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fortum

Financials 2016

Financials 2016 – Reader's guide

This report consists of the Operating and Financial Review and the Consolidated Financial Statements of Fortum Group, including the Parent Company Financial Statements. Other parts of Fortum's reporting entity include the Online Annual Review, CEO Letter, Corporate Governance Statement, Remuneration Statement, Tax Footprint as well as the Sustainability Report. The Online Annual Review and Sustainability Report are published during week 10.

Operating and financial review
This section includes description of Fortum's financial performance during 2016. Here you will also find a description of the risk management as well as information on Fortum share performance.

Consolidated financial statements
Primary statements include Fortum's consolidated income statement, statement of comprehensive income, balance sheet, statement of changes in total equity and cash flow statement.

Notes
The notes to the consolidated financial statements are grouped to six sections based on their nature. Use the note number list on the right side of the notes pages to navigate in the financial statements.

Key figures 2007–2016
Key figures consist of financial key figures, share key figures and segment key figures for 2007–2016. The financial key figures derive mainly from the primary statements. Segment key figures include information on segments.

Parent company financial statements
Here you can read the parent company financial statements including the primary statements, cash flow and notes to the financial statements.

Proposal for the use of profit shown on the balance sheet
The Board of Directors proposal for the dividend in 2016 is disclosed in this section.

Auditor's report
This section includes the audit report issued by Fortum Oyj's auditor, Deloitte & Touche Oy.

Operational key figures and quarterly financial information
Look here for volume related key figures for 2007–2016 and quarterly financial information for the years 2015 and 2016.

Investor information
Here you will find information on Fortum's Annual General Meeting, dividend payment, basic share information as well as details of the financial information available to shareholders in 2017.

Notes are grouped to the following sections:

1–2 Basis of preparation
These notes describe the basis of preparing the consolidated financial statements and consist of the accounting policies and critical accounting estimates and judgements.

3–4 Risks
In the Risks section you will find notes that disclose how Fortum manages financial risks and capital risks.

5–15 Income statement
These notes provide supporting information for the income statement.

16–34 Balance sheet
These notes provide supporting information for the balance sheet.

35–38 Off balance sheet items
The notes in this section provide information on items that are not included in the balance sheet.

39–42 Group structure and related parties
This section includes information on events after balance sheet date, acquisitions and disposals, related party transactions and the subsidiaries of Fortum group.

The following symbols show which amounts in the notes reconcile to the items in income statement, balance sheets and cash flow statement.

IS = Income statement
BS = Balance sheet
CF = Cash flow

Financials 2016

Financial performance and position

Improved electricity prices, but very low hydro volumes ended a challenging year – Multi-year investment programme in Russia completed.

Key financial ratios[1)]

	2016	2015	2014	Change 16/15
Return on capital employed, %	4.0	22.7	19.5	-82%
Comparable net debt/EBITDA	0.0	-1.7	2.3	100%

1) Key financial ratios are based on total Fortum, including discontinued operations. See ▶ *Definitions of key figures*.

Key figures

EUR million	2016	2015	2014	Change 16/15
IS Sales	3,632	3,459	4,088	5%
Comparable EBITDA				
IS Continuing operations	1,015	1,102	1,457	-8%
Discontinued operations	-	163	416	
Total Fortum	1,015	1,265	1,873	-20%
Comparable operating profit				
IS Continuing operations	644	808	1,085	-20%
Discontinued operations	-	114	266	
Total Fortum	644	922	1,351	-30%
Operating Profit				
IS Continuing operations	633	-150	1 296	522%
Discontinued operations	-	4,395	2,132	
Total Fortum	633	4,245	3,428	-85%
Share of profits from associates and joint ventures				
IS Continuing operations	131	20	146	555%
Discontinued operations	-	0	3	
Total Fortum	131	20	149	555%
Profit before taxes				
IS Continuing operations	595	-305	1,232	295%
Discontinued operations	-	4,393	2,128	
Total Fortum	595	4,088	3,360	-85%
Earnings per share, EUR				
IS Continuing operations	0.56	-0.26	1.22	315%
Discontinued operations	-	4.92	2.33	
Total Fortum	0.56	4.66	3.55	-88%
CF Net cash from operating activities, continuing operations	621	1,228	1,406	-49%
Shareholders' equity per share, EUR	15.15	15.53	12.23	-2%
Interest-bearing net debt (at end of period)	-48	-2,195	4,217	98%

2016 was a challenging year in many respects. The beginning of the year was characterised by increased commodity market volatility; especially coal and oil prices were very low. Nordic water reservoirs were clearly above the long-term average, creating pressure on electricity prices, and the British EU exit vote also created uncertainty. Late in the year, however, some positive signs were seen on the power market, mainly driven by improved commodity and emission prices, although the overall business environment still continued to be demanding. Although some European economies have started to recover, the industry's power demand is still too weak and commodity prices are too low and volatile to support a material increase in electricity prices.

A positive development in 2016 was the Swedish government's budget proposal in September; it included the timetable for lowering the real-estate tax on hydro assets and for phasing out the nuclear capacity tax over the coming years. We are pleased with the swift decision and the finalisation of a timetable, which gives regulatory stability to operate the plants and plan the necessary safety investments. This is completely in line with what we have been advocating for, a regulation and taxation policy where the different forms of production are treated more equally.

Operationally, the year met our expectations, as availability in our plants was good and ongoing projects progressed as planned. We completed our extensive investment programme in Russia in the spring 2016, and the new capacity has been the key driver for the earnings growth in the Russia division.

In February, we published the key high-level elements in our strategy. We also adjusted our operational model to better enable strategy implementation. During the year we screened opportunities in line with our strategy. The acquisition of the Polish electricity and gas sales company DUON, wind power investments in Sweden, Norway and Russia, and the acquisition of Ekokem, a leading Nordic circular economy company, are important steps in the implementation of our strategy and give us access to new revenue streams independent of the Nordic power price. In addition, as we are continuously looking to optimise our production fleet, we divested the Tobolsk power plant in Russia.

We updated our vision and mission in the autumn. Our vision and mission go beyond just clean energy production, they express our commitment to fuel and resource efficiency and how we enable our stakeholders, customers and society to make sustainable choices. Our updated vision – 'For a cleaner world' reflects our ambition to drive the transformation towards an low-emission energy system and optimal resource efficiency. Our role is to accelerate this change by reshaping the energy system, improving resource efficiency and providing smart solutions.

We expect the energy sector transformation to accelerate in the future. At the same time as we lower the cost and improve the productivity of our existing operations, we will focus on additional organic and M&A growth opportunities. We have two phases in our capital redeployment. Priority one in phase one is generation consolidation in Europe – consolidation of assets and businesses within our core competence and giving us direct access to cash flows. Priority two in phase one is to take the competencies that we have today in our combined heat and power production and in the acquired Ekokem business, and widen the City Solution's scope. The overall goal of phase one is to maximize our cash flow to enable both a competitive dividend and "phase two" investments into the future energy system. Phase two involves growing in solar and wind, and new internal or external energy ventures to take care of our long-term competitiveness.

Fortum's vision, strategic cornerstones and updated financial targets

In February 2016, Fortum launched its new vision, strategic cornerstones and updated financial targets. The new vision and strategy target growth and continued profitability with a strong focus on clean energy, customers and shareholder value creation.

The long-term financial target for return on capital employed (ROCE) was revised to at least 10%, while the target for comparable net debt to EBITDA, around 2.5 times, remained unchanged. The dividend policy also remained unchanged.

Fortum's strategy has four cornerstones: (1) enhance productivity of the current fleet and drive industry transformation, (2) create sustainable solutions for growing cities and urban areas, (3) increase investments in solar and wind power, and (4) build new energy ventures.

At Fortum's Capital Market Day in November 2016, the strategy execution plan was expanded in more depth. The redeployment of cash and the execution of Fortum's strategy will take place in two phases, and a significant part of the redeployment is targeted to take place during 2017.

Phase 1: The goal for the first phase is to maximise cash flow through capital redeployment. The priority is consolidation of the generation business in Europe. After this, and subject to the remaining financial headroom, also further organic growth and/or acquisition-based growth of City Solutions will be considered, mainly in Europe. The resulting cash flow will be used for two purposes: 1) implementing Fortum's dividend policy; and 2) investments into Phase 2 as described below. In addition, Fortum will continue its cost and asset portfolio optimisation in all divisions, informing the market about these as they advance.

Phase 2: The goal for the second phase is to secure Fortum's longer-term competitiveness. This has already started through wind investments in our Nordic and Russian home markets and through solar investments in India. The next steps will include solar-enabled system solutions, maximising the added value from waste and biomass as well as minimising fossil emissions. In addition, phase 2 will also include new digital services, services for active consumers, electric traffic, new storage solutions, and other potentially disruptive innovations.

Fortum also updated its vision and mission to cover a broader scope. "For a cleaner world" reflects the company's mission "We engage our customers and society to drive the change towards a cleaner world. Our role is to accelerate this change by reshaping the energy system, improving resource efficiency and providing smart solutions. In this way we deliver excellent shareholder value."

Reorganisation of operations

Fortum reorganised its operating structure in April 2016. The target of the new organisation is to enable the implementation of the company's new vision and strategy. The new organisation consists of three business divisions: Generation, City Solutions and Russia. In addition, two development units focusing on growing new businesses were established: (1) M&A and Solar & Wind Development, and (2) Technology and New Ventures.

The changes to Fortum's segment reporting were minor. The company continues to have four segments. The segments as of the second quarter of 2016 are: Generation (mainly the former Power and Technology); City Solutions (mainly the former Heat, Electricity Sales and Solutions); Russia; and Other, under which M&A, Solar & Wind Development, and Technology and New Ventures, as well as corporate functions are reported. Some businesses were repositioned due to the reorganisation, but because of the minor financial impact, the comparable segment information for 2015 has not been restated.

Following the divestment of the Swedish distribution business, Fortum no longer has electricity distribution operations. The Distribution segment was reclassified as discontinued operations as of the first quarter of 2015.

New Finnish GAAP requirement for financial derivatives

A new requirement issued by Finnish Accounting Board relating to accounting for financial derivatives was published 13 December 2016. The requirements have to be applied in 2016 separate financial statements for Finnish companies. Based on this requirement Fortum has chosen to apply IFRS principles for accounting financial derivatives in Fortum Oyj and its Finnish subsidiaries.

Applying IFRS principles means that financial derivatives are fair valued at each balance sheet date, which may create volatility in income statement and equity. The changes due to the new requirement has no effect to Fortum Group, but had a minor effect to net profit and equity of Fortum Oyj in 2016.

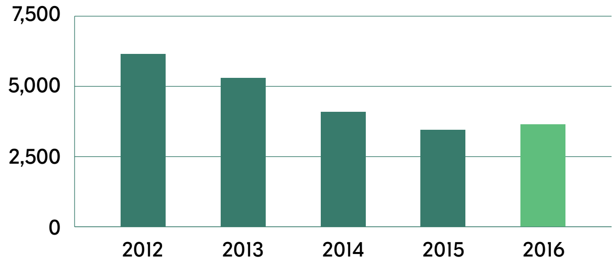
Comparability of information presented in tables and graphs

Fortum has restated the financial information in prior years as follows:

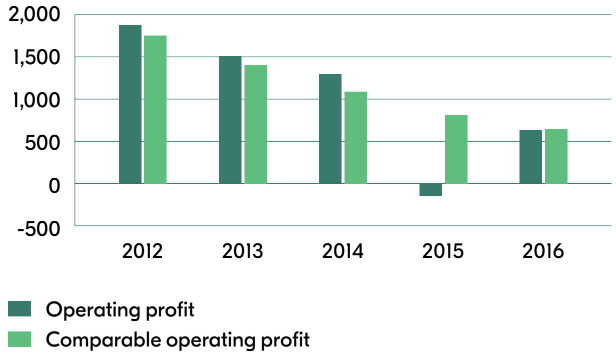
- Distribution segment is treated as discontinued operations in 2015. The comparative period information for 2014 was restated accordingly, but information in the tables and graphs presented for year 2013 or earlier is not restated due to reclassification of discontinued operations. Financial results discussed in this operating and financial review are for the continuing operations of Fortum Group. See additional information in *Note 14* Discontinued operations.
- Furthermore, information in the tables and graphs presented for year 2012 or earlier is not restated due to the adoption of IFRS 10 and IFRS 11. Adoption of standards influences treatment of Fortum's holding in AB Fortum Värme samägt med Stockholms stad in the consolidated financial statements.

In addition, as of 2014, presented figures have been rounded and consequently the sum of individual figures may deviate from the sum presented. Figures in brackets refer to the comparison period unless otherwise stated.

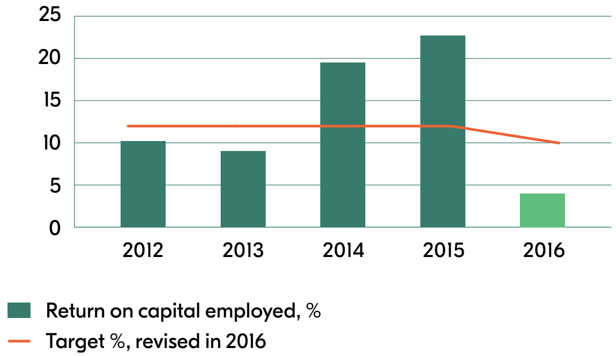
Sales, EUR million



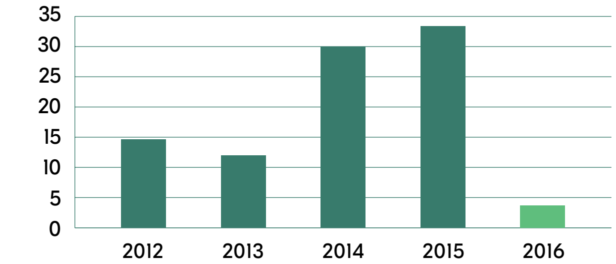
Operating profit and comparable operating profit, EUR million



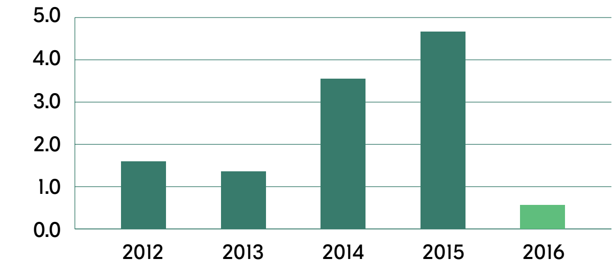
Return on capital employed total Fortum, %



Return on shareholders' equity total Fortum, %



Earnings per share total Fortum, EUR



Financial results

Sales by segment

EUR million	2016	2015	Change 16/15
Generation	1,657	1,722	-4%
City Solutions	1,424	1,187	20%
Russia	896	893	0%
Other	121	114	6%
Netting of Nord Pool transactions [1]	-384	-336	
Eliminations	-82	-122	
IS Total continuing operations	3,632	3,459	5%
Discontinued operations	-	274	
Eliminations	-	-31	
Total Fortum	3,632	3,702	-2%

1) Sales and purchases with Nord Pool are netted at the Group level on an hourly basis and posted either as revenue or cost depending on whether Fortum is a net seller or net buyer during any particular hour.

Comparable EBITDA by segment

EUR million	2016	2015	Change 16/15
Generation	527	680	-23%
City Solutions	238	209	14%
Russia	312	267	17%
Other	-61	-53	-15%
IS Total continuing operations	1,015	1,102	-8%
Discontinued operations	-	163	
Total Fortum	1,015	1,265	-20%

Comparable operating profit by segment

EUR million	2016	2015	Change 16/15
Generation	417	561	-26%
City Solutions	112	108	4%
Russia	191	201	-5%
Other	-76	-63	-21%
IS Total continuing operations	644	808	-20%
Discontinued operations	-	114	
Total Fortum	644	922	-30%

Operating profit by segment

EUR million	2016	2015	Change 16/15
Generation	338	-396	185%
City Solutions	145	105	38%
Russia	226	203	11%
Other	-76	-62	-23%
IS Total continuing operations	633	-150	522%
Discontinued operations	-	4,395	
Total Fortum	633	4,245	-85%

For further information see *Note 5* Segment reporting.

In 2016, sales were EUR 3,632 (3,459) million. Comparable EBITDA totalled EUR 1,015 (1,102) million. Comparable operating profit totalled EUR 644 (808) million and reported operating profit totalled EUR 633 (-150) million. Fortum's operating profit for the period was impacted by items affecting comparability, including sales gains, Ekokem transaction costs, updated provisions and an IFRS accounting treatment (IAS 39) of derivatives mainly used for hedging Fortum's power production, as well as nuclear fund adjustments for continuing operations, amounting to EUR -11 (-958) million (*Note 5* and *Note 6*). The year 2015 included a EUR -794 million impact from the decision on the early closure of two nuclear units in Sweden (*Note 5* and *Note 7*).

The share of profit from associates was EUR 131 (20) million, of which Hafslund represented EUR 51 (39) million, TGC-1 EUR 38 (32) million, Fortum Värme EUR 66 (47) million and OKG EUR -30 (-107) million. The share of profit from Hafslund and TGC-1 are based on the companies' published Q4 2015 and Q1–Q3 2016 interim reports (*Note 20*). The OKG impact comes from the new technical plan for nuclear waste management (*Note 30)*. Year 2015 was affected by the decision on the early closure of two nuclear units in Sweden, which impacted the share of profit from associates by EUR -116 million (*Note 7*). In addition, Fortum Värme's share of profit in 2015 was lower mainly due to the paid compensation for refinancing the interest-bearing loans from Fortum.

Net financial expenses were EUR -169 (-175) million and include changes in the fair value of financial instruments of EUR -2 (-18) million. In 2015, net financial expenses included compensation of EUR 37 million from the prepayment of loans by Fortum Värme (*Note 12*).

Profit before taxes was EUR 595 (-305) million. Year 2015, was impacted by EUR -910 million due to the decision on the early closing of the two nuclear units in Sweden.

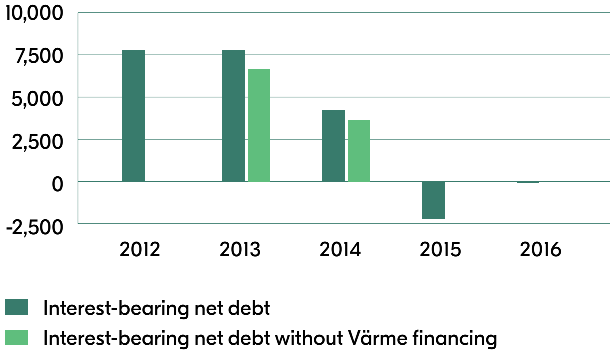
Taxes for the period totalled EUR -90 (78) million. The effective income tax rate according to the income statement was 15.2% (25.4%). The comparable effective income tax rate, excluding the impact of the share of profit of associated companies and joint ventures as well as non-taxable capital gains, was 20.0% (23.5%) (*Note 13)*.

The profit for the period for continuing operations was EUR 504 (-228) million. Earnings per share for continuing operations were EUR 0.56 (-0.26), of which EUR -0.02 (-0.97) per share relates to items affecting comparability. In 2015, the impact of the decision on the early closure of two nuclear units in Sweden was EUR -0.82 per share.

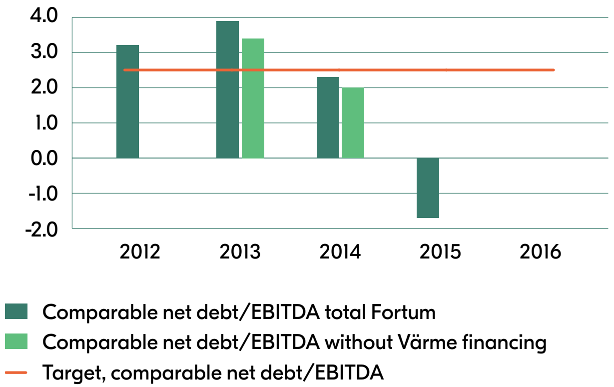
Financial position and cash flow

EUR million	2016	2015	Change 16/15
Interest expense	-169	-203	17%
Interest income	30	51	-41%
Fair value gains and losses on financial instruments	-2	-18	89%
Other financial expenses - net	-29	-4	-625%
IS Finance costs - net	**-169**	**-175**	3%
Interest-bearing liabilities	5,107	6,007	-15%
Less: Liquid funds	5,155	8,202	-37%
Interest-bearing net debt	**-48**	**-2,195**	

Interest-bearing net debt, EUR million



Comparable net debt/EBITDA



Cash flow

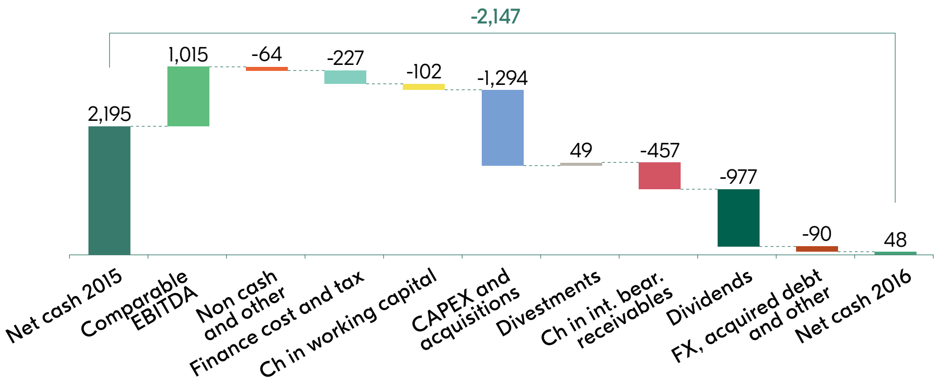
In 2016, net cash from operating activities from continuing operations decreased by EUR 607 million to EUR 621 (1,228) million, mainly due to EUR 87 million lower comparable EBITDA, EUR 151 million higher income taxes paid, EUR -182 million lower realised foreign exchange gains and losses, and an EUR 131 million increase in working capital. The increase in working capital is mainly due to the daily cash settlements for futures in Nasdaq OMX Commodities Europe (*Additional cash flow information*). In June, Fortum paid income taxes in Sweden totalling EUR 127 million regarding tax disputes. The appeal process is ongoing and based on legal opinions, no provision is made, and the payment is booked as a receivable (*Note 38*). Realised foreign exchange gains and losses of EUR 110 (292) million relate to the rollover of foreign exchange contract hedging loans to Fortum's Swedish and Russian subsidiaries.

Capital expenditures increased by EUR 72 million to EUR 599 (527) million. Net cash used in investing activities increased to EUR 1,701 (35) million, due to the acquired shares of EUR 695 (43) million related mainly to acquisitions of Ekokem and DUON. The increase in other interest-bearing receivables of EUR 340 million during 2016 relates mainly to cash collaterals, given as trading collaterals to commodity exchanges.

Cash flow before financing activities was EUR -1,080 (7,650) million. In 2015, the impact from discontinued operations was EUR 6,457 million.

Fortum paid dividends totalling EUR 977 (1,155) million in April 2016. Payments of long-term and short-term liabilities totalled EUR 1,031 (1,040) million including repayment of a EUR 750 million bond and EUR 115 million Ekokem loans. The net decrease in liquid funds was EUR 3,064 (increase of 5,490) million.

Change in net cash during 2016, EUR million



At the end of 2016 and 2015 Fortum has been in net cash position, see Financial position and cash flow table above.

Assets and capital employed

Total assets decreased by EUR 803 million to EUR 21,964 (22,767) million.

Liquid funds at the end of 2016 were EUR 5,155 (8,202) million.

Capital employed was EUR 18,648 (19,870) million, a decrease of EUR 1,222 million.

Equity

Equity attributable to owners of the parent company totalled EUR 13,459 (13,794) million.

The decrease in equity attributable to owners of the parent company totalled EUR 335 million and was mainly due to EUR 977 million in dividends paid and the net profit for the period of EUR 496 million.

Financing

Fortum was net cash positive at the end of 2016. Net cash decreased by EUR 2,147 million to EUR 48 (2,195) million.

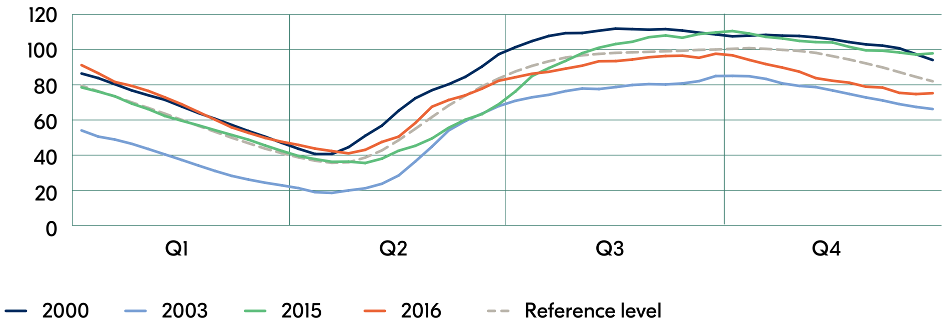
At the end of 2016, the Group's liquid funds totalled EUR 5,155 (8,202) million. Liquid funds include cash and bank deposits held by OAO Fortum amounting to EUR 105 (76) million. In addition to liquid funds, Fortum had access to EUR 2.0 billion of undrawn committed credit facilities (*Note 28*).

Net financial expenses in January-December 2016 were EUR -169 (-175) million, of which net interest expenses were EUR -139 (-152) million. Net financial expenses include changes of EUR -2 (-18) million in the fair value of financial instruments and EUR 37 million compensation from the prepayment of loans by Fortum Värme in 2015.

In June 2016, Fortum signed a EUR 1,750 million syndicated Multicurrency Revolving Facility Agreement. The committed facility will be used for general corporate purposes and replaces the existing credit facility signed in July 2011. The facility has an initial maturity of five years and Fortum may request two one-year extension options.

Fortum's long-term credit ratings were unchanged. Standard & Poor's rating is BBB+ and the short-term rating A-2. The outlook is stable. Fitch Ratings long-term Issuer Default Rating (IDR) and senior unsecured rating is BBB+ and the short-term IDR is F2 with a stable outlook.

