ČEZ, a. s.

SEPARATE FINANCIAL STATEMENTS

PREPARED IN ACCORDANCE WITH
INTERNATIONAL FINANCIAL REPORTING STANDARDS
AS OF DECEMBER 31, 2019

(Translation of Separate Financial Statements Originally Issued in Czech)

ČEZ, a. s.
BALANCE SHEET
AS OF DECEMBER 31, 2019

in CZK Millions

	Note	2019	2018
ASSETS:			
Plant in service		475,880	454,354
Less accumulated depreciation and impairment		(258,822)	(244,830)
Net plant in service		217,058	209,524
Nuclear fuel, at amortized cost		14,191	14,331
Construction work in progress, net		8,302	7,242
Total property, plant and equipment	3	239,551	231,097
Restricted financial assets, net	4	14,303	13,336
Other non-current financial assets, net	5	181,201	177,479
Intangible assets, net	6	9,014	4,235
Total other non-current assets		204,518	195,050
Total non-current assets		444,069	426,147
Cash and cash equivalents, net	7	3,516	454
Trade receivables, net	8	58,042	64,287
Income tax receivable		-	7
Materials and supplies, net		6,599	6,526
Fossil fuel stocks		608	462
Emission rights	9	24,326	13,157
Other current financial assets, net	5	75,602	106,133
Other current assets, net	10	2,784	2,362
Assets classified as held for sale, net	11	6,540	6,540
Total current assets		178,017	199,928
Total assets		622,086	626,075

The accompanying notes are an integral part of these financial statements.

ČEZ, a. s.
BALANCE SHEET
AS OF DECEMBER 31, 2019

continued

	Note	2019	2018
EQUITY AND LIABILITIES:			
Stated capital		53,799	53,799
Treasury shares		(2,885)	(3,534)
Retained earnings and other reserves		152,565	132,947
Total equity	12	203,479	183,212
Long-term debt, net of current portion	13	133,848	133,026
Provisions	16	75,315	62,971
Other long-term financial liabilities	17	8,216	13,776
Deferred tax liability	32	8,044	4,539
Total non-current liabilities		225,423	214,312
Short-term loans	18	4,119	11,709
Current portion of long-term debt	13	24,760	5,590
Trade payables		53,748	51,208
Income tax payable		483	-
Provisions	16	9,282	6,889
Other short-term financial liabilities	17	99,954	152,544
Other short-term liabilities	19	838	611
Total current liabilities		193,184	228,551
Total equity and liabilities		622,086	626,075

The accompanying notes are an integral part of these financial statements.

ČEZ, a. s.
STATEMENT OF INCOME
FOR THE YEAR ENDED DECEMBER 31, 2019

in CZK Millions

	Note	2019	2018
Sales of electricity, heat and gas		81,943	74,151
Sales of services and other revenues		5,002	4,834
Other operating income		1,353	764
Total revenues and other operating income	21	88,298	79,749
Gains and losses from commodity derivative trading	22	7,159	300
Purchase of electricity, gas and other energies	23	(33,082)	(33,071)
Fuel and emission rights	24	(17,927)	(14,741)
Services	25	(9,549)	(9,104)
Salaries and wages	26	(7,165)	(6,533)
Materials and supplies		(1,851)	(1,823)
Capitalization of expenses to the cost of assets and change in own inventories		91	99
Depreciation and amortization	3, 6	(14,535)	(14,310)
Impairment of property, plant and equipment and intangible assets		(114)	(188)
Impairment of trade and other receivables		(23)	(46)
Other operating expenses	27	(2,525)	(1,281)
Income (loss) before other income (expenses) and income taxes		8,777	(949)
Interest on debt, net of capitalized interest		(5,918)	(5,378)
Interest on provisions	16	(1,637)	(1,571)
Interest income	28	1,292	870
Impairment of financial assets	29	2,511	(3,468)
Other financial expenses	30	(462)	(897)
Other financial income	31	13,234	34,002
Total other income (expenses)		9,020	23,558
Income before income taxes		17,797	22,609
Income taxes	32	(404)	1,167
Net income		17,393	23,776

	Note	2019	2018
Net income per share (CZK per share):	35		
Basic		32.5	44.5
Diluted		32.5	44.4

The accompanying notes are an integral part of these financial statements.

ČEZ, a. s.
STATEMENT OF COMPREHENSIVE INCOME
FOR THE YEAR ENDED DECEMBER 31, 2019

in CZK Millions

	Note	2019	2018
Net income		17,393	23,776
Change in fair value of cash flow hedges		10,891	(16,016)
Cash flow hedges reclassified to statement of income		8,253	3,927
Cash flow hedges reclassified to assets		-	(972)
Change in fair value of debt financial instruments		207	(227)
Deferred tax related to other comprehensive income	32	(3,678)	2,525
Net other comprehensive income that may be reclassified to statement of income or to assets in subsequent periods		15,673	(10,763)
Change in fair value of equity instruments		(347)	59
Deferred tax related to other comprehensive income	32	67	(11)
Net other comprehensive income not to be reclassified from equity		(280)	48
Total other comprehensive income, net of tax		15,393	(10,715)
Total comprehensive income, net of tax		32,786	13,061

The accompanying notes are an integral part of these financial statements.

ČEZ, a. s.
STATEMENT OF CHANGES IN EQUITY
FOR THE YEAR ENDED DECEMBER 31, 2019

In CZK Millions

	Note	Stated capital	Treasury shares	Cash flow hedge reserve	Debt financial instruments	Equity financial instruments and other reserves	Retained earnings	**Total equity**
Balance as at December 31, 2017		53,799	(4,077)	(7,794)	294	78	145,207	187,507
Adoption of IFRS 9		-	-	-	-	-	(34)	(34)
Balance as at January 1, 2018 (restated)		53,799	(4,077)	(7,794)	294	78	145,173	187,473
Net income		-	-	-	-	-	23,776	23,776
Other comprehensive income		-	-	(10,579)	(184)	48	-	(10,715)
Total comprehensive income		-	-	(10,579)	(184)	48	23,776	13,061
Effect of merger		-	-	-	-	3	35	38
Dividends		-	-	-	-	-	(17,603)	(17,603)
Sale of treasury shares		-	543	-	-	-	(333)	210
Share options	26	-	-	-	-	33	-	33
Exercised and forfeited share options		-	-	-	-	(45)	45	-
Balance as at December 31, 2018		53,799	(3,534)	(18,373)	110	117	151,093	183,212
Net income		-	-	-	-	-	17,393	17,393
Other comprehensive income		-	-	15,506	167	(280)	-	15,393
Total comprehensive income		-	-	15,506	167	(280)	17,393	32,786
Dividends		-	-	-	-	-	(12,806)	(12,806)
Sale of treasury shares		-	649	-	-	-	(400)	249
Share options	26	-	-	-	-	38	-	38
Exercised and forfeited share options		-	-	-	-	(31)	31	-
Balance as at December 31, 2019		53,799	(2,885)	(2,867)	277	(156)	155,311	203,479

The accompanying notes are an integral part of these financial statements.

ČEZ, a. s.
STATEMENT OF CASH FLOWS
FOR THE YEAR ENDED DECEMBER 31, 2019

In CZK Millions

	Note	2019	2018
OPERATING ACTIVITIES:			
Income before income taxes		17,797	22,609
Adjustments of income before income taxes to cash generated from operations:			
Depreciation and amortization	3, 6	14,535	14,310
Amortization of nuclear fuel	3	4,059	4,005
(Gains) and losses on non-current asset retirements		(38)	(37)
Foreign exchange rate loss (gain)		231	808
Interest expense, interest income and dividend income		(8,491)	(27,481)
Provisions		3,062	1,133
Impairment of property, plant and equipment and intangible assets		114	188
Other impairment and other non-cash expenses and income		5,244	(251)
Changes in assets and liabilities:			
Receivables and contract assets		5,541	(23,756)
Materials, supplies and fossil fuel stocks		(212)	(545)
Receivables and payables from derivatives		(15,163)	1,048
Other assets		(15,580)	(2,925)
Trade payables		4,791	20,126
Other liabilities		228	44
Cash generated from operations		16,118	9,276
Income taxes received (paid)		(21)	321
Interest paid, net of capitalized interest		(5,886)	(5,299)
Interest received		1,295	825
Dividends received	5, 31	13,117	31,989
Net cash provided by operating activities		24,623	37,112
INVESTING ACTIVITIES:			
Acquisition of subsidiaries and joint-ventures		(2,860)	(1,813)
Proceeds from disposal of subsidiaries and joint-ventures and original investments repayments		3,524	156
Additions to non-current assets, including capitalized interest		(8,397)	(7,893)
Proceeds from sale of non-current assets		1,364	2,865
Loans made		(4,361)	(18,536)
Repayment of loans		2,234	3,338
Change in restricted financial assets		(735)	(548)
Total cash used in investing activities		(9,231)	(22,431)

The accompanying notes are an integral part of these financial statements.

ČEZ, a. s.
STATEMENT OF CASH FLOWS
FOR THE YEAR ENDED DECEMBER 31, 2019

continued

	Note	2019	2018
FINANCING ACTIVITIES:			
Proceeds from borrowings		210,254	124,391
Payments of borrowings		(202,352)	(117,934)
Payments of lease liabilities	20	(1,159)	-
Payments of other long-term liabilities		(750)	(500)
Change in payables/receivables from group cashpooling		(5,721)	(3,933)
Dividends paid		(12,836)	(17,596)
Sale of treasury shares		249	210
Net cash used in financing activities		(12,315)	(15,362)
Net effect of currency translation and allowances in cash		(15)	(137)
Net increase (decrease) in cash and cash equivalents		3,062	(818)
Cash and cash equivalents at beginning of period		454	1,272
Cash and cash equivalents at end of period	7	3,516	454

Supplementary cash flow information:			
Total cash paid for interest		6,114	5,522

The accompanying notes are an integral part of these financial statements.

ČEZ, a. s.
NOTES TO THE FINANCIAL STATEMENTS
AS OF DECEMBER 31, 2019

CONTENT:

ČEZ, a. s.
NOTES TO THE FINANCIAL STATEMENTS
AS OF DECEMBER 31, 2019

1. Description of the Company

ČEZ, a. s. (ČEZ or the Company), business registration number 45274649, is a joint-stock company incorporated on May 6, 1992 under the laws of the Czech Republic in the Commercial Register maintained by the Municipal Court in Prague (Section B, Insert 1581). The Company's registered office is located at Duhová 2/1444, Prague 4, Czech Republic.

The Company is involved primarily in the production, trading and sale of electricity and the related support services and in the production, distribution and sale of heat and sale of gas. ČEZ is an electricity generation company, which in 2019 generated approximately 62% of the electricity in the Czech Republic.

The average number of employees was 5,348 and 5,212 in 2019 and 2018, respectively.

The Czech Republic represented by the Ministry of Finance is a majority shareholder holding 69.8% of the Company's share capital at December 31, 2019. The majority shareholder's share of the voting rights represented 70.1% at the same date.

2. Summary of Significant Accounting Policies

2.1. Financial Statements

These separate financial statements were prepared in accordance with International Financial Reporting Standards (IFRS), as adopted by the European Union (EU).

The financial statements are prepared under the historical cost convention, except when IFRS requires other measurement basis as disclosed in the accounting policies below.

Based on the economic substance of the underlying events and circumstances relevant to the Company, the functional and presentation currency has been determined to be Czech crowns (CZK).

The Company also compiled consolidated IFRS financial statements of the CEZ Group for the same period.

Explanation Added for Translation into English

These financial statements represent a translation of financial statements originally issued in Czech.

2.2. Changes in Accounting Policies

2.2.1. Adoption of New IFRS Standards in 2019

The accounting policies adopted are consistent with those of the previous financial year, except for as follows. The Company has adopted the following new or amended and endorsed by EU IFRS and IFRIC interpretations as of January 1, 2019:

IFRS 16 Leases
This standard supersedes 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 Involving the Legal Form of a Lease. The standard deals with accounting, measurement and presentation of leases and disclosure requirements for the notes of the financial statements for both

contract parties, i.e. for customer (lessee) and for supplier (lessor). Lessees will use single accounting model for all leases (with certain exceptions). Accounting by lessor is substantially unchanged from IAS 17, except where the Company leases right-of-use assets in a sublease. Therefore, IFRS 16 does not have a material impact for leases where the Company is the lessor.

The Company applied IFRS 16 using the modified retrospective approach, under which the comparative information presented for 2018 is not restated. The Company elected to use a transition practical expedient and applied the standard only to contracts that were previously identified as leases applying IAS 17 and IFRIC 4 at the date of initial application. The Company also elected to use the recognition exemptions for lease contracts that, at the commencement date, have a lease term of 12 months or less and do not contain a purchase option (short-term leases), and lease contracts for which the underlying asset is of low value (low-value assets).

On transition to IFRS 16, the Company recognized right-of-use assets and lease liabilities and derecognized prepayments related to the leased assets. The impact on transition is summarized below (in CZK million):

Plant in service	2,524
Other current assets, net	(11)
Total assets	2,513
Long-term debt including current portion	2,513
Total liability	2,513

As at December 31, 2018, the Company did not identify any lease contracts or minimum lease payments from the non-cancellable operating lease that should be disclosed in the Notes to the Financial statements as at December 31, 2018.

Amendment IAS 19 Plan Amendment, Curtailment or Settlement
The Amendment is effective for annual periods beginning on or after January 1, 2019 with earlier application permitted. The Amendment requires entity to use updated actuarial assumptions to determine current service cost and net interest for the remainder of the annual reporting period after a plan amendment, curtailment or settlement has occurred. The Amendment also clarifies how the accounting for a plan amendment, curtailment or settlement affects applying the asset ceiling requirements. The Amendment did not have material impact on the Company’s financial statements.

Amendment IFRS 9 Prepayment Features with Negative Compensation
The Amendment is effective for annual reporting periods beginning on or after January 1, 2019 with earlier application permitted. The Amendment allows financial assets with prepayment features that permit or require a party to a contract either to pay or receive reasonable compensation for the early termination of the contract (so that, from the perspective of the holder of the asset there may be ‘negative compensation’), to be measured at amortized cost or at fair value through other comprehensive income. The Amendment did not have material impact on the Company’s financial statements.

Amendment IAS 28 Long-term Interests in Associates and Joint-ventures
The Amendment is effective for annual reporting periods beginning on or after January 1, 2019 with earlier application permitted. The Amendment relates to whether the measurement, in particular impairment requirements, of long-term interests in associates and joint-ventures that, in substance, form part of the ‘net investment’ in the associate or joint-venture should be governed by IFRS 9, IAS 28 or a combination of both. The Amendment clarifies that an entity applies IFRS 9 Financial Instruments, before it applies IAS 28, to such long-term interests for which the equity method is not applied. In applying IFRS 9, the entity does not take account of any adjustments to the carrying amount of long-term interests that arise from applying IAS 28. The Amendment did not have material impact on the Company’s financial statements.

IFRIC Interpretation 23 Uncertainty over Income Tax Treatments
The Interpretation is effective for annual periods beginning on or after January 1, 2019 with earlier application permitted. The Interpretation addresses the accounting for income taxes when tax

treatments involve uncertainty that affects the application of IAS 12. The Interpretation provides guidance on considering uncertain tax treatments separately or together, examination by tax authorities, the appropriate method to reflect uncertainty and accounting for changes in facts and circumstances. This Interpretation did not have material impact on the Company's financial statements.

Annual Improvements to IFRSs 2015–2017
In December 2017, the IASB issued a collection of amendments to IAS and IFRS for annual periods beginning on or after January 1, 2019 in which they focused on areas of inconsistency in IFRSs and IASs or where the clarification of wording was required. The following standards were amended:

IFRS 3 Business Combinations and IFRS 11 Joint Arrangements:
The amendments to IFRS 3 clarify that when an entity obtains control of a business that is a joint operation, it remeasures previously held interests in that business. The amendments to IFRS 11 clarify that when an entity obtains joint control of a business that is a joint operation, the entity does not remeasure previously held interests in that business.

IAS 12 Income Taxes:
The amendments clarify that the income tax consequences of payments on financial instruments classified as equity should be recognized according to where the past transactions or events that generated distributable profits has been recognized.

IAS 23 Borrowing Costs:
The amendments clarify paragraph 14 of the standard that, when a qualifying asset is ready for its intended use or sale, and some of the specific borrowing related to that qualifying asset remains outstanding at that point, that borrowing is to be included in the funds that an entity borrows generally.

These improvements did not have significant impact to the Company's financial statements.

2.2.2. Adoption of New IFRS Standards in 2018

In 2018, The Company has adopted the new accounting standard IFRS 9 Financial Instruments. Other changes in accounting policies in 2018, which are described in more details in the separate financial statements as at December 31, 2018, did not have material impact on the Company's financial statements.

The Company has adopted the new accounting standard IFRS 9 retrospectively, with the initial application date of January 1, 2018. As a result of the application of IFRS 9, the Company reassessed the amount of allowance provision for doubtful receivables and other assets in accordance with IFRS 9 impairment requirements, which are described in Note 2.11.4. The application of IFRS 9 standard as of January 1, 2018 reduced equity by CZK 34 million.

2.2.3. New IFRS Standards and IFRIC Interpretations either not yet Effective or not yet Adopted by the EU

The Company is currently assessing the potential impacts of the new and revised standards and interpretations that will be effective or adopted by the EU from January 1, 2020 or later. Standards and interpretations most relevant to the Company's activities are detailed below:

Amendments to IFRS 10 and IAS 28 Sale or Contribution of Assets between an Investor and its Associate or Joint-venture
The amendments address an acknowledged inconsistency between IFRS 10 and IAS 28, in dealing with the sale or contribution of assets between an investor and its associate or joint-venture. The main consequence of the amendments is that a full gain or loss is recognized when a transaction involves a business (whether it is housed in a subsidiary or not). A partial gain or loss is recognized when a transaction involves assets that do not constitute a business, even if these assets are housed in a subsidiary. In December 2015 the IASB postponed the effective date of this amendment indefinitely

pending the outcome of its research project on the equity method of accounting. The amendments have not yet been endorsed by the EU. These amendments are not expected to have significant impact to the Company's financial statements.

