through profit or loss, include shares of JSC "Atompredmetzoloto" (which is under control of SC "Rosatom") in the amount of 8 344 250 thousand roubles (at 31 December 2018 – 10 770 318 thousand roubles), ownership interest at 31 December 2019 constituted 14,34% (at 31 December 2018 - 14,34%).

Below is the reconciliation of opening and closing balances with regards to Level 3 fair value.

| | Available-for-sale equity securities |
|--|---|
| Balance at 1 January 2018 | 11 882 752 |
| Losses attributable to finance costs | |
| – Accruals of impairment losses on investments | (1 112 434) |
| Balance at 31 December 2018 | 10 770 318 |
| Balance at 1 January 2019 | 10 770 318 |
| Losses attributable to finance costs | |
| – Accruals of impairment losses on investments | (2 426 068) |
| Balance at 31 December 2019 | 8 344 250 |

33. Contingencies

(a) Insurance

Russian insurance market is currently developing. It is characterized by low insurance penetration of insurance services.

The Group offers the full range of insurance services including the compulsory insurance (required by law) and temporary insurance (required by secondary legislation, oversight bodies, local authorities, etc.):

- public liability of the nuclear power facilities operating entities and third party liability of the entities engaged in transportation of radioactive and nuclear materials, products made of radioactive or nuclear materials and waste associated with these products is insured in accordance with the Federal Law No. 170-FZ "On the Use of Atomic Energy" of 21 November 1995 and the 1963 Vienna Convention on civil responsibility for nuclear damage. The liability amount is equal to 5 million U.S. dollars (here, the U.S. dollar value is determined using the gold exchange standard of 1963), which is approximately 11 billion roubles per insured event as at the reporting date;
- public liability of the entities operating hazardous production facilities and hydraulic structures is insured in accordance with the Federal Law No. 225-FZ of 27 July 2010 "On the Compulsory Insurance of Civil Liabilities of the Owner of a Hazardous Object for the Damage Incurred As a Result of an Accident at the Hazardous Object";
- public liability of vehicle owners is insured in accordance with the Federal Law No. 40-FZ "On Compulsory Insurance of Third Party Liability of Motor Vehicle Owners".

The optional insurance segment (property, cargo, builder's risk, etc.) includes the insurance of property, plant and equipment and intangible assets used in the production process, assets under construction, risks stipulated by the current contracts, vehicle insurance as well as the voluntary health insurance of the staff.

When insuring basic production assets, the total insurance value of the insured property is established mainly on the basis of the replacement value of the property declared by the Insured. Insurance is provided "From all risks". Thus, the insured party has sufficient financial security in the implementation of insured risks.

Thus, the Group's insurance policy with regard to production facilities and equipment, business interruption loss and third party liabilities due to real estate or environmental damage caused by technological accidents or the Group's operating activity fully complies with the current legislation and the requirements of the oversight bodies.

(b) Litigations

As at 31 December 2019 the Group has accrued the provision for litigations and claims in the amount of 2 937 thousand roubles and other contingencies in the amount of 13 339 thousand roubles (As at 31 December 2018 the Group has accrued the provision for litigations and claims in the amount of 168 778 thousand roubles and other contingencies in the amount of 10 185 thousand roubles).

(c) Taxation risks

The taxation system in the Russian Federation continues to evolve and is characterised by frequent changes in legislation, official pronouncements and court decisions, which are sometimes contradictory and subject to varying interpretation by different tax authorities. Taxes are subject to review and investigation by a number of authorities, which have the authority to impose severe fines, penalties and interest charges. A tax year remains open for review by the tax authorities during the three subsequent calendar years; however, under certain circumstances a tax year may remain open longer. Recent events within the Russian Federation suggest that the tax authorities are taking a more assertive and substance-based position in their interpretation and enforcement of tax legislation.