Nordic water reservoirs, energy content, TWh



Source: Nord Pool

Key figures

At the end of 2016, the comparable net debt to EBITDA was 0.0 (-1.7).

Gearing was 0% (-16%) and the equity-to-assets ratio 62% (61%). Equity per share was EUR 15.15 (15.53). Return on capital employed for year 2016 totalled 4.0% (22.7%).

Market conditions

Nordic countries

According to preliminary statistics, electricity consumption in the Nordic countries increased in 2016 by 9 TWh to 390 (381) TWh, mainly due to closer-to-long-term average temperature compared to the warmer year in 2015, although modest demand growth was seen in the Nordic countries.

At the beginning of 2016, the Nordic water reservoirs were at 98 TWh, which is 15 TWh above the long-term average and 18 TWh higher than a year earlier. By the end of the year, reservoirs were 8 TWh below the long-term average and 23 TWh lower than at the end of 2015. Reservoir levels have decreased due to low precipitation in the Nordic area and high hydro production mainly in Norway during 2016.

In 2016, the Nord Pool average system spot price was EUR 26.9 (21.0) per MWh, with the area price in Finland at EUR 32.4 (29.7) per MWh and in Sweden SE3 (Stockholm) at EUR 29.2 (22.0) per MWh. Nordic reservoirs turned from a 15 TWh surplus to an 8 TWh deficit during the year. 2016 was again warmer than normal, but less so than in 2015.

In Germany, the average spot price in 2016 was EUR 29.0 (31.6) per MWh.

The market price of CO_2 emission allowances (EUA) was EUR 8.1 per tonne at the beginning of the year. Throughout most of the fourth quarter and the whole calendar year the price fluctuated between EUR 4 and 6 per tonne and ended at EUR 6.5 per tonne at the end of 2016.

Russia

Fortum operates both in the Tyumen and Khanty-Mansiysk area of Western Siberia, where industrial production is dominated by the oil and gas industries, and in the Chelyabinsk area of the Urals, which is dominated by the metal industry.

According to preliminary statistics, Russian electricity consumption was 1,027 (1,007) TWh and the corresponding figure in Fortum's operating area in the First price zone (European and Urals part of Russia) was 787 (772) TWh in 2016.

In 2016, the average electricity spot price, excluding capacity price, increased by 4.3% to RUB 1,204 (1,154) per MWh in the First price zone.

Power consumption

TWh	2016	2015	2014
Nordic countries	390	381	378
Russia	1,027	1,007	1,021
Tyumen	94	93	93
Chelyabinsk	35	35	36
Russia Urals area	259	258	260

Average prices

TWh	2016	2015	2014
Spot price for power in Nord Pool power exchange, EUR/MWh	26.9	21.0	29.6
Spot price for power in Finland, EUR/MWh	32.4	29.7	36.0
Spot price for power in Sweden, SE3, Stockholm, EUR/MWh	29.2	22.0	31.6
Spot price for power in Sweden, SE2, Sundsvall, EUR/MWh	29.0	21.2	31.4
Spot price for power in European and Urals part of Russia, RUB/MWh 1)	1,204	1,154	1,163
Average capacity price, tRUB/MW/month	481	359	304
Spot price for power in Germany, EUR/MWh	29.0	31.6	32.8
Average regulated gas price in Urals region, RUB/1,000 m^3	3,614	3,488	3,362
Average capacity price for old capacity, tRUB/MW/month 2)	140	149	167
Average capacity price for new capacity, tRUB/MW/month 2)	815	641	552
Spot price for power (market price), Urals hub, RUB/MWh 1)	1,054	1,047	1,089
CO_2, (ETS EUA), EUR/tonne CO_2	5	8	6
Coal (ICE Rotterdam), USD/tonne	59	57	75
Oil (Brent Crude), USD/bbl	45	54	99

1) Excluding capacity tariff.

2) Capacity prices paid only for the capacity available at the time.

Water reservoirs

TWh	31 Dec 2016	31 Dec 2015	31 Dec 2014
Nordic water reservoirs level	75	98	80
Nordic water reservoirs level, long-term average	83	83	83

Export/import

TWh (+ = import to, - = export from Nordic area)	2016	2015	2014
Export/import between Nordic area and Continental Europe+Baltics	-10	-18	-14
Export/import between Nordic area and Russia	6	4	4
Export/import Nordic area, total	-4	-14	-10

European business environment and carbon market

Carbon pricing and emissions trading

The ratification of the global climate agreement adopted in Paris 2015, entered into force in November 2016. Preparation of implementation rules will take a couple of years, and the impact on the energy industry will become concrete only via legislation in different countries. The EU ratified the Agreement, but Russia's ratification is not expected before 2020. Carbon pricing schemes are being planned in several countries. The start of the Chinese ETS in 2017 is expected to double the coverage of emissions subject to carbon pricing globally.

The EU Commission released an announcement on the implications of the Paris Agreement for the EU climate policy. The EU decided not to revise its climate target for 2030. Basically all EU climate regulation to implement the 2030 target was under review in 2016. The revision of the emissions trading directive (ETS) was under discussion in the Parliament and the Council, but adoption isn't expected until late 2017 at the earliest or in 2018. Fortum and the electricity industry as a whole have highlighted the need to increase the ETS ambition and strengthen the market stability reserve mechanism.

Progress in implementation of the Energy Union

Year 2016 was the EU Energy Union's "year of delivery" with the release of three major legislative packages. The in early 2016 released "winter package" focused on security of supply and on heating and cooling (H&C). The new EU H&C strategy underlined the importance of decarbonisation of heating and cooling and the improvement of energy efficiency in the residential sector. The "summer package" contained a proposal for sharing the burden in the non-ETS sectors, i.e. binding national targets for member states to cut CO_2 emissions in transport, buildings, agriculture and waste management in 2021–2030. The strategy has a strong focus on electrification of the transport sector while also recognising the role of biofuels. A broader "winter package" (Clean Energy for all Europeans) released in late 2016 completed to a large extent the legislative work in the field of energy. The winter package includes a renewal of the internal electricity market legislation, as well as energy efficiency and renewable energy directives with the intention to implement the related EU 2030 targets.

Swedish energy policy and taxation

The focus of the energy policy in 2016 was on the parliamentary energy commission's work with the aim of developing a long-term energy policy for the period after 2030. In June, a broad parliamentary agreement for long-term Swedish energy policy was presented by the government and parts of the opposition. The agreement aims at a 100% renewable energy system by 2040, but with no actual limits regarding nuclear generation. The electricity certificate system will be prolonged providing for an additional 18 TWh of electricity from renewable energy sources during 2020–2030. The progress of the energy agreement will be followed-up every second year starting in 2018.

One of the key elements of the parliamentary agreement was the proposal that taxation of different energy production forms should be more equal, and that the tax burden of nuclear and hydro should be taken to the level of other production technologies. The tax on installed nuclear capacity will be reduced starting in July 2017 and totally abolished as of 2018. The regulatory framework for investment of the nuclear waste funds' assets is suggested to be expanded to provide for a better long-term yield. The real-estate tax rate on hydro assets will be reduced from current 2.8% to the regular tax rate of 0.5% on real estate in four steps by 2020. In addition, a proposal for new hydro legislation is being prepared and is expected to be handed over to the parliament in autumn 2017.

Finnish energy policy and taxation

In late 2016 the Finnish Government published its energy and climate strategy in order to implement both the national energy and climate policy objectives of the Government's strategic programme, as well as the EU 2030 energy and climate targets. The key elements are: increase the share of renewable energy to a minimum of 50% with a strong focus on bioenergy, launch of a limited support scheme for renewable electricity (2 TWh of electricity production is auctioned, based on technology neutral tendering, in 2018–2020), 30% biofuel blending obligation and some incentives for electric vehicles as well as a ban on the use of coal in energy production by 2030.

In addition, the Finnish Government decided to increase the tax on heating fuels from 2017 onwards. However, CHP continues to pay only 50% of the CO_2 tax component, while the original aim was to increase it to 100%. The agreed tax model increases the tax on both the CO_2 and the energy content components. The Government also decided to make an assessment during 2017 concerning the possibility to apply real estate tax rates applicable to power plants also to wind power. Currently windmills below 3 MW are in the scope of lower tax rates. The earlier announced mechanism to offset the indirect costs of the EU Emissions Trading System for energy intensive industries was also approved.

Segment reviews

Generation

Generation is responsible for Nordic power production. The segment comprises nuclear, hydro and thermal power production, portfolio management, and trading and industrial intelligence, as well as nuclear services globally.

EUR million	2016	2015	Change 16/15
Sales	1,657	1,722	-4%
- power sales	1,635	1,625	1%
of which Nordic power sales [1]	1,339	1,526	-12%
- other sales	22	97	-77%
Comparable EBITDA	527	680	-23%
Comparable operating profit	417	561	-26%
Operating profit	338	-396	185%
Share of profits from associates and joint ventures [2]	-34	-111	69%
Comparable net assets (at period-end)	5,815	5,931	-2%
Comparable return on net assets, %	6.9	9.5	-27%
Capital expenditure and gross investments in shares	203	203	0%
Number of employees	979	1,341	-27%

1) The Nordic power sales income and volume includes hydro and nuclear generation, excluding minorities. It does not include thermal generation, minorities, customer business or other purchases.

2) Power plants are often built jointly with other power producers, and owners purchase electricity at cost including interest cost and production taxes. The share of profit/loss is mainly IFRS adjustments (e.g. accounting for nuclear-related assets and liabilities) and depreciations on fair-value adjustments from historical acquisitions (Note 20).

In 2016, the Generation segment's comparable EBITDA was EUR 527 (680) million. Comparable operating profit was EUR 417 (561) million. The decline was mainly due to the lower achieved power price and lower hydro volumes. The decline was partly offset by higher nuclear volumes and lower fixed costs.

Operating profit of EUR 338 (-396) million was affected by sales gains, the IFRS accounting treatment (IAS 39) of derivatives, mainly used for hedging Fortum's power production, and by nuclear fund adjustments, amounting to EUR -79 (-958) million (Note 5 and Note 6). Year 2015 included EUR -794 million from the decision on the early closure of two nuclear units in Sweden (Note 5 and Note 7).

The share of profits from associated companies and joint ventures totalled EUR -34 (-111) million (Note 20).

Generation's achieved Nordic power price was EUR 31.0 (33.0) per MWh, EUR 2.0 per MWh lower than in 2015. The average system spot price of electricity in Nord Pool was EUR 26.9 (21.0) per MWh. The average area price in Finland was EUR 32.4 (29.7) per MWh and in Sweden SE3 (Stockholm) EUR 29.2 (22.0) per MWh.

The segment's total power generation in the Nordic countries was 45.3 (48.1) TWh. The decrease is mainly due to lower hydro volumes. The CO_2-free production amounted to 99% (99%) of total production.

Power generation by source

TWh	2016	2015	Change 16/15
Hydro power, Nordic	20.7	25.1	-18%
Nuclear power, Nordic	24.1	22.7	6%
Thermal power, Nordic	0.5	0.3	67%
Total in the Nordic countries	45.3	48.1	-6%

Nordic sales volume

TWh	2016	2015	Change 16/15
Nordic sales volume	52.4	50.5	4%
of which Nordic Power sales volume [1)]	43.2	46.3	-7%

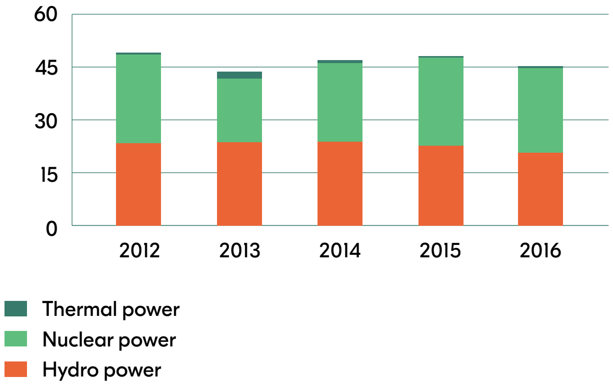
1) The Nordic power sales income and volume includes hydro and nuclear generation, excluding minorities. It does not include thermal generation, minorities, customer business or other purchases.

Sales price

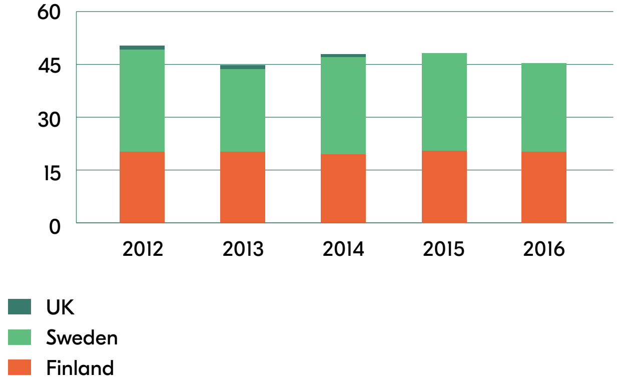
EUR/MWh	2016	2015	Change 16/15
Generation's Nordic power price [2)]	31.0	33	-6%

2) Generation's Nordic power price does not include sales income from thermal generation, market price-related purchases or minorities.

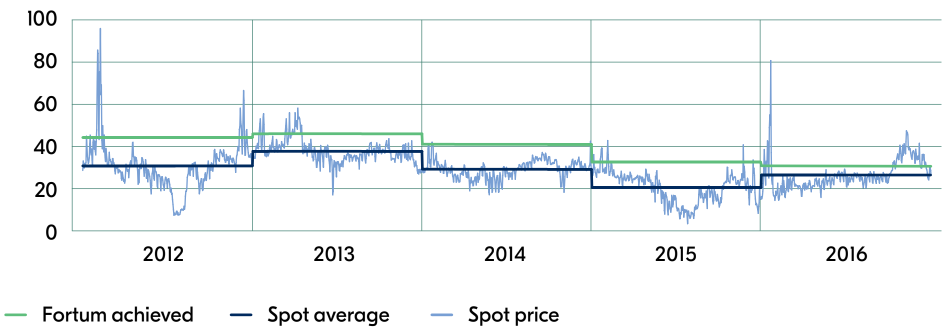
Generation segment's power generation in the Nordic area by source, TWh



Generation segment's power generation by area, TWh



Nord Pool, power price, 2012–2016, EUR/MWh



Source: Nord Pool, Fortum

City Solutions

City Solutions is responsible for developing sustainable city solutions into a growing business for Fortum. The segment comprises heating and cooling, waste-to-energy, biomass and other circular economy solutions, as well as electricity sales and services. The business operations are located in the Nordics, the Baltic countries and Poland. The segment also includes Fortum's 50% holding in Fortum Värme, which is a joint venture and is accounted for using the equity method.

EUR million	2016	2015	Change 16/15
Sales	1,424	1,187	20%
- heat sales	449	423	6%
- power sales	648	682	-5%
- other sales	327	83	294%
Comparable EBITDA	238	209	14%
Comparable operating profit	112	108	4%
of which Electricity Sales	44	55	-20%
Operating profit	145	105	38%
Share of profits from associates and joint ventures	76	59	29%
Comparable net assets (at period-end)	3,052	2,182	40%
Comparable return on net assets, %	7.5	7.9	-5%
Capital expenditure and gross investments in shares	927	128	624%
Number of employees	2,314	1,417	63%

In August, Fortum finalised the acquisition of Ekokem Corporation. The transaction was originally announced in May 2016. Ekokem has been integrated as a business area into the City Solutions division and has been consolidated into Fortum Group from the end of August 2016.

In 2016, sales increased to EUR 1,424 (1,187) million, mainly due to the consolidation of DUON and Ekokem. Heat sales volumes of the City Solutions segment amounted to 8.7 (7.8) TWh. Power sales volumes from CHP production totalled 2.8 (2.5) TWh during the same period.

Comparable EBITDA increased, and totalled EUR 238 (209) million. Comparable operating profit was EUR 112 (108) million. The main drivers for the improvement were the consolidations of DUON and Ekokem. The full year result was burdened by an unfavourable fuel mix and the lower achieved power price. In addition, the use of more accurate consumption estimates had a one-off, positive impact on electricity sales in 2015.

Operating profit of EUR 145 (105) million was affected mainly by sales gains, Ekokem transaction costs and the IFRS accounting treatment (IAS 39) of derivatives totalling EUR 33 (-3) million (*Note 5*).

The share of profits from associated companies and joint ventures totalled EUR 76 (59) million, including mainly the share of profit from Fortum Värme (*Note 20*).

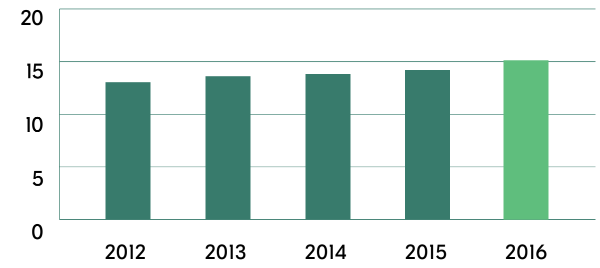
Heat sales by country

TWh	2016	2015	Change 16/15
Finland	3.6	3.1	16%
Poland	3.6	3.4	6%
Other countries	1.5	1.2	25%
Total	8.7	7.8	12%

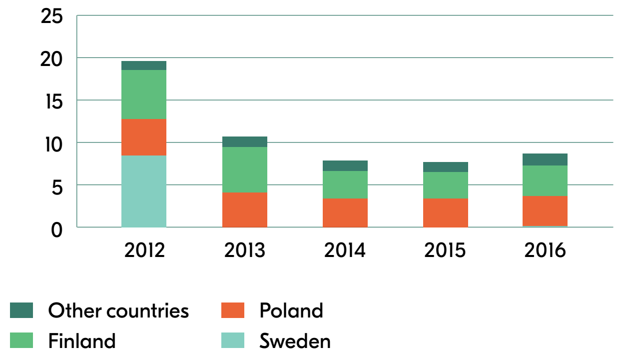
Power sales

TWh	2016	2015	Change 16/15
CHP	2.8	2.5	12%
Electricity Sales	12.3	14.2	-13%
Total	15.1	16.7	-10%

Electricity Sales in City Solutions segment, TWh



Heat sales by country, TWh



Russia

The Russia segment comprises power and heat generation and sales in Russia. The segment also includes Fortum's over 29% holding in TGC-1, which is an associated company and is accounted for using the equity method.

EUR million	2016	2015	Change 16/15
Sales	896	893	0%
- power sales	691	661	5%
- heat sales	199	228	-13%
- other sales	6	4	50%
Comparable EBITDA	312	267	17%
Comparable operating profit	191	201	-5%
Operating profit	226	203	11%
Share of profits from associates and joint ventures	38	32	19%
Comparable net assets (at period-end)	3,284	2,561	28%
Comparable return on net assets, %	8.0	8,2	-2%
Capital expenditure and gross investments in shares	201	285	-29%
Number of employees	3,745	4,126	-9%

After the completion of the multi-year investment programme in March 2016, Fortum has 2,268 MW of new capacity i.e. generation capacity built after 2007, which under the Russian Capacity Supply Agreement (CSA – "new capacity") receives guaranteed payments for a period of 10 years after the commissioning of each new unit.

The received capacity payments vary depending on the age, location, type and size of the plant, as well as on seasonality and availability. The CSA payments can also vary somewhat annually, as they are linked to Russian Government long-term bonds with 8 to 10 years' maturity. In early 2016, the System Administrator of the wholesale market published data on the weighted average cost of capital (WACC) and the consumer price index (CPI) for 2015, which was used to calculate the capacity price on CSA in 2016. The CSA payments were revised upwards accordingly to reflect the higher bond rates. In addition, the regulator will review the guaranteed CSA payments by re-examining earnings from the electricity-only market three and six years after the commissioning of a unit, and may revise the CSA payments accordingly.

All of Fortum's capacity generation built prior to 2008 (CCS – "old capacity"), totalling 2,214 MW in December 2016, was allowed to participate in the Competitive Capacity Selection for 2016, and the majority of Fortum's plants were selected. The volume of Fortum's installed capacity not selected in the auction totalled 175 MW, for which Fortum has obtained forced mode status, i.e. it is receiving payments for the capacity.

In 2016, the Russia segment's power sales volumes amounted to 29.5 (29.4) TWh and heat sales volumes totalled 20.6 (25.4) TWh. Electricity volumes increased mainly due to the commissioning of two new units in Chelyabinsk. The divestment of the Tobolsk CHP plant in February 2016 decreased the growth impact on both electricity and heat volumes.

The Russia segment's comparable EBITDA was EUR 312 (267) million. Comparable operating profit was EUR 191 (201) million, including CSA provision releases of EUR 2 (52) million. The positive effect came from operationally good performance and high utilisation rates in the power plants, the commissioning of new units as well as from the higher received CSA payments following the adjustments of the WACC component in the CSA prices. The Russian rouble had a negative effect of EUR 13 million.

Operating profit was EUR 226 (203) million, including sales gains of EUR 35 (1) million (*Note 5*).

The share of profits from associated companies and joint ventures totalled EUR 38 (32) million (*Note 20)*. The operating profit (EBIT) for the whole Russia segment, which includes the share of TGC-1, totalled RUB 19.5 billion in 2016, including a sales gain RUB 2.6 billion on the sale of Tobolsk.

Fortum started receiving capacity payments under the Russian Capacity Supply Agreement (CSA) for Chelyabinsk GRES unit 2 as of 1 March 2016. Fortum's extensive investment programme in Russia that started in 2008 was completed during 2016, as the final unit of the programme started its commercial operation.

Key electricity, capacity and gas prices for Fortum Russia

	2016	2015	Change 16/15
Electricity spot price (market price), Urals hub, RUB/MWh	1,054	1,047	1%
Average regulated gas price, Urals region, RUB/1,000 m³	3,614	3,488	4%
Average capacity price for CCS "old capacity", tRUB/MW/month 1)	140	149	-6%
Average capacity price for CSA "new capacity", tRUB/MW/month 1)	815	641	27%
Average capacity price, tRUB/MW/month	481	359	34%
Achieved power price for Fortum in Russia, RUB/MWh	1,734	1,555	12%
Achieved power price for Fortum in Russia, EUR/MWh 2)	23.5	22.5	4%

1) Capacity prices paid for the capacity volumes, excluding unplanned outages, repairs and own consumption.

2) Translated using average exchange rate.

Discontinued operations (Distribution)

EUR million	2016	2015
Sales	-	274
- distribution network transmission	-	229
- regional network transmission	-	40
- other sales	-	7
Comparable EBITDA	-	163
Comparable operating profit	-	114
Operating profit	-	4,395
Capital expenditure and gross investments in shares	-	44

The table above includes the Swedish electricity distribution business for January-May 2015.

Fortum has had no distribution business since June 2015, when it completed the divestment of its Swedish electricity distribution business. The transaction concluded the divestment of Fortum's Distribution segment, a process that began in 2013.

Capital expenditure, divestments and investments in shares

EUR million	2016	2015
Capital expenditure		
Intangible assets	3	5
Property, plant and equipment	588	577
Total continuing operations	591	582
Gross investments in shares		
Subsidiaries	813	1
Associated companies	17	27
Available for sale financial assets	14	15
Total continuing operations	844	43

See also *Note 19.2* Capital expenditure.

Fortum expects to start the supply of power and heat from new power plants and to upgrade existing plants as follows:

	Type	Electricity capacity MW	Heat capacity MW	Supply starts
Generation				
Loviisa, Finland	Nuclear	6		Q4 2017
Several hydro plants in Sweden and Finland	Hydro	10		End 2017
City Solutions				
Zabrze, Poland	CHP	75	145	2018
Russia				
Ulyanovsk	Wind	35		2017
Other				
Bhadla, India	Solar	70		2017
Karnataka, India	Solar	100		2017
Solberg, Sweden	Wind	75 [1)]		2018

1) Skellefteå Kraft AB (SKAB) is participating in the project with a 50% (37.5 MW) share.

Generation

Through its interest in Teollisuuden Voima Oyj (TVO), Fortum is participating in the building of Olkiluoto 3 (OL3), a 1,600-MW nuclear power plant unit in Finland. The plant's start of commercial electricity production is expected to take place in late 2018, according to the plant supplier AREVA-Siemens Consortium. TVO has withdrawn a EUR 300 million shareholder loan from the total EUR 600 million commitments. Fortum's share of the EUR 300 million withdrawal is approximately EUR 75 million. Fortum's remaining commitment for OL3 is EUR 75 million (*Note 22*).

City Solutions

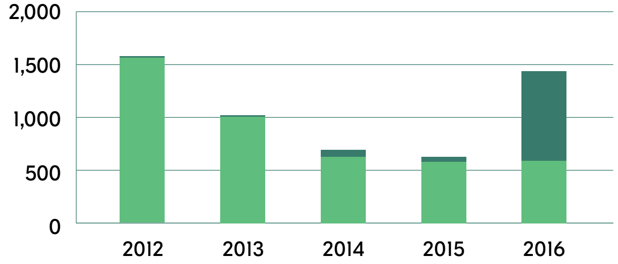
In February, Fortum agreed to sell its 51.4% shareholding in the Estonian natural gas import, sales and distribution company AS Eesti Gaas. Fortum finalised the transaction in March 2016.

In March, Fortum completed the acquisition of 93.35% of the shares in the Polish electricity and gas sales company Grupa DUON S.A. In April, Fortum announced that it had purchased the remaining shares through a mandatory squeeze-out procedure, after which the extraordinary meeting of shareholders of Grupa DUON S.A. decided to delist the company from the Warsaw Stock Exchange.