IFRS 17 Insurance Contracts
The standard is effective for annual periods beginning on or after January 1, 2021 with earlier application permitted if both IFRS 15 Revenue from Contracts with Customers and IFRS 9 Financial Instruments have also been applied. IFRS 17 Insurance Contracts establishes principles for the recognition, measurement, presentation and disclosure of insurance contracts issued. It also requires similar principles to be applied to reinsurance contracts held and investment contracts with discretionary participation features issued. The objective is to ensure that entities provide relevant information in a way that faithfully represents those contracts. This information gives a basis for users of financial statements to assess the effect that contracts within the scope of IFRS 17 have on the financial position, financial performance and cash flows of an entity. The standard has not been yet endorsed by the EU. This standard is not expected to have significant impact to the Company's financial statements.

Conceptual Framework in IFRS Standards
The IASB issued the revised Conceptual Framework for Financial Reporting on March 29, 2018. The Conceptual Framework sets out a comprehensive set of concepts for financial reporting, standard setting, guidance for preparers in developing consistent accounting policies and assistance to others in their efforts to understand and interpret the standards. IASB also issued a separate accompanying document, Amendments to References to the Conceptual Framework in IFRS Standards, which sets out the amendments to affected standards in order to update references to the revised Conceptual Framework. Its objective is to support transition to the revised Conceptual Framework for companies that develop accounting policies using the Conceptual Framework when no IFRS Standard applies to a particular transaction. For preparers who develop accounting policies based on the Conceptual Framework, it is effective for annual periods beginning on or after January 1, 2020. This amendment is not expected to have significant impact to the Company's financial statements.

Amendment IFRS 3: Business Combinations
The IASB issued Amendment in Definition of a Business (Amendments to IFRS 3) aimed at resolving the difficulties that arise when an entity determines whether it has acquired a business or a group of assets. The Amendment is effective for business combinations for which the acquisition date is in the first annual reporting period beginning on or after January 1, 2020 and to asset acquisitions that occur on or after the beginning of that period, with earlier application permitted. This Amendment have not yet been endorsed by the EU. This amendment is not expected to have significant impact to the Company's financial statements.

Amendments IAS 1 Presentation of Financial Statements and IAS 8 Accounting Policies, Changes in Accounting Estimates and Errors: Definition of 'material'
The Amendments are effective for annual periods beginning on or after January 1, 2020 with earlier application permitted. The Amendments clarify the definition of material and how it should be applied. The new definition states that, 'Information is material if omitting, misstating or obscuring it could reasonably be expected to influence decisions that the primary users of general-purpose financial statements make on the basis of those financial statements, which provide financial information about a specific reporting entity'. In addition, the explanations accompanying the definition have been improved. The Amendments also ensure that the definition of material is consistent across all IFRS Standards. These amendments are not expected to have significant impact to the Company's financial statements.

Amendments IFRS 9, IAS 39 and IFRS 7 – Interest Rate Benchmark Reform
The amendments are effective for annual periods beginning on or after January 1, 2020 and must be applied retrospectively. Earlier application is permitted. In September 2019, the IASB issued amendments to IFRS 9, IAS 39 and IFRS 7, which concludes phase one of its work to respond to the effects of Interbank Offered Rates (IBOR) reform on financial reporting. Phase two will focus on issues that could affect financial reporting when an existing interest rate benchmark is replaced with a risk-free interest rate (an RFR). The amendments published, deal with issues affecting financial reporting in the period before the replacement of an existing interest rate benchmark with an alternative interest rate and address the implications for specific hedge accounting requirements in IFRS 9 Financial Instruments and IAS 39 Financial Instruments: Recognition and Measurement, which require forward-looking analysis. The amendments provided temporary reliefs, applicable to all hedging relationships

that are directly affected by the interest rate benchmark reform, which enable hedge accounting to continue during the period of uncertainty before the replacement of an existing interest rate benchmark with an alternative nearly risk-free interest rate. There are also amendments to IFRS 7 Financial Instruments: Disclosures regarding additional disclosures around uncertainty arising from the interest rate benchmark reform. These amendments are not expected to have significant impact to the Company's financial statements.

Amendments IAS 1 Presentation of Financial Statements: Classification of Liabilities as Current or Non-current
The amendments are effective for annual reporting periods beginning on or after January 1, 2022 with earlier application permitted. The amendments aim to promote consistency in applying the requirements by helping companies determine whether, in the statement of financial position, debt and other liabilities with an uncertain settlement date should be classified as current or non-current. The amendments affect the presentation of liabilities in the statement of financial position and do not change existing requirements around measurement or timing of recognition of any asset, liability, income or expenses, nor the information that entities disclose about those items. Also, the amendments clarify the classification requirements for debt which may be settled by the company issuing own equity instruments. These Amendments have not yet been endorsed by the EU. These amendments are not expected to have significant impact to the Company's financial statements.

The Company does not expect early adoption of any of the above-mentioned standards, improvements or amendments.

2.3. Estimates

The preparation of financial statements in conformity with International Financial Reporting Standards requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the date of the financial statements and the reported amounts of revenues and expenses for the reporting period. Actual results could differ from those estimates. Explanation of key assumptions is included in relevant sections of notes where significant estimates are being described.

Significant estimates are made by the Company while determining recoverable amounts for property, plant and equipment and financial assets (see Notes 3 and 5), accounting for the nuclear provisions (see Notes 2.21 and 16.1), provisions for waste storage reclamation (see Note 16.2), fair value of commodity contracts (see Notes 2.13 and 14) and financial derivatives (see Notes 2.12 and 14) and incremental borrowing rate and lease term to measure lease liability (see Notes 2.22 and 20).

2.4. Revenues and Other Income

The Company recognizes revenue from supplies of electricity, heat and gas based on contract terms. Differences between contracted amounts and actual supplies for electricity and gas are settled through the market operator.

Revenues are recognized when the Company has satisfied a performance obligation and the amount of revenue can be reliably measured. The Company will recognize revenue at an amount that reflects the consideration to which the entity expects to be entitled (after reduction for expected discounts) in exchange for transferring goods or services to a customer.

Sales are recognized net of value added tax.

Revenue from sale of assets is recognized when they are delivered and related significant risks and rewards of ownership have passed to the buyer.

Revenue from services provided is recognized when the services are rendered.

Dividends earned on investments are recognized when the right of payment has been established.

2.5. Fuel Costs

Fuel costs are expensed as fuel is consumed. Fuel expense includes the amortization of the cost of nuclear fuel (see Note 2.8).

2.6. Interest

The Company capitalizes all interest incurred in connection with its construction program that theoretically could have been avoided if expenditures for the qualifying assets had not been made. The qualifying assets include assets, for which the construction represents a substantial period of time.

2.7. Property, Plant and Equipment

Property, plant and equipment are recorded at cost, net of accumulated depreciation and impairment in value. Cost of plant in service includes purchase price, materials, labor, payroll-related costs and the cost of debt financing used during construction. The cost also includes the estimated cost of dismantling and removing the asset and restoring the site, to the extent that is recognized as a provision under IAS 37, Provisions, Contingent Liabilities and Contingent Assets. Government grants received for construction of certain items of property, plant and equipment decrease the acquisition cost of the respective items.

Internally developed property, plant and equipment are recorded at their accumulated cost. The cost of maintenance, repairs, and replacement of minor items of property is charged to maintenance expense when incurred. Renewals and improvements are capitalized. Upon sale, retirement or replacement of part of an item of property, plant and equipment the cost, related accumulated depreciation and eventual impairment of the disposed item or its replaced part are derecognized from the balance sheet. Any resulting gains or losses are included in profit or loss.

At each reporting date, the Company assesses whether there is any indication that an asset may be impaired. Where an indicator of impairment exists, the Company reviews the recoverable amounts of its property, plant and equipment to determine whether such amounts continue to exceed the assets' carrying values. The recoverable amount of an asset is the higher of its fair value less costs of disposal and its value in use. Identified impairment of property, plant and equipment is recognized directly in profit or loss in the line item Impairment of property, plant and equipment and intangible assets.

At each reporting date, an assessment is made whether there is any indication that previously recognized impairment losses may no longer exist or may have decreased. If such indication exists, the Company makes an estimate of recoverable amount. A previously recognized impairment loss is reversed only if there has been a change in the estimates used to determine the asset's recoverable amount since the last impairment loss was recognized. If that is the case the carrying amount of the asset is increased to its recoverable amount. That increased amount cannot exceed the carrying amount that would have been determined, net of depreciation, had no impairment loss been recognized for the asset in prior years. Such reversal is recognized in profit or loss in the line item Impairment of property, plant and equipment and intangible assets.

The Company depreciates the original cost of property, plant and equipment less its residual value by using the straight-line method over the estimated economic lives. Each part of an item of property, plant and equipment with a cost that is significant in relation to the total cost of the item is depreciated separately. The depreciable useful lives used for property, plant and equipment are as follows:

	Useful lives (years)
Buildings and structures	20–55
Machinery and equipment	4–37
Vehicles	8–25
Furniture and fixtures	4–15

Average depreciable lives based on the functional use of property, plant and equipment are as follows:

	Average life (years)
Hydro plants	
Buildings and structures	45
Machinery and equipment	12
Fossil fuel plants	
Buildings and structures	39
Machinery and equipment	12
Nuclear power plant	
Buildings and structures	38
Machinery and equipment	13

The assets’ residual values, useful lives and depreciation methods are reviewed, and adjusted if appropriate, at each financial year end.

2.8. Nuclear Fuel

The Company presents nuclear fuel as part of property, plant and equipment, because its useful life exceeds 1 year. Nuclear fuel is recorded at cost, net of accumulated amortization and possible impairment in value. The nuclear fuel includes the capitalized portion of the provision for interim storage of nuclear fuel. Amortization of fuel in the reactor is based on the amount of power generated and is recognized in the income statement in the line item Fuel and emission rights. The amortization of nuclear fuel includes charges in respect of additions to the accumulated provision for interim storage of spent nuclear fuel.

2.9. Intangible Assets

Intangible assets are valued at their acquisition costs and related expenses. Intangible assets are amortized over their useful lives using the straight-line method. The estimated useful life of intangible assets ranges from 3 to 16 years. The intangible assets’ residual values, useful lives and methods of amortization are reviewed, and adjusted if appropriate, at each financial year end. Improvements are capitalized.

Intangible assets are tested for impairment whenever facts or changes in circumstances indicate that the carrying amount could be impaired. The recoverable amount of an intangible asset not yet available for use is tested for impairment annually, irrespective of whether there is any indication that it may be impaired. Identified impairment of intangible assets is recognized directly in profit or loss in the line item Impairment of property, plant and equipment and intangible assets.

At each reporting date an assessment is made as to whether there is any indication that previously recognized impairment losses may no longer exist or may have decreased. If such indication exists, the Company makes an estimate of recoverable amount. A previously recognized impairment loss is reversed only if there has been a change in the estimates used to determine the asset’s recoverable amount since the last impairment loss was recognized. If that is the case the carrying amount of the asset is increased to its recoverable amount. That increased amount cannot exceed the carrying amount that would have been determined, net of depreciation, had no impairment loss been recognized for the asset in prior years. Such reversal is recognized in profit or loss in the line item Impairment of property, plant and equipment and intangible assets.

2.10. Emission Rights

Emission right represents the right of the operator of a facility, which in the course of its operation emits greenhouse gases, to emit during the calendar year equivalent of one ton of carbon dioxide. Based on the National Allocation Plans the Company have been granted emission rights. The

Company is responsible for determining and reporting the amount of greenhouse gases produced by its facilities in the calendar year and this amount has to be audited by an accredited person.

On April, 30 of the following year, at the latest, the Company is required to remit a number of allowances representing the number of tones of CO_2 actually emitted in previous year.

The emission rights which were granted free of charge are stated at their nominal value, i.e. at zero. Purchased emission rights are carried at cost (except for emission rights for trading). The Company recognizes a provision to cover emissions made corresponding to the difference between released emissions and amount of the emission rights which were granted free. This provision is measured firstly with regard to the cost of emission rights and credits purchased with the intention of covering the greenhouse gases emissions of the reporting period. The reserve for released emissions above the amount of these emissions rights and credits is measured at the market price ruling at the balance sheet date. The emission rights purchased for the own use purpose in the next year are presented under current assets in the line Emission rights. The emission rights with an expected later using are presented as part of the intangible assets.

The Company also holds emission rights and credits for trading purposes. The portfolio of emission rights and credits held for trading is measured at fair value. The changes in fair value of the emission rights and credits held for trading are recognized directly in profit or loss in the line item of Gains and losses from commodity derivative trading. The emission rights and credits for the trading purpose are presented under current assets in the line Emission rights.

At each reporting date, the Company assesses whether there is any indication that emission rights may be impaired. Where an indicator of impairment exists, the Company reviews the recoverable amounts of the cash-generating units, to which the emission rights were allocated, to determine whether such amounts continue to exceed the assets' carrying values. Any identified impairment of emission rights is recognized directly in profit or loss in the line item of Other operating expenses.

Sale and repurchase agreements with emission rights are accounted for as collateralized borrowing.

2.11. Classification of Financial Instruments

A financial asset is mainly cash, an equity instrument of another entity or a contractual right to receive cash or another financial asset.

A financial liability is mainly a contractual obligation to deliver cash or another financial asset.

Financial liabilities and assets are presented as current (short-term) or non-current (long-term). Financial assets are presented as current when the Company expects to realize them within 12 months of the balance sheet date or if there is no reasonable certainty that the Company will hold the financial assets for more than 12 months of the balance sheet date.

Financial liabilities are presented as current when they are due within 12 months of the balance sheet date.

The financial assets and liabilities for trading are presented as current.

Financial assets and financial liabilities are offset and the net amount is reported in the balance sheet if there is a currently enforceable legal right to offset the recognized amounts and there is an intention to settle on a net basis, to realize the assets and settle the liabilities simultaneously.

2.11.1. Financial Assets

Financial assets are classified into categories at amortized cost, at fair value depending on whether the financial asset is held for trading or is held within a business model whose objective is to hold assets to collect contractual cash flows, and at cost.

The Company defines financial assets to the following categories:

a) financial assets at amortized cost
This category includes the financial assets held with strategy to collect contractual cash flows, which consists of both principal and interest payments. Examples for such financial assets are loans, securities held to maturity, trade receivables.
Expected credit losses, foreign exchange rate differences and interest revenues are recognized in the income statement.

b) financial assets at fair value through other comprehensive income
This category includes the financial assets held with strategy to collect contractual cash flows or to sell financial assets. This model distinguishes two types of accounting treatment:

- no recycling to the income statement – used for equity instruments
Expected credit loss is not calculated and recognized. Changes in the fair value are recognized in other comprehensive income. When the financial asset is derecognized no profit or loss is recognized in the income statement – it never affects profit or loss. In case that equity instrument was sold an accumulated revaluation reserve is reclassified to retained earnings. Foreign exchange rate differences are recognized in other comprehensive income (part of revaluation reserve). In case that equity instrument was sold gain/loss remains in other comprehensive income is reclassified to retained earnings. Dividends from these financial assets are recognized in the income statement providing it does not result in an impairment loss of investment at the same time.

- recycling to the income statement – used for debt instruments
Expected credit loss is recognized in the income statement. Changes in the fair value are recognized in other comprehensive income. When the financial asset is derecognized, profit or loss is recognized in the income statement (profit or loss is reclassified from other comprehensive income to the income statement). Foreign exchange rate differences in relation to revaluation reserve are recognized in other comprehensive income. Foreign exchange rate differences in relation to impairment are recognized in the income statement. Interest revenues are recognized in the income statement.

c) financial assets at fair value through profit or loss
This category includes the financial assets held with strategy of active trade with financial asset. Contractual cash flow collection is not the primary objective of business model.
Examples for such financial assets are securities for trading, derivatives, not used for hedging. Expected credit losses are not calculated and recognized. Changes in the fair value and foreign exchange rate differences are recognized in the income statement.
Changes in the fair values are included in lines Other financial expenses or Other financial income.

d) financial assets at cost
This category includes share on subsidiaries, associates and joint-ventures. The creation of the impairment loss is recognized in the statement of income.

2.11.2. Financial Liabilities

Financial liabilities are classified into two main categories (a) at amortized cost and (b) at fair value through profit or loss. Classification into these categories is similar to the financial assets above.

For “Fair Value Option” liabilities, the amount of change in the fair value of a liability that is attributable to changes in credit risk must be presented in other comprehensive income. The remainder of the change in fair value is presented in profit or loss, unless presentation of the fair value change in respect of the liability’s credit risk in other comprehensive income would create or enlarge an accounting mismatch in profit or loss.

2.11.3. Derivatives

Specific category of the financial assets and liabilities are derivatives. The method of recognizing the resulting gain or loss depends on whether the derivative is designated as a hedging instrument, and if so, the nature of the item being hedged. The presentation of derivatives is described in the Note 2.12.

2.11.4. Impairment of Financial Assets

Impairment of financial assets by applying the IFRS 9 requirements is based on expected credit loss (ECL) model which applies to the following financial assets:

a) debt instruments at amortized cost (trade receivables, loans, debt securities),
b) debt instruments at fair value through other comprehensive income,
c) lease receivables,
d) financial guarantee contracts,
e) bank accounts and term deposits.

The Company recognizes either 12-months or lifetime ECL, depending on whether there has been a significant increase in credit risk since initial recognition (or when the commitment or guarantee was entered into). For some trade receivables, the simplified approach is applied whereby the lifetime expected credit losses are always recognized.

For the purposes of ECL model calculation, the portfolio of financial assets is split into 3 stages. At the date of the first recognition, the financial assets are included in stage 1, with the lowest allowance, which is determined using percentage of unpaid receivables in the past. Subsequent reclassification to the stages 2 and 3 is carried out according to the definition of significant increase in credit risk of a debtor. The interest revenue from receivables in the stage 3 is based on the net carrying amount.

2.12. Derivative Financial Instruments

The Company uses derivative financial instruments such as foreign currency contracts and interest rate swaps to hedge its risks associated with interest rate and foreign currency fluctuations. Such derivative financial instruments are stated at fair value. In the balance sheet such derivatives are presented as part of current and non-current financial assets or as part of other long-term and short-term financial liabilities.

The method of recognizing the resulting gain or loss depends on whether the derivative is designated as a hedging instrument, and if so, the nature of the item being hedged.

For the purpose of hedge accounting, hedges are classified as either fair value hedges when they hedge the exposure to changes in the fair value of a recognized asset or liability; or cash flow hedges when they hedge exposure to variability in cash flows that is either attributable to a particular risk associated with a recognized asset or liability or a highly probable forecast transaction.