Management, based on its understanding, believes that it has provided adequately for tax liabilities based on its interpretations of applicable Russian tax legislation, official pronouncements and court decisions. However, the interpretations of the relevant authorities could differ and the effect on these consolidated financial statements, if the authorities were successful in enforcing their interpretations, could be significant.

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Current Russian transfer pricing legislation requires transfer pricing analysis for the majority of cross-border intercompany and major domestic intercompany transactions. Starting from 2019, transfer pricing control, as a general rule, is applied to domestic transactions only if both criteria are met: the parties apply different tax rates, and the annual turnover of transactions between them exceeds 1 billion roubles.

The Russian transfer pricing rules are close to OECD guidelines, but have certain differences that create uncertainty in practical application of tax legislation in specific circumstances. A very limited number of publicly available transfer pricing court cases in Russia does not provide enough certainty as to the approach to applying transfer pricing rules in Russia. The impact of any transfer pricing assessment may be material to financial statements of the Group, however, the probability of such impact cannot be reliably assessed.

Russian tax authorities may review prices used in intra-group transactions, in addition to transfer pricing audits. They may assess additional taxes if they conclude that taxpayers have received unjustified tax benefits as a result of those transactions.

Russian tax authorities continue to exchange transfer pricing as well as other tax related information with tax authorities of other countries. This information may be used by the tax authorities to identify transactions for additional in-depth analysis.

(d) Guarantees provided

Agreements for nuclear fuel sale include the Group’s warranties concerning the supplies of fuel assemblies. The specific terms of guarantee service and validity are determined for each type of the fuel assemblies in the relevant provisions of the contract and generally include guarantees for the storage period of the fuel assemblies before loading in nuclear-power reactor and for nuclear fuel burn-up period. If the guarantee obligations are breached, the Group bears responsibility under the contract, the responsibility generally includes elimination of the identified defects or compensation of the damages incurred. In 2019 and in the previous reporting periods there were no claims to the Group for compensation of the damages incurred under the warranties. Taking into consideration the aforesaid and the fact that the Group believes there is a low probability of economic benefits outflow, the provision for warranties is not accrued.

34. Related party transactions**(a) Control relationships**

As at 31 December 2019 the Group is under the control of JSC “Atomenergoprom” which is under the state control represented by SC “Rosatom”. JSC “Atomenergoprom” prepares the consolidated financial statements in accordance with IFRS.

Since the ultimate controlling party of the Group is the Russian Federation, the Group applies the exception to the disclosure of operations with related parties, because the Russian Federation has control, joint control or the significant influence in their regard, and in respect of the Group.

The Group discloses the amounts of significant transactions with companies affiliated with the state and outstanding balances from such companies as quantitative characteristics of the transactions with related parties.

(b) Key management remuneration

Key management received the following remuneration during the year, which is included in personnel costs:

| | 2019 | 2018 |
|------------------------------|----------------|----------------|
| Remuneration | Key management | Key management |
| Basic salary (emolument) | 551 169 | 454 497 |
| Bonus for production results | 314 581 | 381 767 |
| Annual leave | 68 573 | 69 736 |
| Other | 28 136 | 20 185 |
| Total | 962 459 | 926 185 |

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(c) Other related party transactions

Further, the transactions with the following categories of the related parties are disclosed:

- SC “Rosatom”,
- JSC “Atomenergoprom”,
- Companies under control of SC “Rosatom”
- Equity accounted investees
- Other entities under the state control and other related parties (Other).