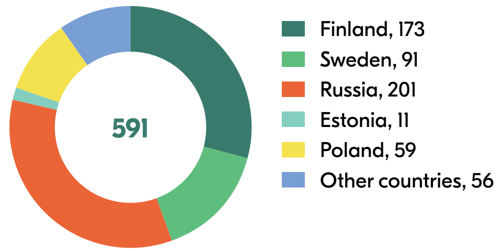
In May, Fortum signed an agreement with the four biggest owners of Ekokem Corporation, representing approximately 81% of the shares, to acquire their shareholding in the company for approximately EUR 470 million. This corresponded to a debt- and cash-free purchase price of approximately EUR 700 million for 100% of the company, as Fortum made a tender offer to all remaining shareholders at the same price (EUR 165 per share). Fortum obtained the required competition clearances in July. Having reached the necessary ownership thresholds, Fortum has started a minority redemption process. At the end of 2016, Fortum's total ownership was approximately 98%.

In December, Fortum finalised the acquisition of 100% of Turebergs Recycling AB's shares from Turebergs Åkeri AB with an enterprise value of up to approximately EUR 11 million. The main business of Turebergs Recycling is environmental construction, recycling and processing of bottom ash from waste-to-energy plants.

Capital expenditure and gross investments in shares continuing operations, EUR million



Capital expenditure continuing operations by country, EUR million



Russia

In February, Fortum sold its 100% shareholding in its Russian subsidiary OOO Tobolsk CHP. OOO Tobolsk CHP owns and operates the combined heat and power plant in the city of Tobolsk in Western Siberia.

Other

In January, Fortum won the bid in a reverse auction in India for a 70-MW solar project with a fixed tariff of 4.34 INR/kWh (about 60 EUR/MWh) for 25 years. In April, Fortum signed the Power Purchase Agreement with NTPC, India's largest utility.

In February, Fortum acquired a 75-MW wind farm project. The Solberg site, located in Västernorrland County in northern Sweden, is fully-permitted and construction-ready. In April, Fortum made a final investment decision on the project together with Skellefteå Kraft AB (SKAB), which is participating in the project with a 50% share.

In April, Fortum won the bid in a reverse auction in India for a 100-MW solar project. The solar power plant will be built in Karnataka with a fixed tariff of 4.79 INR/kWh for 25 years.

In November, Fortum acquired three wind power projects from the Norwegian company Nordkraft. The transaction consists of the Nygårdsfjellet wind farm, which is already operational, as well as the fully -permitted Ånstadblåheia and Sørfjord projects. Fortum and Nordkraft agreed on co-operating on the construction and operation of the wind farms. Fortum is preparing for the construction of the Ånstadblåheia and Sørfjord projects, expected to be commissioned in 2018 and 2019. When built the total installed capacity of the three wind farms would be approximately 170 MW. The acquisitions were finalised in early January 2017.

Group personnel

	2016	2015
Number of employees, 31 December	8,108	7,835
Average number of employees	7,994	8,009
Total amount of employee benefits, EUR million	334	351

Fortum's operations are mainly based in the Nordic countries, Russia and the Baltic Rim area. The total number of employees at the end of 2016 was 8,108 (7,835).

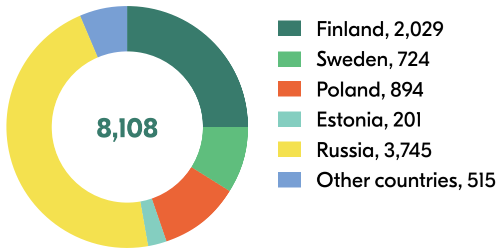
At the end of 2016, the Generation segment had 979 (1,341) employees; City Solutions 2,314 (1,417); Russia 3,745 (4,126); and Other 1,070 (951). Generation's number of employees decreased, mainly due to the reorganisation of the Group; City Solution's increased, mainly due to the acquisitions of DUON and Ekokem; Russia's decreased, due to the divestment of Tobolsk, and Other increased, due to the reorganisation of the Group. The headcount has also increased in new business areas, such as M&A and Solar & Wind Development, Technology and New Ventures as well as Nuclear Services, while it has decreased in the power plant operations and maintenance due to partnerships.

In addition, as Fortum revised its organisation during 2016 to align with its new strategy the organisational change focused on job rotation and giving opportunities to young talents to enable them to gain demanding and visible positions.

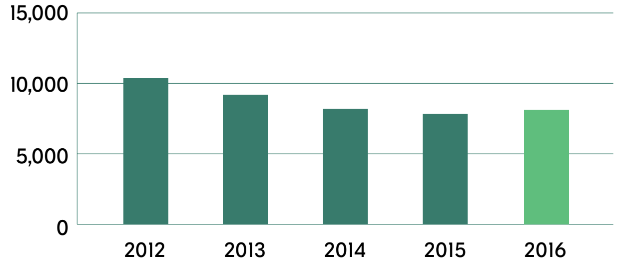
In autumn 2016, the "Energise Your Day" wellbeing programme was launched in Finland. The Energise Your Day wellbeing programme encourages employees to maintain and improve their overall wellbeing and offers ideas and tools for self-management, stress management, recovery, nutrition and physical activity. The wellbeing programme started with a questionnaire and the response rate was almost 80%. After completing the questionnaire, the employees receive tailored suggestions on how to improve their wellbeing; the programme also offers lectures and personal counselling. The programme will be rolled out to other countries in 2017.

For further details of Group personnel see ▶ *Note 11* Employee benefits.

Number of employees by country, 31 December 2016



Number of employees, 31 December 2016



Research and development

Sustainability is at the core of Fortum's strategy and, alongside Fortum's current businesses, the company is carefully exploring and developing new sources of growth within renewable energy production.

Fortum's goal is to be at the forefront of energy technology and application development. To accelerate innovation and the commercialisation of new offerings, Fortum strengthens its in-house innovation and digitalisation efforts and builds partnerships with leading global suppliers, promising technology companies and research institutions. Fortum makes direct and indirect investments in start-ups with promising new innovations that focus on connectivity, have disruptive potential and accelerate the transition towards a circular economy. Fortum also invests in technologies that support better utilisation of the current asset base, and can create new markets and products for Fortum. The company is continuously looking for emerging clean energy solutions and for solutions that increase resource and system efficiency.

During 2016, Fortum's R&D focused on new urban, rural and industrial business concept studies as well as on the sustainability, quality and handling of mixed biofuels and biofuel availability. Another very important area is how to increase energy system flexibility throughout the energy value chain, from energy production to consumers as well as customer solutions. As part of this study Fortum developed a virtual power plant pilot in order to optimise the system by using household water heaters as well as household solar panels together with battery storage.

In nuclear R&D, a key objective is to enable growth of the nuclear services business. In 2016, focus was also on future nuclear technologies like Small Modular Reactors, and on further development of the safety and efficiency of Fortum's nuclear power plants. Virtual Reality was developed for control room validation and radiation safety training purposes. The NURES product for purification of radioactive liquids was further developed to ensure our competitiveness.

In 2016, Fortum also invested in a Finnish biorefining technology company (Chempolis Oy) specialised in providing innovative and sustainable carbon-neutral biorefining technologies for the biomass, energy, oil, paper, alcohol, sugar and chemical industries. Fortum is a significant user of biomass in its own operations, and it has promoted the importance of resource efficiency in the use of biomass and common sustainability criteria for biomass. The company believes that biomass could be used more efficiently for creating higher value products. Fortum also invested in the Swedish solar technology company, Exeger Sweden AB (Publ). The company is specialised in developing and producing novel printable solar cells for use in consumer electronics, on buildings and in other applications.

The Group reports its R&D expenditure on a yearly basis. In 2016, Fortum's R&D expenditure was EUR 52 (47) million, or 1.4% (1.4%) of sales.

EUR million	2016	2015	Change 16/15
R&D expenditure, EUR million	52	47	11%
R&D expenditure, % of sales	1.4	1.4	0%

Sustainability

Fortum strives for balanced management of economic, social and environmental responsibility in the company's operations. Fortum's sustainability targets consist both of Group-level key indicators and division-level indicators.

The Group-level sustainability targets emphasise Fortum's role in society and measure not only environmental and safety targets, but also Fortum's reputation, customer satisfaction, employee wellbeing, and the security of production of power and heat. At the beginning of 2016, the Group-level target-setting was changed by taking work wellbeing, measured as a percentage of sickness-related absences, as a new Group target. In terms of specific carbon dioxide emissions (gCO_2/kWh), Fortum focuses on measuring Group-level specific emissions from total energy production.

The achievement of the sustainability targets is monitored in monthly, quarterly and annual reporting. Sustainability target-setting and follow-up, as well as the approval of Fortum's Sustainability Policy, and the review of Fortum's Sustainability Reporting, are included in the working order of the Board of Directors. Complete data on Fortum's sustainability performance is published in Fortum's Sustainability Report.

Fortum sustainability targets and performance

	Target	2016	Five-year average
Reputation index, based on One Fortum Survey	72.0	72.5	
Customer satisfaction index (CSI), based on One Fortum Survey	level good, 70–74	67–79	
Specific CO_2 emissions from total energy production (electricity and heat) as a five-year average, g/kWh	< 200	184	188
Energy-efficiency improvement by year 2020, base line year 2012, GWh/a	> 1,400	1,372	
Major EHS incidents, no.	≤ 23	22	
Energy availability of CHP plants, %	> 95	97.4	
Total recordable injury frequency (TRIF) for own personnel	≤ 2.5	1.9	
Lost workday injury frequency (LWIF) for own personnel	≤ 1.0	1.0	
Lost workday injury frequency (LWIF) for contractors	≤ 3.0	3.0	
Number of serious occupational accidents	≤ 8	13	
Sickness-related absences, %	≤ 2.4	2.4	

The company is listed on the Nasdaq Helsinki exchange and is included in the STOXX Global ESG Leaders, OMX GES Sustainability Finland, and ECPI® indices. Fortum is also ranked in category A- and as the top Nordic company in the utilities sector in the annual CDP (formerly the Carbon Disclosure Project) rating 2016, and it has received a Prime Status (B-) rating by the German oekom research AG.

In 2016, integration of Ekokem and Duon operations into Fortum's sustainability approach and data compilation systems were started. Sustainability information relating to DUON's operations is included in sustainability reporting from 1 April 2016 and Ekokem's operations from 1 September 2016.

Economic responsibility

For Fortum, economic responsibility means competitiveness, performance excellence and market-driven production, which create long-term value for our stakeholders and enable profitable growth. Satisfied customers are key to Fortum's success. Fortum aims to manage its supply chain in a responsible manner.

Fortum's goal is to achieve excellent financial performance in strategically selected core areas through strong competence and responsible ways of operating. Fortum measures financial performance with return on capital employed (target: 10%) and capital structure (target: comparable net debt/EBITDA around 2.5). In addition, Fortum has used the applicable Global Reporting Initiative (GRI) G4 indicators for reporting economic responsibility as of 1 January 2014.

Targets for reputation and customer satisfaction are monitored annually. Company reputation among the key stakeholders in the One Fortum Survey in 2016 improved to 72.5 points (on a scale of 1-100 points) and exceeded the target of 72.0 points. The Group target (70-74 points) for customer satisfaction was achieved in all business areas except electricity sales for business customers.

Fortum expects its business partners to act responsibly and to comply with the Fortum Code of Conduct and the Fortum Supplier Code of Conduct. Fortum assesses the performance of its business partners with supplier qualification and supplier audits. In 2016, Fortum audited 13 (9) suppliers in China, India, Russia, Poland, Latvia, Lithuania and Finland. In September 2016, Fortum signed a contract with an external service provider for conducting supplier sustainability audits.

Fortum as a tax payer

Fortum supports social development and wellbeing of the areas of operations by e.g. paying taxes. The tax benefits Fortum produces to society include not only corporate income taxes borne EUR 48 (106) million but also several other taxes. In 2016, Fortum's taxes borne were EUR 365 (413) million. Taxes borne include corporate income taxes, production taxes, employment taxes, taxes on property and cost of indirect taxes. Production taxes include also taxes paid through electricity purchased from associated companies.

In addition, Fortum administers and collects different taxes on behalf of governments and authorities. Such taxes include e.g. VAT, excise taxes on power consumed by customers, payroll taxes and withholding taxes. The amount of taxes collected by Fortum was EUR 376 (352) million.

Environmental responsibility

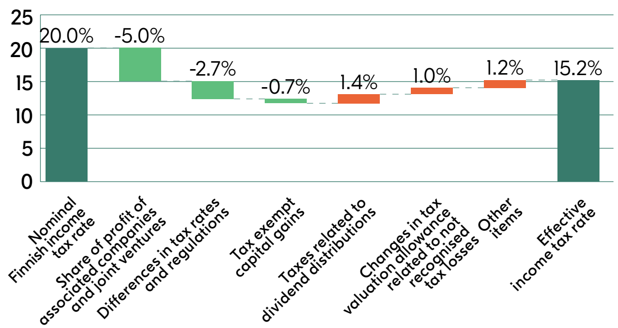
Fortum's aim is to provide its customers with environmentally benign products and services. Circular economy, resource and energy efficiency, and maximising the added value of waste and biomass are key priorities in Fortum's environmental approach. In addition, climate change mitigation, and the reduction of environmental impacts are emphasised in Fortum's environmental responsibility. The company's know-how in CO_2-free hydro and nuclear power production and in energy-efficient combined heat and power production, investments in solar and wind power, as well as solutions for sustainable cities play a key role in this.

Fortum's Group-level environmental targets are related to CO_2 emissions, energy efficiency, and major environmental, health and safety (EHS) incidents. At the end of 2016, 99.9% of Fortum's power and heat production worldwide had ISO 14001 certification.

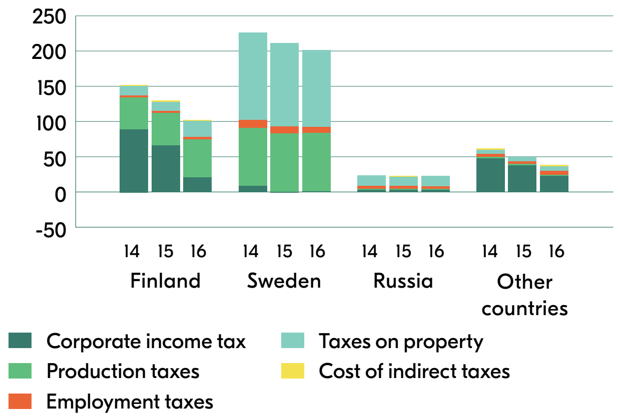
Fortum's climate target over the next five years is for total specific CO_2 emissions from both electricity and heat production in all countries to be below 200 g/kWh. The target is calculated as a five-year average. At the end of 2016, the total specific CO_2 emissions from energy production were at 188 (191) g/kWh, which is better than the target level.

Fortum's total CO_2 emissions in 2016 amounted to 18.6 (19.2) million tonnes (Mt), of which 2.7 (2.1) Mt were within the EU's emissions trading scheme (ETS). The estimate for Fortum's free emissions allowances in 2016 is 1.0 Mt.

Effective income tax rate break down



Taxes borne by country, EUR million



Fortum's total CO_2 emissions (million tonnes, Mt)	2016	2015	Change 16/15
Total emissions	18.6	19.2	-3%
Emissions subject to ETS	2.7	2.1	29%
Free emission allocation	1.0	1.3	-23%
Emissions in Russia	15.5	17.0	-9%

By 2020, Fortum's target is to achieve energy savings of more than 1,400 GWh annually, compared to 2012. At the end of 2016, about 1,372 GWh had been achieved. Among the projects executed in 2016 were nuclear plant refurbishments in Finland, hydropower plant refurbishments in Finland and Sweden, and gas turbine plant refurbishments in Russia.

Fortum's target was fewer than 23 major EHS incidents annually. In 2016, 22 (18) major EHS incidents took place in Fortum's operations: the incidents included 11 non-compliances with environmental permits, seven fires, one leak and three explosions. These incidents did not have significant environmental or financial impacts.

Social responsibility

Fortum's social responsibility emphasises the secure supply of electricity and heat, creating solutions for sustainable cities, operational and occupational safety, employee wellbeing, as well as ethical business operations and compliance with regulations. At the end of 2016, OHSAS 18001 certification covered 99.9% of Fortum's power and heat production worldwide.

The average energy availability of Fortum's CHP plants in 2016 was 97.4% (96.4%), clearly above the annual target level of 95%.

The total recordable injury frequency (TRIF) for Fortum employees in 2016 was 1.9 (1.6) per one million working hours, which is better than the Group-level frequency target (≤ 2.5). Fortum's target for the lost-workday injury frequency (LWIF) for own personnel was 1.0 and it was achieved (1.1). The lost-workday injury frequency for contractors was 3.0 (2.7), which is at the set target level. The number of serious occupational accidents was 13 (14).

Implementation of the agreed actions to improve contractor safety will continue with a specific focus on contractor safety and the integration of the Ekokem and Duon operations. As of 1 January 2017, Fortum has changed the definition of the severity of work-related accidents and is now focusing on the consequences or potential consequences of an accident rather than the length of the sick-leave. The Group target for 2017 is ≤ 5 severe accidents. By 2020 our target is to reduce severe accidents to zero.

The percentage of sickness-related absences in 2016 was 2.4 (2.4), which is at the target level.

Changes in Fortum's Management

In February 2016, Fortum announced that it will reorganise its corporate structure effective 1 April 2016. The target of the new organisation is to enable the implementation of the company's new vision and strategy, which were announced on 3 February 2016. The new organisation comprises three business divisions: Generation, City Solutions, and Russia. In addition, two development units focusing on growing new businesses have been established: M&A and Solar & Wind Development, and Technology and New Ventures. The new organisation will also have four staff functions: Finance; Legal; Strategy, People and Performance; and Corporate Affairs and Communications.

Fortum's Executive Management Team, as of 1 April 2016:

Pekka Lundmark, President and CEO
Matti Ruotsala, Deputy CEO until his planned retirement in summer 2017
Timo Karttinen, CFO
Tiina Tuomela, Executive Vice President, Generation
Markus Rauramo, Executive Vice President, City Solutions
Alexander Chuvaev, Executive Vice President, Russia
Per Langer, Senior Vice President, Technology and New Ventures
Kari Kautinen, Senior Vice President, M&A and Solar & Wind Development
Sirpa-Helena Sormunen, General Counsel
Risto Penttinen, Senior Vice President, Strategy, People and Performance
Arto Räty, Senior Vice President, Corporate Affairs and Communications

All members of the Executive Management Team report to the President and CEO, except for the General Counsel, who reports administratively to the CFO.

Events after the balance sheet date

On 27 January 2017, Fortum's Nomination Board submitted its proposals to the Annual General Meeting 2017 that the Board would consists of eight (8) members and that the following persons be elected to the Board of Directors for a term ending at the end of the Annual General Meeting 2018: to be re-elected Ms Sari Baldauf as Chairman, and as members, Mr Heinz-Werner Binzel, Ms Eva Hamilton, Mr Kim Ignatius, Mr Tapio Kuula and Mr Veli-Matti Reinikkala. To be elected as new members; Mr Matti Lievonen as Deputy Chairman and as member Ms Anja McAlister.

In addition, the Shareholders' Nomination Board will propose that the annual fees paid for the term remain unchanged and to be as follows: Chairman: EUR 75,000, Deputy Chairman: EUR 57,000, and members: EUR 40,000. The Chairman of the Audit and Risk Committee, if he/she is not simultaneously acting as Chairman or Deputy Chairman of the Board: EUR 57,000/year.

Outlook

Key drivers and risks

Fortum's financial results are exposed to a number of economic, strategic, political, financial and operational risks.

One of the key factors influencing Fortum's business performance is the wholesale price of electricity in the Nordic region. The key drivers behind the wholesale price development in the Nordic region are the supply-demand balance, the prices of fuel and CO_2 emissions allowances, and the hydrological situation.

The continued uncertainty in the global and European economies has kept the outlook for economic growth unpredictable. The overall economic uncertainty impacts commodity and CO_2 emissions allowance prices, and this could maintain downward pressure on the Nordic wholesale price of electricity. In Fortum's Russian business, the key drivers are economic growth, the rouble exchange rate, regulation around the heat business, and further development of electricity and capacity markets. In all regions, fuel prices and power plant availability also impact profitability. In addition, increased volatility in exchange rates due to financial turbulence could have both translation and transaction effects on Fortum's financials, especially through the Russian rouble and Swedish krona.

In the Nordic countries, the regulatory and fiscal environment for the energy sector has also added risks for utility companies. The main strategic risk is that the regulatory and market environment develops in a way that we have not been able to foresee and prepare for. In response to these uncertainties, Fortum has analysed and assessed a number of future energy market and regulation scenarios including the impact of these on different generation forms and technologies. As a result, Fortum's strategy was renewed in 2016 to include broadening the base of revenues and diversification into new businesses, technologies and markets.

For further details on Fortum's risks and risk management, see the ▸ *Risk management* section of the Operating and financial review and ▸ *Note 3* Financial risk management.

Nordic market

Despite macroeconomic uncertainty, electricity is expected to continue to gain a higher share of total energy consumption. Electricity demand in the Nordic countries is expected to grow by approximately 0.5% on average, while the growth rate for the next few years will largely be determined by macroeconomic developments in Europe, and especially in the Nordic countries.

During 2016, oil and coal prices increased, while the price of CO_2 emission allowances (EUA) declined. The price of electricity for the upcoming twelve months appreciated in the Nordic area as well as in Germany, and both are now on higher levels than at the end of 2015.

In mid-January 2017, the quotation for coal (ICE Rotterdam) for the remainder of 2016 was around USD 74 per tonne and for CO_2 emission allowances for 2017 around EUR 5 per tonne. The Nordic system electricity forward price in Nasdaq Commodities for the rest of 2017 was around EUR 26 per MWh and for 2018 around EUR 23 per MWh. In Germany, the electricity forward price for the rest of 2017 was around EUR 34 per MWh and for 2018 around EUR 30 per MWh. Nordic water reservoirs were about 9 TWh below the long-term average and 19 TWh below the corresponding level in 2016.

Generation

The Generation segment's achieved Nordic power price typically depends on such factors as the hedge ratios, hedge prices, spot prices, availability and utilisation of Fortum's flexible production portfolio, and currency fluctuations. Excluding the potential effects from changes in the power generation mix, a 1 EUR/MWh change in the Generation segment's Nordic power sales achieved price will result in an approximately EUR 45 million change in Fortum's annual comparable operating profit. In addition, the comparable operating profit of the Generation segment will be affected by the possible thermal power generation volumes and its profits.

As a result of the nuclear stress tests in the EU, the Swedish nuclear safety authority (SSM) has decided to propose new regulations for Swedish nuclear reactors. The process is ongoing. Fortum emphasises that maintaining a high level of nuclear safety is the highest priority, but considers EU-level harmonisation of nuclear safety requirements to be of continued importance.

The Swedish Government increased the nuclear waste fund fee from approximately 0.022 to approximately 0.04 SEK/kWh for the 2015–2017 period. The impact on Fortum is approximately EUR 25 million annually. The process to review the Swedish nuclear waste fees is done in a three-year cycle. The Swedish Nuclear Fuel and Waste Management Co (SKB) will update the new technical plan in early 2017 for SSM to review. The final decision on the new nuclear waste fees will be made by the Swedish Government in December 2017. However, as a result of the decision on early closure of nuclear power plants, the Swedish Radiation Safety Authority, SSM, recalculated the waste fees for the Oskarshamn and Ringhals power plants.

In September 2016 the Swedish government presented the budget proposal for the coming years; One of the key elements was the proposal that taxation of different energy production forms should be more equal and the tax burden of nuclear and hydro should be taken to the level of other production technologies. The budget states that the nuclear capacity tax will be reduced to 1,500 SEK/MW per month from 1 July 2017 and abolished on 1 January 2018. In 2017, the tax is estimated to decrease by approximately EUR 32 million to EUR 52 million due to the tax decrease and by another EUR 5 million due to the premature closure of Oskarshamn 1 in the middle of the year. In 2018, there is no capacity tax.

A decision was also made to decrease the hydropower real-estate tax over a four-year period beginning in 2017, from todays 2.8% to 0.5%. The real-estate tax on hydro will, as stated in the government's budget, be reduced in four steps: in January 2017 to 2.2%; in January 2018 to 1.6%; in January 2019 to 1.0%; and in January 2020 to 0.5%. In 2017, the tax is estimated to decrease by approximately EUR 20 million to approximately EUR 95 million.

In addition to the decrease in the tax rate, the hydropower real-estate tax values, which are linked to electricity prices, will be updated starting in 2019. The real-estate tax values are updated every six years. With the current low electricity prices the tax values in 2019 will be clearly lower than today. The process for renewing existing hydro permits will also be reformed.

The tax reductions will be financed through a higher electricity consumption tax that will mainly affect households. Electricity-intensive industries will be exempt.

In October 2016, the Swedish Energy Agency presented a concrete proposal on how to increase the production of renewable electricity by 18 TWh in 2020–2030 within the electricity certificate system, as part of the Energy Agreement. The government is expected to decide on the proposal in late March 2017.

In 2015, OKG AB decided to permanently discontinue electricity production at Oskarshamn unit 1 and to start decommissioning after the permission for service operation has been granted by the relevant Swedish authorities. The date for discontinued production and the start of decommissioning has been set to 30 June 2017. Oskarshamn unit 2, which has been out of operation since June 2013 due to an extensive safety modernisation, will stay out of operation. The closing processes are estimated to take several years.

City Solutions

In May, the Finnish Government decided to increase the tax on heating fuels by EUR 90 million annually from 2017 onwards. The negative impact on Fortum is estimated to be approximately EUR 5 million per year.

Russia

The Russia segment's new capacity generation built after 2007 under the Russian Capacity Supply Agreement (CSA) is a key driver for earnings growth in Russia, as it is expected to bring income from new volumes sold and also to receive considerably higher capacity payments than the old capacity. Fortum will receive guaranteed capacity payments for a period of 10 years from the commissioning of a plant. The received CSA payment will vary depending on the age, location, size and type of the plants, as well as on seasonality and availability. CSA payments can vary somewhat annually because they are linked to Russian Government long-term bonds with 8 to 10 years' maturity. In addition, the regulator will review the earnings from the electricity-only market three years and six years after the commissioning of a unit and could revise the CSA payments accordingly.