The Company documents at the inception of the transaction the relationship between hedging instruments and hedged items, as well as its risk management objective and strategy for undertaking various hedge transactions. The Company also documents its assessment, both at hedge inception and on an ongoing basis, of whether the derivatives that are used in hedging transactions are highly effective in offsetting changes in fair values or cash flows of hedged items.

2.12.1. Fair Value Hedge

Gain or loss from re-measuring the hedging instrument at fair value is recognized immediately in the income statement. Any gain or loss on the hedged item attributable to the hedged risk is adjusted against the carrying amount of the hedged item and recognized in the income statement. Where the adjustment is to the carrying amount of a hedged interest-bearing financial instrument, the adjustment is amortized to profit or loss over the remaining term to maturity.

2.12.2. Cash Flow Hedge

Changes in the fair value of derivatives that are designated and qualify as cash flow hedges are initially recognized in other comprehensive income. The gain or loss relating to the ineffective portion is recognized in the income statement in the line item Other financial expenses or Other financial income.

Amounts accumulated in equity are transferred to the income statement in the periods when the hedged item affects profit or loss.

When a hedging instrument expires or is sold, or when a hedge no longer meets the criteria for hedge accounting, any cumulative gain or loss existing in equity at that time remains in equity and is recorded to the income statement when the forecast transaction is ultimately recognized. When a forecast transaction is no longer expected to occur, the cumulative gain or loss that was reported in other comprehensive income is immediately transferred to the income statement.

2.12.3. Other Derivatives

Certain derivative instruments are not designated for hedge accounting. Changes in the fair value of any derivative instruments that do not qualify for hedge accounting are recognized immediately in the income statement.

2.13. Commodity Contracts

According to IFRS 9, certain commodity contracts are treated as financial instruments and fall into the scope of the standard. Most commodity purchase and sales contracts entered into by the Company provide for physical delivery of quantities intended to be consumed or sold as part of its ordinary business; such contracts are thus excluded from the scope of IFRS 9.

Forward purchases and sales for physical delivery of energy are considered to fall outside the scope of application of IFRS 9, when the contract concerned is considered to have been entered into as part of the normal business activity. This is demonstrated to be the case when all the following conditions are fulfilled:

- A physical delivery takes place under such contracts;
- The volumes purchased or sold under the contracts correspond to the Company's operating requirements;
- The contract cannot be considered as a written option as defined by the standard IFRS 9. In the specific case of electricity sales contracts, the contract is substantially equivalent to a firm forward sale or can be considered as a capacity sale.

The Company thus considers that transactions negotiated with a view to balancing the volumes between electricity purchases and sale commitments are part of its ordinary business as an integrated electric utility company and do not therefore come under the scope of IFRS 9.

Commodity contracts which fall under the scope of IFRS 9 are carried at fair value with changes in the fair value recognized in the income statement. The Company presents revenues and expenses related to commodity trading net in the line Gains and losses from commodity derivative trading.

2.14. Cash and Cash Equivalents

Cash and cash equivalents include cash on hand, current accounts with banks and short-term bank notes with a maturity of 6 months or less. Foreign currency deposits are translated using the exchange rates published as at the balance sheet date.

2.15. Financial Assets Restricted in Use

Restricted balances of cash and other financial assets, which are shown as restricted funds (see Note 4), relate to deposits for funding of nuclear decommissioning liabilities, waste storage reclamation and cash guarantees given to transaction partners. The non-current classification is based on the expected timing of the release of the funds to the Company.

2.16. Receivables, Payables and Accruals

Receivables are recognized and carried at original invoice amount less an allowance for any uncollectible amounts. An impairment analysis of receivables is performed by the Company at each reporting date on an individual basis for significant specific receivables. In addition, a large number of minor receivables are grouped into homogenous groups and assessed for impairment collectively where the individual approach is not applicable. The calculation is based on actual incurred historical data of these groups.

Payables are recorded at invoiced values and accruals are reported at expected settlement values.

2.17. Materials and Supplies

Purchased inventories are valued at actual cost, using the weighted average method. Costs of purchased inventories comprise expenses which have been incurred in respect of the acquisition of materials and supplies including transportation costs. When consumed, inventories are charged to income or capitalized as part of property, plant and equipment. Work-in-progress is valued at actual cost. Costs of inventories produced internally include direct material and labor costs. Obsolete inventories are reduced to their realizable value by a provision charged to the income statement. At December 31, 2019 and 2018 the provision for obsolescence amounted to CZK 11 million and CZK 7 million, respectively.

2.18. Fossil Fuel Stocks

Fossil fuel stocks are stated at actual cost using weighted average cost method.

2.19. Income Taxes

The provision for corporate tax is calculated in accordance with the Czech tax regulations and is based on the income or loss reported under the Czech accounting regulations, increased or decreased by the appropriate permanent and temporary differences (e.g. differences between book and tax depreciation). Income tax due is provided at a rate of 19% for the years ended December 31, 2019 and 2018, respectively, from income before income taxes after adjustments for certain items which are not deductible, or taxable, for taxation purposes. The Czech corporate income tax rate enacted for 2020 and on is 19%.

Deferred income tax is provided, using the liability method, on all temporary differences at the balance sheet date between the tax bases of assets and liabilities and their carrying amounts for financial reporting purposes. Deferred income tax is determined using tax rates (and laws) that have been enacted by the balance sheet date and are expected to apply when the related deferred income tax asset is realized or the deferred income tax liability is settled.

Deferred tax assets and liabilities are recognized regardless of when the temporary difference is likely to revers. Deferred tax assets and liabilities are not discounted. Deferred tax assets are recognized when it is probable that sufficient taxable profits will be available against which the deferred tax assets can be utilized. A deferred tax liability is recognized for all taxable temporary differences.

The carrying amount of deferred income tax assets is reviewed at each balance sheet date and reduced to the extent that it is no longer probable that sufficient taxable profit will be available to allow all or part of the deferred income tax asset to be utilized.

Current tax and deferred tax are charged or credited directly to equity if the tax relates to items that are credited or charged, in the same or a different period, directly to equity.

Change in the carrying amount of deferred tax assets and liabilities due to change in tax rate is recognized in the income statement, except to the extent that it relates to items previously charged or credited to equity.

2.20. Long-term Debt

Borrowings are initially recognized at the amount of the proceeds received, net of transaction costs. They are subsequently carried at amortized cost using the effective interest rate method, the difference between net proceeds and redemption value is being recognized in the net income over the life of the borrowings as interest expense.

Transaction costs include fees and commissions paid to agents, advisers, brokers and dealers, levies by regulatory agencies and securities exchanges.

The carrying amount of long-term debt, which is hedged against the changes in its fair value, is adjusted by the changes in the fair value attributable to the hedged risk. The changes in the fair value of the hedged long-term debt are recognized in profit or loss and are included in the income statement line Other financial expenses or Other financial income. The adjustment to the carrying amount of the hedged long-term debt in a fair value hedge is subsequently amortized to profit or loss using the effective interest rate method.

2.21. Nuclear Provisions

The Company has recognized provisions for its obligations to decommission its nuclear power plants at the end of their operating lives, to store the related spent nuclear fuel and other radioactive waste initially on an interim basis and provision for its obligation to provide financing for subsequent permanent storage of spent nuclear fuel and irradiated parts of reactors (see Note 16.1).

The provisions recognized represent the best estimate of the expenditures required to settle the present obligation at the current balance sheet date. Such cost estimates, expressed at current price levels at the date of the estimate, are discounted at December 31, 2019 and 2018 using a long-term real rate of interest of 0.70% and 1.25% per annum, respectively, to take into account the timing of payments. The initial discounted cost amounts are capitalized as part of property, plant and equipment and are depreciated over the period when the nuclear power plants generate electricity. Each year, the provisions are increased to reflect the accretion of discount and to accrue an estimate for the effects of inflation, with the charges being presented in the income statement on the line Interest on provisions. At December 31, 2019 and 2018 the estimate for the effect of expected inflation rate is 1.50% and 1.25%, respectively.

The decommissioning process is expected to continue for approximately a fifty-year period subsequent to the final operation of the plants. It is currently anticipated that the permanent storage facility for spent nuclear fuel will become available in 2065 and the process of final disposal of the spent nuclear fuel will then continue until approximately 2090. While the Company has made its best estimate in establishing its nuclear provisions, because of potential changes in technology as well as safety and environmental requirements, plus the actual time scale to complete decommissioning and interim and permanent fuel storage activities, the ultimate provision requirements could vary significantly from the Company's current estimates.

Changes in a decommissioning liability and in liability for permanent storage of spent nuclear fuel that result from a change in the current best estimate of timing and/or amount of cash flows required to settle the obligation or from a change in the discount rate are added to (or deducted from) the amount recognized as the related asset. However, to the extent that such a treatment would result in a negative asset, the effect of the change is recognized in the income for the current period.

2.22. Leases

The determination of whether an arrangement is, or contains a lease is based on the substance of the arrangement at inception date and requires evaluation of whether the fulfillment of the arrangement is dependent on the use of a specific asset or assets and whether the arrangement conveys the right to use the asset.

The Company doesn't apply the standard IFRS 16 to leases of intangible assets.

2.22.1. Company as a Lessee

The Company applies a single recognition and measurement approach for all leases, except for short-term leases and leases of low-value assets. The Company recognizes lease liabilities to make lease payments and right-of-use assets representing the right to use the underlying assets. Lease payments on short-term leases and leases of low value assets are recognized as expense on a straight-line basis over the lease term.

a) Lease liabilities

At the commencement date of the lease, the Company recognizes lease liabilities measured at the present value of lease payments to be made over the lease term. The lease payments include fixed payments less any lease incentives receivable, variable lease payments that depend on an index or a rate, and amounts expected to be paid under residual value guarantees. Variable lease payments that do not depend on an index or a rate are recognized as expenses in the period in which the event or condition that triggers the payment occurs.

In calculating the present value of lease payments, the Company uses its incremental borrowing rate at the lease commencement date because the interest rate implicit in the lease is not readily determinable. After the commencement date, the amount of lease liabilities is increased to reflect the accretion of interest and reduced for the lease payments made. In addition, the carrying amount of lease liabilities is remeasured if there is a modification, a change in the lease term, a change in the lease payments (e.g., changes to future payments resulting from a change in an index or rate used to determine such lease payments) or a change in the assessment of an option to purchase the underlying asset.

The incremental borrowing rate is the rate of interest that the Company would have to pay to borrow over a similar term, and with a similar security, the funds necessary to obtain an asset of a similar value to the right-of-use asset in a similar economic environment. The Company estimates the incremental borrowing rate using observable inputs such as market interest rates.

For contracts that are concluded for an indefinite period, the Company applies judgement for determination of the expected lease period.

b) Right-of-use assets

The Company recognizes right-of-use assets at the commencement date of the lease (i.e. the date the underlying asset is available for use). Right-of-use assets are measured at cost, less any accumulated depreciation and impairment losses, and adjusted for any remeasurement of lease liabilities. The cost of right-of-use assets includes the amount of lease liabilities recognized, initial direct costs incurred, and lease payments made at or before the commencement date less any lease incentives received. Right-of-use assets are depreciated on a straight-line basis over the shorter of the lease term or the estimated useful lives of the assets, as follows:

	Depreciation period (years)
Lands	4-32
Buildings	4-10
Vehicles, machinery and equipment	1-12
Inventory and other tangible assets	8-10

2.22.2. Company as a Lessor

The Company leases out its tangible assets under operating lease. Operating leases are the leases, in which the Company does not transfer substantially all the risk and rewards incidental to ownership of an assets.

Rental income arising from operating lease is accounted for on a straight-line basis over the lease terms and included in revenue in the statement of profit or loss due to its operating nature.

2.23. Treasury Shares

Treasury shares are presented in the balance sheet as a deduction from equity. The acquisition of treasury shares is presented in the statement of equity as a reduction in equity. No gain or loss is recognized in the income statement on the sale, issuance or cancellation of treasury shares. Consideration received is presented in the financial statements as an addition to equity.

2.24. Share Options

Members of Board of Directors and selected managers have been granted options to purchase common shares of the Company. Expense related to the share option plan was measured on the date of the grant by reference to the fair value of the share options granted. The expense is accrued over the vesting period of the equity instruments granted. The expense recognized reflects the best estimate of the number of share options which will ultimately vest.

2.25. Foreign Currency Transactions

Assets and liabilities whose acquisition or production costs were denominated in foreign currencies are translated into Czech crowns using the exchange rate prevailing at the date of the transaction, as published by the Czech National Bank. In the accompanying financial statements, monetary assets and liabilities are translated at the rate of exchange ruling at December 31. Foreign exchange gains and losses resulting from the settlement of such transactions and from the translation of monetary assets and liabilities denominated in foreign currencies are recognized in the income statement, except when deferred in equity for qualifying cash flow hedges.

Translation differences on debt securities and other monetary financial assets measured at fair value are included in foreign exchange gains and losses. Translation differences on non-monetary items such as equity instruments held for trading are reported as part of the fair value gain or loss. Translation differences on available-for-sale equity securities are included in equity.

Exchange rates used as at December 31, 2019 and 2018 for the translation of assets and liabilities denominated in foreign currencies were as follows:

	2019	2018
CZK per 1 EUR	25.410	25.725
CZK per 1 USD	22.621	22.466
CZK per 1 PLN	5.970	5.980
CZK per 1 BGN	12.992	13.153
CZK per 1 RON	5.313	5.516
CZK per 100 JPY	20.844	20.447
CZK per 1 TRY	3.805	4.247
CZK per 100 HUF	7.688	8.015

2.26. Non-current Assets Held for Sale

Non-current assets and disposal groups classified as held for sale are measured at the lower of their carrying amount and fair value less costs to sell. Non-current assets and disposal groups are classified as held for sale if their carrying amounts will be recovered principally through a sale transaction rather than through continuing use. This condition is regarded as met only when the sale is highly probable and the asset or disposal group is available for immediate sale in its present condition. Management must be committed to the sale, which should be expected to qualify for recognition as a completed sale within one year from the date of classification.

Property, plant and equipment and intangible assets classified as held for sale are not depreciated or amortized.

3. Property, Plant and Equipment

Net plant in service at December 31, 2019 and 2018 was as follows (in CZK millions):

	Buildings	Plant and equipment	Land and other	Total plant in service	Nuclear fuel	Construction work in progress	Total
Cost at December 31, 2018	109,572	343,606	1,176	454,354	23,025	8,373	485,752
Recognition of right-of-use asset on application of IFRS 16	1,978	470	76	2,524	-	-	2,524
Cost at January 1, 2019	111,550	344,076	1,252	456,878	23,025	8,373	488,276
Additions	4,362	59	8	4,429	-	8,496	12,925
Disposals	(141)	(346)	(15)	(502)	(3,104)	(7)	(3,613)
Bring into use	1,326	2,379	7	3,712	3,626	(7,338)	-
Change in capitalized part of the provision	132	11,251	-	11,383	-	-	11,383
Non-monetary contribution	(20)	-	-	(20)	-	-	(20)
Cost at December 31, 2019	117,209	357,419	1,252	475,880	23,547	9,524	508,951
Accumulated depreciation and impairment at January 1, 2019	(50,660)	(194,087)	(83)	(244,830)	(8,694)	(1,131)	(254,655)
Depreciation and amortization of nuclear fuel [1)]	(3,774)	(10,607)	(6)	(14,387)	(3,766)	-	(18,153)
Net book value of assets disposed	(53)	(36)	-	(89)	-	-	(89)
Disposals	141	346	-	487	3,104	-	3,591
Non-monetary contribution	10	-	-	10	-	-	10
Impairment losses recognized	(13)	-	-	(13)	-	(91)	(104)
Accumulated depreciation and impairment at December 31, 2019	(54,349)	(204,384)	(89)	(258,822)	(9,356)	(1,222)	(269,400)
Total property, plant and equipment at December 31, 2019	62,860	153,035	1,163	217,058	14,191	8,302	239,551

[1)] The amortization of nuclear fuel also includes charges in respect of additions to the accumulated provision for interim storage of spent nuclear fuel in the amount of CZK 293 million.

	Buildings	Plant and equipment	Land and other	Plant in service total	Nuclear fuel	Construction work in progress	Total
Cost at January 1, 2018	109,230	337,845	1,175	448,250	23,318	8,944	480,512
Additions	-	-	3	3	-	6,605	6,608
Disposals	(192)	(285)	(3)	(480)	(3,149)	(9)	(3,638)
Bring into use	601	3,707	1	4,309	2,856	(7,165)	-
Change in capitalized part of the provision	(67)	2,339	-	2,272	-	-	2,272
Reclassification and other	-	-	-	-	-	(2)	(2)
Cost at December 31, 2018	109,572	343,606	1,176	454,354	23,025	8,373	485,752
Accumulated depreciation and impairment at January 1, 2018	(48,138)	(182,886)	-	(231,024)	(8,218)	(1,041)	(240,283)
Depreciation and amortization of nuclear fuel [1)]	(2,698)	(11,441)	(3)	(14,142)	(3,625)	-	(17,767)
Net book value of assets disposed	(9)	(45)	-	(54)	-	-	(54)
Disposals	192	285	3	480	3,149	-	3,629
Reclassification and other	-	-	-	-	-	-	-
Impairment losses recognized	(7)	-	(83)	(90)	-	(90)	(180)
Accumulated depreciation and impairment at December 31, 2018	(50,660)	(194,087)	(83)	(244,830)	(8,694)	(1,131)	(254,655)
Total property, plant and equipment at December 31, 2018	58,912	149,519	1,093	209,524	14,331	7,242	231,097

[1)] The amortization of nuclear fuel also includes charges in respect of additions to the accumulated provision for interim storage of spent nuclear fuel in the amount of CZK 380 million.

In 2019 and 2018 a composite depreciation rate of Plant in service was 3.1%.

In 2019 and 2018 capitalized interest costs amounted to CZK 229 million and CZK 227 million, respectively, and the interest capitalization rate was 3.9% and 4.2%, respectively.

Construction work in progress contains mainly investments related to the acquisition of nuclear fuel and refurbishments performed on Temelín, Dukovany and Ledvice power plants and Trmice heating plant.