(i) Income/sales of goods, works, services

| | Transaction value 2019 | Transaction value 2018 | Outstanding balance as at 31 December 2019 | Outstanding balance as at 31 December 2018 |
|--|---------------------------------------|---------------------------------------|---|---|
| Sales of goods and services: | | | | |
| SC "Rosatom" | 1 950 457 | 2 016 001 | 224 798 | 11 200 |
| Parent company – JSC "Atomenergoprom" | 1 099 | - | 3 100 | - |
| Entities under control of SC "Rosatom" | 115 567 478 | 86 134 212 | 24 161 531 | 20 706 075 |
| Equity accounted investees | 8 376 956 | 7 506 377 | 2 886 293 | 832 997 |
| Other entities under the state control and other related parties and individuals | 2 784 509 | 1 229 253 | 75 645 | 175 921 |
| | 128 680 499 | 96 885 843 | 27 351 367 | 21 726 193 |
| Other income | 11 021 669 | 12 709 147 | 4 175 015 | 3 828 055 |
| Total | 139 702 168 | 109 594 990 | 31 526 382 | 25 554 248 |

(ii) Expenses/purchases of goods, works, services

| | Transaction value 2019 | Transaction value 2018 | Outstanding balance as at 31 December 2019 | Outstanding balance as at 31 December 2018 |
|--|---------------------------------------|---------------------------------------|---|---|
| Cost of goods and services: | | | | |
| SC “Rosatom” | 5 336 085 | 5 352 460 | 4 891 | 128 |
| Parent company – JSC “Atomenergoprom” | 162 965 | 200 536 | 54 127 | 107 806 |
| Entities under control of SC “Rosatom” | 55 552 940 | 18 676 243 | 8 992 524 | 1 174 774 |
| Equity accounted investees | 1 753 970 | 3 676 271 | 51 560 | 84 579 |
| Other entities under the state control and other related parties and individuals | 1 800 509 | 1 218 518 | 320 310 | 71 011 |
| | 64 606 469 | 29 124 028 | 9 423 412 | 1 438 298 |
| Other expenses | 5 327 646 | 5 180 586 | 528 574 | 711 801 |
| Total | 69 934 115 | 34 304 614 | 9 951 986 | 2 150 099 |

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(iii) Loans

| | Transaction value 2019 | Transaction value 2018 | Outstanding balance as at 31 December 2019 | Outstanding balance as at 31 December 2018 |
|---------------------------------------|---------------------------------------|---------------------------------------|---|---|
| Loans received: | | | | |
| Parent company - JSC “Atomenergoprom” | - | 590 855 | - | - |
| SC “Rosatom” | 4 839 376 | 159 800 | 4 275 013 | 121 605 |
| Total | 4 839 376 | 750 655 | 4 275 013 | 121 605 |

The weighted average interest rate for loans received from related parties equalled 6,6% in 2019 and 0,01% in 2018.

| | Transaction value 2019 | Transaction value 2018 | Outstanding balance as at 31 December 2019 | Outstanding balance as at 31 December 2018 |
|---------------------------------------|---------------------------------------|---------------------------------------|---|---|
| Loans given: | | | | |
| Parent company - JSC “Atomenergoprom” | 328 940 000 | 169 126 434 | 80 406 000 | 98 171 295 |
| Total | 328 940 000 | 169 126 434 | 80 406 000 | 98 171 295 |

(iv) Advances and other transactions

| | Outstanding balance as at 31 December 2019 | Outstanding balance as at 31 December 2018 |
|--|---|---|
| Advances given: | | |
| SC “Rosatom” | 23 413 | 47 925 |
| Parent company - JSC “Atomenergoprom” | 1 462 | - |
| Entities under control of SC “Rosatom” | 856 677 | 1 458 471 |
| Other entities under the state control and other related parties and individuals | 48 610 | 14 438 |
| Total | 930 162 | 1 520 834 |

| | Outstanding balance as at 31 December 2019 | Outstanding balance as at 31 December 2018 |
|--|---|---|
| Advances received: | | |
| Entities under control of SC “Rosatom” | 9 507 050 | 8 114 700 |
| Other entities under the state control and other related parties and individuals | 1 286 429 | 1 286 656 |
| Total | 10 793 479 | 9 401 356 |