The Competitive Capacity Selection for generation built prior to 2008 (CCS) takes place annually. The long-term CCS for 2017–2019 was held at the end of 2015, and the long-term CCS for 2020 was held in September 2016. The majority of Fortum's plants were selected. The volume of Fortum's installed "old" capacity not selected in the auction totalled 175 MW (out of 2,214 MW), for which Fortum has obtained forced mode status, i.e. it will receive payments for the capacity.

In December 2016, a bill draft containing the main principles of the heat reform, approved by the Russian Government in 2014, passed its first reading in the Russian Parliament. The draft contradicts the Roadmap in some crucial points, e.g. it does not include the requirement of the price liberalisation across the whole country. Instead it requires the consent of both the regional and the local authorities before starting the reform in certain pilot regions. If implemented, the reform should provide heat market liberalisation in 5 or 10 years, depending on the Government-imposed criteria.

The targeted operating profit (EBIT) level of RUB 18.2 billion in the Russia segment is expected to be reached during 2017–2018. The segment's profits are impacted by changes in power demand, gas prices and other regulatory developments. Economic sanctions, the currency crisis, oil prices and the inflation have impacted overall demand. As a result, gas prices and electricity prices have not developed favourably as expected. The Russian annual average gas price growth was 3.6% in 2016. Fortum estimates the Russian annual average gas price growth to be 2.0% in 2017.

The euro-denominated result level will be volatile due to the translation effect. The income statements of non-euro subsidiaries are translated into the Group reporting currency using average exchange rates. The Russia segment's result is also impacted by seasonal volatility caused by the nature of the heat business, with the first and last quarter being clearly the strongest.

Capital expenditure and divestments

Fortum currently expects its capital expenditure, excluding acquisitions, to be approximately EUR 800 million in 2017. The annual maintenance capital expenditure is estimated to be below EUR 300 million in 2017, well below the level of depreciation.

Taxation

The effective corporate income tax rate for Fortum in 2017 is estimated to be 19–21%, excluding the impact of the share of profits of associated companies and joint ventures, non-taxable capital gains and non-recurring items.

Hedging

At the end of 2016, approximately 60% of Generation's estimated Nordic power sales volume was hedged at EUR 30 per MWh for the 2017 calendar year and approximately 35% at EUR 26 per MWh for the 2018 calendar year.

The reported hedge ratios may vary significantly, depending on Fortum's actions on the electricity derivatives markets. Hedges are mainly financial contracts, most of them Nasdaq Commodities forwards.

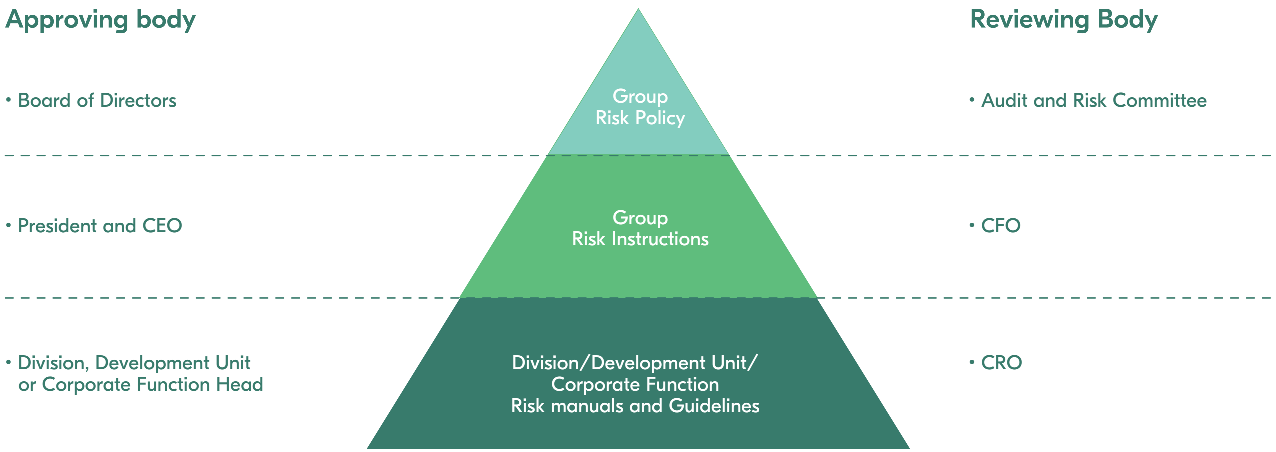
Risk management

Risk management framework and objectives

Fortum's Risk Management framework is comprised of the Group Risk Policy and supporting documents. The Group Risk Policy includes an overview of Fortum's risk management systems consisting of the general principles of risk management and the main features of the risk management process. The objective of the risk management framework and processes is to;

- support the development of the Group strategy,
- support strategy execution,
- support the achievement of agreed targets within acceptable risk levels so that the Group's ability to meet financial commitments is not compromised,
- ensure the understanding of material risks and uncertainties affecting Fortum's earnings, and
- ensure understanding and support the prevention of accidents that can have a severe effect on the health and safety of employees or third parties, and from incidents that can have a material impact on Fortum's assets, reputation or the environment.

Corporate Risk Policy Structure



Risk management organisation

The main principle is that risks are managed at source meaning that each Division, Development Unit and Corporate Function Head is responsible for managing risks that arise within their business operations. However, in order to take advantage of synergies, certain risks are managed centrally. For example, Group Treasury is responsible for managing financial risks and information security risk are managed by Corporate Security. The Audit and Risk Committee (ARC) is responsible for monitoring the efficiency of the company's risk management systems and for annually reviewing the material risks and uncertainties. Corporate Risk Management, a function headed by the Chief Risk Officer (CRO) reporting to the CFO, provides instructions and tools which support the Group in running an efficient risk management process. Corporate Risk Management is responsible for assessing and reporting maturity of risk management in Divisions, Development Units and Corporate Functions and for providing independent monitoring and reporting of material risk exposures to Group Management and the Board. Risk control functions and controllers in the business monitor and report risks to the CRO according to instructions and approved models.

Risk management process

Fortum's risk management process is designed to support the achievement of agreed targets by ensuring that risk management activities are consistent with the general principles of risk management and that risks are monitored and followed-up in a prudent manner. The main features of risk management process consist of event identification, risk assessment, risk response and risk control. Identification is carried out according to a structured process and risks are assessed in terms of impact and likelihood according to a Group-common methodology. Impact is assessed in monetary terms, but also in terms of health and safety, the environment and reputation where applicable. Risk response actions are defined and implemented by the business and operational management and can include to avoid, mitigate, transfer or absorb the risk. Risk control processes, which include monitoring and reporting of risks, are designed to support compliance with approved instructions, manuals and guidelines and to ensure that risk exposures remain within approved limits and mandates.

Fortum's Board of Directors annually approves the Group Risk Policy and the CEO annually approves Group Risk Instruction covering commodity market and fuel risks, counterparty credit risks, financial risks and operational risks. There are also other Group policies and instructions covering e.g. sustainability and information security risks which are aligned with the Group Risk Policy. Risk mandates or limits are defined for commodity market and fuel risks, counterparty credit risks and financial risks.

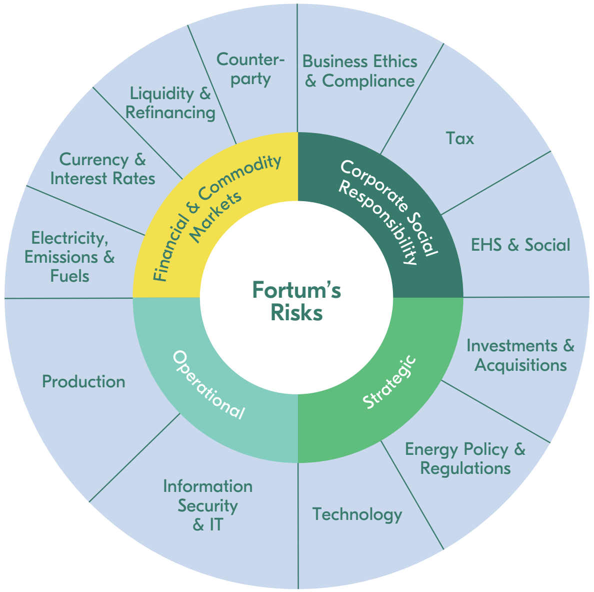
Risk factors

Strategic risks

The main strategic risk is that the regulatory and market environment develops in way that we have not been able to foresee and prepare for. In response to these uncertainties, Fortum has analysed and assessed a number of future energy market and regulation scenarios including the impact of these to different generation forms and technologies. As a result, Fortum's strategy was renewed in 2016 to include broadening the base of revenues and diversification into new businesses, technologies and markets.

Risks which could hinder Fortum in executing this strategy have been identified as part of the strategy development and led to, among other things, the creation of the five must-win battles. Risks include an inability to identify and carry out successful investments and acquisitions with the related project and integration risks, inability to manage and respond to changes in energy policy and the regulatory environment, and inability to manage and respond to changes in technology.

Fortum Risk Map



Investment and acquisition risks

Fortum's strategy includes growth of operations, including in new businesses, technologies and geographies, and any future investment or acquisition entails risk, including:

- increased overall operating complexity and requirements for management, personnel and other resources;
- the need to understand the value drivers and their uncertainties in investments or potential acquisition targets;
- the need to understand and manage the new markets and different cultural and compliance requirements;
- the need to understand and manage subcontractor risks and related sustainability and safety issues.

These risks are managed as part of the investment process which is being further developed to improve how we identify and assess opportunities and how we integrate new businesses.

Energy policy and regulation risks

The energy business is subject to energy policies and regulations, and Fortum's strategy has been developed based on scenarios of the future development of the regulatory environment in both existing and potential new businesses and market areas. The overall complexity and possible changes to regulations in the various countries and regions pose a risk if we are not able to identify and manage them efficiently.

Fortum maintains an active dialogue with the bodies involved in the development of laws and regulations in order to manage these risks and proactively participate in the development of the energy policy and regulatory framework.

Nordic/EU

Fortum's strategy in the power sector is based on a market-driven development, which would mean more interconnections and competition supported by policy harmonization. Even if the Nordic power market has a long tradition of harmonization, national policies vary considerably when it comes to generation (e.g. taxation, permitting and subsidies) as well as consumption (e.g. unbundling, taxation and market model) indicating that risks are also national. Potential risks within the policy framework include;

1) the electricity market model where the EU is currently discussing capacity remuneration mechanisms that could change the market model,
2) targets for future climate change mitigation where the specific details of targets for CO_2 emissions, renewables and energy efficiency for 2030 are under discussion,
3) renewable energy where the Commission aims at presenting a legislative proposal on sustainability criteria for solid biomass at the end of 2016 and,
4) the implementation of the Water Framework Directive in Sweden with potential effects on capacity and costs related to hydro power production.

The inter-linkage of these issues as well as national measures such as taxation create uncertainty and changes in policies in one area could undermine the effects of policy changes in other areas.

As part of the Circular Economy package, the EU waste legislation will set more ambitious recycling targets for waste. This will have a market impact, but possibly also a tax impact, on the amounts of non-recyclable waste that can be used for energy production. The implementation of EU's heating and cooling strategy through energy efficiency and renewable energy directives will likely give policy direction towards better-functioning heat markets and district heating systems. However, heating and cooling, being local businesses, are primarily subject to local legislation and regulations and thereby treated very differently in different countries.

Russia

Russia is exposed to political, economic and social uncertainties and risks resulting from changes in regulation, legislation, economic and social upheaval and other similar factors. The current economic sanctions may be enlarged and/or extended having direct and indirect impacts on the business environment. The main policy-related risks in Russia are linked to the development of the whole energy sector, part of which, like the wholesale power market, is liberalised while other parts, like gas, heat, and retail electricity, are not. The wholesale power market deregulation in Russia has been implemented to a large extent according to original plans. However, regulated sectors are inherently always exposed to a risk of regulatory changes which could affect Fortum's operations.

Technology risks

Fortum's strategy includes developing or acquiring new technologies. Fortum's R&D activities focus on the development of the energy system towards a future solar economy. Fortum is, for example, developing circular economy, bioeconomy and other renewable energy concepts as well as innovative solutions for its customers. New technologies expose Fortum to new types of risks such as risks related to intellectual property rights and viability of technologies. Technology risks are managed primarily through developing a diversified portfolio of projects consisting of different technologies.

Corporate social responsibility

Corporate social responsibility and sustainable development are integral parts of Fortum's strategy. Fortum gives balanced consideration to economic, environmental and social responsibility. Changes to laws, regulations and the business environment can pose a risk if not identified and managed effectively. Same applies to changes of views of our main stakeholders. In order to foresee and manage these risks, Fortum endorses a number of international voluntary charters, standards and guidelines in the area of sustainability, conducts stakeholder surveys annually and has defined internal policies and instructions of how to conduct business. Corporate Sustainability unit assesses sustainability risks related to the Group's operations annually. Risks identified by Corporate Sustainability are assessed by Divisions and mitigation actions are defined.

Environmental, health and safety and social risks

Operating power and heat generation plants involves use, storage and transportation of fuels and materials that can have adverse effects on the environment and expose personnel to safety risks. Assessment of environmental risks and preparedness to operate in exceptional and emergency situations follows the requirements set in ISO 14001 standard. The same approach based on the requirements set in OHSAS 18001 standard applies to risks related to occupational health and safety and actions in emergency situations.

Environmental, health and safety (EHS) risks as well as social risks related to Fortum's supply chain are evaluated through supplier qualification, internal and external audits and risk assessments. Corrective and preventive actions are implemented when necessary. EHS related risks together with social risks arising in investments are evaluated in accordance with Fortum's Investment Evaluation and Approval Procedure. Environmental risks and liabilities in relation to past actions have been assessed and provisions have been made for future remedial costs.

Tax risk

Fortum operates in a number of countries and is therefore exposed to changes in taxation and how tax authorities interpret tax laws. Changes in the international fiscal environment have created a tax environment that is leading to new or increased taxes and new interpretations of existing tax laws. This has led to challenges for Fortum and how its operations are taxed as the predictability and visibility around taxes has decreased.

Fortum's tax policy aims to identify simple and cost-efficient solutions to manage taxes in a sustainable manner. Artificial or other aggressive solutions are not used and legality and honesty are seen as a high value together with transparent and open information. Fortum is continuously following the development of tax related issues and their impact on the Group and maintains an active dialogue with tax authorities in unclear cases. Tax-related issues are communicated both internally and externally. Fortum's tax footprint is published annually.

Business ethics and compliance risks

Fortum's operations are subject to laws, rules and regulations set forth by the relevant authorities, exchanges, and other regulatory bodies in all markets in which Fortum operates. Fortum's ability to operate in certain countries may be affected by future changes to local laws and regulations.

Fortum has an established Code of Conduct to enhance the understanding of the importance of business ethics for all Fortum employees, contractors and partners. The supplier code of conduct sets sustainability requirements for suppliers of goods and services.

Fortum systematically identifies, assesses, mitigates and reports compliance risks including risks related to sustainability and business ethics. Internal controls are implemented to minimise the possibilities of unauthorised activities or non-compliance with Group policies and instructions.

Financial risks

Market risk

Fortum's business is exposed to fluctuations in prices and availability of commodities used in the production and sales of energy products. The main exposure is toward electricity prices and volumes, prices of emissions and prices and availability of fuels. Fortum hedges its exposure to commodity market risks in accordance with annually approved Hedging Guidelines, Strategies and Mandates. For further information on hedge ratios, exposures, sensitivities and outstanding derivatives contracts, see Note 3 Financial risk management.

Electricity price risks

In competitive markets, such as in the Nordic region, the price is determined as the balance between supply and demand. The short-term factors affecting electricity prices and volumes on the Nordic market include hydrological conditions, temperature, CO_2 allowance prices, fuel prices, economic development and the import/export situation.

Electricity price risks are hedged by entering into electricity derivatives contracts, primarily on the Nasdaq Commodities power exchange. Hedging strategies are continuously evaluated as electricity and other commodity market prices, the hydrological balance and other relevant parameters change. In Russia, electricity prices and capacity sales are the main sources of market risk. The electricity price is highly correlated with the gas price and prices are fixed through bilateral agreements limiting exposure. In India, the electricity price received from solar production are fixed through long term power-purchasing agreements.

Emission and environmental value risks

The European Union has established an emissions trading scheme to reduce the amount of CO_2 emissions. In addition to the emissions trading scheme, there are other trading schemes in environmental values in place in Sweden, Norway and Poland. Part of Fortum's power and heat generation is subject to requirements of these schemes. There is currently no trading scheme in Russia for emissions or other environmental values.

The main factor influencing the prices of CO_2 allowances and other environmental values is the supply and demand balance. Fortum hedges its exposure to these prices and volumes through the use of CO_2 forwards and environmental certificates.

Fuel price and volume risks

Power and heat generation requires use of fuels that are purchased on global or local markets. The main fuels used by Fortum are natural gas, uranium, coal, various biomass-based fuels and waste. The main risk factor for fuels that are traded on global markets such as coal and natural gas, is the uncertainty in price. Prices are largely affected by demand and supply imbalances that can be caused by, for example, increased demand growth in developing countries, natural disasters or supply constraints in countries experiencing political or social unrest. For fuels traded on local markets, such as bio-fuels, the volume risk in terms of availability of the raw material of appropriate quality is more significant as there may be a limited number of suppliers. Due to the sanctions and economic development in Russia, the risks related to imported fuels from Russia have increased.

In the Nordic market, exposure to fuel prices is limited due to Fortum's flexible generation capacity which allows for switching between different fuels according to prevailing market conditions. In some cases, the fuel price risk can be transferred to the customer. The remaining exposure to fuel price risk is mitigated through fixed- price physical delivery contracts or derivative contracts. The main fuel source for heat and power generation in Russia is natural gas. Natural gas prices are partially regulated, so the price risk exposure is limited.

Liquidity and refinancing risks

The power and heat business is capital intensive and Fortum has a regular need to raise financing. Fortum maintains a diversified financing structure in terms of debt maturity profile, debt instruments and geographical markets. Fortum manages liquidity and refinancing risks through a combination of cash positions and committed credit facility agreements with its core banks.

After the Distribution divestments, Fortum has a large cash position. The credit risk of this position has been mitigated by diversifying the deposits to high-credit quality financial institutions and issuers of corporate bonds.

Currency and interest rate risks

Fortum's debt portfolio consists of interest-bearing liabilities and derivatives on a fixed- and floating-rate basis with differing maturity profiles. Fortum manages the duration of the debt portfolio through use of different types of financing contracts and interest rate derivative contracts such as interest rate swaps.

Fortum's currency exposures are divided into transaction exposures (foreign exchange exposures relating to contracted cash flows and balance sheet items where changes in exchange rates will have an impact on earnings and cash flows) and translation exposure (foreign exchange exposure that arises when profits and balance sheets in foreign entities are consolidated at the Group level). The main principle is that all material transaction exposures should be hedged while translation exposures are not hedged, or are hedged selectively. The main translation exposures toward the EUR/RUB and EUR/SEK are monitored continuously. When these currencies are weak they affect Fortum's profit level and equity when translating results and net assets to euros.

Counterparty risks

Fortum is exposed to counterparty risk whenever there is a contractual arrangement with an external counterparty including customers, suppliers, partners, banks and trading counterparties.

Credit risk exposures relating to financial derivative instruments are often volatile. Although the majority of commodity derivatives are cleared through exchanges, derivatives contracts are also entered into directly with external counterparties. Such contracts are limited to high-credit-quality counterparties active on the financial or commodity markets.

Due to the financing needs and management of liquidity, Fortum has counterparty credit exposure to a number of banks and financial institutions. This includes exposure to the Russian financial sector in terms of deposits with financial institutions as well as to banks that provide guarantees for suppliers and contracting parties. Deposits in Russia have been concentrated to the most creditworthy state-owned or controlled banks. Limits with banks and financial institutions are monitored so that exposures can be adjusted as ratings or the financial situation changes, and Fortum is following the development of economic sanctions against Russia as part of the monitoring process.

Credit risk exposures relating to customers is spread across a wide range of industrial counterparties, small businesses and private individuals over a range of geographic regions. The majority of exposure is to the Nordic market, Poland and Russia. The risk of non-payment in the electricity and heat sales business in Russia is higher than in the Nordic market.

In order to manage counterparty credit risk, Fortum has routines and processes to identify, assess and control exposure. Credit checks are performed before entering into commercial obligations and exposure limits are set for all larger individual counterparties. Creditworthiness is monitored through the use of internal and external sources so that mitigating actions can be taken when needed. Mitigating actions include demanding collateral, such as guarantees, managing payment terms and contract length, and the use of netting agreements.

Operational risks

Operational risks are defined as the negative effects resulting from inadequate or failed internal processes, systems or equipment, or from external events. Process-related risks are assessed and controls for the most relevant risks are defined and implemented as part of the internal controls framework. Equipment and system risks are primarily managed through monitoring and maintenance planning.

Production risks

CHP

CHP production involves the use, storage and transportation of fuels. Leakage of fuels and contamination of the surrounding environment could lead to clean-up costs and third-party liabilities. An explosion or fire at a production facility could cause damages to the plant or third-parties and lead to possible business interruption. These risks are mitigated by condition monitoring, preventive maintenance and other operational improvements as well as competence development of personnel operating the plants.

Hydro power

Operational events at hydro power generation facilities can lead to physical damages, business interruptions, and third-party liabilities. A long-term program is in place for improving the surveillance of the condition of dams and for securing the discharge capacity in extreme flood situations. In Sweden, third-party liabilities from dam failures are strictly the plant owner's responsibility. Together with other hydro power producers, Fortum has a shared dam liability insurance program in place that covers Swedish dam failure liabilities up to SEK 10,000 million.

Nuclear power

Fortum owns the Loviisa nuclear power plant, and has minority interests in two Finnish and two Swedish nuclear power companies. At the Loviisa power plant, the assessment and improvement of nuclear safety is a continuous process performed under the supervision of the Radiation and Nuclear Safety Authority of Finland (STUK).

Third-party liability relating to nuclear accidents is strictly the plant operator's responsibility and must be covered by insurance. As the operator of the Loviisa power plant, Fortum has a statutory liability insurance policy of 686M SDR (Special Drawing Right) and the same type of insurance policies are in place for the operators where Fortum has a minority interest.

Under the Finnish law, Fortum bears full legal and financial responsibility for the management and disposal of nuclear waste produced by the Loviisa power plant. In both Finland and Sweden, Fortum bears partial responsibility, proportionate to the ownership share, for the costs of the management and disposal of nuclear waste produced by co-owned nuclear power plants. The future costs of the final disposal of spent fuel, the management of low and intermediate-level radioactive waste and nuclear power plant decommissioning are provided for by state-established funds in Finland and Sweden to which nuclear power plant operators make annual contributions.

Information security and IT risks

Fortum's business operations are dependent on well-functioning IT and information management systems and processes. Due to the nature of the business, large amounts of data are processed, often in real-time, and used for decision-making and in internal and external communication and reporting. Securing information and availability of the systems are essential for Fortum. Information security risks, including cyber security and privacy, are managed centrally by Corporate Security. Group instructions and procedures set requirements for managing and mitigating information risks.

IT functions in the business, support functions and outsourcing partners are responsible for identifying and mitigating operational IT security related risks as well as managing IT security incidents. IT functions are also responsible for IT service continuity.

Fortum share and shareholders

Fortum Corporation's shares have been listed on Nasdaq Helsinki since 18 December 1998. The trading code is FORTUM (until 25 January 2017: FUM1V). Fortum Corporation's shares are in the Finnish book entry system maintained by Euroclear Finland Ltd which also maintains the official share register of Fortum Corporation.

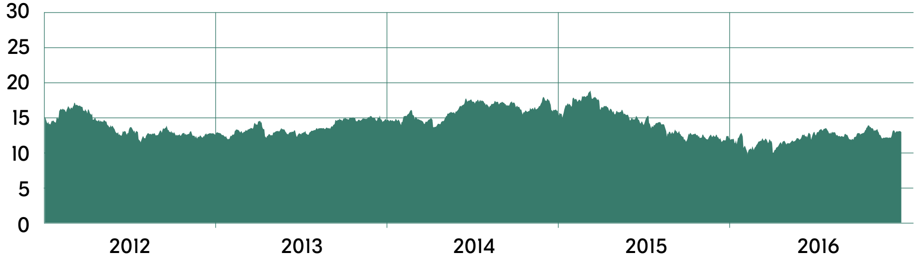
Share key figures

EUR	2016	2015	2014
Earnings per share			
Continuing operations	0.56	-0.26	1.22
Discontinued operations	-	4.92	2.33
Total Fortum	0.56	4.66	3.55
Cash flow per share total Fortum	0.70	1.55	1.98
Cash flow per share, continuing operations	0.70	1.38	1.38
Equity per share	15.15	15.53	12.23
Dividend per share	1.10 [1)]	1.10	1.10
Extra dividend per share	-	-	0.20
Payout ratio, %	196.4 [1)]	23.6	36.6
Dividend yield, %	7.5 [1)]	7.9	7.2

1) Board of Directors' proposal for the Annual General Meeting 4 April 2017.

For full set of share Key figures 2007–2016, see the section *Key figures* in the Financial Statements.

Market capitalisation, EUR billion



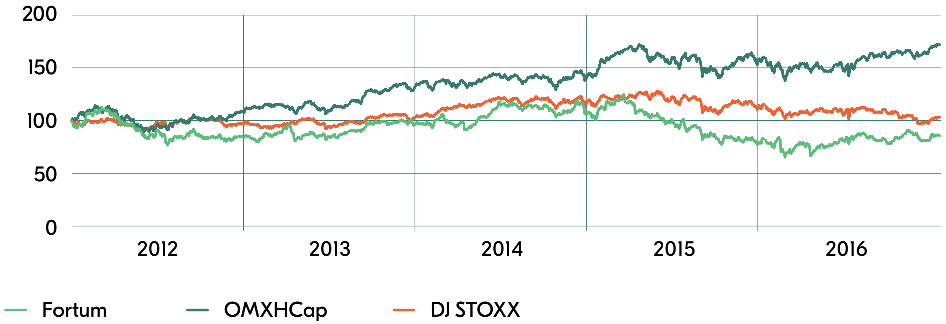
Shareholders value, share price performance and volumes

Fortum's mission is to deliver excellent value to its shareholders. Fortum's share price has depreciated approximately 14% during the last five years, while Dow Jones European Utility Index has increased 4%. During the same period NASDAQ Helsinki Cap index has increased 72%. During 2016 Fortum's share price appreciated approximately 5%, while Dow Jones European Utility index decreased 10% and NASDAQ Helsinki Cap index increased 8%.