Company as a Lessee

As at January 1, 2019 the Company adopted IFRS 16. Set out below are the carrying amounts and other information at December 31, 2019, respectively during year 2019, about right-of-use assets recognized in total property, plant and equipment (in CZK millions):

	2019			
	Buildings	Plant and equipment	Land and other	Total plant in service
Additions of right-of-use assets	4,362	59	8	4,429
Depreciation charge for right-of-use assets	(1,134)	(92)	(7)	(1,233)
Carrying amounts as at December 31	5,205	427	77	5,709

Company as a Lessor

The carrying amounts of property, plant and equipment that are subject to an operating lease (in CZK millions):

	2019		
	Buildings	Land and other	Total plant in service
Carrying amount as at December 31	830	271	1,101

Impairment Test of Assets

Company's generation assets are tested for any possible impairment as a single cash-generating unit with the exception of specific assets, e.g. the gas fired power plant in Počerady. Company's cash-generating unit of generation assets is characterized by portfolio management in the deployment and maintenance of various power plants and the cash flows generated from these activities.

As part of testing the recoverable value of fixed assets of the cash-generating unit of ČEZ, a. s. (hereinafter the ČEZ Value), we performed a sensitivity analysis of the test results to changes in certain key parameters of the used model – changes in wholesale power prices (hereinafter the EE prices), changes in the discount rate used in the calculation of the present value of future cash flows and changes in CZK/EUR exchange rate.

The development of commodity prices and, in particular, the development of wholesale power prices in Germany (as German power prices have a major impact on the development of wholesale power prices in the Czech Republic) are the key assumptions used for the ČEZ Value model. The developments of wholesale prices are primarily determined by the EU political decisions, the development of global demand and supply of commodities and the technological progress.

The development of EE price is influenced by a number of external factors, including, in particular, changes in the structure and availability of generation capacity in the Czech Republic and neighboring countries, the macroeconomic development of the Central European region and the regulation of the energy sector in the EU and Germany (fundamental impacts of premature decommissioning of German nuclear power plants in 2020–2022 and impacts of the EU approved climate and energy targets for 2030) and also by development of the Czech Republic State Energy Concept. The model was constructed for a period adequate to the useful life of the power plants, i.e. for a period that significantly exceeds the period for which commodities, including wholesale power price contracts, are traded on public liquid markets. In addition, the power market is subject to structural changes (the Market Design) and major industry regulation; consequently, complete abandonment of market-based power pricing mechanisms and implementation of alternative, centrally regulated payments for the availability and supply of power plants within the period of useful life of the power plants is actually possible.

With respect to the fact that we are using a long-term model, there are certain internal factors and assumptions that affect the ČEZ Value sensitivity to the development of power prices, such as varying deployment of the generation portfolio depending on the development of power prices, emission allowances and variable generation costs and, in a longer perspective, also the development of fixed costs reflecting the development of the power plants gross margin.

The sensitivity test results reflect expert estimates of the status and development of the above factors in the period of the model and the status of commercial securing of the generation portfolio as at December 31, 2019.

The test considers long-term EE prices at the level used to prepare Company's business plan for 2020–2024. The plan was prepared in the fourth quarter 2019 whereas the plan was based on the active market parameters observed in August and September (power prices on EEX energy exchange in Germany, prices on PXE energy exchange in the Czech Republic, price of CO_2 emission rights, FX rate CZK/EUR, interest rates etc.). There is a liquidity for power contracts traded on EEX for the period covering the horizon of the business plan and with regard to links between German and Czech power transmission network, the EEX prices are basic market price indicator for EE prices in the Czech Republic. For the purposes of the sensitivity analysis, the input EE prices, emission rights prices and foreign exchange rates were applied to the relevant opened positions of the Company.

A change of the assumed EE prices as per the models by 1%, with other parameters remaining unchanged, would have an impact of approximately CZK 7.8 billion on the ČEZ Value test results. Future cash flows of the model were discounted using a 4.1% rate. A change of 0.1 percentage point in the discount rate, with other parameters remaining unchanged, would change the ČEZ Value by approximately CZK 5.1 billion. A change of 1% in the CZK/EUR exchange rate, with other parameters remaining unchanged, would result in a change of approximately CZK 6.7 billion in the ČEZ Value.

4. Restricted Financial Assets, Net

Restricted financial assets, net at December 31, 2019, and 2018 consist of the following (in CZK millions):

	2019	2018
Czech government bonds	11,318	10,608
Cash in banks, net	2,985	2,728
Total restricted financial assets, net	14,303	13,336

The Czech government bonds are measured at fair value through other comprehensive income. At December 31, 2019 and 2018 the most significant restricted financial assets are the financial assets to cover the costs of nuclear decommissioning totaled CZK 14,058 million and CZK 13,094 million, respectively, and financial assets to cover the costs for waste storage reclamation totaled CZK 189 million and CZK 185 million, respectively.

5. Other Financial Assets, Net

Other financial assets, net at December 31, 2019 and 2018 consist of the following (in CZK millions):

	2019			2018		
	Non-current assets	Current assets	Total	Non-current assets	Current assets	Total
Loans granted	19,779	10,559	30,338	20,481	7,851	28,332
Receivables from Group cashpooling	-	3,546	3,546	-	2,358	2,358
Term deposits	-	-	-	-	502	502
Other financial receivables	135	92	227	10	29	39
Total financial assets at amortized costs	19,914	14,197	34,111	20,491	10,740	31,231
Equity financial assets (Inven Capital, SICAV, a.s., Podfond ČEZ)	3,327	-	3,327	3,286	-	3,286
Commodity and other derivatives	901	60,341	61,242	1,247	93,982	95,229
Total financial assets at fair value through profit or loss	4,228	60,341	64,569	4,533	93,982	98,515
Equity financial assets (Veolia Energie ČR, a.s.)	2,444	-	2,444	2,791	-	2,791
Fair value of cash flow hedge derivatives	4,732	1,064	5,796	2,186	124	2,310
Debt financial assets	-	-	-	-	1,287	1,287
Total financial assets at fair value through other comprehensive income	7,176	1,064	8,240	4,977	1,411	6,388
Financial assets at cost – share on subsidiaries, associates and joint-ventures	149,883	-	149,883	147,478	-	147,478
Total	181,201	75,602	256,803	177,479	106,133	283,612

Derivatives balance comprises mainly positive fair value of commodity trading contracts.

The Company concluded two put option agreements with Vršanská uhelná a.s. in March 2013. Under these contracts the Company has the right to transfer 100% of the shares of its subsidiary Elektrárna Počerady, a.s. to Vršanská uhelná a.s. First option for the year 2016 was not exercised, second option can be exercised in 2024 for cash consideration of CZK 2 billion. The option agreement could be inactivated until December 31, 2019, which the Company did not apply, which results in the sale in 2024. The contracts represent derivatives that will be settled by the delivery of unquoted equity instrument. Elektrárna Počerady, a.s. is not quoted on any market. There is significant variability in the range of reasonable fair values for this equity instrument (there is no similar power plant in the Czech Republic for sale and also no similar transaction took place) and thus it is difficult to reasonably assess the probabilities of various estimates. As a result, the fair value cannot be reliably measured. Consequently, the put option is measured at cost. There was no option premium paid on the options and therefore the cost of these instruments is zero.

Movements in impairment provisions of financial assets at amortized costs (in CZK millions):

	2019	2018
Balance at January 1	(37,515)	(37,173)
Adoption of IFRS 9	-	(11)
Additions (see Note 29)	(3,574)	(2,566)
Reversals (see Note 29)	6,922	3
Derecognition of impaired and sold financial assets	256	73
Reclassification	(406)	-
Transfer to assets classified as held for sale	-	2,159
Currency translation difference	5	-
Balance at December 31	(34,312)	(37,515)

In 2019, the provision for obligation in case of claim from guarantee for Akcez group loans was reclassified to impairment provision following the cash contribution to the company Akcez Enerji A.S. in the amount of CZK 406 million.

In 2019, an impairment loss of CZK 256 million was derecognized in connection with the sale of the share in CEZ Trade Polska sp. z o.o.

In 2018, an impairment loss of CZK 73 million in Shared Services was derecognized in connection with the liquidation of the company.

Loans granted and other financial assets, net at December 31, 2019 are contracted to mature in the following periods after the balance sheet date (in CZK millions):

	Loans granted	Receivables from Group cashpooling	Other financial receivables
Due in 2020	10,559	3,546	92
Due in 2021	584	-	131
Due in 2022	560	-	1
Due in 2023	560	-	2
Due in 2024	560	-	1
Thereafter	17,515	-	-
Total	30,338	3,546	227

Loans granted and other financial assets, net at December 31, 2018 are contracted to mature in the following periods after the balance sheet date (in CZK millions):

	Loans granted	Receivables from Group cashpooling	Term deposits	Other financial receivables	Debt assets at fair value through other comprehensive income
Due in 2019	7,851	2,358	502	29	1,287
Due in 2020	572	-	-	8	-
Due in 2021	584	-	-	1	-
Due in 2022	560	-	-	1	-
Due in 2023	560	-	-	-	-
Thereafter	18,205	-	-	-	-
Total	28,332	2,358	502	39	1,287

Loans granted and other financial assets, net at December 31, 2019 have following effective interest rate structure (in CZK millions):

	Loans granted	Receivables from Group cashpooling	Other financial receivables
Less than 2.00%	9,593	3,546	227
From 2.00% to 2.99%	3,566	-	-
From 3.00% to 3.99%	17,142	-	-
From 4.00% to 4.99%	37	-	-
Total	30,338	3,546	227

Loans granted and other financial assets, net at December 31, 2018 have following effective interest rate structure (in CZK millions):

	Loans granted	Receivables from Group cashpooling	Term deposits	Other financial receivables	Debt assets at fair value through other comprehen-sive income
Less than 2.00%	7,115	2,358	502	39	1,287
From 2.00% to 2.99%	3,888	-	-	-	-
From 3.00% to 3.99%	17,273	-	-	-	-
From 4.00% to 4.99%	56	-	-	-	-
Total	28,332	2,358	502	39	1,287

Loans granted and other financial assets, net at December 31, 2019 according to currencies (in CZK millions):

	Loans granted	Receivables from Group cashpooling	Other financial receivables
CZK	20,424	1,618	156
EUR	9,914	1,541	5
PLN	-	53	66
HUF	-	334	-
Total	30,338	3,546	227

Loans granted and other financial assets, net at December 31, 2018 according to currencies (in CZK millions):

	Loans granted	Receivables from Group cashpooling	Term deposits	Other financial receivables	Debt assets at fair value through other comprehen-sive income
CZK	21,139	391	502	37	1,287
EUR	7,193	1,878	-	1	-
PLN	-	19	-	-	-
USD	-	-	-	1	-
HUF	-	70	-	-	-
Total	28,332	2,358	502	39	1,287

The following table summarizes investments in subsidiaries, associates and joint-ventures and other ownership interests at December 31, 2019 and 2018:

			2019		2018	
Company	Country	% interest[2]	Interest, net in CZK millions	Dividends in CZK millions	Interest, net in CZK millions	Dividends in CZK millions
ČEZ Distribuce, a. s.	CZ	100.00	32,742	5,777	32,742	25,599
Energotrans, a.s.	CZ	100.00	17,986	721	17,986	500
CEZ Holdings B.V.	NL	100.00	17,969	-	12,917	-
Severočeské doly a.s.	CZ	100.00	14,343	1,707	14,343	1,707
ČEZ OZ uzavřený investiční fond a.s.	CZ	99.56	12,327	864	12,873	1,198
Distributie Energie Oltenia S.A.	RO	100.00	11,333	-	13,020	-
Tomis Team S.A.	RO	100.00	9,653	-	7,388	-
Ovidiu Development S.R.L.	RO	99.98	5,912	-	7,298	-
ČEZ ESCO, a.s.	CZ	100.00	4,493	-	4,170	-
ČEZ Korporátní služby, s.r.o.	CZ	100.00	3,931	184	3,301	119
ČEZ ICT Services, a. s.	CZ	100.00	3,849	300	4,236	120
ČEZ Bohunice a.s.	CZ	100.00	2,809	-	3,592	-
ČEZ Teplárenská, a.s.	CZ	100.00	2,527	150	3,053	130
Elektrárna Temelín II, a. s.	CZ	100.00	1,993	-	2,045	-
ČEZ Prodej, a.s.	CZ	100.00	1,396	2,579	1,008	2,003
Elektrárna Počerady, a.s.	CZ	100.00	1,280	634	1,280	311
Elektrárna Dukovany II, a. s.	CZ	100.00	1,028	-	1,048	-
ŠKODA PRAHA a.s. [1]	CZ	100.00	927	-	846	-
CEZ Vanzare S.A.	RO	100.00	817	-	817	89
Elektrárna Dětmarovice, a.s.	CZ	100.00	771	-	1,343	-
CEZ Bulgarian Investments B.V.	NL	100.00	589	-	589	-
Energetické centrum s.r.o.	CZ	100.00	279	-	515	-
ÚJV Řež, a. s.	CZ	52.46	185	-	185	-
LOMY MOŘINA spol. s r.o.	CZ	51.05	169	5	169	5
CEZ Deutschland GmbH	DE	100.00	167	-	167	-
CEZ Romania S.A.	RO	100.00	92	-	92	-
ČEZ Obnovitelné zdroje, s.r.o.	CZ	100.00	78	-	73	-
CEZ Towarowy Dom Maklerski sp. z o.o.	PL	100.00	41	28	107	-
ŠKODA PRAHA Invest s.r.o. [1]	CZ	-	-	-	81	-
Other			197	50	194	56
Total financial assets at cost			149,883	12,999	147,478	31,837
Inven Capital, SICAV, a.s., Podfond ČEZ	CZ	99.87	3,327	-	3,286	-
Veolia Energie ČR, a.s.	CZ	15.00	2,444	118	2,791	152
Total financial assets at fair value			5,771	118	6,077	152
Total			155,654	13,117	153,555	31,989

[1] The company ŠKODA PRAHA Invest s.r.o. merged with the succession company ŠKODA PRAHA a. s. with the legal effective date of January 1, 2019.
[2] Equity interest is equal to voting rights.

Used country shortcuts: CZ – Czech Republic, DE – Germany, NL – Netherlands, PL – Poland, RO – Romania.

Movements in investments in share on subsidiaries, associates and joint-ventures at amortized costs at December 31, 2019 and 2018 were as follows (in CZK millions):

Net investments at January 1, 2019	147,478
Additions – cash and non-monetary contributions to equity:	
CEZ Holdings B.V.	2,101
Akcez Enerji A.S.	594
ČEZ ESCO, a.s.	323
Other	55
Total additions	3,073
Decreases – decrease of equity with payment:	
Ovidiu Development S.R.L.	(1,762)
Tomis Team S.A.	(698)
ČEZ OZ uzavřený investiční fond a.s.	(546)
Distributie Energie Oltenia S.A.	(351)
CEZ Towarowy Dom Maklerski sp. z o.o.	(66)
Total decreases	(3,423)
Impairment provisions – additions (see Note 29):	
Distributie Energie Oltenia S.A.	(1,337)
ČEZ Bohunice a.s.	(783)
Elektrárna Dětmarovice, a.s.	(572)
ČEZ Teplárenská, a.s.	(526)
Other	(353)
Impairment provisions – reversals (see Note 29):	
Tomis Team S.A.	2,963
CEZ Holdings B.V.	2,951
ČEZ Korporátní služby, s.r.o.	630
Ovidiu Development S.R.L.	376
Impairment provisions – reclassification:	
Akcez Enerji A.S.	(594)
Total impairment provisions	2,755
Net investments at December 31, 2019	149,883

Net investments at January 1, 2018	154,717
Additions – new subsidiaries:	
ČEZ Asset Holding, a. s.	10
REN Development s. r. o.	5
Additions – cash and non-monetary contributions to equity:	
ČEZ ESCO, a.s.	820
CEZ Holdings B.V.	657
CEZ Trade Polska sp. z o.o.	211
Other	111
Total additions	1,814
Decreases – sale:	
Osvětlení a energetické systémy a.s.	(43)
ČEZ OZ uzavřený investiční fond a.s.	(5)
Decreases – liquidation:	
Shared Services Albania Sh.A.	(13)
CEZ International Finance B.V.	(1)
Decreases – reclassification:	
Shares in Bulgarian companies held for sale	(6,540)
Decreases – merger:	
ČEZ Inženýring, s.r.o.	(80)
Total decreases	(6,682)
Impairment provisions – additions (see Note 29):	
ČEZ Teplárenská, a.s.	(1,573)
Elektrárna Dětmarovice, a.s.	(419)
CEZ Trade Polska sp. z o.o.	(256)
Other	(123)
Total impairment provisions	(2,371)
Net investments at December 31, 2018	147,478

6. Intangible Assets, Net

Intangible assets, net, at December 31, 2019 and 2018 were as follows (in CZK millions):

	Software	Rights and other	Intangibles in progress	Emission rights	Total
Cost at January 1, 2019	2,231	1,244	219	3,625	7,319
Additions	-	-	219	6,729	6,948
Disposals	(15)	(35)	-	-	(50)
Bring to use	22	51	(73)	-	-
Reclassification and other	1	-	-	(2,022)	(2,021)
Cost at December 31, 2019	2,239	1,260	365	8,332	12,196
Accumulated amortization at January 1, 2019	(1,896)	(1,188)	-	-	(3,084)
Amortization	(124)	(24)	-	-	(148)
Disposals	15	35	-	-	50
Accumulated amortization at December 31, 2019	(2,005)	(1,177)	-	-	(3,182)
Net intangible assets at December 31, 2019	234	83	365	8,332	9,014

	Software	Rights and other	Intangibles in progress	Emission rights	Total
Cost at January 1, 2018	2,155	1,236	136	-	3,527
Additions	-	-	170	2,759	2,929
Disposals	(1)	(4)	-	-	(5)
Bring to use	75	12	(87)	-	-
Reclassification and other	2	-	-	866	868
Cost at December 31, 2018	2,231	1,244	219	3,625	7,319
Accumulated amortization at January 1, 2018	(1,767)	(1,156)	-	-	(2,923)
Amortization	(131)	(37)	-	-	(168)
Disposals	2	5	-	-	7
Accumulated amortization at December 31, 2018	(1,896)	(1,188)	-	-	(3,084)
Net intangible assets at December 31, 2018	335	56	219	3,625	4,235

Research and development costs, net of grants and subsidies received, that are not eligible for capitalization have been expensed in the period incurred and amounted to CZK 290 million and CZK 278 million, respectively, in 2019 and 2018, respectively.