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(v) Cash and cash equivalents

| | Outstanding balance as at 31 December 2019 | Outstanding balance as at 31 December 2018 |
|---------------------------|---|---|
| Banks: | | |
| JSC “Gazprombank” | 13 176 018 | 10 677 446 |
| PJSC “VTB” | 2 136 636 | 1 846 909 |
| PJSC “Sberbank of Russia” | 11 045 489 | 1 283 881 |
| Other | 1 684 115 | 455 129 |
| Total | 28 042 258 | 14 263 365 |

(vi) Bank deposits

| | Outstanding balance as at 31 December 2019 | Outstanding balance as at 31 December 2018 |
|---------------------------------|---|---|
| Banks | | |
| JSC “Russian Agricultural Bank” | 21 400 000 | - |
| JSC “Gazprombank” | 115 000 | 2 568 089 |
| PJSC “VTB” | 270 000 | 525 080 |
| Total | 21 785 000 | 3 074 240 |

(vii) Other transactions with JSC “Atomenergoprom”

| | Transaction value 2019 | Transaction value 2018 | Outstanding balance as at 31 December 2019 | Outstanding balance as at 31 December 2018 |
|---|---------------------------------------|---------------------------------------|---|---|
| Other transactions with JSC “Atomenergoprom” | 1 168 858 | 96 783 | 908 376 | 644 207 |
| Total | 1 168 858 | 96 783 | 908 376 | 644 207 |

Other transactions with JSC “Atomenergoprom” are performed under settlements within the consolidated group of taxpayers.

Property, plant and equipment with the carrying value of 7 403 658 thousand roubles and 8 213 052 thousand roubles as at 31 December 2019 и 31 December 2018 respectively are leased assets received from JSC “Tenex-Service” (entity under control of SC Rosatom). Accounts payable to JSC “Tenex-Service” as at 31 December 2019 equalled to 2 915 487 thousand roubles (as at 31 December 2018 equalled to 3 824 589 thousand roubles).

35. Capital commitments

As at 31 December 2019 the forthcoming capital expenditures under already concluded contracts amounted to 11 521 069 thousand roubles. (as of 31 December 2018: 5 844 018 thousand roubles).

36. Events subsequent to the reporting date

a) Instability in the global market

On 11 March 2020, the World Health Organization declared the coronavirus outbreak a pandemic. Responding to the potentially serious threat the COVID-19 presents to public health, the Russian government authorities have taken measures to contain the outbreak, including imposing restrictions on the cross-borders movement of people, entry restrictions for foreign visitors and instructing business community to transfer employees to working from home. These events may have significant adverse effects on the economy.

The Group operates in the nuclear power sector, that has not been significantly affected by the outbreak of COVID-19. Over the last few weeks the Group's sales remained on its stable levels and its operations including supplies were not interrupted. Based on the publicly available information at the date these financial statements were authorized for issue, management has considered the potential development of the outbreak and its expected impact on the Group and economic environment, in which the Group operates, including the measures already taken by the Russian government and governments in other countries, where the Group's major business partners and customers are located.

Taking into account the Group's current operational and financial performance along with other currently available public information, management does not anticipate an immediate significant adverse impact of the COVID-19 outbreak on the Group's financial position and operating results. However, management cannot preclude the possibility that extended lockdown periods, an escalation in severity of such measures, or a consequential adverse impact of such measures on the economic environment will have an adverse effect on the Group in the medium and longer term. The Group also considers negative development scenarios and is ready to adapt its operational plans accordingly. Management continues to monitor the situations closely and will respond to mitigate the impact of such events and circumstances as they occur.

b) In accordance with the decision of shareholders on 13 March 2020 the Group bought out shares of JSC "UEC" from "NAK "Kazatomprom". This resulted in the following change of shareholdings: JSC "NAK "Kazatomprom" has one share of JSC "UEC", while the remaining shares are owned by the Group. Financial result from the transaction amounted to 3 909 990 thousand roubles, the effect on the cost of non-controlling interest is 8 977 079 thousand roubles.