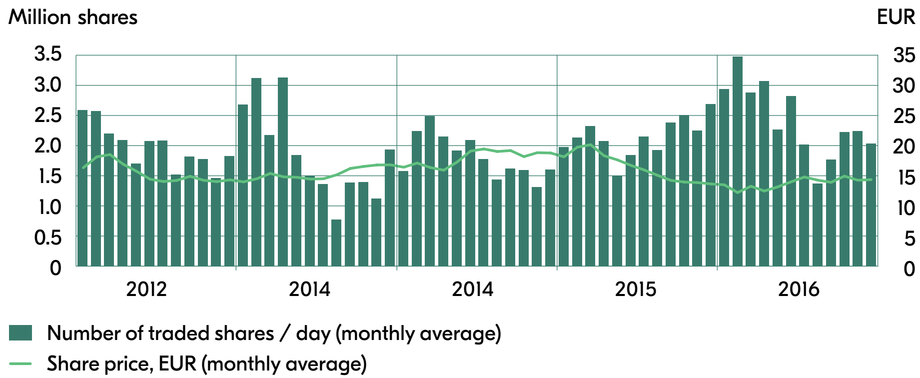
In 2016, a total of 611.6 million (2015: 541.9) Fortum Corporation shares, totalling EUR 8,295 million, were traded on the Nasdaq Helsinki. The highest quotation of Fortum Corporation shares during 2016 was EUR 15.74, the lowest EUR 10.99, and the volume-weighted average EUR 13.57. The closing quotation on the last trading day of the year 2016 was EUR 14.57 (2015: 13.92). Fortum's market capitalisation, calculated using the closing quotation of the last trading day of the year, was EUR 12,944 million (2015: 12,366).

In addition to the Nasdaq Helsinki, Fortum shares were traded on several alternative market places, for example at Boat, BATS Chi-X and Turquoise, and on the OTC market as well. In 2016, approximately 63% (2015: 58%) of Fortum's shares were traded on markets other than the Nasdaq Helsinki Ltd.

Share quotations, index 100 = quote on 2 January 2012



Fortum share trading



Share capital

Fortum has one class of shares. By the end of 2016 a total of 888,367,045 shares had been issued. Each share entitles the holder to one vote at the Annual General Meeting. All shares entitle holders to an equal dividend. At the end of 2016 Fortum Corporation's share capital, paid in its entirety and entered in the trade register, was EUR 3,046,185,953.00.

Shareholders

At the end of 2016, the Finnish State owned 50.76% of the company's shares. The Finnish Parliament has authorised the Government to reduce the Finnish State's holding in Fortum Corporation to no less than 50.1% of the share capital and voting rights.

The proportion of nominee registrations and direct foreign shareholders was 28.1 % (2015: 25.5%).

Shareholders, 31 December 2016

Shareholders	No. of shares	Holding %
Finnish State	450,932,988	50.76
The State Pension Fund	8,300,000	0.93
Ilmarinen Mutual Pension Insurance Company	7,976,986	0.90
The Finnish Social Insurance Institution	7,030,896	0.79
Kurikan Kaupunki	6,203,500	0.70
Elo Mutual Pension Insurance Company	4,545,000	0.51
Varma Mutual Pension Insurance Company	4,250,167	0.48
Schweizerische Nationalbank	2,928,762	0.33
The Local Government Pensions Institution	2,568,955	0.29
Society of Swedish Literature in Finland	1,716,375	0.19
OP-Henkivakuutus Ltd.	1,380,412	0.16
OP-Delta Mutual Fund	1,285,000	0.14
SEB Gyllenberg Finlandia Fund	1,231,135	0.14
Aktia Capital Mutual Fund	1,200,000	0.14
Nominee registrations and direct foreign ownership [1)]	246,298,728	27.72
Other shareholders in total	140,518,141	15.82
Total number of shares	**888,367,045**	**100.00**

1) Excluding Schweizerische Nationalbank.

By shareholder category	% of total amount of shares
Finnish shareholders	
Corporations	1.54
Financial and insurance institutions	1.99
General government	55.93
Non-profit organisations	1.64
Households	10.85
Non-Finnish shareholders	28.05
Total	**100.00**

Breakdown of share ownership, 31 December 2016

Number of shares owned	No. of shareholders	% of shareholders	No. of shares	% of total amount of shares
1–100	35,840	27.18	2,042,557	0.23
101–500	52,093	39.50	13,980,902	1.57
501–1,000	21,143	16.03	15,629,845	1.76
1,001–10,000	21,552	16.34	56,285,821	6.34
10,001–100,000	1,144	0.87	25,650,795	2.89
100,001–1,000,000	85	0.06	24,348,358	2.74
1,000,001–10,000,000	21	0.02	55,084,687	6.20
over 10,000,000	4	0.00	450,932,988	50.76
	131,882	**100.00**	**643,955,953**	**72.49**
In the joint book-entry account and in special accounts on 31 December			73,616	0.01
Nominee registrations			244,337,476	27.50
Total			**888,367,045**	**100.00**

Management interests 31 December 2016

At the end of 2016, the President and CEO and other members of the Fortum Management Team owned 315,653 shares (2015: 347,478) representing approximately 0.04% (2015: 0.04%) of the total shares in the company.

A full description of the shareholdings and interests in long-term incentive schemes of the President and CEO and other members of the Fortum Executive Management Team is shown in *Note 11* Employee benefits.

Authorisations from the Annual General Meeting 2016

In 2016, the Annual General Meeting decided to authorise the Board of Directors to decide on the repurchase and disposal of the company's own shares up to a maximum number of 20,000,000 shares, which corresponds to approximately 2.25 per cent of all the shares in the company. The authorisation is effective for a period of 18 months from the resolution of the General Meeting. The authorisation had not been used by the end of 2016.

Dividend policy

The dividend policy ensures that shareholders receive a fair remuneration for their entrusted capital, supported by the company's long-term strategy that aims at increasing earnings per share and thereby the dividend. When proposing the dividend, the Board of Directors looks at a range of factors, including the macro environment, balance sheet strength as well as future investment plans. Fortum Corporation's target is to pay a stable, sustainable and over time increasing dividend, in the range of 50–80% of earnings per share, excluding one-off items.

Dividend distribution proposal

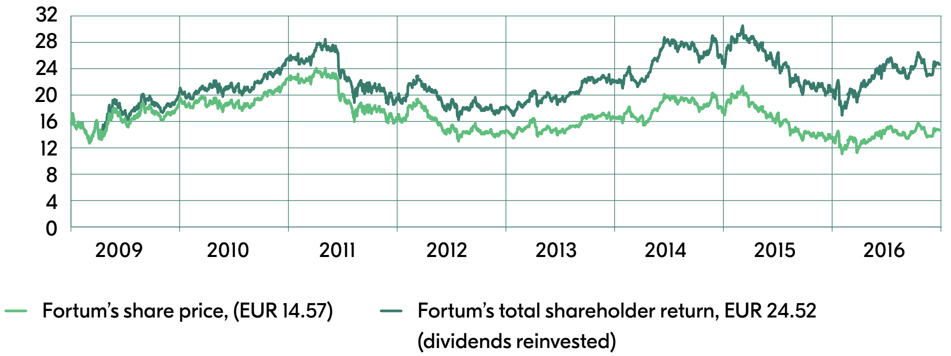
The distributable funds of Fortum Oyj as at 31 December 2016 amounted to EUR 5,203,674,879.03 including the profit of the financial period 2016 of EUR 779,867,542.66. After the end of the financial period there have been no material changes in the financial position of the Company.

The Board of Directors proposes to the Annual General Meeting that a dividend of EUR 1.10 per share be paid for 2016.

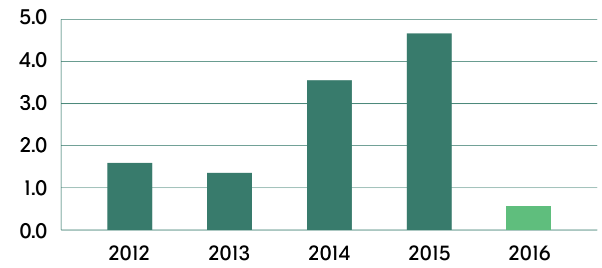
Based on the number of registered shares as at 1 February 2017 the total amount of dividend proposed to be paid is EUR 977,203,749.50. The Board of Directors proposes that the remaining part of the distributable funds will be retained in shareholders' equity.

The Annual General Meeting will be held on 4 April 2017 at 14:00 EET at Finlandia Hall in Helsinki.

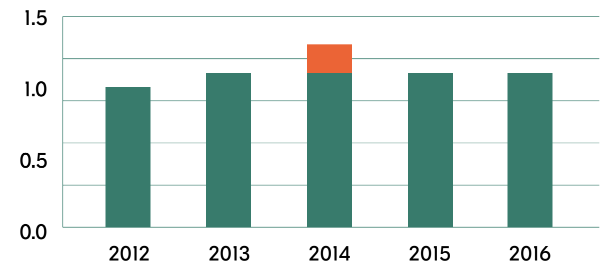
Total shareholder return, EUR



Earnings per share total Fortum, EUR



Dividend per share, EUR



The dividend for 2016 represents the Board of Directors' proposal for the Annual General Meeting in April 2017.
Fortum paid extra dividend of EUR 0.20 per share for the financial year that ended 31 Dec 2014.

Consolidated income statement

EUR million	Note	2016	2015
Sales	5	3,632	3,459
Other income	9	34	38
Materials and services	10	-1,830	-1,515
Employee benefits	11	-334	-351
Depreciation and amortisation	5, 18, 19	-373	-346
Other expenses	9	-485	-477
Comparable operating profit	5	**644**	**808**
Items affecting comparability	6, 7	-11	-958
Operating profit	5	**633**	**-150**
Share of profit of associates and joint ventures	5, 20	131	20
Interest expense	12	-169	-203
Interest income	12	30	51
Fair value gains and losses on financial instruments	12	-2	-18
Other financial expenses - net	12	-29	-4
Finance costs - net	12	**-169**	**-175**
Profit before income tax		**595**	**-305**
Income tax expense	13	-90	78
Profit for the period from continuing operations		**504**	**-228**
Profit for the period from discontinuing operations	14	**0**	**4,369**
Profit for the period		**504**	**4,142**
Attributable to:			
Owners of the parent		496	4,138
Non-controlling interests		8	4
		504	**4,142**
Earnings per share for profit attributable to the equity owners of the company (EUR per share) [1]	15		
Total Fortum		0.56	4.66
Continuing operations		0.56	-0.26
Discontinued operations		-	4.92

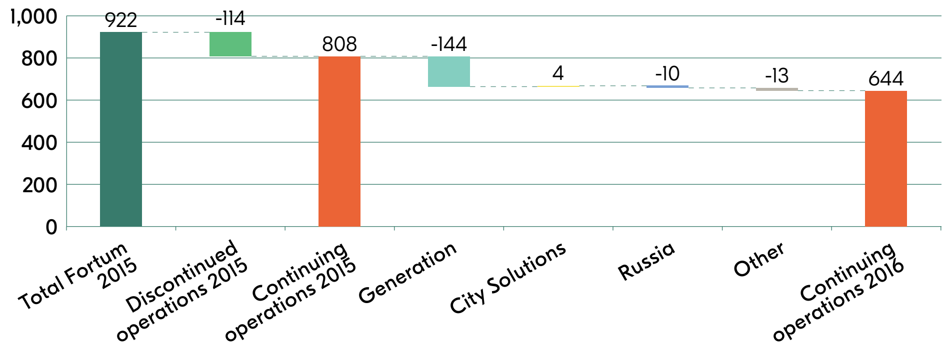
1) As Fortum currently has no dilutive instruments outstanding, diluted earnings per share is the same as basic earnings per share.

EUR million	Note	2016	2015
Comparable operating profit		**644**	**808**
Impairment charges	7	27	-918
Capital gains and other		38	22
Changes in fair values of derivatives hedging future cash flow	8	-65	-78
Nuclear fund adjustment	5	-11	16
Items affecting comparability	5, 6	**-11**	**-958**
Operating profit		**633**	**-150**

Early closure of nuclear units in Sweden in 2015

The decision made by the Extraordinary shareholders' meeting of OKG AB to close Oskarshamn nuclear power plant units 1 and 2 in Sweden impacted the 2015 net result attributable to the owners of the parent by EUR -729 million. The impact is recognised on several rows of the income statement, but the major part is included in Impairment charges, in Items effecting comparability. See further information in ▸ *Note 7* Effects from early closure of unit 1 and 2 in OKG AB.

Comparable operating profit, EUR million



Consolidated statement of comprehensive income

EUR million	Note	2016	2015
Profit for the period		504	4,142
Other comprehensive income			
Items that may be reclassified to profit or loss in subsequent periods:			
Cash flow hedges			
Fair value gains/losses in the period		-142	124
Transfers to income statement		-85	-48
Transfers to inventory/fixed assets		-10	-6
Deferred taxes		51	-14
Net investment hedges			
Fair value gains/losses in the period		-2	-8
Deferred taxes		0	2
Exchange differences on translating foreign operations	3.6	342	-191
Share of other comprehensive income of associates and joint ventures	20	-9	3
Other changes		0	3
		145	-135
Items that will not be reclassified to profit or loss in subsequent periods:			
Actuarial gains/losses on defined benefit plans	32	-7	76
Actuarial gains/losses on defined benefit plans in associates and joint ventures	32	12	0
		5	76
Other comprehensive income for the period from continuing operations, net of deferred taxes		150	-59
Other comprehensive income for the period from discontinued operations, net of deferred taxes		-	0
Total comprehensive income for the year		654	4,082
Total comprehensive income attributable to:			
Owners of the parent		639	4,081
Non-controlling interests		15	1
		654	4,082

Components of Consolidated statement of comprehensive income (OCI) are items of income and expense that are recognized in equity and not recognized in the consolidated income statement. They include unrealized items, such as fair value gains and losses on financial instruments hedging future cash flows. These items will be realized in the Consolidated income statement when the underlying hedged items is recognized. OCI also includes gains and losses on fair valuation on available for sale financial assets, actuarial gains and losses from defined benefit plans, items on comprehensive income in associated companies and translation differences.

Fair valuation of cash flow hedges mainly relates to electricity prices in future cash flows. When electricity price is higher (lower) than the hedging price, the impact on equity is negative (positive).

Translation differences from translation of foreign entities, mainly RUB and SEK.

See information on defined benefit plans in *Note 32* Pension obligations.

Consolidated balance sheet

EUR million	Note	31 Dec 2016	31 Dec 2015
ASSETS			
Non-current assets			
Intangible assets	18	467	222
Property, plant and equipment	19	9,930	8,710
Participations in associates and joint ventures	20	2,112	1,959
Share in State Nuclear Waste Management Fund	30	830	810
Other non-current assets	21	113	93
Deferred tax assets	29	66	80
Derivative financial instruments	3	415	509
Long-term interest-bearing receivables	22	985	773
Total non-current assets		**14,918**	**13,157**
Current assets			
Inventories	23	233	231
Derivative financial instruments	3	130	355
Short-term interest-bearing receivables	22	395	0
Tax receivables	29	290	124
Trade and other receivables	24	844	698
Deposits and securities (maturity over three months)		3,475	4,913
Cash and cash equivalents		1,679	3,289
Liquid funds	25	5,155	8,202
Total current assets		**7,046**	**9,610**
Total assets		**21,964**	**22,767**

EUR million	Note	31 Dec 2016	31 Dec 2015
EQUITY			
Equity attributable to owners of the parent			
Share capital	26	3,046	3,046
Share premium		73	73
Retained earnings		10,369	10,507
Other equity components		-29	168
Total		**13,459**	**13,794**
Non-controlling interests	27	84	69
Total equity		**13,542**	**13,863**
LIABILITIES			
Non-current liabilities			
Interest-bearing liabilities	28	4,468	4,965
Derivative financial instruments	3	262	290
Deferred tax liabilities	29	616	483
Nuclear provisions	30	830	810
Other provisions	31	116	81
Pension obligations	32	76	65
Other non-current liabilities	33	179	168
Total non-current liabilities		**6,546**	**6,863**
Current liabilities			
Interest-bearing liabilities	28	639	1,042
Derivative financial instruments	3	396	121
Trade and other payables	34	841	879
Total current liabilities		**1,876**	**2,042**
Total liabilities		**8,422**	**8,904**
Total equity and liabilities		**21,964**	**22,767**

Consolidated statement of changes in total equity

		Share capital	Share premium	Retained earnings		Other equity components			Owners of the parent	Non-controlling interests	Total equity
EUR million	Note			Retained earnings and other funds	Translation of foreign operations	Cash flow hedges	Other OCI items	OCI items associated companies and joint ventures			
BS Total equity 31 December 2015		3,046	73	12,663	-2,156	74	67	27	13,794	69	13,863
Net profit for the period				496					496	8	504
Translation differences					339	-2	1	-3	335	7	342
Other comprehensive income				1		-186	-10	3	-192		-192
Total comprehensive income for the period				497	339	-188	-9	0	639	15	654
Cash dividend	15			-977					-977		-977
Other				3					3	-1	2
BS Total equity 31 December 2016		3,046	73	12,186	-1,817	-115	58	27	13,459	84	13,542
Total equity 31 December 2014		3,046	73	9,676	-1,968	19	-5	22	10,864	71	10,935
Net profit for the period				4,138					4,138	4	4,142
Translation differences					-189	-1	-1	2	-188	-3	-191
Other comprehensive income				0		55	73	3	132		132
Total comprehensive income for the period				4,139	-189	54	72	5	4,081	1	4,082
Cash dividend	15			-1,155					-1,155		-1,155
Other				3					3	-2	1
BS Total equity 31 December 2015		3,046	73	12,663	-2,156	74	67	27	13,794	69	13,863

Translation differences

Translation of financial information from subsidiaries in foreign currency is done using average rate for the income statement and end rate for the balance sheet. The exchange rate differences occurring from translation to EUR are booked to equity. Translation differences impacted equity attributable to owners of the parent company with EUR 335 million during 2016 (2015: -188). Translation differences are mainly related to RUB and SEK. Part of this translation exposure has been hedged and the foreign currency hedge result, amounting to EUR 5 million (2015: 8), is included in the other OCI items.

For information regarding exchange rates used, see *Note 1* Accounting policies. For information about translation exposure see *Note 3.6* Interest rate risk and currency risk.

Cash flow hedges

The impact on equity attributable to owners of the parent from fair valuation of cash flow hedges, EUR -188 million (2015: 54), mainly relates to cash flow hedges hedging electricity price for future transactions. When electricity price is lower/higher than the hedging price, the impact on equity is positive/negative.

Consolidated cash flow statement

EUR million	Note	2016	2015
Cash flow from operating activities			
Profit for the period from continuing operations		504	-228
Adjustments:			
Income tax expenses		90	-78
Finance costs - net		169	175
Share of profit of associates and joint ventures		-131	-20
Depreciation and amortisation		373	346
Operating profit before depreciations (EBITDA)		1,006	196
Items affecting comparability		11	958
Net release of CSA provision		-2	-52
Comparable EBITDA		1,015	1,102
Non-cash flow items		-49	-15
Interest received		39	52
Interest paid		-214	-263
Dividends received		54	52
Realised foreign exchange gains and losses		110	292
Income taxes paid		-216	-65
Other items		-18	43
Funds from operations		723	1,199
Change in working capital		-102	29
Net cash from operating activities, continuing operations		621	1,228
Net cash from operating activities, discontinued operations		-	154
Total net cash from operating activities		621	1,381
Cash flow from investing activities			
Capital expenditures	5, 18, 19	-599	-527
Acquisitions of shares		-695	-43
Proceeds from sales of fixed assets		10	28
Divestments of shares		39	27
Shareholder loans to associated companies and joint ventures		-117	481
Change in other interest-bearing receivables		-340	-1
Net cash used in investing activities, continuing operations		-1,701	-35
Net cash used in investing activities, discontinued operations		-	6,303
Total net cash used in investing activities		-1,701	6,268

EUR million	Note	2016	2015
Cash flow before financing activities		-1,080	7,650
Cash flow from financing activities			
Proceeds from long-term liabilities		32	37
Payments of long-term liabilities		-934	-956
Change in short-term liabilities		-97	-84
Dividends paid to the owners of the parent	15	-977	-1,155
Other financing items		-8	-2
Net cash used in financing activities, continuing operations		-1,984	-2,160
Net cash used in financing activities, discontinued operations		-	0
Total net cash used in financing activities		-1,984	-2,160
Total net increase(+)/decrease(-) in liquid funds		-3,064	5,490
Liquid funds at the beginning of the year		8,202	2,766
Foreign exchange differences in liquid funds		18	-54
Liquid funds at the end of the period	25	5,155	8,202

Realised foreign exchange gains and losses relate mainly to financing of Fortum's Russian and Swedish subsidiaries and the fact that the Group's main external financing currency is EUR. The foreign exchange gains and losses arise from rollover of foreign exchange contracts hedging these internal loans as major part of the forwards are entered into with short maturities i.e. less than twelve months.

Capital expenditures in cash flow do not include not yet paid investments. Capitalised borrowing costs are presented in interest paid.

Change in net debt

EUR million	2016	2015
Net debt 1 January	**-2,195**	**4,217**
Foreign exchange rate differences	-70	89
EBITDA	1,006	4,640
Paid net financial costs, taxes and adjustments for non-cash and divestment items	-283	-3,330
Change in working capital	-102	71
Capital expenditures	-599	-592
Acquisitions	-695	-43
Divestments	49	6,217
Proceeds from interest-bearing receivables relating to divestments	0	207
Shareholder loans to associated companies	-117	481
Change in other interest-bearing receivables	-340	-1
Dividends	-977	-1,155
Other financing activities	-8	-2
Net cash flow (- increase in net debt)	-2,065	6,493
Fair value change of bonds, amortised cost valuation, acquired debt and other	152	-8
Net debt 31 December	**-48**	**-2,195**

Additional cash flow information for continuing operations

Change in working capital

EUR million	2016	2015
Change in interest-free receivables, decrease(+)/increase(-)	-54	-121
Change in inventories, decrease(+)/increase(-)	14	24
Change in interest-free liabilities, decrease(+)/increase(-)	-62	126
CF Total	**-102**	29

Fortum is hedging electricity production and retail portfolios mainly with derivatives in Nasdaq OMX Commodities Europe. For these transactions Nasdaq requires collaterals. In 2016 Nasdaq moved from bank guarantees to cash collaterals due to EMIR requirements. The cash collaterals are included in the short-term interest-bearing receivables, see *Note 22* Interest-bearing receivables.

In the end of 2016 Nasdaq's market making for forwards ended and the trading moved from forwards with cash collaterals to futures with daily cash settlements. In Fortum's cash flow the daily cash settlements for futures are shown as change in working capital whereas the changes in cash collaterals for forwards are in change of interest-bearing receivables. The Nasdaq futures settlements had a negative impact in working capital (Change in interest-free receivables) of EUR 139 million in 2016.

Capital expenditure in cash flow

EUR million	Note	2016	2015
Capital expenditure	5, 18, 19	591	582
Change in not yet paid investments, decrease(+)/increase(-)		24	-11
Capitalised borrowing costs		-16	-44
CF Total		**599**	527

Capital expenditures for intangible assets and property, plant and equipment were in 2016 EUR 591 million (2015: 582). Capital expenditure in cash flow in 2016 EUR 599 million (2015: 527) is including payments related to capital expenditure made in previous year i.e. change in trade payables related to investments EUR 24 million (2015: -11) and excluding capitalised borrowing costs EUR -16 million (2015: -44), which are presented in interest paid.

See also information about the investments by segments and countries in *Note 5* Segment reporting and the investment projects by segment in *Note 19.2* Capital expenditure.

Acquisition of shares in cash flow

Acquisition of shares, net of cash acquired, amounted to EUR 695 million during 2016 (2015: 43) including mainly shares in Ekokem Corporation of EUR 553 million and Grupa DUON S.A of EUR 98 million. For further information see *Note 40* Acquisitions and disposals.

Divestment of shares in cash flow

EUR million	Note	2016	2015
Proceeds from sales of subsidiaries, net of cash disposed	40	6	0
Proceeds from sales of associates and joint ventures	20, 40	34	27
CF Total		**39**	27

Gross divestment of shares, EUR 161 million (2015: 27), includes not yet received sales price of EUR 131 million (2015: 0) relating to divestment of shares in OOO Tobolsk CHP. For further information see *Note 22* Interest-bearing receivables and *Note 40* Acquisitions and disposals.

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42

1 Accounting policies

1.1 Basic information

Fortum Corporation (the Company) is a Finnish public limited liability company with its domicile in Espoo, Finland. Fortum's shares are traded on Nasdaq Helsinki.

The operations of Fortum Corporation and its subsidiaries (together the Fortum Group) focus on the Nordic and Baltic countries, Russia and Poland. Fortum's activities cover generation and sale of electricity, generation, distribution and sale of heat, and energy- related expert services.

These financial statements were approved by the Board of Directors on 1 February 2017.

1.2 Basis of preparation

The consolidated financial statements of the Fortum Group have been prepared in accordance with International Financial Reporting Standards (IFRS) and IFRIC Interpretations as adopted by the European Union. The financial statements also comply with Finnish accounting principles and corporate legislation.

The consolidated financial statements have been prepared under the historical cost convention, except for available for sale financial assets, financial assets and financial liabilities (including derivative instruments) at fair value through profit and loss and items hedged at fair value.

1.2.1 Income statement presentation

In the Consolidated income statement Comparable operating profit-key figure is presented to better reflect the Group's business performance when comparing results for the current period with previous periods.