7. Cash and Cash Equivalents, Net

The composition of cash and cash equivalents, net at December 31, 2019 and 2018 is as follows (in CZK millions):

	2019	2018
Cash on hand and current accounts with banks	516	454
Term deposits	3,000	-
Total	3,516	454

At December 31, 2019 and 2018, cash and cash equivalents included foreign currency deposits of CZK 228 million and CZK 257 million, respectively.

The weighted average interest rate on term deposits at December 31, 2019 was 1.9%. For the years 2019 and 2018 the weighted average interest rate was 1.4% and 0.7%, respectively.

8. Trade Receivables, Net

The composition of trade receivables, net at December 31, 2019 and 2018 is as follows (in CZK millions):

	2019	2018
Trade receivables	58,208	64,432
Allowance	(166)	(145)
Total	58,042	64,287

The information about receivables from related parties is included in Note 33.

At December 31, 2019 and 2018 the ageing analysis of trade receivables, net is as follows (in CZK millions):

	2019	2018
Not past due	58,020	64,200
Past due:		
less than 3 months	14	46
3–6 months	6	20
6–12 months	2	21
Total	58,042	64,287

Receivables include impairment allowance based on the collective assessment of impairment of receivables that are not individually significant.

Movements in allowance for doubtful receivables (in CZK millions):

	2019	2018
Balance at January 1	(145)	(80)
Adoption of IFRS 9	-	(20)
Additions	(58)	(61)
Reversals	36	16
Currency translation difference	1	-
Balance at December 31	(166)	(145)

9. Emission Rights

The following table summarizes the movements in the quantity (in thousand tons) and book value of emission rights and credits held by the Company during 2019 and 2018 (in CZK millions):

	2019		2018	
	in thousands tons	in CZK millions	in thousands tons	in CZK millions
Emission rights and credits for own use:				
Emission rights and credits for own use at January 1	33,687	7,392	21,588	2,493
Emission rights granted	255	-	3,458	-
Settlement of prior year actual emissions with register	(15,752)	(2,486)	(14,944)	(1,626)
Emission rights purchased	33,768	14,678	23,462	6,524
Emission rights sold	(4,578)	(935)	-	-
Emission credits purchased	123	1	123	1
Emission rights and credits for own use at December 31	47,503	18,650	33,687	7,392
Thereof:				
Long-term	14,426	8,332	12,580	3,625
Short-term	33,077	10,318	21,107	3,767
Emission rights and credits held for trading:				
Emission rights and credits held for trading at January 1	14,797	9,390	21,824	4,543
Settlement of prior year actual emissions with register	-	-	(1,133)	(382)
Emission rights purchased	79,862	49,899	122,576	45,171
Emission rights sold	(72,163)	(45,333)	(128,470)	(47,337)
Fair value adjustment	-	52	-	7,395
Emission rights and credits held for trading at December 31	22,496	14,008	14,797	9,390

At December 31, 2019 and 2018 emission rights for own use and held for trading amounted to CZK 24,326 million and CZK 13,157 million, respectively and are presented in current assets in the line Emission rights. Non-current emission rights for own use are presented as part of the intangible assets (see Note 6).

In 2019 and 2018, total emissions of greenhouse gases made by the Company amounted to an equivalent of 17,136 thousand tons and 15,752 thousand tons of CO_2, respectively. At December 31, 2019 and 2018 the Company recognized a provision for CO_2 emissions in total amount of CZK 4,362 million and CZK 2,515 million, respectively (see Notes 2.10 and 16).

10. Other Current Assets, Net

Other current assets, net at December 31, 2019 and 2018 were as follows (in CZK millions):

	2019	2018
Prepayments	440	387
Taxes and fees, except income tax	841	824
Advances paid	929	690
Others	574	461
Total	2,784	2,362

11. Non-current Assets Held for Sale, net

On February 23, 2018, a sales contract for the sale of interests in Bulgarian companies CEZ Razpredelenie Bulgaria AD (including its interest in CEZ ICT Bulgaria EAD), CEZ Trade Bulgaria EAD, CEZ Bulgaria EAD, CEZ Elektro Bulgaria AD, Free Energy Project Oreshets EAD and Bara Group EOOD was signed. The sellers for CEZ Group are ČEZ, a. s. and CEZ Bulgarian Investments B.V. The requirements of standard IFRS 5 to classify the assets as held for sale were met by granting prior consent to the transaction by the supervisory board of ČEZ, a. s. which took place on February 22, 2018. Following the refusal of the transaction by the Bulgarian anti-trust authority, the transaction could not be carried out.

On June 20, 2019, a sales contract for the sale of the above-mentioned interests in Bulgarian companies was signed with the company Eurohold AD. The transaction is a subject to approval by the Bulgarian anti-trust authority and the Bulgarian Energy Regulatory Office.

On October 24, 2019, Bulgarian anti-trust authority refused the transaction for the sale of Bulgarian assests to the company Eurohold. The Company filed an administrative action against this decision and is considering further legal steps that will protect the interest of CEZ Group. The sales contract from June 20, 2019, remains in force, as well as the intention to sell these assets to company Eurohold.

As at December 31, 2019 and 2018 Bulgarian assets held for sale amounted to CZK 6,540 million.

12. Equity

As at December 31, 2019 and 2018, the share capital of the Company registered in the Commercial Register totaled CZK 53,798,975,900 and consisted of 537,989,759 shares with a nominal value of CZK 100 per share. All shares are bearer common shares that are fully paid and listed and do not convey any special rights.

Movements of treasury shares in 2019 and 2018 (in pieces):

	2019	2018
Number of treasury shares at beginning of period	3,125,021	3,605,021
Sales of treasury shares	(573,781)	(480,000)
Number of treasury shares at end of period	2,551,240	3,125,021

Treasury shares remaining at end of period are presented at cost as a deduction from equity.

Declared dividends per share before tax were CZK 24 and 33 in 2019 and 2018, respectively. Dividends for the year 2019 will be declared at the general meeting which will be held in the first half of 2020.

Capital Management

The primary objective of the Company's capital management is to keep its credit rating on the investment grade and on the level that is common in the industry and to maintain healthy capital ratios in order to support its business and maximize value for shareholders. The Company manages its capital structure and makes adjustments to it, in light of changes in economic conditions.

The Company primarily monitors capital using the ratio of net debt to EBITDA. Considering the current structure and stability of cash flow and the development strategy, the goal of the Group is the level of this ratio in range 2.5 to 3.0. In addition, the Company also monitors capital using a total debt to total capital ratio. The Company's policy is to keep the total debt to total capital ratio below 50% in the long term.

EBITDA consists of income before income taxes and other income (expenses) plus depreciation and amortization, plus impairment of property, plant and equipment and intangible assets and less gain (or loss) on sale of property, plant and equipment. The Company includes within total debt the long-term and short-term interest bearing loans and borrowings. Net debt is defined as total debt less cash and cash equivalents and highly liquid financial assets. Highly liquid financial assets consist for capital management purposes of short-term debt financial assets and both short-term and long-term bank deposits. Total capital is total equity attributable to equity holders of the parent plus total debt. The items related to assets classified as held for sale, which are presented separately on the balance sheet, are always included in these calculations.

The calculation and evaluation of the ratios is done using consolidated figures (in CZK millions):

	2019	2018
Total long-term debt	167,633	149,183
Total short-term loans	4,260	11,783
Total long-term debt associated with assets held for sale	1,608	1,537
Total short-term loans associated with assets held for sale	170	309
Total debt [1]	173,671	162,812
Less:		
Cash and cash equivalents	(9,755)	(7,278)
Cash and cash equivalents classified as held for sale	(2,151)	(1,967)
Highly liquid financial assets:		
Current debt financial assets	(403)	(1,287)
Non-current debt financial assets	(111)	(513)
Current term deposits	(3)	(505)
Total net debt	161,248	151,262
Income before income taxes and other income (expenses)	26,429	19,759
Depreciation and amortization	29,016	28,139
Impairment of property, plant and equipment and intangible assets	4,860	1,766
Gains and losses on sale of property, plant and equipment	(130)	(129)
EBITDA	60,175	49,535
Total equity attributable to equity holders of the parent	250,761	234,721
Total debt	173,671	162,812
Total capital	424,432	397,533
Net debt to EBITDA ratio	2.68	3.05
Total debt to total capital ratio	40.9%	41.0%

[1] Part of total debt are accrued interest expenses, which amounted to CZK 2,151 million and CZK 2,200 million as at December 31, 2019 and 2018, respectively.

13. Long-term Debt

Long-term debt at December 31, 2019 and 2018 was as follows (in CZK millions):

	2019	2018
3.005% Eurobonds, due 2038 (JPY 12,000 million)	2,516	2,468
2.845% Eurobonds, due 2039 (JPY 8,000 million)	1,679	1,647
5.000% Eurobonds, due 2021 (EUR 750 million)	19,228	19,457
6M Euribor + 1.25% Eurobonds, due 2019 (EUR 50 million)	-	1,287
4.875% Eurobonds, due 2025 (EUR 750 million)	19,671	19,909
4.500% Eurobonds, due 2020 (EUR 750 million)	19,478	19,693
2.160% Eurobonds, due in 2023 (JPY 11,500 million)	2,416	2,370
4.600% Eurobonds, due in 2023 (CZK 1,250 million)	1,287	1,287
2.150%*IR CPI Eurobonds, due 2021 (EUR 100 million) [1)]	2,602	2,634
4.102% Eurobonds, due 2021 (EUR 50 million)	1,273	1,288
4.375% Eurobonds, due 2042 (EUR 50 million)	1,271	1,286
4.500% Eurobonds, due 2047 (EUR 50 million)	1,269	1,284
4.383% Eurobonds, due 2047 (EUR 80 million)	2,062	2,087
3.000% Eurobonds, due 2028 (EUR 725 million)	19,133	19,419
0.875% Eurobonds, due 2022 (EUR 500 million)	12,675	12,824
0.875% Eurobonds, due 2026 (EUR 750 million)	18,847	-
4.250% U.S. bonds, due 2022 (USD 289 million)	6,578	6,525
5.625% U.S. bonds, due 2042 (USD 300 million)	6,817	6,768
4.500% Registered bonds, due 2030 (EUR 40 million)	1,006	1,017
4.750% Registered bonds, due 2023 (EUR 40 million)	1,056	1,068
4.700% Registered bonds, due 2032 (EUR 40 million)	1,048	1,060
4.270% Registered bonds, due 2047 (EUR 61 million)	1,531	1,549
3.550% Registered bonds, due 2038 (EUR 30 million)	780	790
Total bonds and debentures	144,223	127,717
Less: Current portion	(21,163)	(3,419)
Bonds and debentures, net of current portion	123,060	124,298
Long-term bank loans and lease liabilities:		
Less than 2% p.a.	8,624	10,899
2.00 to 2.99% p.a.	5,207	-
3.00 to 3.99% p.a.	507	-
4.00 to 4.99% p.a.	33	-
5.00 to 5.99% p.a.	14	-
Total long-term bank loans and lease liabilities	14,385	10,899
Less: Current portion	(3,597)	(2,171)
Long-term bank loans and lease liabilities, net of current portion	10,788	8,728
Total long-term debt	158,608	138,616
Less: Current portion	(24,760)	(5,590)
Total long-term debt, net of current portion	133,848	133,026

1) The interest rate is based on inflation realized in Eurozone Countries (Harmonized Index of Consumer Prices – HICP) and is fixed through the closed swap to the rate 4.553% p.a.

The interest rates indicated above are historical rates for fixed rate debt and current market rates for floating rate debt. The actual interest payments are affected by interest rate risk hedging carried out by the Company.

All long-term debt is recognized in original currencies while the related hedging derivatives are recognized using the method described in Note 2.12.

Future maturities of long-term debt are as follows (in CZK millions):

	2019	2018
Current portion	24,760	5,590
Between 1 and 2 years	25,860	21,421
Between 2 and 3 years	21,696	25,046
Between 3 and 4 years	6,876	20,550
Between 4 and 5 years	1,095	5,561
Thereafter	78,321	60,448
Total long-term debt	158,608	138,616

The following table analyses long-term debt by currency (in millions):

	2019		2018	
	Foreign currency	CZK	Foreign currency	CZK
EUR	5,206	132,283	4,570	117,551
USD	592	13,395	592	13,293
JPY	31,716	6,611	31,714	6,485
CZK	-	6,319	-	1,287
Total long-term debt		158,608		138,616

Long-term debt with floating interest rates exposes the Company to interest rate risk. The following table summarizes long-term debt with floating rates of interest by contractual reprising dates at December 31, 2019 and 2018 without considering interest rate hedging (in CZK millions):

	2019	2018
Floating rate long-term debt with interest rate fixed from 3 months to 1 year	8,622	12,186
Fixed rate long-term debt	149,986	126,430
Total long-term debt	158,608	138,616

Fixed rate long-term debt exposes the Company to the risk of changes in fair values of these financial instruments. For related fair value information and risk management policies of all financial instruments see Notes 14 and 15.

The following table analyses changes in liabilities and receivables arising from financing activities in 2019 and 2018 (in CZK millions):

	Debt	Other long-term financial liabilities	Other short-term financial liabilities	Other current financial assets, net	Total liabilities / assets from financing activities
Amount at January 1, 2018	141,851	11,571	82,391	(51,229)	
Less: Liabilities / assets from other than financing activities	-	(10,321)	(43,189)	51,194	
Liabilities / assets arising from financing activities at January 1, 2018	141,851	1,250	39,202	(35)	182,268
Cash flows	6,457	(500)	(19,201)	(2,328)	(15,572)
Foreign exchange movement	1,702	-	16	-	1,718
Changes in fair values	255	-	-	-	255
Declared dividends	-	-	17,604	-	17,604
Reclassification	-	(750)	750	-	-
Other	60	157	(30)	(25)	162
Liabilities / assets arising from financing activities at December 31, 2018	150,325	157	38,341	(2,388)	186,435
Liabilities / assets arising from other than financing activities	-	13,619	114,203	(103,745)	
Total amount on balance sheet at December 31, 2018	150,325	13,776	152,544	(106,133)	
Less: Liabilities / assets from other than financing activities	-	(13,619)	(114,203)	103,745	
Adoption of IFRS 16	2,513	-	-	-	
Liabilities / assets arising from financing activities at January 1, 2019	152,838	157	38,341	(2,388)	188,948
Cash flows	6,742	-	(18,118)	(1,188)	(12,564)
Additions of leases	4,429	-	-	-	4,429
Foreign exchange movement	166	-	(83)	-	83
Changes in fair values	(1,446)	-	-	-	(1,446)
Declared dividends	-	-	12,806	-	12,806
Reclassification	-	(51)	51	-	-
Other	(2)	-	(56)	4	(54)
Liabilities / assets arising from financing activities at December 31, 2019	162,727	106	32,941	(3,572)	192,202
Liabilities / assets arising from other than financing activities	-	8,110	67,013	(72,030)	
Total amount on balance sheet at December 31, 2019	162,727	8,216	99,954	(75,602)	

The column Debt consists of balance sheet items Long-term debt, net of current portion, Current portion of long-term debt and Short-term loans. In terms of financing activities, item Other long-term financial liabilities consists of long-term payable, which has the financing character, item Other short-term financial liabilities consists of dividend payable, payables from Group cashpooling and other short-term financial payables including current portion of long-term financial liability, item Other current financial assets, net consists of receivables from Group cashpooling and advanced payments to dividend administrator.

14. Fair Value of Financial Instruments

Fair value is defined as the amount at which the instrument could be exchanged in a current transaction between knowledgeable willing parties in an arm's length transaction, other than in a forced or liquidation sale. Fair values are obtained from quoted market prices, discounted cash flow models and option pricing models, as appropriate.

The following methods and assumptions are used to estimate the fair value of each class of financial instruments:

Cash and Cash Equivalents, Current Investments

The carrying amount of cash and other current financial assets approximates fair value due to the relatively short-term maturity of these financial instruments.

Securities Held for Trading

The fair values of equity and debt securities that are held for trading are estimated based on quoted market prices.

Non-current Debt and Equity Financial Assets

The fair values of non-current debt and equity financial assets, which are publicly traded on active markets, are determined based on quoted market prices. The fair values of non-current debt and equity financial assets, which are not publicly traded on active markets, are determined using appropriate valuation models.

Short-term Receivables and Payables

The carrying amount of receivables and payables approximates fair value due to the short-term maturity of these financial instruments.

Short-term Loans

The carrying amount approximates fair value because of the short period to maturity of those instruments.

Long-term Debt

The fair value of long-term debt is based on the quoted market price for the same or similar issues or on the current rates available for debt with the same maturity profile. The carrying amount of long-term debt and other payables with variable interest rates approximates their fair values.

Derivatives

The fair value of derivatives is based upon mark to market valuations.

Carrying amounts and the estimated fair values of financial assets (except for derivatives) at December 31, 2019 and 2018 are as follows (in CZK millions):

	2019		2018	
	Carrying amount	Fair value	Carrying amount	Fair value
Non-current assets at amortized cost:				
Loans granted	19,779	19,779	20,481	20,481
Other financial receivables	135	135	10	10
Non-current assets at fair value through other comprehensive income:				
Restricted debt securities	11,318	11,318	10,608	10,608
Equity financial assets	2,444	2,444	2,791	2,791
Non-current assets at fair value through profit or loss:				
Equity financial assets	3,327	3,327	3,286	3,286
Current assets at amortized cost:				
Loans granted	10,559	10,559	7,851	7,851
Term deposits	-	-	502	502
Other financial receivables	3,638	3,638	2,387	2,387
Current assets at fair value through other comprehensive income:				
Debt financial assets	-	-	1,287	1,287

Carrying amounts and the estimated fair values of financial liabilities (except for derivatives) at December 31, 2019 and 2018 are as follows (in CZK millions):

	2019		2018	
	Carrying amount	Fair value	Carrying amount	Fair value
Long-term debt	(158,608)	(170,139)	(138,616)	(147,795)
Other long-term financial liabilities	(1,863)	(1,863)	(157)	(157)
Short-term loans	(4,119)	(4,119)	(11,709)	(11,709)
Other short-term financial liabilities	(36,341)	(36,341)	(41,241)	(41,241)

Carrying amounts and the estimated fair values of derivatives at December 31, 2019 and 2018 are as follows (in CZK millions):

	2019		2018	
	Carrying amount	Fair value	Carrying amount	Fair value
Cash flow hedges:				
Short-term receivables	1,064	1,064	124	124
Long-term receivables	4,732	4,732	2,186	2,186
Short-term liabilities	(939)	(939)	(9,637)	(9,637)
Long-term liabilities	(5,464)	(5,464)	(12,733)	(12,733)
Commodity derivatives:				
Short-term receivables	59,996	59,996	93,704	93,704
Long-term receivables	-	-	99	99
Short-term liabilities	(62,511)	(62,511)	(101,528)	(101,528)
Other derivatives:				
Short-term receivables	345	345	278	278
Long-term receivables	901	901	1,148	1,148
Short-term liabilities	(163)	(163)	(138)	(138)
Long-term liabilities	(889)	(889)	(886)	(886)

14.1. Fair Value Hierarchy

The Company uses the following hierarchy for determining and disclosing the fair value of financial instruments by valuation technique:

Level 1: quoted (unadjusted) prices in active markets for identical assets or liabilities
Level 2: other techniques for which all inputs which have a significant effect on the recorded fair value are observable, either directly or indirectly
Level 3: techniques which use inputs which have a significant effect on the recorded fair value that are not based on observable market data

For assets and liabilities that are recognized in the financial statements on a recurring basis, the Company determines whether transfers have occurred between levels in the hierarchy by re-assessing categorization (based on the lowest level input that is significant to the fair value measurement as a whole) at the end of each reporting period.