Items affecting comparability are disclosed as a separate line item. The following items are included in "Items affecting comparability":

- impairment charges and related provisions (mainly dismantling);
- capital gains, transaction costs and other;
- effects from fair valuations of derivatives hedging future cash flows which do not obtain hedge accounting status according to IAS 39. The major part of Fortum's cash flow hedges obtain hedge accounting where fair value changes are recorded in equity;
- effects from accounting of Fortum's part of the State Nuclear Waste Management Fund where the assets cannot exceed the related liabilities according to IFRIC5.

Comparable operating profit is used for financial target setting, follow up and allocation of resources in the group's performance management.

On 15 April 2015 Fortum published a stock exchange release regarding the IFRS 5 restatement of income statement and cash flow for 2014. As described in the release, Distribution segment is treated as discontinued operations from the first quarter interim report 2015 onwards. More information on the impact of the reclassification can be found in ▸ *Note 14* Discontinued operations and ▸ *Note 40* Acquisitions and disposals.

1.2.2 Classification of current and non-current assets and liabilities

An asset or a liability is classified as current when it is expected to be realised in the normal operating cycle or within twelve months after the balance sheet date or it is classified as financial assets or liabilities held at fair value through profit or loss. Liquid funds are classified as current assets.

All other assets and liabilities are classified as non-current assets and liabilities.

1.3 Principles for consolidation

The consolidated financial statements comprise of the parent company, subsidiaries, joint ventures and associated companies.

The Fortum Group was formed in 1998 by using the pooling-of-interests method for consolidating Fortum Power and Heat Oy and Fortum Oil and Gas Oy (the latter demerged to Fortum Oil Oy and Fortum Heat and Gas Oy 1 May 2004). In 2005 Fortum Oil Oy (current Neste Oyj) was separated from Fortum by distributing 85% of its shares to Fortum's shareholders and by selling the remaining 15%. This means that the acquisition cost of Fortum Power and Heat Oy and Fortum Heat and Gas Oy has been eliminated against the share capital of the companies. The difference has been entered as a decrease in shareholders' equity.

1.3.1 Subsidiaries

Subsidiaries are defined as companies in which Fortum has control. Control exists when Fortum is exposed to, or has rights to, variable returns from its involvement with the entity and has the ability to affect those returns through its power over the entity.

The acquisition method of accounting is used to account for the acquisition of subsidiaries. The cost of an acquisition is measured as the aggregate of fair value of the assets given and liabilities incurred or assumed at the date of exchange, plus costs directly attributable to the acquisition. Identifiable assets acquired and liabilities assumed in a business combination are measured initially at their fair values at the acquisition date, irrespective of the extent of any minority interest. The excess of the cost of acquisition over the fair value of the Group's share of the identifiable net assets acquired is recorded as goodwill. If the cost of acquisition is less than the fair value of the net assets of the subsidiary acquired, the difference is recognised directly in the income statement.

Subsidiaries are fully consolidated from the date on which control is transferred to the Group and are no longer consolidated from the date that control ceases.

Intercompany transactions, balances and unrealised gains on transactions between Group companies are eliminated. Unrealised losses are also eliminated unless the transaction provides evidence of an impairment of the asset transferred. Where necessary, subsidiaries' accounting policies have been changed to ensure consistency with the policies the Group has adopted.

The Fortum Group subsidiaries are disclosed in ▸ *Note 42* Subsidiaries by segment on 31 December 2016.

1.3.2 Associates

Associated companies are entities over which the Group has significant influence but not control, generally accompanying a shareholding of between 20% and 50% of the voting rights. The Group's interests in associated companies are accounted for using the equity method of accounting.

1.3.3 Joint ventures

Joint ventures are arrangement in which the Group has joint control. Joint ventures are accounted for using the equity method of accounting.

1.3.4 Non-controlling interests

Non-controlling interests in subsidiaries are identified separately from the equity of the owners of the parent company. The non-controlling interests are initially measured at the non-controlling interests' proportionate share of the fair value of the acquiree's identifiable net assets. Subsequent to acquisition, the carrying amount of non-controlling interests is the amount of those interests at initial recognition plus the non-controlling interests' share of subsequent changes in equity.

1.3.5 Assets held for sale and discontinued operations

Non-current assets (or disposal groups) classified as held for sale are valued at the lower of their carrying amount and fair value less costs to sell if their carrying amount will be recovered principally through a sale transaction rather than through continuing use. These classification criteria do not include non-current assets to be abandoned or those that have been temporarily taken out of use. An impairment loss (or subsequent gain) reduces (or increases) the carrying amount of the non-current assets or disposal groups. The assets are not depreciated or amortised. Interest or other expenses related to these assets are recognised as before the classification as held for sale.

Discontinued operations represent a separate major line of business that either has been disposed of or is classified as held for sale. Assets and liabilities attributable to the discontinued operations must be clearly distinguishable from the other consolidated entities in terms of their operations and cash flows. In addition, the reporting entity must not have any significant continuing involvement in the operations classified as a discontinued operation.

1.4 Foreign currency transactions and translation

1.4.1 Functional and presentation currency

Items included in the financial statements of each of the Group's entities are measured using the currency of the primary economic environment in which the entity operates ('the functional currency'). The consolidated financial statements are presented in euros, which is the Company's functional and presentation currency.

1.4.2 Transactions and balances

Transactions denominated in foreign currencies are translated using the exchange rate at the date of the transaction. Receivables and liabilities denominated in foreign currencies outstanding on the closing date are translated using the exchange rate quoted on the closing date. Exchange rate differences have been entered in the income statement. Net conversion differences relating to financing are entered under financial income or expenses, except when deferred in equity as qualifying cash flow hedges. Translation differences on available for sale financial assets are included in Other equity components section of the equity.

1.4.3 Group companies

The income statements of subsidiaries, whose measurement and reporting currencies are not euros, are translated into the Group reporting currency using the average exchange rates for the year based on the month-end exchange rates, whereas the balance sheets of such subsidiaries are translated using the exchange rates on the balance sheet date. On consolidation, exchange differences arising from the translation of the net investment in foreign entities, and of borrowings and other currency instruments designated as hedges of such investments, are taken to equity. When a foreign operation is sold, such exchange differences are recognised in the income statement as part of the gain or loss on sale. Goodwill and fair value adjustments arising on the acquisition of a foreign entity are treated as assets and liabilities of the foreign entity and translated at the closing rate.

The balance sheet date rate is based on the exchange rate published by the European Central Bank for the closing date. The average exchange rate is calculated as an average of each month's ending rate from the European Central Bank during the year and the ending rate of the previous year.

The key exchange rates applied in the Fortum Group accounts

		Average rate		Balance sheet date rate	
	Currency	2016	2015	31 Dec 2016	31 Dec 2015
Sweden	SEK	9.4496	9.3414	9.5525	9.1895
Norway	NOK	9.2888	8.9953	9.0863	9.6030
Poland	PLN	4.3659	4.1909	4.4103	4.2639
Russia	RUB	73.8756	69.0427	64.3000	80.6736

1.4.4 Associates and joint ventures

The Group's interests in associated companies and joint ventures are accounted for by the equity method. Associates and joint ventures, whose measurement and reporting currencies are not euro, are translated into the Group reporting currency using the same principles as for subsidiaries, see ▸ *1.4.3* Group companies.

1.5 Other accounting policies

Fortum describes the other accounting principles in conjunction with the relevant note information. The table below lists the significant accounting policies and the note where they are presented as well as the relevant IFRS standard.

Accounting principle	Note	IFRS standard
Segment reporting	5. Segment reporting	IFRS 8
Revenue recognition	5. Segment reporting and 24. Trade and other receivables	IAS 18
Government grants	19. Property, plant and equipment	IAS 20
Share-based payments	11. Employee benefits	IFRS 2
Income taxes	29. Income taxes in balance sheet	IAS 12
Joint arrangements	20. Participations in associated companies and joint ventures	IFRS 11, IAS 28, IFRS 12
Investments in associates	20. Participations in associated companies and joint ventures	IAS 28, IFRS 12
Other shares and participations	16. Financial assets and liabilities by categories	IAS 32, IAS 36, IAS 39
Intangible assets	18. Intangible assets	IAS 38
Tangible assets	19. Property, plant and equipment	IAS 16, IAS 36, IAS 40
Leasing	36. Lease commitments	IAS 17
Inventories	23. Inventories	IAS 2
Earnings per share	15. Earnings and dividend per share	IAS 33
Pensions and similar obligations	32. Pension obligations	IAS 19
Decommissioning obligation	30. Nuclear related assets and liabilities	IFRIC 5
Provisions	31. Other provisions	IAS 37
Contingent liabilities	37. Pledged assets and contingent liabilities	IAS 37
Financial instruments	16. Financial assets and liabilities by categories and 17. Financial assets and liabilities by fair value hierarchy	IAS 32, IAS 39, IFRS 7
Liquid funds	25. Liquid funds	IAS 7
Borrowings	28. Interest-bearing liabilities	IAS 39

1.6 New accounting principles

1.6.1 New IFRS standards adopted from 1 Jan 2016

Fortum has adopted the following new or amended standards on 1 January 2016:

Standard	Nature of change	Impact	Date of adoption
Narrow-scope yearly amendments	The amendments primarily remove inconsistencies, provide additional guidance and clarify wording of standards. There are separate transitional provisions for each standard.	The amendments do not have a material impact on Fortum's financial statements.	1 January 2016

1.6.2 Adoption of new IFRS standards from 1 Jan 2017 or later

Fortum will apply the following new or amended standards and interpretations starting from 1 January 2017 or later:

Standard	Nature of change	Impact	Date of adoption
IFRS 9 Financial instruments	New standard. The standard has new requirements for the classification and measurement of financial assets and liabilities and hedge accounting and it will replace IAS 39 and IFRS 7. Additionally, it introduces a new impairment model for expected credit losses.	During the gapping and design phase of the project Fortum has identified the key changes and made initial interpretations/design solutions in the areas of: • Classification and measurement of financial assets • Impairment model using expected credit loss method ("ECL") • Hedge accounting • Some of the areas considered are: • Fortum expects to have a wider possibility to apply hedge accounting and thereby reduce volatility in the income statement. • Fortum is currently evaluating the expected impact of adopting the ECL model for impairment of financial assets. • Fortum has decided to use the transition relief for not to restate the comparative information at the date of initial application.	1 January 2018
IFRS 15 Revenue from contracts with Customers	New standard. The standard focuses on revenue recognition models and will replace IAS 11 and IAS 18.	The IFRS 15 impact analysis is on-going and will be completed during 2017. Analysis include: • Identification and assessment of Fortum's revenue streams, • Determining key areas of potential differences between old and new revenue recognition principles and • Reviewing of sample contracts. Based on the analysis completed so far no material changes have been identified. As Fortum's operations do not include significant long-term sales contracts or projects, no material impact from the new standard is expected. Assessment is on-going and additional information on the implementation will be given during 2017 as the project progresses. Fortum will use the transition relief for not to restate the comparative information at the date of initial application.	1 January 2018
IFRS 16 Leases	New standard regarding lease accounting that will replace IAS 17. The new lease standard will result in almost all leases being recognised on the balance sheet, as the distinction between operating and finance lease is removed.	Fortum is currently assessing the impact of the new rules.	1 January 2019

2 Critical accounting estimates and judgements

The preparation of IFRS consolidated financial statements requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities, the disclosure of contingent assets and liabilities existing at the balance sheet date as well as the reported amounts of revenues and expenses during the reporting period.

Estimates and judgements are continually evaluated and are based on historical experience and other factors, including expectations of future events that are believed to be reasonable under the circumstances. Actual results and timing may differ from these estimates.

The table below is listing the areas where management's accounting estimates and judgements are most critical to reported results and financial position. The table is also showing where to find more information about above-mentioned estimates and judgements.

Critical accounting estimates and judgements	Note
Assigned values and useful lives for intangible assets and property, plant and equipment acquired in a business combination	18. Intangible assets
Assumptions related to impairment testing of property, plant and equipment and intangible assets as well as associated companies and joint ventures	19. Property, plant and equipment
Judgement used when assessing the nature of Fortum's interest in its investees and when considering the classification of Fortum's joint arrangements as well as commitments arising from these arrangements	20. Participations in associated companies and joint ventures 7. Effects from early closure of nuclear units in Sweden
Assumptions and estimates regarding future tax consequences	29. Income taxes in balance sheet 38. Legal actions and official proceedings
Assumptions made to determine long-term cash flow forecasts of estimated costs for provision related to nuclear production	30. Nuclear related assets and liabilities
Assumptions made when estimating provisions	31. Other provisions
Assumptions used to determine future pension obligations	32. Pension obligations

3 Financial risk management

Risk management objectives, principles and framework including governance, organisation and processes as well as description of risks i.e. strategic, financial and operational risks are described in the Risk management part in the Operating and financial review (OFR).

3.1 Commodity market risks

Fortum's business is exposed to fluctuations in prices and availability of commodities used in the production and sales of energy products. The main exposure is toward electricity prices and volumes, prices of emissions and prices and availability of fuels. Fortum hedges its exposure to commodity market risks in accordance with annually approved Hedging Guidelines, Strategies and Mandates.

3.2 Electricity price risk

Electricity price risk is hedged by entering into electricity derivatives contracts, primarily on the Nordic power exchange, Nasdaq Commodities. The main objective of hedging is to reduce the effect of electricity price volatility on earnings. Hedging strategies cover several years in the short to medium term and are executed within approved mandates. These hedging strategies are continuously evaluated as electricity and other commodity market prices, the hydrological balance and other relevant parameters change.

In Russia, electricity prices and capacity sales are the main sources of market risk. The electricity price is highly correlated with the gas price and prices are fixed through bilateral agreements limiting exposure.

Fortum's sensitivity to electricity market price is dependent on the hedge level for a given time period. As per 31 December 2016, approximately 60% of the Generation Segment's estimated Nordic power sales volume was hedged for the calendar year 2017 and approximately 35% for the calendar year 2018. Assuming no changes in generation volumes, hedge ratios or cost structure a 1 EUR/MWh change in the market price of electricity would affect Fortum's 2017 comparable operating profit by approximately EUR 18 million and for 2018 by approximately EUR 29 million. The volume used in this sensitivity analysis is 45 TWh which includes the electricity generation sold to the spot market in Sweden and Finland in the Generation Segment without minority owner's shares of electricity or other pass-through sales, and excluding the volume of Fortum's coal-condensing generation. This volume is heavily dependent on price level, the hydrological situation, the length of annual maintenance periods and availability of power plants. Sensitivity is calculated only for electricity market price movements. Hydrological conditions, temperature, CO_2 allowance prices, fuel prices and the import/export situation all affect the electricity price on short-term basis and effects of individual factors cannot be separated.

3.2.1 Sensitivity arising from financial instruments according to IFRS 7

Sensitivity analysis shows the sensitivity arising from financial electricity derivatives as defined in IFRS 7. These derivatives are used for hedging purposes within Fortum. Sensitivities are calculated based on 31 December 2016 (31 December 2015) position. Positions are actively managed in the day-to-day business operations and therefore the sensitivities vary from time to time. Sensitivity analysis includes only the market risks arising from derivatives i.e. the underlying physical electricity sales and purchase are not included. Sensitivity is calculated with the assumption that electricity forward quotations in NASDAQ OMX Commodities Europe and in EEX would change 1 EUR/MWh for the period Fortum has derivatives.

Sensitivity according to IFRS 7

+/- 1 EUR/MWh change in electricity forward quotations, EUR million	Effect	2016	2015
Effect on Profit before income tax	-/+	18	5
Effect on Equity	-/+	27	28

3.2.2 Electricity derivatives

The tables below disclose the Group's electricity derivatives used mainly for hedging electricity price risk. The fair values represent the values disclosed in the balance sheet.

See also ▶ *Note 16* Financial assets and liabilities by categories for accounting principles and basis for fair value estimations and ▶ *Note 8* Fair value changes of derivatives and underlying items in income statement.

Electricity derivatives by instrument 2016

	Volume, TWh				Fair value, EUR million		
	Under 1 year	1–5 years	Over 5 years	Total	Positive	Negative	Net
Electricity derivatives	24	21	0	45	491	711	-220
Total					**491**	**711**	**-220**
Netting against electricity exchanges 1)					-335	-335	0
Total					**156**	**376**	**-220**

Electricity derivatives by instrument 2015

	Volume, TWh				Fair value, EUR million		
	Under 1 year	1–5 years	Over 5 years	Total	Positive	Negative	Net
Electricity derivatives	77	57	0	134	583	502	82
Total	**77**	**57**	**0**	**134**	**583**	**502**	**82**
Netting against electricity exchanges 1)					-292	-292	0
Total					**291**	**209**	**82**

1) Receivables and liabilities against electricity exchanges arising from standard derivative contracts with same delivery period are netted.

Maturity analysis of commodity derivatives

Amounts in the table are fair values.

	2016				2015			
EUR million	Under 1 year	1–5 years	Over 5 years	Total	Under 1 year	1–5 years	Over 5 years	Total
Electricity derivatives assets	88	67	1	**156**	156	133	2	**291**
Electricity derivatives liabilities	238	136	2	**376**	83	124	3	**209**
Other commodity derivatives, assets	18	4	0	**22**	16	5	0	**22**
Other commodity derivatives, liabilities	18	3	0	**21**	12	6	0	**18**

3.3 Fuel price risks

Exposure to fuel prices is limited to some extent due to Fortum's flexible generation capacity, which allows for switching between different fuels according to prevailing market conditions. In some cases, the fuel price risk can be transferred to the customer. The remaining exposure to fuel price risk is mitigated through fixed-price physical delivery contracts or financial hedges, such as coal, gas and oil derivatives included in the table above as part of "Other commodity derivatives".

3.4 Emission allowance price and volume risk

Part of Fortum's power and heat generation is subject to requirements of emission trading schemes. Fortum hedges its exposure to these prices and volumes through the use of CO_2 futures. Most of these CO_2 futures are own use contracts valued at cost and some are treated as derivatives in the accounts included in the table above as part of "Other commodity derivatives".

3.5 Liquidity and refinancing risk

Fortum's business is capital intensive and the Group has a diversified loan portfolio mainly consisting of long-term financing denominated in EUR and SEK. Long-term financing is primarily raised by issuing bonds under Fortum's Euro Medium Term Note programme as well as through bilateral and syndicated loan facilities from a variety of different financial institutions.

Financing is primarily raised on parent company level and distributed internally through various internal financing arrangements. For example Fortum's Russian operations are mainly financed via intra group internal long term RUB denominated loans. The internal RUB loan receivables are hedged via external forward contracts offsetting the currency exposure for the internal lender. On 31 December 2016, 96% (2015: 97%) of the Group's total external financing was raised by the parent company Fortum Oyj.

On 31 December 2016, the total interest-bearing debt was EUR 5,107 million (2015: 6,007) and the interest-bearing net debt was EUR -48 million (2015: -2,195).

Fortum manages liquidity and refinancing risks through a combination of cash positions and committed credit facility agreements with its core banks. The Group shall at all times have access to cash, marketable securities and unused committed credit facilities including overdrafts, to cover all loans maturing within the next twelve-month period. However, cash/marketable securities and unused committed credit facilities shall always amount to at least EUR 500 million.

On 31 December 2016, loan maturities for the coming twelve-month period amounted to EUR 639 million (2015: 1,042). Liquid funds amounted to EUR 5,155 million (2015: 8,202) and the total amount of committed credit facilities amounted to EUR 1,963 million (2015: 2,215) of which EUR 1,963 million (2015: 2,215) was undrawn.

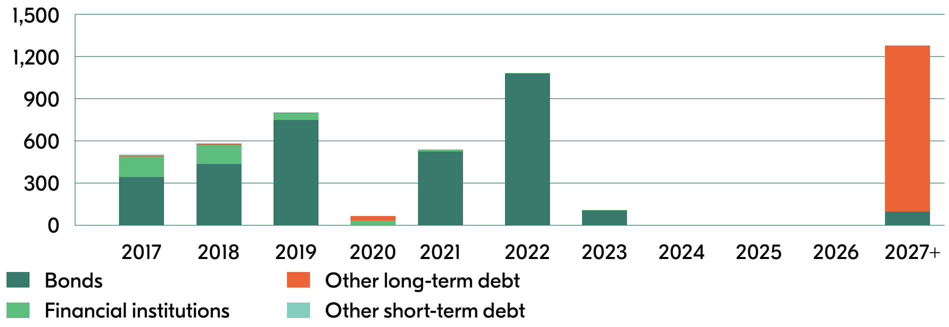
Maturity of interest-bearing liabilities

EUR million	2016
2017	639
2018	582
2019	803
2020	69
2021	539
2022 and later	2,475
Total	**5,107**

Liquid funds, major credit lines and debt programmes 2016

EUR million	Total facility	Drawn amount	Available amount
Liquid funds			
Cash and cash equivalents			1,679
Deposits and securities over 3 months			3,475
Total			**5,155**
of which in Russia (OAO Fortum)			105
Committed credit lines			
EUR 1,750 million syndicated credit facility	1,750	-	1,750
Bilateral overdraft facilities	213	-	213
Total	**1,963**	**-**	**1,963**
Debt programmes (uncommitted)			
Fortum Corporation, CP programme EUR 500 million	500	-	500
Fortum Corporation, CP programme SEK 5,000 million	523	-	523
Fortum Corporation, EMTN programme EUR 8,000 million	8,000	3,329	4,671
Total	**9,023**	**3,329**	**5,694**

Loan maturities per loan type, EUR million



In addition Fortum has received EUR 135 million based on Credit Support Annex agreements with several counterparties.

This amount has been booked as a short-term liability. See also *Note 28* Interest bearing liabilities.

Liquid funds, major credit lines and debt programmes 2015

EUR million	Total facility	Drawn amount	Available amount
Liquid funds			
Cash and cash equivalents			3,289
Bank deposits over 3 months			4,913
Total			**8,202**
of which in Russia (OAO Fortum)			76
Committed credit lines			
EUR 2,000 million syndicated credit facility	2,000	-	2,000
Bilateral overdraft facilities	215	-	215
Total	**2,215**	**-**	**2,215**
Debt programmes (uncommitted)			
Fortum Corporation, CP programme EUR 500 million	500	-	500
Fortum Corporation, CP programme SEK 5,000 million	544	-	544
Fortum Corporation, EMTN programme EUR 8,000 million	8,000	4,094	3,906
Total	**9,044**	**4,094**	**4,950**

Liquid funds amounted to EUR 5,155 million (2015: 8,202), including OAO Fortum's bank deposits amounting to EUR 103 million (2015: 72).

See also *Note 25* Liquid funds.

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42

Maturity analysis of interest-bearing liabilities and derivatives

Amounts disclosed below are non-discounted expected cash flows (future interest payments and amortisations) of interest-bearing liabilities and interest rate and currency derivatives.

	2016				2015			
EUR million	Under 1 year	1–5 years	Over 5 years	Total	Under 1 year	1–5 years	Over 5 years	Total
Interest-bearing liabilities	765	2,307	2,601	5,673	1,208	2,412	3,168	6,788
Interest rate and currency derivatives liabilities	2,255	1,119	20	3,394	2,879	1,286	66	4,231
Interest rate and currency derivatives recievables	-2,131	-1,291	-27	-3,449	-3,026	-1,438	-80	-4,544
Total	889	2,136	2,594	5,619	1,061	2,260	3,154	6,475

Interest-bearing liabilities include loans from the State Nuclear Waste Management Fund and Teollisuuden Voima Oyj of EUR 1,094 million (2015: 1,074). These loans are renewed yearly and the related interest payments are calculated for ten years in the table above.

For further information regarding loans from the State Nuclear Waste Management Fund and Teollisuuden Voima Oyj, see ▶ *Note 30* Nuclear related assets and liabilities.

3.6 Interest rate risk and currency risk

3.6.1 Interest rate risk

Fortum risk policy states that the average duration of the debt portfolio shall always be kept within a range of 12 and 36 months and that the flow risk i.e. changes in interest rates shall not affect the net interest payments of the Group by more than EUR 50 million for the next rolling 12-month period. Within these mandates, strategies are evaluated and developed in order to find an optimal balance between risk and financing cost.

On 31 December 2016, the average duration of the debt portfolio (including derivatives) was 1.7 years (2015: 2.0). Approximately 59% (2015: 54%) of the debt portfolio was on a floating rate basis or fixed rate loans maturing within the next 12-month period. The effect of one percentage point change in interest rates on the present value of the debt portfolio was EUR 87 million on 31 December 2016 (2015: 117). The flow risk, measured as the difference between the base case net interest cost estimate and the worst-case scenario estimate for Fortum's debt portfolio for the coming 12 months, was EUR 3 million (2015: 6).

The average interest rate for the portfolio consisting mainly of EUR and SEK loans was 2.1% at the balance sheet date (2015: 2.6%). Part of the external loans EUR 805 million (2015: 641) have been swapped to RUB and the average interest cost for these loans, including cost for hedging the RUB, was 11.4% at the balance sheet date (2015: 12.8%). The average interest rate on loans and derivatives on 31 December 2016 was 3.5% (2015: 3.7%). Average cumulative interest rate on loans and derivatives for 2016 was 3.5% (2015: 3.9%).

The average interest rate on deposits and securities excluding Russian deposits on 31 December 2016 was -0.01% (2015: 0.1%). Liquid funds held by OAO Fortum amounted to EUR 105 million (Dec 31 2015: 76) and the average interest rate for this portfolio was 9.0% at the balance sheet date.

3.6.2 Currency risk

Fortum's policy is to hedge major transaction exposures to avoid exchange differences in the profit and loss statement. These exposures are mainly hedged with forward contracts.

Translation exposures in the Fortum Group are generally not hedged as the majority of these assets are considered to be long-term strategic holdings. In Fortum this means largely entities operating in Sweden, Russia, Norway and Poland, whose base currency is not euro.

The currency risk relating to transaction exposures is measured using Value-at-Risk (VaR) for a one-day period at 95% confidence level. Translation exposures relating to net investments in foreign entities are measured using a five-day period at 95% confidence level. The limit for transaction exposure is VaR EUR 5 million. On 31 December 2016 the open transaction and translation exposures were EUR 2 million (2015: 0) and EUR 7,213 million (2015: 7,292) respectively. The VaR for the transaction exposure was EUR 0 million (2015: 0) and VaR for the translation exposure was EUR 96 million (2015: 130).

Group Treasury's transaction exposure

	2016			2015		
EUR million	Net position	Hedge	Open	Net position	Hedge	Open
RUB	677	-677	0	477	-477	0
SEK	532	-531	1	81	-81	0
PLN	226	-226	0	165	-165	0
NOK	-72	72	0	-71	71	0
INR	116	-116	0	-	-	-
USD	-98	98	0	-36	36	0
Other	-20	20	0	-19	19	0
Total	1,361	-1,359	2	597	-597	0

Transaction exposure is defined as already contracted or forecasted foreign exchange dependent items and cash flows. Transaction exposure is divided into balance sheet exposure and cash flow exposure. Balance sheet exposure reflects currency denominated assets and liabilities for example loans, deposits and accounts receivable/payable in currencies other than the company's base currency. Cash flow exposure reflects future forecasted or contracted currency flows in foreign currency deriving from business activities such as sales, purchases or investments. Net conversion differences from transaction exposure are entered under financial income or expense when related to financial items or when related to accounts receivable/payable entered under items included in operating profit. Conversion differences related to qualifying cash flow hedges are deferred to equity.

Fortum's policy is to hedge balance sheet exposures in order to avoid exchange rate differences in the income statement. The Group's balance sheet exposure mainly relates to financing of non-euro subsidiaries and the fact that the Group's main external financing currency is EUR. For derivatives hedging this balance exposure Fortum does not apply hedge accounting, because they have a natural hedge in the income statement.

Contracted cash flow exposures shall be hedged to reduce volatility in future cash flows. These hedges normally consist of currency derivative contracts, which are matched against the underlying future cash flow according to maturity. Fortum has currency cash flow hedges both with and without hedge accounting treatment under IFRS. Those currency cash flow hedges, which do not qualify for hedge accounting are mainly hedging electricity derivatives. Unrealised hedges create volatility in the operating profit.

Group Treasury's translation exposure

	2016			2015		
EUR million	Net Investment	Hedge	Open	Net Investment	Hedge	Open
RUB	2,603	-132	2,471	1,997	-167	1,830
SEK	4,747	-837	3,910	5,390	-471	4,919
NOK	410	-	410	337	-	337
PLN	282	-	282	162	-	162
Other	141	-	141	45	-	45
Total	**8,183**	**-970**	**7,213**	**7,930**	**-638**	**7,292**

Translation exposure position includes net investments in foreign subsidiaries and associated companies. On consolidation, exchange differences arising from the translation of the net investment in foreign entities are taken to equity. The net effect of exchange differences on equity attributable to equity holders mainly from RUB and SEK was EUR 335 million in 2016 (2015: -188). Part of this translation exposure has been hedged and the foreign currency hedge result amounted to EUR 5 million in 2016 (2015: 8).

Interest rate and currency derivatives by instrument 2016

	Notional amount				Fair value		
	Remaining lifetimes						
EUR million	Under 1 year	1–5 years	Over 5 years	Total	Positive	Negative	Net
Forward foreign exchange contracts	6,443	252		6,695	26	130	-103
Interest rate swaps	259	2,718	1,105	4,082	269	127	142
Interest rate and currency swaps	29	800		829	71	5	66
Total	**6,731**	**3,770**	**1,105**	**11,606**	**366**	**261**	**105**
Of which long-term					343	121	222
Of which short-term					23	140	-117

Interest rate and currency derivatives by instrument 2015

	Notional amount				Fair value		
	Remaining lifetimes						
EUR million	Under 1 year	1–5 years	Over 5 years	Total	Positive	Negative	Net
Forward foreign exchange contracts	8,777	295	-	9,072	81	13	68
Interest rate swaps	1,050	2,213	1,934	5,197	303	162	141
Interest rate and currency swaps	417	827	-	1,244	167	9	158
Total	**10,244**	**3,335**	**1,934**	**15,513**	**551**	**184**	**367**
Of which long-term					369	152	217
Of which short-term					182	32	150

3.7 Credit risk

Fortum is exposed to credit risk whenever there is a contractual obligation with an external counterparty.

Credit risk exposures relating to financial derivative instruments are often volatile. Although the majority of commodity derivatives are cleared through exchanges, derivatives contracts are also entered into directly with external counterparties. Such contracts are limited to high-credit-quality counterparties active on the financial or commodity markets. Currency and interest rate derivative counterparties are limited to investment grade banks and financial institutions. ISDA Master agreements, which include netting clauses and in some cases Credit Support Annex agreements, are in place with most of these counterparties. Commodity derivative counterparties are limited to those considered of high creditworthiness. Master agreements, such as ISDA, FEMA and EFET, which include netting clauses, are in place with the majority of the counterparties.

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42

Due to the financing needs and management of liquidity, Fortum has counterparty credit exposure to a number of banks and financial institutions. This includes exposure to the Russian financial sector in terms of deposits with financial institutions as well as to banks that provide guarantees for suppliers and contracting parties. Deposits in Russia have been concentrated to the most creditworthy state-owned or controlled banks. Limits with banks and financial institutions are monitored so that exposures can be adjusted as ratings or the financial situation changes, and Fortum is following the development of economic sanctions against Russia as part of the monitoring process.

Credit risk relating to customers is spread across a wide range of industrial counterparties, small businesses and private individuals over a range of geographic regions. The majority of exposure is to the Nordic market, Poland and Russia. The risk of non-payment in the electricity and heat sales business in Russia is higher than in the Nordic market.

3.7.1 Credit quality of major financial assets

Amounts disclosed below are presented by counterparties for interest-bearing receivables including bank deposits and derivative financial instruments recognised as assets.

	2016		2015	
EUR million	Carrying amount	of which past due	Carrying amount	of which past due
Investment grade receivables				
Deposits, commercial papers and cash in bank accounts	4,663	-	7,521	-
Fair values of interest rate and currency derivatives	366	-	549	-
Fair values of electricity and other commodity derivatives	5	-	17	-
Total investment grade receivables	**5,034**	**-**	**8,087**	**-**
Energy exchange receivables				
Fair value of derivatives on NASDAQ OMX Commodities Europe	61	-	52	-
Fair value of derivatives on European Energy Exchange AG	1	-	-	-
Total energy exchange receivables	**62**	**-**	**52**	**-**
Associated companies and joint venture receivables				
Loan receivables	886	-	773	-
Fair values of interest rate and currency derivatives	0	-	1	-
Fair values of electricity and other commodity derivatives	14	-	38	-
Total associated companies and joint venture receivables	**900**	**-**	**812**	**-**
Other receivables				
Investments in commercial papers	275	-	563	-
Russian deposits with non-investment grade banks	103	-	65	-
Restricted cash mainly given as collateral for commodity exchanges	360	-	0	-
Divested shares of OOO Tobolsk	131	-	0	-
Loan and other interest bearing receivables	3	-	1	-
Fair values of electricity and other commodity derivatives	96	-	205	-
Total other receivables	**968**	**-**	**834**	**-**
Total	6,964	-	9,785	-

The following tables indicate how bank deposits, commercial papers and fair values of derivatives are distributed by rating class.

Deposits and Securities

EUR million	2016	2015
Counterparties with external credit rating from Standard & Poor's and/or Moody's Investment grade ratings		
AAA	-	-
AA+/AA/AA-	995	1,201
A+/A/A-	3,437	4,820
BBB+/BBB/BBB-	231	1,501
Total investment grade ratings	4,663	7,521
BB+/BB/BB-	103	92
B+/B/B-	-	-
Below B-	-	-
Non-investment grade ratings	103	92
Counterparties without external credit rating from Standard & Poor's and/or Moody's		
Government or municipality	-	34
Fortum Rating 5 - Lowest Risk	275	301
Fortum Rating 4 - Low Risk	-	114
Fortum Rating 3 - Normal Risk	-	83
Fortum Rating 2 - High Risk	-	-
Fortum Rating 1 - Highest Risk	-	-
No rating	-	4
Total non-rated counterparties	275	536
Total	5,040	8,149

In addition, cash in other bank accounts totalled EUR 115 million on 31 December 2016 (2015: 53). See ▸ *Note 25* Liquid funds.

Interest rate and currency derivatives

	2016		2015	
EUR million	Receivables	Netted amount [1]	Receivables	Netted amount [1]
Counterparties with external credit rating from Standard & Poor's and/or Moody's Investment grade ratings				
AAA	-	-	-	-
AA+/AA/AA-	11	-	66	21
A+/A/A-	259	76	353	133
BBB+/BBB/BBB-	96	31	131	28
Total investment grade ratings	366	107	549	182
Total associated companies and joint ventures	0	0	1	1
Counterparties without external credit rating from Standard & Poor's and/or Moody's	0	0	-	-
Total	366	107	551	183

1) The netted amount includes the cash received in accordance with Credit Support Annex agreements EUR 135 million (2015: 202).

Electricity, coal, gas and oil derivatives and CO_2 emission allowances treated as derivatives

	2016		2015	
EUR million	Receivables	Netted amount	Receivables	Netted amount
Counterparties with external credit rating from Standard & Poor's and/or Moody's Investment grade ratings				
AAA	-	-	-	-
AA+/AA/AA-	0	0	0	0
A+/A/A-	4	3	13	5
BBB+/BBB/BBB-	1	0	4	2
Total investment grade ratings	5	3	17	7
Non-investment grade ratings				
BB+/BB/BB-	1	0	7	7
B+/B/B-	-	-	-	-
Below B-	-	-	-	-
Total non-investment grade ratings	1	0	7	7
Total associated companies and joint ventures	14	7	38	19

EUR million	2016 Receivables	2016 Netted amount	2015 Receivables	2015 Netted amount
Counterparties without external credit rating from Standard & Poor's and/or Moody's				
Government or municipality	0	0	1	1
Fortum Rating 5 - Lowest risk	34	28	54	51
Fortum Rating 4 - Low risk	39	29	76	71
Fortum Rating 3 - Normal risk	22	19	67	65
Fortum Rating 2 - High risk	0	0	0	0
Fortum Rating 1 - Highest risk	0	0	0	0
No rating	0	0	0	0
Total non-rated counterparties	95	77	198	188
Total	115	87	260	221

For derivatives, the receivable is the sum of the positive fair values, i.e. the gross amount. Netted amount includes negative fair values where a valid netting agreement is in place with the counterparty. When the netted amount is less than zero, it is not included. In cases where a parent company guarantee is in place, the exposure is shown on the issuer of the guarantee.

All counterparties for currency and interest rate derivatives and the majority of counterparties for bank deposits have an external rating from Standard & Poor's and/or Moody's credit agencies. The above rating scale is for Standard & Poor's rating categories. For those counterparties only rated by Moody's, the rating has been translated to the equivalent Standard and Poor's rating category. For counterparties rated by both Standard & Poor's and Moody's, the lower of the two ratings is used.

In the commodity derivatives and commercial paper market, there are a number of counterparties not rated by Standard & Poor's or Moody's. For these counterparties, Fortum assigns an internal rating. The internal rating is based on external credit ratings from other credit agencies. The rating from Soliditet is used for Finnish, Norwegian and Swedish counterparties and for other counterparties the rating from Dun & Bradstreet is used. Governments and municipal companies are typically not rated, and are shown separately. This rating category does not include companies owned by governments or municipalities. Counterparties that have not been assigned a rating by the above listed credit agencies are in the "No rating" category.

4 Capital risk management

Fortum wants to have a prudent and efficient capital structure which at the same time allows the implementation of its strategy. Maintaining a strong balance sheet and the flexibility of the capital structure is a priority. The Group monitors the capital structure based on Comparable net debt to EBITDA ratio. Net debt is calculated as interest-bearing liabilities minus liquid funds. EBITDA is calculated by adding back depreciation and amortisation to operating profit, whereas Comparable EBITDA is calculated by deducting items affecting comparability and the net release of CSA provision from EBITDA. Fortum's comparable net debt to EBITDA target is around 2.5.

The dividend policy ensures that shareholders receive a fair remuneration for their entrusted capital, supported by the company's long-term strategy that aims at increasing earnings per share and thereby the dividend. When proposing the dividend, the Board of Directors looks at a range of factors, including the macro environment, balance sheet strength as well as future investment plans. Fortum Corporation's target is to pay a stable, sustainable and over time increasing dividend, in the range of 50–80% of earnings per share, excluding one-off items.

Fortum's long-term credit ratings were unchanged. Standard & Poor's rating is BBB+ and the short-term rating A-2. The outlook is stable. Fitch Ratings long-term Issuer Default Rating (IDR) and senior unsecured rating is BBB+ and the short-term IDR is F2 with a stable outlook.

Net debt/EBITDA ratios

EUR million	Note	2016	2015
Interest-bearing liabilities	28	5,107	6,007
BS Less: Liquid funds	25	5,155	8,202
Net debt		-48	-2,195
Operating profit		633	4,245
Add: Depreciation and amortisation		373	395
EBITDA, total Fortum		1,006	4,640
Less: Items affecting comparability		-11	3,323
Less: Net release of CSA provision		2	52
Comparable EBITDA, total Fortum		1,015	1,265
Comparable net debt/EBITDA, total Fortum		0.0	-1.7

5 Segment reporting

ACCOUNTING POLICIES

REVENUE RECOGNITION

Revenue comprises the fair value consideration received or receivable at the time of delivery of products and/or upon fulfilment of services. Revenue is shown net of rebates, discounts, value-added tax and selective taxes such as electricity tax. Revenue is recognised as follows:

SALE OF ELECTRICITY, HEAT, COOLING AND RECYCLED MATERIALS

Sale of electricity, heat and cooling as well as sale of recycled materials is recognised at the time of delivery. The sale to industrial and commercial customers and to end-customers is recognised based on the value of the volume supplied, including an estimated value of the volume supplied to customers between the date of their last meter reading and year-end.

Physical energy sales and purchase contracts are accounted for on accrual basis based on expected purchase, sale and usage requirements.

CONNECTION FEES

Fees paid by the customer when connected to the gas, heat or cooling network are recognised as income to the extent that the fee does not cover future commitments. If the connection fee is linked to the contractual agreement with the customer, the income is recognised over the period of the agreement with the customer.

Fees paid by the customer when connected to district heating network in Finland were refundable until 2013. These connection fees have not been recognised in the income statement and are included in other liabilities in the balance sheet.

SALE OF WASTE TREATMENT SERVICES

Revenue from waste treatment services is recognised over time, when the underlying treatment is performed.

CONTRACT REVENUE

Contract revenue is recognised under the percentage of completion method to determine the appropriate amount to recognise as revenue and expenses in a given period. The stage of completion is measured by reference to the contract costs incurred up to the closing date as a percentage of total estimated costs for each contract.

NETTING AND INTER-SEGMENT TRANSACTIONS

Generation segment sells its production to Nord Pool and Electricity Sales in City Solutions buys its electricity from Nord Pool. Eliminations of sales include eliminations of sales and purchases with Nord Pool that are netted on group level on an hourly basis and posted either as revenue or cost depending on if Fortum is a net seller or net buyer during any particular hour. Inter-segment sales, expenses and results for the different business segments are affected by intra-group deliveries, which are eliminated on consolidation. Inter-segment transactions are based on commercial terms.

5.1 Fortum's business structure

Fortum has reorganised its operating structure as of 1 April 2016. The business divisions are: Generation (mainly the former Power and Technology); City Solutions (mainly the former Heat, Electricity Sales and Solutions); Russia, and Other, which includes the two development units, M&A and Solar & Wind Development, Technology and New Ventures as well as the shareholding in the associated company Hafslund ASA and corporate functions.

5.2 Segment structure in Fortum

Fortum discloses segment information in a manner consistent with internal reporting to Fortum's Board of Directors and to Fortum Executive Management led by the President and CEO. Fortum has segments based on type of business operations, combined with one segment based on geographical area. After the reorganisation of operations, Fortum's reportable segments under IFRS are the business divisions Generation, City Solutions and Russia. Because of the minor financial impact of the reorganisation, the comparable segment information for 2015 has not been restated. Swedish Distribution business was sold in 2015 and after that the Distribution segment was treated as discontinued operations. As Discontinued operations are disclosed on one line, the segment information presented in this note relates to the continuing operations only and thus excludes discontinued operations. That information is presented in ▶ *Note 14* Discontinued operations.

5.3 Definitions for segment information

Fortum's segment information discloses the financial measurements used in financial target setting and forecasting, management's follow up of financial performance and allocation of resources in the group's performance management process. These measurements, such as Comparable operating profit and Comparable return on net assets, have been used consistently since 2005.

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42

Items affecting comparability are disclosed separately in Fortum's income statement to support the understanding of business performance when comparing results between periods. Items classified as Items affecting comparability include accounting effects from valuation according to IFRS that are not arising from the performance of the business operations. Such items include fair valuation of financial derivatives hedging future cash-flows where hedge accounting is not applied according to IAS 39 and effects from the accounting of Fortum's part of the Finnish Nuclear Waste Fund where the asset in the balance sheet cannot exceed the related provisions according to IFRIC interpretation 5.

The business performance of the operations cannot be compared from one period to another without adjusting for one-time items relating to capital gains, major impairment related items and transaction costs arising from acquisitions. Therefore such items have also been treated as Items affecting comparability. From 2016 onwards transaction costs arising from acquisitions are included in capital gains and other within items affecting comparability. According to IFRS 3 (revised) transaction costs are recognised in the income statement.

Consolidation by segment is based on the same principles as for the Group as a whole. See definition of the segment information in ▸ *Definitions of key figures*.

Below is the description of the reportable segments:

Group

Divisions

Generation	City Solutions	Russia
		

Reporting segments

Generation	City Solutions	Russia
Generation is responsible for Nordic power production. The segment comprises nuclear, hydro and thermal power production, portfolio management, and trading and industrial intelligence as well as nuclear services globally.	City Solutions is responsible for developing sustainable city solutions into a growing business for Fortum. The segment comprises heating and cooling, waste-to-energy, biomass and other circular economy solutions, as well as electricity sales and services. The business operations are located in the Nordics, the Baltic countries and Poland. The segment also includes Fortum's 50% holding in Fortum Värme, which is a joint venture and is accounted for using the equity method.	Russia segment comprises power and heat generation and sales in Russia. The segment also includes Fortum's over 29% holding in TGC-1, which is an associated company and is accounted for using the equity method.

5.4 Segment information

Income statement

		Generation [1]		City Solutions [1]		Russia		Other		Total	
EUR million	Note	2016	2015	2016	2015	2016	2015	2016	2015	2016	2015
External sales		1,643	1,639	1,429	1,200	896	893	49	39	4,016	3,771
Internal sales		15	83	-5	-13	0	0	72	75	82	145
Netting of Nord Pool transactions [2]										-384	-336
Eliminations [2]										-82	-122
IS Sales		**1,657**	**1,722**	**1,424**	**1,187**	**896**	**893**	**121**	**114**	**3,632**	**3,459**
Comparable EBITDA		**527**	**680**	**238**	**209**	**312**	**267**	**-61**	**-53**	**1,015**	**1,102**
Net release of CSA provision	31					2	52			2	52
IS Depreciation and amortisation		-110	-118	-126	-101	-123	-117	-15	-10	-373	-346
IS Comparable operating profit		**417**	**561**	**112**	**108**	**191**	**201**	**-76**	**-63**	**644**	**808**
Impairment charges	6	27	-915	0	-3	0	0	0	0	27	-918
Capital gains and other	6	1	18	0	3	35	1	2	0	38	22
Changes in fair values of derivatives hedging future cash-flow	6, 8	-96	-76	33	-4	0	1	-2	1	-65	-78
Nuclear fund adjustment	6, 30	-11	16							-11	16
IS Items affecting comparability	6	-79	-958	33	-3	35	2	0	1	-11	-958
IS Operating profit		**338**	**-396**	**145**	**105**	**226**	**203**	**-76**	**-62**	**633**	**-150**
IS Share of profit of associated companies and joint ventures	20, 30	-34	-111	76	59	38	32	51	40	131	20
IS Finance costs - net										-169	-175
IS Income taxes										-90	78
IS Profit for the year										**504**	**-228**

1) Sales, both internal and external, include effects from realised hedging contracts. Effect on sales can be negative or positive depending on the average contract price and realised spot price.

2) Netting and eliminations include eliminations of internal sales for continuing operations and netting of Nord Pool transactions. Sales and purchases with Nord Pool, EUR -384 million, are netted on Group level on an hourly basis and posted either as revenue or cost depending on if Fortum is a net seller or net buyer during any particular hour.

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42

Assets and liabilities

	Generation		City Solutions		Russia		Other		Total	
EUR million	2016	2015	2016	2015	2016	2015	2016	2015	2016	2015
Non-interest-bearing assets	6,206	6,391	2,948	1,929	2,967	2,347	321	135	12,442	10,802
BS Participations in associated companies and joint ventures	711	758	573	559	436	316	392	346	2,112	1,979
Eliminations									-28	-43
Total segment assets	6,917	7,150	3,521	2,488	3,402	2,663	713	481	14,526	12,738
Interest-bearing receivables									1,380	773
BS Deferred tax assets									66	80
Other assets									838	974
BS Liquid funds									5,155	8,202
Total assets									21,964	22,767
Segment liabilities	1,102	1,219	469	306	119	102	223	222	1,913	1,849
Eliminations									-28	-43
Total segment liabilities									1,885	1,806
BS Deferred tax liabilities									616	483
Other liabilities									814	608
Total liabilities included in capital employed									3,315	2,898
Interest-bearing liabilities									5,107	6,007
BS Total equity									13,542	13,863
Total equity and liabilities									21,964	22,767

Investments/Divestments

		Generation		City Solutions		Russia		Other		Total	
EUR million	Note	2016	2015	2016	2015	2016	2015	2016	2015	2016	2015
Gross investments in shares	20, 40	7	16	815	23	0	0	22	4	844	43
Capital expenditure	18, 19	196	187	112	105	201	285	83	6	591	582
of which capitalised borrowing costs		3	3	1	0	10	41	2	0	16	44
Gross divestments of shares	40	0	0	34	27	127	0	0	0	161	27

Comparable return on net assets

	Comparable net assets by segments, EUR million		Comparable return on net assets, %	
	2016	2015	2016	2015
Generation	5,815	5,931	6.9	9.5
City Solutions	3,052	2,182	7.5	7.9
Russia	3,284	2,561	8.0	8.2
Other	489	258	-6.4	-8.5

Fortum is disclosing Comparable net assets instead of Net assets from 2016 onwards.

Employees

	Generation		City Solutions		Russia		Other		Total	
	2016	2015	2016	2015	2016	2015	2016	2015	2016	2015
Number of employees 31 Dec	979	1,341	2,314	1,417	3,745	4,126	1,070	951	8,108	7,835
Average number of employees	1,064	1,389	2,043	1,458	3,814	4,180	1,073	983	7,994	8,009

5.5 Group-wide disclosures

The Group's operating segments operate mainly in the Nordic countries, Russia, Poland and other parts of the Baltic Rim area. Generation operates mainly in Finland and Sweden, whereas City Solutions operates in all of these geographical areas except Russia. Other countries are mainly Latvia and Lithuania. The home country is Finland.

The information below is disclosing sales by product area as well as sales by the country in which the customer is located. Assets, capital expenditure and personnel are reported where the assets and personnel are located. Participations in associates and joint ventures are not divided by location since the companies concerned can have business in several geographical areas.

External sales by product area

EUR million	2016	2015
Power sales excluding indirect taxes	2,587	2,582
Heating sales	648	651
Other sales	398	226
IS Total	**3,632**	**3,459**

Heating sales include sale of delivered heat and transmission of heat.

Due to the large number of customers and the variety of its business activities, there is no individual customer whose business volume is material compared with Fortum's total business volume.

Sales by market area based on customer location

EUR million	2016	2015
Nordic	2,258	2,172
Russia	899	895
Poland	355	213
Estonia	61	75
Other countries	59	103
IS Total	**3,632**	**3,459**

The Nordic power production is not split by countries since Nordic power production is mainly sold through Nord Pool.

Capital expenditure by location

EUR million	2016	2015
Finland	173	156
Sweden	91	87
Russia	201	285
Poland	59	37
Estonia	11	11
Other countries	56	7
Total	**591**	**582**

Segment assets by location

EUR million	2016	2015
Finland	3,958	3,051
Sweden	4,341	4,559
Russia	2,967	2,347
Poland	513	350
Estonia	196	196
Other countries and eliminations	439	256
Non-interest bearing assets	**12,414**	**10,759**
BS Participations in associates and joint ventures	2,112	1,979
Total	**14,526**	**12,738**

Number of employees on 31 December by location

	2016	2015
Finland	2,029	1,959
Sweden	724	618
Russia	3,745	4,126
Poland	894	586
Estonia	201	214
Other countries	515	332
Total	**8,108**	**7,835**

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42

6 Items affecting comparability

EUR million	2016	2015
Impairment charges	27	-918
Capital gains and other	38	22
Changes in fair values of derivatives hedging future cash flow	-65	-78
Nuclear fund adjustments	-11	16
IS Total	-11	-958

Items affecting comparability are not included in Comparable operating profit. Comparable operating profit is presented to better reflect the Group's business performance when comparing results for the current period with previous periods. Items affecting comparability are disclosed separately in Fortum's income statement as it is deemed necessary for the purposes of understanding the financial performance when comparing the results.

Impairment charges and capital gains

EUR million	Segment	Country	2016	2015
Impairment charges				
Impact from early closure of units 1 and 2 in OKG AB	Generation	Sweden	22	-794
Teollisuuden Voima Oyj's decision to discontinue the Olkiluoto 4 project	Generation	Finland		-15
Dismantling provision for the Finnish coal-fired power plant Inkoo and impairment loss for Fortum's share of the Finnish coal-fired power plant Meri-Pori and other related items	Generation	Finland	5	-106
Other impairment charges	City Solutions			-3
Total			27	-918
Capital gains and other				
OOO Tobolsk CHP, subsidiary	Russia	Russia	35	
AS Eesti Gaas, 51% ownership	City Solutions	Estonia	11	
Transaction costs from Ekokem acquisition	City Solutions	Finland	-12	
Other non-recurring items			4	22
Total			38	22

Fair value changes on derivatives

Changes in the fair values of financial derivative instruments hedging future cash flows that do not qualify for hedge accounting are recognised in items affecting comparability. This is done to improve the understanding of the financial performance when comparing results from one period to another.