There were no transfers between the levels in 2019 and 2018.

As at December 31, 2019, the fair value hierarchy was the following (in CZK millions):

Assets measured at fair value:

	Total	Level 1	Level 2	Level 3
Commodity derivatives	59,996	1,796	58,200	-
Cash flow hedges	5,796	696	5,100	-
Other derivatives	1,246	-	1,246	-
Restricted debt securities	11,318	11,318	-	-
Equity financial assets	5,771	-	-	5,771

Liabilities measured at fair value:

	Total	Level 1	Level 2	Level 3
Commodity derivatives	(62,511)	(5,193)	(57,318)	-
Cash flow hedges	(6,403)	(1,122)	(5,281)	-
Other derivatives	(1,052)	-	(1,052)	-

Assets and liabilities for which fair value is disclosed:

	Total	Level 1	Level 2	Level 3
Loans granted	30,338	-	30,338	-
Other financial receivables	3,773	-	3,773	-
Long-term debt	(170,139)	(131,473)	(38,666)	-
Short-term loans	(4,119)	-	(4,119)	-
Other short-term financial liabilities	(38,204)	-	(38,204)	-

As at December 31, 2018, the fair value hierarchy was the following (in CZK millions):

Assets measured at fair value:

	Total	Level 1	Level 2	Level 3
Commodity derivatives	93,803	7,851	85,952	-
Cash flow hedges	2,310	23	2,287	-
Other derivatives	1,426	-	1,426	-
Restricted debt securities	10,608	10,608	-	-
Debt financial assets	1,287	1,287	-	-
Equity financial assets	6,077	-	-	6,077

Liabilities measured at fair value:

	Total	Level 1	Level 2	Level 3
Commodity derivatives	(101,528)	(11,552)	(89,976)	-
Cash flow hedges	(22,370)	(4,594)	(17,776)	-
Other derivatives	(1,024)	-	(1,024)	-

Assets and liabilities for which fair value is disclosed:

	Total	Level 1	Level 2	Level 3
Loans granted	28,332	-	28,332	-
Term deposits	502	-	502	-
Other financial receivables	2,397	-	2,397	-
Long-term debt	(147,795)	(112,369)	(35,426)	-
Short-term loans	(11,709)	-	(11,709)	-
Other short-term financial liabilities	(41,398)	-	(41,398)	-

The Company enters into derivative financial instruments with various counterparties, principally large power and utility groups and financial institutions with high credit ratings. Derivatives valued using valuation techniques with market observable inputs are mainly commodity forward and futures contracts, foreign exchange forward contracts, interest rate swaps and options. The most frequently applied valuation techniques include forward pricing and swap models, using present value calculations and option pricing models (e.g. Black-Scholes). The models incorporate various inputs including the forward rate curves of the underlying commodity, foreign exchange spot and forward rates and interest rate curves.

The following table shows roll forward of the financial assets measured at fair value – Level 3, for the years ended December 31, 2019 and 2018 (in CZK millions):

	Equity financial assets at fair value through profit or loss	Equity financial assets at fair value through other comprehensive income
Balance at January 1, 2018	-	-
Application of IFRS 9 [1)]	2,002	2,732
Additions	1,000	-
Revaluation	284	59
Balance at December 31, 2018	3,286	2,791
Revaluation	41	(347)
Balance at December 31, 2019	3,327	2,444

[1)] Transfer form category measured at cost.

The main investment in the portfolio Equity financial assets at fair value through other comprehensive income is 15% interest in the company Veolia Energie ČR, a.s. (see Note 5). Equity instruments of the company are not quoted on any market. Fair value at December 31, 2019 and 2018 was determined using available public EBITDA data and the usual range of 8 to 10 EBITDA multiples which corresponds to the transactions observed on the market for acquisition of the 100% interest before the adjustment for outstanding debt. The fair value at December 31, 2019 and 2018 was determined using 9 EBITDA multiple as the best estimate of the fair value.

Equity financial assets at fair value through profit or loss includes investment in investment fund ČEZ in the company Inven Capital, SICAV, a.s. (see Note 5). The fair value of the investment was determined at 31 December 2019 and 2018 by valuator’s appraisal. The fair value is stated especially with regard to capital contributions and to other forms of financing made by the co-investors recently. In addition, the valuation takes into account further developments and eventual subsequent significant events, such as received bids for redemption.

14.2. Offsetting of Financial Instruments

The following table shows the recognized financial instruments that are offset, or subject to enforceable master netting agreement or other similar agreements but not offset, as of December 31, 2019 and 2018 (in CZK millions):

	2019		2018	
	Financial assets	Financial liabilities	Financial assets	Financial liabilities
Derivatives	67,038	(69,966)	97,538	(124,921)
Other financial instruments [1]	46,938	(43,218)	45,579	(42,102)
Collaterals paid (received) [2]	1,182	(683)	2,878	(1,611)
Gross financial assets / liabilities	115,158	(113,867)	145,995	(168,634)
Assets / liabilities set off under IAS 32	-	-	-	-
Amounts presented in the balance sheet	115,158	(113,867)	145,995	(168,634)
Effect of master netting agreements	(96,017)	96,017	(131,116)	131,116
Net amount after master netting agreements	19,141	(17,850)	14,879	(37,518)

[1] Other financial instruments consist of invoices due from derivative trading and are included in Trade receivables, net or Trade payables.

[2] Collaterals paid are included in Trade receivables, net and collaterals received are included in Trade payables.

When trading with derivative instruments, the Company enters into the EFET and ISDA framework contracts. These contracts generally allow mutual offset of receivables and payables upon the premature termination of agreement. The reason for premature termination is insolvency or non-fulfillment of agreed terms by the counterparty. The right to mutual offset is either embedded in the framework contract or results from the security provided. There is CSA (Credit Support Annex) concluded with some counterparties defining the permitted limit of exposure. When the limit is exceeded, there is a transfer of cash reducing exposure below an agreed level. Cash security (collateral) is also included in the final offset.

Short-term derivative assets are included in the balance sheet in Other current financial assets, net, long-term derivative assets in Other non-current financial assets, net, short-term derivative liabilities in Other short-term financial liabilities and long-term derivative liabilities in Other long-term financial liabilities.

15. Financial Risk Management

Risk Management Approach

A risk management system is being successfully developed in order to protect the Group’s value while taking the level of risk acceptable for the shareholders. In the Group, the risk is defined as a potential difference between the actual and the expected (planned) developments and is measured by means of the extent of such difference in CZK and the likelihood with which such a difference may occur.

A risk capital concept is applied within the Group. The concept allows the setting of basic cap for partial risk limits and, in particular, the unified quantification of all kinds of risks. The value of aggregate annual risk limit (Profit@Risk) is approved by the Board of Directors based on the Risk Management Committee proposal for every financial year. The proposed limit value is derived from historical volatility of profit, revenues and costs of the Group (the top-down method). The approved value in CZK is set on the basis of a 95% confidence level and expresses a maximum profit decrease, which is the Group willing to take in order to reach the planned annual profit.

The bottom-up method is used for setting and updating the Risk frames. The Risk frames include the definition of risk and departments/units of the Group for which the frame is obligatory; definition of rules and responsibilities for risk management; permitted instruments and methods of risk management and actual risk limits, including a limit which expresses the share in the annual Profit@Risk limit.

The main Business Plan market risks are quantified in the Group (EBITDA@Risk based on MonteCarlo simulation in Y+1 to Y+5 horizon). The market risks are actively managed through gradual electricity sales and emission allowances' purchases in the following 6-year horizon, closed long-term contracts for electricity sale and emission allowances' purchase and the FX and IR risk hedging in medium-term horizon. In Business Plan horizon, the risk management is also based on Debt Capacity concept which enables to assess the impact of main Investment and other Activities (incl. the risk characteristics), on expected cash flow and total debt in order to maintain corporate rating.

Risk Management Organization

The supreme authority responsible for risk management in ČEZ, a. s. is the CFO, except for approval of the aggregate annual budget risk limit (Profit@Risk) within the competence of the ČEZ, a. s. Board of Directors. CFO decides, based on the recommendation of the Risk Management Committee, on the development of a system of risk management, on an overall allocation of risk capital to the individual risks and organizational units, he approves obligatory rules, responsibilities and limit structure for the management of partial risks.

The Risk Management Committee (advisory committee of CFO) continuously monitors an overall risk impact on the Group, including Group risk limits utilization, status of risks linked to Business Plan horizon, hedging strategies status, assessment of impact of Investment and other Activities on potential Group debt capacity and cash flow in order to maintain corporate rating.

Overview and Methods of Risk Management

The Group applies a unified categorization of the Group's risks which reflects the specifics of a corporate, i.e. non-banking company, and focuses on primary causes of unexpected development. The risks are divided into four basic categories listed below.

1. Market risks	**2. Credit risks**	**3. Operation risks**	**4. Business risks**
1.1 Financial (FX, IR)	2.1 Counterparty default	3.1 Operating	4.1 Strategic
1.2 Commodity	2.2 Supplier default	3.2 Internal change	4.2 Political
1.3 Volumetric	2.3 Settlement	3.3 Liquidity management	4.3 Regulatory
1.4 Market liquidity		3.4 Security	4.4 Reputation

From the view of risk management, the Group activities can be divided into two basic groups:

- activities with the unified quantification of the share of respective activity in the aggregate risk limit of the Group (i.e. using specific likelihood, it is possible to objectively determine what risk is associated with an activity/planned profit). These risks are managed by the rules and limits set by the CFO of ČEZ, a. s. based on the recommendation of the Risk Management Committee and, concurrently, in accordance with governing documents of the respective units/processes of the Group;
- activities whose share in the aggregate risk limit of the Group has not been quantified so far or for objective reasons. These risks are managed by the responsible owners of the relevant processes in accordance with internal governing documents of the respective units/processes of the Group.

For all risks quantified on a unified basis, a partial risk limit is set whose continuous utilization is evaluated on a monthly basis and is usually defined as a sum of the actually expected deviation of expected annual profit from the plan and the potential risk of loss on a 95% confidence. The Group's methodologies and data provide for a unified quantification of the following risks:

- market risks: financial (currency, interest and stock price) risks, commodity prices (electricity, emission allowances, coal, gas, crude oil), volume (volume of electricity produced by wind power plants);
- credit risks: financial and business counterparty risk and electricity, gas and heat end customer risk;
- operational risks: risks of nuclear and fossil power plants operation, investment risks.

The development of quantified risks is reported to the Risk Management Committee every month through 3 regular reports:

- Annual budget risks (annual Profit@Risk limit utilization);
- Business plan risks (EBITDA@Risk based on MonteCarlo simulation);
- Debt capacity (actual deviation from the optimal debt within Y+5 horizon, derived from rating agency requirements on debt indicators in order to preserve the ČEZ rating).

15.1. Qualitative Description of ČEZ, a. s. Risks Associated with Financial Instruments

Commodity Risks

The development of electricity, emission allowances, coal and gas prices is a key risk factor of the ČEZ value. The current system of commodity risk management is focused on (i) the margin from the own electricity production sales, i.e. from trades resulting in optimizing the sales of ČEZ's production and in optimizing the emission allowances position for production (the potential risk is managed on the EaR, VaR and the EBITDA@Risk bases), and (ii) the margin from the proprietary trading of commodities (the potential risk is managed on the VaR basis).

Market Financial Risks (currency and interest risks)

The development of foreign exchange rates and interest rates is a significant risk factor of the ČEZ value. The current system of financial risk management is focused mainly on (i) the future cash flows and (ii) financial trades which are realized for the purposes of an overall risk position management in accordance with the risk limits (the potential risk is managed on the basis of VaR, EBITDA@Risk and complementary position limits). Own financial instruments (i.e. active and passive financial trades and derivative trades) are realized entirely in the context of an overall expected cash flows (including operational and investment foreign currency flows).

Credit Risks

Credit exposures of individual financial partners and wholesale partners are managed in accordance with individual credit limits. The individual limits are set and continuously updated according to the counterparty's credibility (in accordance with international rating and internal financial evaluation of counterparties with no international rating).

Credit risk from balances with banks and financial institutions is managed by the Group's treasury department in accordance with the Group's policy. Investments of surplus funds are made only with approved counterparties and within credit limits assigned to each counterparty.

Company's maximum exposure to credit risk to receivables and other financial instruments as at December 31, 2019 and 2018 is the carrying value of each class of financial assets except for financial guarantees.

In accordance with the credit risk methodology applied to the banking sector per Basel II, every month the expected and potential losses are quantified on a 95% confidence level. It means that the share of credit risks in the aggregate annual Profit@Risk limit is quantified and evaluated.

Liquidity Risks

Liquidity risk is primarily perceived as an operational risk (risk of liquidity management) and a risk factor is the internal ability to effectively manage the future cash flows planning process and to secure the adequate liquidity and effective short-term financing (the risk is managed on a qualitative basis). The fundamental liquidity risk management (i.e. liquidity risk within the meaning for banking purposes) is covered by the risk management system as a whole. In any given period, the future deviations of the expected cash flows are managed in accordance with the aggregate risk limit and in the context of the actual and the targeted debt/equity ratio of ČEZ.

15.2. Quantitative Description of ČEZ, a. s. Risks Associated with Financial Instruments

Commodity Risks

The required quantitative information on risks (i.e. a potential change of market value resulting from the effects of risk factors as at December 31) was prepared based on the assumptions given below:

- the indicator of risk associated with financial instruments is defined as the monthly parametric VaR (95% confidence) which expresses a maximum potential decrease in fair value of contracts classified as derivatives under IFRS 9 (the underlying commodities in the Company's derivative transactions are: electricity, EUA and CER/ERU emission allowances, gas, coal ARA, Richards Bay, Newcastle and crude oil and crude oil products) on the given confidence level;
- highly probable forecasted future electricity generation sales with the delivery in the CZ power grid are included in the VAR calculation to reflect the hedging character of significant portion of the existing derivative sales of electricity with delivery in Germany;
- for the calculation of volatility and correlations (between commodity prices), the SMA (Simple Moving Average) method is applied to 60 daily time series;
- the source of market data is mainly EEX, PXE and ICE;
- the indicator VaR illustrates mainly the impact of revaluation of above-mentioned financial instruments to Income Statement.

Potential impact of the above risk factors as at December 31 (in CZK millions):

	2019	2018
Monthly VaR (95%) – impact of changes in commodity prices	2,760	2,734

Currency Risks

The required quantitative information on risks (i.e. a potential change of market value resulting from the effects of currency risk as at December 31) was prepared based on the assumptions given below:

- the indicator of currency risk is defined as the monthly VaR (95% confidence);
- for the calculation of VaR, based on volatility and internal correlations of each considered currency, the method of historical simulation VaR is applied to 90 daily historical time series;
- the relevant currency position is defined mainly as a discounted value of foreign currency cash flows from all contracted financial instruments, from expected foreign currency operational revenues and costs in 2020 and from highly probable forecasted foreign currency revenues, costs or capital expenditures that are being hedged by financial instruments etc;
- the relevant currency positions reflect all significant foreign-currency flows in the monitored basket of foreign currencies;

- the source of market FX and interest rate data is mainly IS Reuters and IS Bloomberg;
- the indicator VaR illustrates mainly the impact of revaluation of above-mentioned currency position to Income Statement.

Potential impact of the currency risk as at December 31 (in CZK millions):

	2019	2018
Monthly currency VaR (95% confidence)	68	169

Interest Risks

For the quantification of the potential impact of the interest risk was chosen the sensitivity of the interest revenue and cost to the parallel shift of yield curves. The approximate quantification as at December 31 was based on these assumptions:

- parallel shift of the yield curves (+10bp) was selected as the indicator of interest risk;
- the Income Statement sensitivity is measured as an annual change of the interest revenue and cost resulting from the interest-sensitive positions as at December 31;
- the considered interest positions reflect all significant interest-sensitive positions;
- the source of market interest rates is mainly IS Reuters and IS Bloomberg.

Potential impact of the interest rate risk as at December 31 (in CZK millions):

	2019	2018
IR sensitivity* to parallel yield curve shift (+10bp)	(2)	(1)

* Negative result denotes higher increase in interest costs than interest income

Credit Exposure

The Company is exposed to credit risk arising on all financial assets presented on the balance sheet and from provided guarantees. Credit exposure from provided guarantees not recorded on balance sheet at December 31 (in CZK millions):

	2019	2018
Guarantees provided to subsidiaries not recorded on balance sheet	4,486	4,220
Guarantees provided to joint-ventures not recorded on balance sheet	1,317	1,945
Total	5,803	6,165

The guarantees provided represent mainly guarantees issued in connection with concluded contracts, bank loans and other obligations of the respective companies. The beneficiary may claim the guarantee only under the conditions of the letter of guarantee, usually in relation to non-payment of amounts arising out of the contract or failure to fulfil the obligations arising out of the contract. The companies whose liabilities are subject to the guarantees currently comply with their obligations. The guarantees have various maturities. As of December 31, 2019 and 2018, some of the guarantees could be called until December 2030 at the latest.

Liquidity Risk

Maturity profile of financial liabilities based on contractual undiscounted payments at December 31, 2019 (in CZK millions):

	Bonds and debentures	Loans and lease payables	Derivatives [1]	Other financial liabilities	Trade payables	Guarantees issued [2]
Due in 2020	24,110	5,833	434,196	36,342	53,748	5,803
Due in 2021	27,057	3,122	76,143	1,813	-	-
Due in 2022	22,122	2,598	26,066	56	-	-
Due in 2023	7,331	2,256	4,074	-	-	-
Due in 2024	2,541	1,114	946	-	-	-
Thereafter	95,220	1,997	28,120	-	-	-
Total	178,381	16,920	569,545	38,211	53,748	5,803

Maturity profile of financial liabilities based on contractual undiscounted payments at December 31, 2018 (in CZK millions):

	Bonds and debentures	Loans	Derivatives [1]	Other financial liabilities	Trade payables	Guarantees issued [2]
Due in 2019	6,240	13,886	444,692	41,246	51,208	6,165
Due in 2020	24,194	2,176	104,659	60	-	-
Due in 2021	27,193	1,932	34,951	58	-	-
Due in 2022	22,071	1,285	16,952	45	-	-
Due in 2023	7,148	941	4,714	-	-	-
Thereafter	78,976	2,426	29,525	-	-	-
Total	165,822	22,646	635,493	41,409	51,208	6,165

1) Contractual maturities for derivatives represent contractual cash out-flows of these instruments, but at the same time the Company will receive corresponding consideration. For fair values of derivatives see Note 14.

2) Maximum amount of the guarantee is allocated to the earliest period in which the guarantee could be called.

The committed credit facilities available to the Company as at December 31, 2019 and 2018 amounted to CZK 26.9 billion and CZK 15.8 billion, respectively. In addition, in December 2019, the Company signed a committed loan facility agreement with the European Investment Bank to support financing of the grid renewal and further development program in the Czech Republic up to EUR 330 million, i.e. CZK 8.4 billion, which was not drawn as of December 31, 2019.

15.3. Hedge Accounting

The Company enters into cash flow hedges of future highly probable cash inflows from the sales denominated in EUR against the currency risk. The hedged cash flows are expected to occur in the period from 2020 to 2026. The hedging instruments as at December 31, 2019 and 2018 are the EUR denominated liabilities from the issued Eurobonds and bank loans in the total amount of EUR 5.1 billion and EUR 4.0 billion, respectively, and currency forward contracts and swaps. The fair value of these derivative hedging instruments (currency forward contracts and swaps) amounted to CZK 695 million and CZK 176 million at December 31, 2019 and 2018, respectively.

The Company also enters into cash flow hedges of highly probable future sales of electricity in the Czech Republic from 2020 to 2025. The hedging instruments are the futures and forward contracts electricity sales in Germany. The fair value of these derivative hedging instruments amounted to CZK (1,302) million and CZK (20,236) million at December 31, 2019 and 2018, respectively.

The Company applied cash flow hedges of future highly probable purchases of emission allowances which had been expected to occur in 2018. The hedging instruments as at December 31, 2018 were the futures contracts for the purchase of allowances equivalent to 6.0 million tons of CO_2 emissions. The final settlement of the purchase of these hedged emission allowances was in December 2018.

In 2019 and 2018 the amounts removed from equity in respect of cash flow hedges were recognized in profit or loss and included in the lines Sales of electricity, heat and gas, Gains and losses from commodity derivative trading, Other financial expenses and Other financial income and on the balance sheet in the line Intangible assets, net and Emission rights. In 2019 and 2018 the Company recognized in profit or loss the ineffectiveness that arises from cash flow hedges in the amount of CZK 503 million and CZK (29) million, respectively. The ineffectiveness in 2019 and 2018 was mainly caused by the fact that the hedged cash flows are no more highly probable to occur.

16. Provisions

The following is a summary of the provisions at December 31, 2019 and 2018 (in CZK millions):

	2019			2018		
	Long-term	Short-term	Total	Long-term	Short-term	Total
Nuclear provisions	73,194	2,199	75,393	61,095	2,282	63,377
Provision for waste storage reclamation	595	71	666	514	52	566
Provision for CO_2 emissions (see Note 9)	-	4,362	4,362	-	2,515	2,515
Provision for employee benefits	1,526	96	1,622	1,362	117	1,479
Provision for environmental claims	-	470	470	-	463	463
Provision for legal and commercial disputes	-	490	490	-	470	470
Provision for obligation in case of claim from guarantee for Akcez group loans	-	1,362	1,362	-	908	908
Other provisions	-	232	232	-	82	82
Total	75,315	9,282	84,597	62,971	6,889	69,860

16.1. Nuclear Provisions

The Company operates two nuclear power plants. Nuclear power plant Dukovany consists of four units which were put into service from 1985 to 1987. Nuclear power plant Temelín has two units which have started commercial operation in 2002 and 2003. A Nuclear Act which defines obligations for the decommissioning of nuclear facilities, the disposal of radioactive waste and spent fuel (disposal). The Nuclear Act requires that all nuclear parts of plant and equipment be decommissioned following the end of the plant’s operating life. For the purpose of accounting for the nuclear provisions, it is assumed that the end of operation will be 2037 for Dukovany and 2052 for Temelín. A 2018 Dukovany and a 2019 Temelín decommissioning cost study estimate that nuclear decommissioning will cost CZK 28.6 billion and CZK 22.4 billion, respectively. The Company makes contributions to a restricted bank accounts in the amount of the nuclear provisions recorded under the Nuclear Act. These restricted funds can be invested in government bonds in accordance with legislation. These restricted financial assets are shown in the balance sheet as part of Restricted financial assets, net (see Note 4).

The Ministry of Industry and Trade established the Radioactive Waste Repository Authority (RAWRA) as the central organizer and operator of facilities for the final disposal of radioactive waste and spent fuel. The RAWRA operates, supervises and is responsible for disposal facilities and for disposal of radioactive waste and spent fuel therein. The activities of the RAWRA are financed through a nuclear account funded by the originators of radioactive waste. Contribution to the nuclear account is stated by Nuclear Act at 55 CZK per MWh produced at nuclear power plants. In 2019 and 2018, the payments to the nuclear account amounted to CZK 1,663 million and CZK 1,646 million, respectively. The originator of radioactive waste and spent fuel directly covers all costs associated with interim storage of radioactive waste and spent fuel.

The Company has established provisions as described in Note 2.21, to recognize its estimated liabilities for decommissioning and spent fuel storage.

The following is a summary of the nuclear provisions for the years ended December 31, 2019 and 2018 (in CZK millions):

	Accumulated provisions			
	Nuclear decommis-sioning	Spent fuel storage		
		Interim	Long-term	Total
Balance at January 1, 2018	20,531	7,647	33,156	61,334
Discount accretion and effect of inflation	530	191	829	1,550
Provision charged in profit or loss	-	527	-	527
Effect of change in estimate recognized in profit or loss	-	(43)	-	(43)
Effect of change in estimate added to (deducted from) fixed assets	2,449	-	(110)	2,339
Current cash expenditures	-	(684)	(1,646)	(2,330)
Balance at December 31, 2018	23,510	7,638	32,229	63,377
Discount accretion and effect of inflation	604	191	806	1,601
Provision charged in profit or loss	-	487	-	487
Effect of change in estimate recognized in profit or loss	-	979	-	979
Effect of change in estimate added to fixed assets	10,385	-	865	11,250
Current cash expenditures	-	(638)	(1,663)	(2,301)
Balance at December 31, 2019	34,499	8,657	32,237	75,393

The current cash expenditures for the long-term storage of spent nuclear fuel represent payments to the state controlled nuclear account and the expenditures for interim storage represent mainly the purchase of interim fuel storage containers and other related equipment.

In 2019 the Company recorded the change in estimate for interim storage of spent nuclear fuel in connection with the change in expectations of future storage cost and change in discount rate, the change in estimate in provision for nuclear decommissioning due to the update of the expert decommissioning study for nuclear power plant in Temelín and change in discount rate and the change in long-term spent fuel storage in connection with the modification of the expected output of the nuclear power plants and change in discount rate.

In 2018 the Company recorded the change in estimate for interim storage of spent nuclear fuel in connection with the change in expectations of future storage cost, the change in estimate in provision for nuclear decommissioning due to the update of the expert decommissioning study for nuclear power plant in Dukovany and the change in long-term spent fuel storage in connection with the modification of the expected output of the nuclear power plants.

The actual decommissioning and spent fuel storage costs could vary substantially from the above estimates because of new regulatory requirements, changes in technology, increased costs of labor, materials and equipment and/or the actual time required to complete all decommissioning, disposal and storage activities.

16.2. Provision for Waste Storage Reclamation

The following table shows the movements of the provision for waste storage reclamation for the years ended December 31, 2019 and 2018 (in CZK millions):

	2019	2018
Balance at January 1	566	852
Discount accretion and effect of inflation	14	21
Effect of change in estimate added to (deducted from) fixed assets	131	(67)
Reversal of provision	-	(213)
Current cash expenditures	(45)	(27)
Balance at December 31	666	566

17. Other Financial Liabilities

Other financial liabilities at December 31, 2019 are as follows (in CZK millions):

	2019		
	Long-term liabilities	Short-term liabilities	Total
Payables from Group cashpooling	-	32,606	32,606
Intra-group loans	-	3,400	3,400
Payables from purchase of emission rights held for trading	1,757	-	1,757
Other	106	335	441
Financial liabilities at amortized costs	1,863	36,341	38,204
Cash flow hedge derivatives	5,464	939	6,403
Commodity and other derivatives	889	62,674	63,563
Financial liabilities at fair value	6,353	63,613	69,966
Total	8,216	99,954	108,170

Other financial liabilities at December 31, 2018 are as follows (in CZK millions):

	2018		
	Long-term liabilities	Short-term liabilities	Total
Payables from Group cashpooling	-	37,221	37,221
Intra-group loans	-	2,900	2,900
Deposit	-	750	750
Other	157	370	527
Financial liabilities at amortized costs	157	41,241	41,398
Cash flow hedge derivatives	12,733	9,637	22,370
Commodity and other derivatives	886	101,666	102,552
Financial liabilities at fair value	13,619	111,303	124,922
Total	13,776	152,544	166,320

Short-term payables arising from purchase of non-current assets and emission rights held for trading are included in the line Trade payables.

18. Short-term Loans

Short-term loans at December 31, 2019 and 2018 were as follows (in CZK millions):

	2019	2018
Short-term bank loans	4,117	11,444
Bank overdrafts	2	265
Total	4,119	11,709

Interest on short-term loans is variable. The weighted average interest rate was 0.6% and 0.4% at December 31, 2019 and 2018, respectively. For the years 2019 and 2018 the weighted average interest rate was 1.0% and 0.5%, respectively.

19. Other Short-term Liabilities

Other short-term liabilities at December 31, 2019 and 2018 consist of the following (in CZK millions):

	2019	2018
Taxes and fees, except income tax	675	511
Deferred income	31	80
Advanced received	132	20
Total	838	611

20. Leases

20.1. Company as a Lessee

The Company has lease contracts for various items of offices, cars, buildings and land used to place its own electricity and heat production facilities, and in some cases leases the entire production factory. Leases of cars generally have lease terms between 2 to 8 years, while buildings and lands between 4 to 21 years.

The Company has entered into lease contracts with fixed and variable payments. The variable payments are regularly adjusted according to the inflation index or are based on use of the underlying assets.

The Company also has certain leases of buildings, machinery or equipment with lease terms of 12 months or less or with low value. The Company applies the short-term lease and lease of low-value assets recognition exemptions for these leases.

The net book values of the right-of-use assets presented under Property, plant and equipment are described in the Note 3.

The amounts of lease liability are presented under Long-term Debt (see Note 13).

The following table sets out total cash outflows for lease payments (in CZK millions):

	2019
Payments of principal	1,159
Payments of interests	134
Lease payments not included in valuation of lease liability	4,003
Total cash outflow for leases	5,296

The following are the amounts that are recognized in profit or loss (in CZK millions):

	2019
Expense relating to short-term leases	188
Expense relating to low-value assets	2
Variable lease payments	4,003
Depreciation charge for right-of-use assets	1,233
Interest expenses	134

The most significant part of variable lease payments are costs related with energy rework contract with the company Elektrárna Počerady, a.s.

Next year, the Company expects to pay lease payments that are not included in valuation of lease liability of CZK 5,190 million.

20.2. Company as a Lessor

Rental income recognized by the Company during 2019 and 2018 was CZK 118 million and CZK 126 million, respectively. In the following years, the Company expects rental income to be similar to the year 2019.

The net book values of the property, plant and equipment leased out under operating lease are disclosed in the Note 3.

21. Revenues and Other Operating Income

The composition of revenues and other operating income for the years ended December 31, 2019 and 2018 is as follows (in CZK millions):

	2019	2018
Sale of electricity, heat and gas:		
Electricity sales – domestic:		
ČEZ Prodej, a.s.	20,492	17,904
OTE, a.s.	13,554	6,089
E.ON Energie, a.s.	2,917	2,124
RWE Supply & Trading GmbH	2,893	6,315
BOHEMIA ENERGY entity s.r.o.	2,836	-
Pražská energetika, a.s.	1,566	1,769
Slovenské elektrárne, a.s.	1,392	1,482
ALPIQ ENERGY SE	1,254	2,928
Uniper Global Commodities SE	1,243	1,333
POWER EXCHANGE CENTRAL EUROPE, a.s.	742	4,134
EDF Trading Limited	509	1,475
Other customers	13,917	10,307
Total electricity sales – domestic	63,315	55,860
Electricity sales – foreign	17,705	14,516
Effect of hedging – presales of electricity (Note 15.3)	(9,662)	(5,596)
Effect of hedging – currency risk hedging (Note 15.3)	1,302	878
Total sales of electricity	72,660	65,658
Sales of gas	7,132	6,544
Sales of heat	2,151	1,949
Total sales of electricity, heat and gas	81,943	74,151
Sale of services and other income:		
Distribution services	30	26
Sales of ancillary and other services	4,819	4,658
Rental income	118	126
Other revenues	35	24
Total sales of services and other revenues	5,002	4,834
Other operating income	1,353	764
Total revenues and other operating income	88,298	79,749

Revenues from contracts with customers for the years ended December 31, 2019 and 2018 were CZK 95,187 million and CZK 83,577 million, respectively, and can be linked to the above figures as follows:

	2019	2018
Sales of electricity, gas and heat	81,943	74,151
Sales of services and other revenues	5,002	4,834
Total revenues	86,945	78,985
Adjustments:		
Effect of hedging – presales of electricity	9,662	5,596
Effect of hedging – currency risk hedging	(1,302)	(878)
Rental income	(118)	(126)
Revenues from contracts with customers	95,187	83,577

22. Gains and Losses from Commodity Derivative Trading

The composition of gains and losses from commodity derivative trading for the years ended December 31, 2019 and 2018 is as follows (in CZK millions):

	2019	2018
Electricity derivative trading:		
Sales – domestic	19,376	13,493
Sales – foreign	292,305	261,334
Purchases – domestic	(18,836)	(13,271)
Purchases – foreign	(293,186)	(266,750)
Changes in fair value of derivatives	7,906	6,002
Total gains from electricity derivative trading, net	7,565	808
Other commodity derivative trading:		
Loss from gas derivative trading	(513)	(409)
Gain (loss) from oil derivative trading	6	(22)
Loss from coal derivative trading	(299)	(84)
Gain from emission rights derivative trading	400	7
Total gains and losses from derivative trading	7,159	300

23. Purchase of Electricity, Gas and Other Energies

The composition of purchase of electricity, gas and other energies at December 31, 2019 and 2018 is as follows (in CZK millions):

	2019	2018
Purchase of electricity for resale	(20,373)	(19,921)
Purchase of gas for resale	(6,915)	(6,003)
Purchase of other energies	(1,805)	(1,683)
Energy rework contract	(3,989)	(5,464)
Total Purchase of electricity, gas and other energies	(33,082)	(33,071)

24. Fuel and Emission Rights

The composition of fuel and emission rights for production ended December 31, 2019 and 2018 is as follows (in CZK millions):

	2019	2018
Consumption of fossil energy fuel and biomass	(6,880)	(5,792)
Amortization of nuclear fuel	(4,059)	(4,005)
Consumption of gas	(2,656)	(2,281)
Emission rights for generation	(4,332)	(2,663)
Total fuel and emission rights	(17,927)	(14,741)

25. Services

The composition of purchase of services at December 31, 2019 and 2018 is as follows (in CZK millions):

	2019	2018
Repairs and maintenance	(3,855)	(3,433)
Technology and operation support services	(981)	(968)
Rental, building administration and security	(654)	(731)
IT related services	(792)	(712)
Equipment operation services	(719)	(708)
Other services	(2,548)	(2,552)
Total services	(9,549)	(9,104)

Information about fees charged by independent auditor is provided in the annual report of CEZ Group.

26. Salaries and Wages

Salaries and wages for the years ended December 31, 2019 and 2018 were as follows (in CZK millions):

	2019		2018	
	Total	Key management personnel [1]	Total	Key management personnel [1]
Salaries and wages including remuneration of board members	(5,009)	(251)	(4,565)	(247)
Share options	(38)	(38)	(33)	(33)
Social and health security	(1,564)	(47)	(1,437)	(46)
Other personal expenses	(554)	(14)	(498)	(23)
Total	(7,165)	(350)	(6,533)	(349)

[1] Members of Supervisory Board, Audit Committee and Board of Directors and selected managers of departments with group field of activity. The remuneration of former members of company bodies is included in personal expenses.

The members of Board of Directors and selected managers were entitled to use company cars for both business and private purposes in addition to the personal expenses.

If the Company terminates a contract with a member of Board of Directors before his/her four-year term of office expires (except for resignation), the Director is entitled to a severance pay. Method of determination of the amount of the severance payment and conditions are stipulated in the respective contract of the member of Board of Directors.

At December 31, 2019 and 2018, the aggregate number of share options granted to members of Board of Directors and selected managers was 1,651 thousand and 1,904 thousand, respectively.

Members of the Board of Directors and selected managers were entitled until December 31, 2019 to receive share options based on the conditions stipulated in the share option agreement. Members of the Board of Directors and selected managers were granted certain quantity of share options each year of their tenure according to rules of the share option plan until the share option plan was terminated as of December 31, 2019. The exercise price for the granted options was based on the average quoted market price of the shares on the regulated exchange in the Czech Republic during one-month period preceding the grant date each year. Options granted could be exercised at the earliest 2 years and latest 3.5 years after each grant date. Option right is limited so that the profit per share option will not exceed 100% of exercise price.

Beginning on January 1, 2020, the new program of long-term performance bonus has been started, replacing the options program. New options will no longer be granted and the existing granted options as at December 31, 2019 in the number of 1,651 thousand are preserved, i.e. after a proportional reduction of the original annual allocations in 2019. The program of long-term performance bonus is based on performance units that will be allocated to each beneficiary every year. The number of performance units allocated is based on the defined yearly value of a given long-term bonus and the price of stocks before the allocation. The Supervisory Board sets out the performance indicators for each year's allocation of the performance units. The defined performance indicators will be evaluated by the Supervisory Board and number of performance units allocated to a beneficiary will be adjusted accordingly. Then a two-year holding period will follow. The long-term performance bonus will be paid three years after the initial allocation, and the amount will be based on the adjusted number of performance units as well as on the stock price at the end of the holding period and the amount of dividends distributed during the holding period.

The following table shows changes during 2019 and 2018 in the number of granted share options and the weighted average exercise price of these options:

	Number of share options			
	Board of Directors 000s	Selected managers 000s	Total 000s	Weighted average exercise price (CZK per share)
Share options at January 1, 2018	1,814	512	2,326	496.89
Options granted	590	185	775	542.63
Options exercised [1)]	(350)	(130)	(480)	438.03
Options forfeited	(560)	(157)	(717)	615.88
Share options at December 31, 2018 [2)]	1,494	410	1,904	485.52
Options granted [3)]	239	117	356	536.25
Options exercised [1)]	(454)	(120)	(574)	434.74
Options forfeited	-	(35)	(35)	536.96
Share options at December 31, 2019 [2)]	1,279	372	1,651	513.02

1) In 2019 and 2018 the weighted average share price at the date of the exercise for the options exercised was CZK 542.81 and CZK 539.42, respectively.

2) At December 31, 2019 and 2018 the number of exercisable options was 540 thousand and 390 thousand, respectively. The weighted average exercise price of the exercisable options was CZK 455.32 per share and CZK 443.84 per share at December 31, 2019 and 2018, respectively.

3) The original annual allocations in 2019 were proportionally reduced on the termination of the share options plan at December 31, 2019 to correspond to the number of options determined based on the number of days remaining from the date of the relevant 2019 allocation until the end of the share option plan. The presented number corresponds to the total number of options granted in 2019 after this reduction.

The fair value of the options is estimated on the date of grant using the binomial option-pricing model. Because these stock options have characteristics significantly different from those of traded options, and because changes in the subjective input assumptions can materially affect the fair value estimate, the existing models do not necessarily provide a reliable single measure of the fair value of stock options.

At the grant dates, the underlying assumptions and the resulting fair values per option were as follows:

	2019	2018
Weighted average assumptions:		
Dividend yield	3.6%	2.7%
Expected volatility	15.7%	18.1%
Mid-term risk-free interest rate	1.6%	0.9%
Expected life (years)	1.4	1.4
Share price (CZK per share)	533.7	543.4
Weighted average grant-date fair value of options (CZK per 1 option)	36.3	41.4

The expected life of the options is based on historical data and is not necessarily indicative of the exercise patterns that may occur. The expected volatility reflects the assumption that the historical volatility is indicative of future trends, which may also not necessarily be the actual outcome.

At December 31, 2019 and 2018 the exercise prices of outstanding options (in thousands pieces) were in the following ranges:

	2019	2018
CZK 400–500 per share	540	1,124
CZK 500–600 per share	1,111	780
Total	1,651	1,904

The options granted which were outstanding as at December 31, 2019 and 2018 had an average remaining contractual life of 1.9 years and 2.3 years, respectively.

27. Other Operating Expenses

Other operating expenses for the years ended December 31, 2019 and 2018 consist of the following (in CZK millions):

	2019	2018
Change in provisions	1,017	1,734
Taxes and fees	(2,000)	(1,980)
Costs related to trading of commodities	(447)	(408)
Insurance	(317)	(312)
Gifts	(110)	(109)
Other	(668)	(206)
Total	(2,525)	(1,281)

Taxes and fees include the contributions to the nuclear account (see Note 16.1). The settlement of the provision for long-term spent fuel storage is accounted for in the amount of contributions to nuclear account. Settlement of provision for long-term spent fuel storage is included in Change in provisions.

28. Interest Income

Interest income for each category of financial instruments for the years ended December 31, 2019 and 2018 was as follows (in CZK millions):

	2019	2018
Group cashpooling	295	336
Loans and receivables	728	307
Debt financial assets at fair value through other comprehensive income	228	190
Bank accounts	41	34
Debt financial assets at amortized costs	-	3
Total	1,292	870

29. Impairment of Financial Assets

Additions and reversals of impairment of financial assets for each category for the years ended December 31, 2019 and 2018 were as follows (in CZK millions):

	2019	2018
Share on subsidiaries and joint-ventures (see Note 5)		
Additions	(3,571)	(2,371)
Reversals	6,920	-
Loans granted	(1)	(194)
Financial guarantee for Akcez group loans	(837)	(908)
Other	-	5
Total	2,511	(3,468)

In 2018 the Company created 100% impairment provision to the new loan provided to the company Akcez Enerji A.S. in the amount of CZK 193 million.

The Company is a guarantor for the liabilities of companies within the joint-venture Akcez Enerji A.S. in the amount of USD 106.3 million and TRY 72.3 million as of December 31, 2019. Based on calculation of recoverable amount from future cash flows, a provision in the amount of CZK 1,362 million and CZK 908 million was recognized as of December 31, 2019 and 2018, respectively.

30. Other Financial Expenses

Other financial expenses for the years ended December 31, 2019 and 2018 consist of the following (in CZK millions):

	2019	2018
Foreign exchange rate loss	(231)	(808)
Derivative losses	(155)	-
Loss on sale of debt financial assets	-	(11)
Creation and settlement of provisions	(26)	(17)
Other	(50)	(61)
Total	(462)	(897)

31. Other Financial Income

Other financial income for the years ended December 31, 2019 and 2018 consist of the following (in CZK millions):

	2019	2018
Dividends received (see Note 5)	13,117	31,989
Derivative gains	-	931
Gain on sale debt financial assets	27	-
Gain on disposal of subsidiaries, associates and joint-ventures	4	29
Gain from revaluation of financial assets	41	284
Other	45	769
Total	13,234	34,002

32. Income Taxes

The Company calculated corporate income tax in accordance with the Czech tax regulations at the rate of 19% in 2019 and 2018.

Management believes that it has adequately provided for tax liabilities in the accompanying financial statements. However, the risk remains that the relevant financial authorities could take differing positions with regard to interpretive issues, which could have potential effect on reported income.

The components of the income tax provision were as follows (in CZK millions):

	2019	2018
Current income tax charge	(510)	(26)
Adjustments in respect of current income tax of previous periods	-	27
Deferred income taxes	106	1,166
Total	(404)	1,167

The differences between income tax expense computed at the statutory rate and income tax expense provided on earnings were as follows (in CZK millions):

	2019	2018
Income before income taxes	17,797	22,609
Statutory income tax rate	19%	19%
"Expected" income tax expense	(3,381)	(4,296)
Tax effect of:		
Non-deductible provisions, net	477	(659)
Non-tax gains/losses associated with changes in shareholding interest	1	6
Non-taxable income from dividends	2,492	6,078
Non-deductible share-based payment expense	(7)	(6)
Adjustments in respect of current income tax of previous periods	-	27
Tax incentives, tax discounts	1	-
Other non-deductible items, net	13	17
Income tax	(404)	1,167
Effective tax rate	2%	(5)%

Deferred income tax liability, net, at December 31, 2019 and 2018 was calculated as follows (in CZK millions):

	2019	2018
Nuclear provisions	12,384	10,197
Other provisions	1,393	991
Allowances	285	267
Revaluation of financial instruments	727	4,309
Lease liabilities	1,095	-
Other temporary differences	315	320
Total deferred tax assets	16,199	16,084
Tax depreciation in excess of financial statement depreciation	(22,141)	(19,117)
Revaluation of financial instruments	(73)	(92)
Right-of-use assets	(1,085)	-
Other temporary differences	(944)	(1,414)
Total deferred tax liability	(24,243)	(20,623)
Total deferred tax liability, net	(8,044)	(4,539)

Movements in net deferred tax liability, net, in 2019 and 2018 were as follows (in CZK millions):

	2019	2018
Balance at January 1	4,539	8,232
Adoption of IFRS 9	-	(4)
Effect of merger	-	(9)
Deferred tax recognized in profit or loss	(106)	(1,166)
Deferred tax recognized in other comprehensive income	3,611	(2,514)
Balance at December 31	8,044	4,539

Tax effects relating to each component of other comprehensive income (in CZK million):

	2019			2018		
	Before tax amount	Tax effect	Net of tax amount	Before tax amount	Tax effect	Net of tax amount
Change in fair value of cash flow hedges	10,891	(2,070)	8,821	(16,016)	3,043	(12,973)
Cash flow hedges reclassified to statement of income	8,253	(1,568)	6,685	3,927	(746)	3,181
Cash flow hedges reclassified to assets	-	-	-	(972)	185	(787)
Change in fair value of debt instruments	207	(40)	167	(227)	43	(184)
Change in fair value of equity instruments	(347)	67	(280)	59	(11)	48
Total	19,004	(3,611)	15,393	(13,229)	2,514	(10,715)

33. Related Parties

The Company purchases/sells products, goods and services from/to related parties in the ordinary course of business.

At December 31, 2019 and 2018, the receivables from related parties and payables to related parties were as follows (in CZK millions):

	Receivables		Payables	
	2019	2018	2019	2018
AZ KLIMA a.s.	-	-	101	47
CEZ Bulgarian Investments B.V.	-	-	281	341
CEZ Erneubare Energien Beteiligung	102	242	-	-
CEZ ESCO II GmbH	90	-	-	-
CEZ France SAS	1	1	-	434
CEZ Holdings B.V.	6,985	5,966	392	79
CEZ Hungary Ltd.	763	524	237	83
CEZ Chorzów S.A.	880	206	-	1
CEZ MH B.V.	741	-	-	613
CEZ New Energy Investments B.V. [1]	-	32	344	-
CEZ Polska sp. z o.o. [2]	310	393	1,190	1,280
CEZ Razpredelenie Bulgaria AD	784	257	-	-
CEZ Romania S.A.	8	15	709	1,751
CEZ Skawina S.A.	730	264	29	67
CEZ Slovensko, s.r.o.	994	1,699	110	209
CEZ Trade Bulgaria EAD	141	319	26	72
CEZ Vanzare S.A.	146	139	-	-
ČEZ Bohunice a.s.	-	-	170	176
ČEZ Distribuce, a. s.	20,350	20,900	4,191	5,586
ČEZ Energetické produkty, s.r.o.	184	118	299	255
ČEZ Energetické služby, s.r.o.	416	131	65	8
ČEZ ENERGOSERVIS spol. s r.o.	150	155	440	434
ČEZ ESCO, a.s.	140	43	330	1,649
ČEZ ICT Services, a. s.	60	61	628	943
ČEZ Korporátní služby, s.r.o.	113	239	1,835	591
ČEZ Obnovitelné zdroje, s.r.o.	14	12	374	227
ČEZ OZ uzavřený investiční fond a.s.	-	-	780	717
ČEZ Prodej, a.s.	3,397	3,242	9,409	10,126
ČEZ Solární, a.s.	141	94	-	-
ČEZ Teplárenská, a.s.	221	199	379	509
Elektrárna Dětmarovice, a.s.	431	339	401	1,030
Elektrárna Počerady, a.s.	430	647	12,763	8,466
Elektrárna Temelín II, a. s.	9	9	81	169
Elevion GmbH	1,727	1,002	-	-
Energocentrum Vítkovice, a. s.	117	59	7	30
Energotrans, a.s.	1,036	317	1,832	1,267
ENESA a.s.	146	48	9	21
Inven Capital, SICAV, a.s.	-	1	1,842	1,181
Kofler Energies Ingenieurgesellschaft mbH	123	39	-	-
MARTIA a.s.	169	132	142	102
PRODECO, a.s.	1	1	268	291
Revitrans, a.s.	1	1	23	113
SD - Kolejová doprava, a.s.	2	1	176	81
Severočeské doly a.s.	99	87	4,756	4,323
ŠKODA PRAHA a.s. [3]	39	45	14	95
Telco Pro Services, a. s.	2	-	203	290
ÚJV Řež, a. s.	1	1	298	325
Other	358	293	493	445
Total	42,552	38,273	45,627	44,427

The following table provides the total amount of transactions (sales and purchases), which were entered into with related parties in 2019 and 2018 (in CZK millions):

	Sales to related parties		Purchases from related parties	
	2019	2018	2019	2018
CEZ Holdings B.V.	67	56	-	-
CEZ Hungary Ltd.	2,389	1,762	266	(25)
CEZ Chorzów S.A.	868	207	-	-
CEZ Polska sp. z o.o. [2)]	3,676	4,027	669	319
CEZ Skawina S.A.	717	264	337	770
CEZ Slovensko, s.r.o.	3,986	3,809	1,018	613
CEZ Srbija d.o.o.	6	72	3	15
CEZ Trade Bulgaria EAD	285	114	726	641
CEZ Vanzare S.A.	2,170	1,303	-	-
ČEZ Distribuce, a. s.	927	514	80	99
ČEZ Energetické produkty, s.r.o.	33	25	1,040	913
ČEZ ENERGOSERVIS spol. s r.o.	28	25	1,293	1,160
ČEZ ESCO, a. s. [4)]	9,556	7,029	1,313	549
ČEZ ICT Services, a. s.	69	53	1,035	975
ČEZ Korporátní služby, s.r.o.	65	55	301	501
ČEZ Obnovitelné zdroje, s.r.o.	12	11	380	244
ČEZ Prodej, a.s. [4)]	15,386	15,495	1,097	1,921
ČEZ Teplárenská, a.s.	1,708	1,579	216	186
Distributie Energie Oltenia S.A.	419	164	-	-
Elektrárna Dětmarovice, a.s.	715	777	1,230	1,918
Elektrárna Dukovany II, a. s.	55	46	-	-
Elektrárna Počerady, a.s.	3,457	3,623	4,045	5,432
Elektrárna Temelín II, a. s.	49	52	-	-
Energocentrum Vítkovice, a. s.	43	154	7	89
Energotrans, a.s.	1,594	1,240	1,238	1,200
LOMY MOŘINA spol. s r.o.	-	-	194	176
MARTIA a.s.	9	9	512	337
OSC, a.s.	-	-	126	58
Ovidiu Development S.R.L.	1	12	478	575
Revitrans, a.s.	8	6	1	401
SD - Kolejová doprava, a.s.	15	25	629	586
Severočeské doly a.s.	731	259	4,763	4,005
ŠKODA PRAHA a.s. [3)]	292	25	206	233
Tomis Team S.A.	1	6	639	591
ÚJV Řež, a. s.	1	2	602	701
Ústav aplikované mechaniky Brno, s.r.o.	-	-	169	136
Other	177	210	274	130
Total	49,515	43,010	24,887	25,449

1) The company name CEZ New Energy Investments B.V. was changed to CEZ ESCO International B.V. in January 2020.

2) The company CEZ Trade Polska sp. z o.o. merged with the succession company CEZ Polska sp. z o.o. with the legal effective date of September 30, 2019.

3) The company ŠKODA PRAHA Invest s.r.o. merged with the succession company ŠKODA PRAHA a. s. with the legal effective date of January 1, 2019.

4) Due to re-invoicing in the company ČEZ Prodej, s.r.o. in 2019 and 2018, the relevant part of sales was transferred to the company ČEZ ESCO, a.s. in the amount of CZK 9,358 million and CZK 6,051 million, respectively.

The Company and some of its subsidiaries are included in the cash-pool system. Receivables from subsidiaries related to cashpooling is included in other financial assets, net (see Note 5), payables to subsidiaries related to cashpooling and similar borrowings are included in other financial liabilities (see Note 17).

Information about compensation of key management personnel is included in Note 26. Information about guarantees is included in Note 15.2.

34. Segment Information

The Company is involved in the generation and sale of electricity and trading in electricity which represents a single operating segment. The Company operates mainly in the European Union markets. The Company has not identified any other separate operating segments.

35. Earnings per Share

	2019	2018
Numerator (CZK millions)		
Basic and diluted:		
Net income	17,393	23,776
Denominator (thousands shares)		
Basic:		
Weighted average shares outstanding	535,288	534,733
Dilutive effect of share options	119	246
Diluted:		
Adjusted weighted average shares	535,407	534,979
Net income per share (CZK per share)		
Basic	32.5	44.5
Diluted	32.5	44.4

36. Commitments and Contingencies

Investment Program

The Company is engaged in a continuous construction program, currently estimated as at December 31, 2019 over the next five years as follows (in CZK billion):

2020	11.5
2021	11.2
2022	11.3
2023	12.5
2024	12.2
Total	58.7

These figures do not include the expected acquisitions of subsidiaries, associates and joint-ventures, which will depend on the number of future investment opportunities, for which the Company will be a successful bidder and also considering the recoverability of these investments.

The construction programs are subject to periodic reviews and actual construction may vary from the above estimates. At December 31, 2019 significant purchase commitments were outstanding in connection with the construction program.

Insurance Matters

The Nuclear Act sets limits for liabilities for nuclear damages so that the operator of nuclear installations is liable for up to CZK 8 billion per incident. The Nuclear Act limits the liability for damage caused by other activities (such as transportation) to CZK 2 billion. The Nuclear Act also requires an operator to insure its liability connected with the operation of a nuclear power plant up to a minimum of CZK 2 billion and up to a minimum of CZK 300 million for other activities (such as transportation). The Company concluded the above-mentioned insurance policies with company Generali Česká pojišťovna a.s. (representing the Czech Nuclear Insurance Pool) and European Liability Insurance for the Nuclear Industry. The Company has obtained all insurance policies with minimal limits as required by the law.

The Company also maintains the insurance policies covering the assets of its coal-fired, hydroelectric, CCGT and nuclear power plants and general third party liability insurance in connection with main operations of the Company.

These separate financial statements have been authorized for issue on March 16, 2020.

Daniel Beneš	Martin Novák
Chairman of Board of Directors	Member of Board of Directors