Nuclear waste management fund adjustment

Nuclear fund adjustment includes effects from the accounting principle of Fortum's part of the State Nuclear Waste Management Fund where the assets in the balance sheet cannot exceed the nuclear related provisions according to IFRIC 5. As long as the Fund is overfunded from an IFRS perspective, the effects to the operating profit from this adjustment will be positive if the provisions increase more than the Fund and negative if actual value of the fund increases more than the provisions.

For more information regarding disposals of shares, see ▸ *Note 40* Acquisitions and disposals.

For more information regarding impact from early closure of units 1 and 2 in OKG AB, see ▸ *Note 7* Effects from early closure of nuclear units in Sweden.

For more information regarding fair value changes of derivatives, see ▸ *Note 8* Fair value changes of derivatives and underlying items in income statement

For more information regarding nuclear waste management, see ▸ *Note 30* Nuclear related assets and liabilities.

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7 Effects from early closure of nuclear units in Sweden

The financial impacts of the decision made in the Extraordinary shareholder's meeting of OKG AB (OKG) on 14 October 2015 to close early units 1 and 2 in Oskarshamn are recognised as Impairment charges, included in Items affecting comparability. E.ON is the majority owner of OKG and E.ON did unilaterally decide on the closing of units. The closing process will take several years and Fortum will monitor the impacts.

OKG is a non-profit making company and sells produced electricity at production costs to its owners in proportion to the ownership. OKG is funded entirely by its shareholders. Fortum's part of the funding is recognised as long-term interest bearing receivables, which are increased when OKG needs additional funds and decreased when OKG invoices Fortum for the produced electricity.

OKG's impairment charges in Fortum's income statement

EUR million	2016	2015
Comparable operating profit	**0**	**0**
Items affecting comparability - Impairment charges	22	-794
Operating profit	**22**	**-794**
Share of profit/loss of associates and joint ventures	0	-116
Profit before income tax	**22**	**-910**
Income tax expenses	-5	175
Profit for the period from continuing operations	**17**	**-735**
Attributable to:		
Owners of the parent	17	-729
Non-controlling interests	0	-5

Earnings per share effect was EUR -0.82 per share in 2015.

In 2016 OKG updated the provisions made in 2015 resulting a positive impact of EUR 22 million included in items affecting comparability for 2016.

Items affecting comparability for 2015 included EUR -566 million which mainly relates to write-down of existing assets in OKG and a provision of EUR -228 million, which relates to additional future costs due to the early closure of units 1 and 2 as well as to future committed investments. These future costs and investments will have an impact on Fortum's net cash when they occur. The total amount of EUR -794 million was netted against the shareholder loans to OKG. The main part of the netted amount has already been invoiced to Fortum. The remaining part will be invoiced when the costs occur.

Share of profit/loss in associates and joint ventures includes the impairment of IFRS adjustments related to units 1 and 2 for OKG in Fortum's consolidated financial statements, mainly related to write-down of asset retirement obligations and capitalised borrowing costs. These adjustments are recognised net of taxes. The asset retirement obligation represents the future costs for decommissioning of the nuclear power plant. The initial net present value of the provision for decommissioning (at the time of commissioning the nuclear power plant) has been included in the investment cost and is depreciated over the estimated operating time of the nuclear power plant.

Income tax expenses relates to the items affecting comparability.

8 Fair value changes of derivatives and underlying items in income statement

Fair value changes in operating profit presented below are arising from financial derivatives hedging future cash flows where hedge accounting is not applied according to IAS 39 and the ineffectiveness from cash flow hedges.

Fair value changes of currency derivatives in net financial expenses are arising mainly from balance sheet hedges without hedge accounting status according to IAS 39, because they are natural hedges of loans and receivables. Fair value change of interest rate hedges without hedge accounting is EUR -9 million (2015: -9). The net effect of fair value changes of hedging derivative and hedged bonds are EUR 0 million (2015: 0).

EUR million	2016	2015
In operating profit		
Fair value changes from derivatives not getting hedge accounting status		
Electricity derivatives	-43	-69
Currency derivatives	2	-6
Coal, gas and CO_2 derivatives	-2	-5
Ineffectiveness from cash flow hedges	-23	0
Total effect in operating profit	**-65**	**-79**
In finance costs		
Exchange gains and losses on loans and receivables	143	-50
Fair value changes of derivatives not getting hedge accounting status		
Cross currency interest rate derivatives	12	-12
Foreign currency derivatives	-156	63
Rate difference on forward contracts	7	-9
Currency derivatives	-137	42
Interest rate derivatives	-9	-9
Fair value change of hedging derivatives in fair value hedge relationship	11	-13
Fair value change of hedged items in fair value hedge relationship	-11	13
Total [1)	-146	33
Total effect in finance costs	**-3**	**-17**
Total effect on profit before income tax	**-68**	**-96**

1) Including fair value gains and losses on financial instruments and exchange gains and losses on derivatives.

9 Other income and other expenses

ACCOUNTING POLICIES

OTHER INCOME

Revenue from activities outside normal operations is reported in other income. This includes recurring items such as rental income and non-recurring items such as insurance compensation.

RESEARCH AND DEVELOPMENT COSTS

Research and development costs are recognised as expense as incurred and included in other expenses in the income statement. If development costs will generate future income, they are capitalised as intangible assets and depreciated over the period of the income streams.

9.1 Other income

EUR million	2016	2015
Rental income	11	10
Insurance compensation	2	1
Other items	22	26
IS Total	**34**	**38**

9.2 Other expenses

EUR million	2016	2015
Operation and maintenance costs	94	70
Property taxes	145	150
IT and telecommunication costs	51	54
Other items	195	203
IS Total	**485**	**477**

The major components recorded in other expenses are the external operation and maintenance costs of power and heat plants. Property taxes include taxes relating to directly owned hydropower production EUR 118 million (2015: 126). Other items includes expenses relating to properties and other operative expenses.

Principal auditors fees

EUR million	2016	2015
Audit fees	1.3	1.3
Audit related assignments	0.2	0.3
Tax assignments	0.0	0.0
Total	**1.5**	**1.6**

Deloitte & Touche Oy is the appointed auditor until the next Annual General Meeting, to be held in 2017. Audit fees include fees for the audit of the consolidated financial statements, review of the interim reports as well as the fees for the audit of Fortum Oyj and its subsidiaries. Audit related assignments include fees for assurance of sustainability reporting and other assurance and associated services related to the audit. Tax assignments include fees for tax advice services.

10 Materials and services

EUR million	2016	2015
Materials	1,216	958
Materials purchased from associated companies and joint ventures	540	513
Transmission costs	38	30
External services	37	15
IS Total	**1,830**	**1,515**

Materials consists mainly of coal, gas and nuclear fuels used for producing power and heat.

Materials purchased from associated companies consist of nuclear and hydropower purchased at production cost (including interest costs and production taxes) and purchased steam.

Total materials and services include production taxes EUR 141 million (2015: 133), of which nuclear related capacity and property taxes EUR 81 million (2015: 82) and hydro power related property taxes EUR 15 million (2015: 14). Taxes related to nuclear and hydro production include taxes paid through purchases from associated companies.

See ▶ *Note 20* Participations in associated companies and joint ventures.

11 Employee benefits

EUR million	2016	2015
Wages and salaries	248	246
Pensions		
Defined contribution plans	25	25
Defined benefit plans	4	5
Social security costs	38	42
Share-based incentives [1]	2	19
Other employee costs	17	15
IS Total	**334**	**351**

1) Share-based incentives decreased in 2016 due to the lower earnings outcome from settled plans as well as lower RUB rate. In 2015 share-based incentives included a one-time cost due to shortening of the accounting period over which the LTI costs are accrued. For more information see ▶ *11.2* Share-based long-term incentives below.

The compensation package for Fortum employees consists of salaries, fringe benefits, short-term incentives, profit sharing paid to the Personnel Fund and share-based long-term incentives.

The remuneration policy is determined by the Board of Directors. The Nomination and Remuneration Committee of the Board of Directors discusses, assesses and makes recommendations and proposals to the Board of Directors on the remuneration policy, remuneration of the President and CEO and the Fortum Executive Management and company-wide incentive arrangements for senior management and key personnel as well as monitors these plans annually. Additionally, the Committee contributes to the Group's nomination issues by proposing to the Board of Directors any nominations regarding the members of Fortum Executive Management.

For further information on pensions see ▶ *Note 32* Pension obligations.

11.1 Short-term incentives (STI)

Fortum's STI programme is designed to support the achievement of the company's financial and other relevant targets on an annual basis. All employees are covered by the programme or alternatively by a business specific or a comparable local variable pay arrangement.

The Board of Directors determines the performance criteria and award levels for the Fortum Executive Management. The target incentive opportunity is 20% and the maximum incentive opportunity is 40% of the annual base salary. The awards for the members of the Fortum Executive Management are based on the achievement of divisional targets, Group financial performance as well as individual targets. The performance criteria used are agreed upon in a performance discussion held at the beginning of the year. The Board of Directors assesses the performance of the President and CEO and the members of the Fortum Executive Management on a regular basis.

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1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42

Awards for other employees are based on a combination of Group, divisional, functional and personal targets. The targets are set in annual performance discussions held at the beginning of the year. Awards under the STI programme are paid solely in cash.

11.2 Share-based long-term incentives (LTI)

The purpose of Fortum's share-based long-term incentive programme is to support the delivery of sustainable, long-term performance, align the interests of management with those of shareholders and assist in committing and retaining key individuals.

Fortum's LTI programme provides participants with the opportunity to earn company shares. Subject to the decision of the Board of Directors, a new LTI plan commences annually. The Board of Directors approves the Fortum management members and key individuals entitled to participate in each annually commencing LTI plan. Participation in the LTI plan precludes the individual from being a member in the Fortum Personnel Fund.

Each LTI plan begins with a three-year earnings period, during which participants may earn share rights if the performance criteria set by the Board of Directors are fulfilled. If the minimum performance criteria are not exceeded, no shares will be awarded. If performance is exceptionally good and the targets approved by the Board of Directors are achieved, the combined gross value of all variable compensation cannot exceed 120% of the person's annual salary in any calendar year. After the earnings period has ended and the relevant taxes and other employment-related expenses have been deducted, participants are paid the net balance in the form of shares.

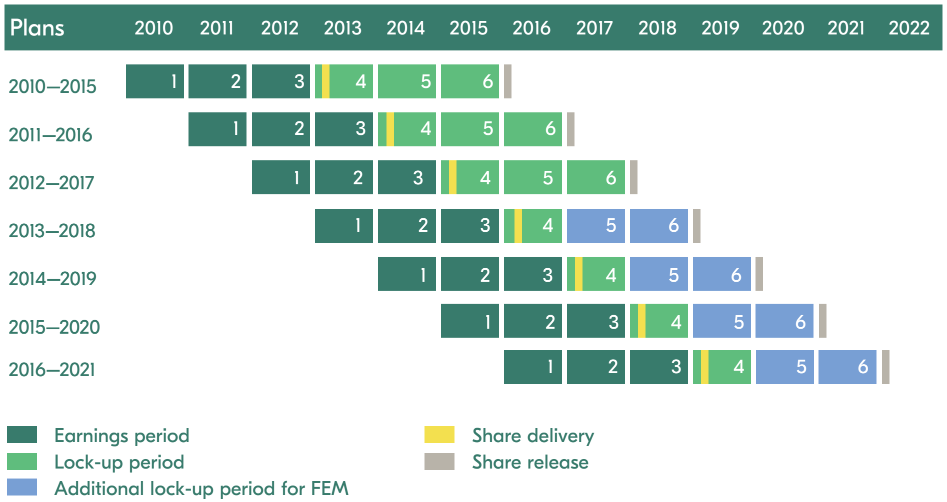
For LTI plans commencing in 2013 onwards, any shares awarded to Fortum Executive Management members are subject to a three-year lock-up period. Subject to a decision by the Board of Directors, the lock-up period can be reduced to one year for those Fortum Executive Management members whose aggregate ownership of Fortum shares is greater than or equal to their annual salary. For other participants the lock-up period is one year. For LTI plans commencing prior to 2013, the lock-up period is three years for all participants. The shares are released from the lock-up after publishing of the Company's financial results for the last calendar year of the lock-up period, provided that the participant remains employed by the Group. If the value of the shares decreases or increases during the lock-up period, the participant will carry the potential loss or gain.

The share plans under the LTI arrangement are accounted for as partly cash- and partly equity-settled arrangements. The portion of the earned reward that the participants receive in shares is accounted for as an equity settled transaction, and the portion of the earned reward settled in cash covering the tax and other charges, is accounted for as cash settled transaction. For participants receiving cash only, the total arrangement is accounted for as cash-settled transaction. The reward is recognised as an expense during the earning period with a corresponding increase in the liabilities and for the transactions settled in shares in the equity. The social charges related to the arrangement payable by the employer are accrued as a liability. The LTI liability including social charges at the end of the year 2016 was EUR 19 million (2015: 20), including EUR 5 million (2015: 5) recorded in equity.

The increase in the LTI costs for 2015 was mainly caused by an adjustment arising from the shortening of the accounting period as well as other smaller adjustments. Costs from the total plans were previously accrued over four or six-year period depending on the participant. In 2015 Fortum changed the accounting method and the LTI costs are allocated over three years. The terms of the LTI arrangements were not changed and the total cost for LTI plans was not increased. The change impacts only the allocation of costs over the years. The shorter accounting period allocates the costs more appropriately to the earning period.

At present, approximately 120 managers, all of whom have been elected by the Board of Directors, are participants in at least one of the six on-going annual LTI plans (plans 2011–2016, 2012–2017, 2013–2018, 2014–2019, 2015–2020 and 2016–2021).

Long-term incentive programme



Shares granted

	Plan 2013–2018	Plan 2012–2017	Plan 2011–2016
Grant date	12 Feb 2016	13 Feb 2015	14 Feb 2014
Grant price, EUR	12.18	19.96	16.62
Number of shares granted	152,200	126,515	101,753
Number of shares subsequently forfeited or released from lock-up	-9,877	-35,422	-51,003
Number of shares under lock-up at the end of the year 2016	142,323	91,093	50,750

In addition to the shares granted above, share rights have been granted to participants that will receive cash payments instead of shares after the lock-up period. The gross amount of share rights outstanding at the end of the year 2016 for plan 2013–2018 was 117,265, for plan 2012–2017 89,641 and for plan 2011–2016 53,495 share rights.

11.3 Fortum Personnel Fund

The Fortum Personnel Fund (for employees in Finland only) has been in operation since year 2000. The Board of Directors determines the criteria for the fund's annual profit-sharing bonus. Persons included in Fortum's long-term incentive schemes are not eligible to be members of this fund. Members of the personnel fund are the permanent and fixed-term employees of the Group. The membership of employees joining the company starts at the beginning of the next month after the employment relationship has been ongoing for five months. An employee is entitled to make withdrawals right from the beginning of the membership. The membership in the fund terminates when the member has received his/her share of the fund in full.

The profit-sharing received by the fund is distributed equally between the members. Each employee's share is divided into a tied amount and an amount available for withdrawal. It is possible to transfer a maximum of 15% of capital from the tied amount to the amount available for withdrawal each year.

The amount available for withdrawal (maximum 15% of the tied amount) is decided each year by the council of the fund and it is paid to members who want to exercise their withdrawal rights.

The fund's latest financial year ended at 30 April 2016 and the fund then had a total of 2,112 members (2015: 2,170). At the end of April 2016 Fortum contributed EUR 0.6 million (2015: 3.7) to the personnel fund as an annual profit-sharing bonus based on the financial results of 2015. The combined amount of members' shares in the fund was EUR 20 million (2015: 24).

The contribution to the personnel fund is expensed as it is earned.

11.4 The President and CEO and the Fortum Executive Management remuneration

The Fortum Executive Management (FEM) consists of eleven members, including the President and CEO. The following table presents the total remuneration of the President and CEO and the FEM and takes into account the changes in FEM during the year. The expenses are shown on accrual basis.

Management remuneration

	2016		2015			
EUR thousand	Pekka Lundmark, President and CEO 2016	Other FEM members	Pekka Lundmark, President and CEO since 7 Sep 2015	Timo Karttinen, Interim President and CEO until 6 Sep 2015 [3]	Tapio Kuula, President and CEO until 31 Jan 2015 [4]	Other FEM members [5]
Salaries and fringe benefits	982	3,581	305	372	279	3,367
Performance bonuses [1]	248	925	21	15	0	225
Share-based incentives [2]	433	886	114	282	903	4,299
Pensions (statutory)	209	683	55	66	47	705
Pensions (voluntary)	356	769	0	37	25	841
Social security expenses	73	331	17	20	14	280
Total	**2,299**	**7,174**	**513**	**791**	**1,269**	**9,717**

1) Performance bonuses are based on estimated amounts.

2) Share-based incentives decreased in 2016 due to lower earnings outcome from settled plans. In 2015 share-based incentives included a one-time cost due to shortening of the accounting period over which the LTI costs are accrued. For more information see ▸ 11.2 Share-based long-term incentives.

3) Includes the compensation CFO Timo Karttinen received during his position as Fortum's Interim President and CEO during 1 February - 6 September 2015 and as a substitute to the President and CEO in January 2015. Also included is a lump sum payment of EUR 70 thousand for his success in assuming the responsibilities of Interim President and CEO.

4) Share-based incentives includes the gross payment Tapio Kuula received from the share plans commenced in 2012, 2013 and 2014. Mr Kuula received the net amount of the payment as shares, after deducting the taxes and tax-related charges arising from the payment. These shares, totalling 30,271 shares, are under lock-up until the spring 2018.

5) Includes remuneration of CFO Timo Karttinen from 7 September 2015 onwards.

The annual contribution for the President and CEO Pekka Lundmark's pension arrangement is 25% of the annual salary. The annual salary consists of base salary and fringe benefits. The President and CEO's retirement age is 63. In case his assignment is terminated before the retirement age, the President and CEO is entitled to retain the benefits accrued in the arrangement.

The supplementary pension of Timo Karttinen, who served as substitute to the President and CEO during January 2015 and as Fortum's Interim President and CEO during the period from February 1 to September 6 2015, is a defined benefit pension plan, and the final level of pension, together with statutory pension, is equal to 66% of the pensionable salary. The pensionable salary consists of base salary, fringe benefits and bonus.

Tapio Kuula was Fortum's President and CEO until his entitlement to disability pension on 1 February 2015. The voluntary pension arrangement of Mr. Kuula was defined contribution plan and annual contribution for the arrangement was 25% of the annual salary. The annual salary consisted of a base salary, fringe benefits and bonus.

For the other members of the FEM the retirement age varies between 60 and 65. According to group policy all new supplementary pension arrangements are defined contribution plans. For the members of the FEM that have defined contribution arrangements, the maximum pension premium percentage can be 25% of the salary. Members, who have joined Fortum prior 1 January 2009, are participating in defined benefit pension arrangements, where the benefit is 60–66% of the final pensionable salary with the pension provided by an insurance company or Fortum's Pension Fund.

A pension liability of EUR 2,070 thousand (2015: 2,444) related to the defined benefit plans for FEM members has been recognised in the balance sheet. The additional pension arrangement for the President and CEO is a defined contribution pension plan and thus no liability has been recognised in the balance sheet.

In the event that Fortum decides to give notice of termination to the President and CEO, he is entitled to the salary for the notice period (6 months) and a severance pay equal to 12 months' salary. Other FEM members' termination compensation is equal to 6 to 12 months' salary.

Number of shares delivered to the management

The table below shows the number of shares delivered during 2016 and 2015 to the President and CEO and other FEM members under the LTI arrangements. Shares delivered under the plans are subject to a lock-up period under which they cannot be sold or transferred to a third party.

	2016 4)	2015 5)
FEM members at 31 December 2016		
Pekka Lundmark (CEO from 7 September 2015)	-	-
Alexander Chuvaev 1)	27,897	21,781
Timo Karttinen	6,399	4,261
Kari Kautinen	4,014	2,956
Per Langer	4,677	3,751
Risto Penttinen (member of FEM from 1 April 2016) 2)	-	N/A
Markus Rauramo	7,383	5,029
Matti Ruotsala	7,443	6,706
Arto Räty (member of FEM from 1 April 2016)	-	N/A
Sirpa-Helena Sormunen	-	-
Tiina Tuomela	3,902	2,648
Former FEM members		
Helena Aatinen (member of FEM until 31 March 2016)	3,188	2,352
Mikael Frisk (member of the FEM until 31 March 2016)	5,028	3,926
Esa Hyvärinen (member of FEM until 31 March 2016)	3,053	2,384
Tapio Kuula (CEO until 31 January 2015) 3)	N/A	30,271
Total	**72,984**	**86,065**

1) Share rights will be paid in cash instead of shares after the three-year lock-up period due to local legislation.

2) Shares delivered before the term in the Fortum Executive Management are not disclosed.

3) Includes the shares Tapio Kuula received in 2015 from the share plans commenced in 2012, 2013 and 2014. The shares are under lock-up until spring 2018.

4) Share delivery based on share plan 2013–2018.

5) Share delivery based on share plan 2012–2017.

11.5 Board of Directors and management shareholding

On 31 December 2016, the members of the Board of Directors owned a total of 208,940 shares (2015: 205,940), which corresponds to 0.02% (2015: 0.02%) of the company's shares and voting rights.

Number of shares held by members of the Board of Directors

	2016	2015
Board members at 31 December 2016		
Sari Baldauf, Chairman	2,300	2,300
Kim Ignatius, Deputy Chairman	2,400	2,400
Minoo Akhtarzand	-	-
Heinz-Werner Binzel	-	-
Eva Hamilton	40	40
Tapio Kuula	201,200	201,200
Veli-Matti Reinikkala	3,000	N/A
Jyrki Talvitie	-	-
Total	**208,940**	**205,940**

The President and CEO and other members of the FEM owned a total of 315,653 shares (2015: 347,478) which corresponds to approximately 0.04% (2015: 0.04%) of the company's shares and voting rights.

Number of shares held by members of the Fortum Executive Management Team

	2016	2015
FEM members at 31 December 2016		
Pekka Lundmark	56,250	56,250
Alexander Chuvaev	14,713	14,713
Timo Karttinen	87,090	80,691
Kari Kautinen	29,246	25,232
Per Langer	29,212	34,535
Risto Penttinen	8,795	N/A
Markus Rauramo	27,847	20,464
Matti Ruotsala	46,509	39,066
Arto Räty	-	N/A
Sirpa-Helena Sormunen	3,000	3,000
Tiina Tuomela	12,991	9,090
Former FEM members		
Helena Aatinen	N/A	3,880
Mikael Frisk	N/A	43,017
Esa Hyvärinen	N/A	17,540
Total	**315,653**	**347,478**

11.6 Board remuneration

The Board of Directors comprises five to eight members who are elected at the Annual General Meeting for a one-year term of office, which expires at the end of the first Annual General Meeting following the election. At the 2016 Annual General Meeting eight members were elected.

The Annual General meeting confirms the yearly compensation for the Board of Directors. Board members are not offered any long-term incentive benefits or participation in other incentive schemes. There are no pension arrangements for the Board members. Social security costs EUR 25 thousand (2015: 22) have been recorded for the fees in accordance with local legislation in respective countries.

Fees for the Board of Directors

EUR thousand	2016	2015
Chairman	75	75
Deputy Chairman	57	57
Chairman of the Audit and Risk Committee [1]	57	57
Members	40	40

1) If not Chairman or Deputy Chairman simultaneously.

Every member of the Board of Directors receives a fixed yearly fee and additional fees for each meeting attended. A meeting fee of EUR 600 is paid for board and committee meetings. For board members living outside Finland in Europe, the meeting fee is EUR 1,200; for board members living outside Europe, the meeting fee is EUR 1,800. For board and committee meetings held as a telephone conference, the meeting fee is paid as EUR 600 to all members. No fee is paid for decisions made without a separate meeting.

Board members are entitled to travel expense compensation in accordance with the company's travel policy.

Compensation for the Board of Directors

EUR thousand	2016	2015
Board members at 31 December 2016		
Sari Baldauf, Chairman	87	86
Kim Ignatius, Deputy Chairman	70	68
Minoo Akhtarzand	61	61
Heinz-Werner Binzel	61	60
Eva Hamilton (member of the Board from 31 March 2015)	56	43
Tapio Kuula (member of the Board from 31 March 2015)	52	38
Veli-Matti Reinikkala (member of the board from 5 April 2016)	44	-
Jyrki Talvitie	70	66
Former Board members		
Petteri Taalas (member of the board until 5 April 2016)	17	51
Ilona Ervasti-Vaintola (member of the board until 31 March 2015)	N/A	13
Christian Ramm-Schmidt (member of the board until 31 March 2015)	N/A	13
Total	518	499

12 Finance costs - net

EUR million	Note	2016	2015
Interest expense			
Borrowings		-181	-247
Other interest expense		-4	0
Capitalised borrowing costs	19	16	44
Total		-169	-203
Interest income			
Loan receivables and deposits		29	49
Other interest income		1	2
Total		30	51
Fair value gains and losses on financial instruments	8		
Fair value change of interest rate derivatives not getting hedge accounting status		-9	-9
Fair value change of hedging derivatives in fair value hedge relationship		11	-13
Fair value change of hedged items in fair value hedge relationship		-11	13
Rate difference on forward contracts		7	-9
Total		-2	-18
Exchange gains and losses			
Loans and receivables	8	143	-50
Cross currency interest rate derivatives	8	12	-12
Foreign currency derivatives	8	-156	63
Interest income on share of State Nuclear Waste Management Fund	30	8	10
Unwinding of discount on nuclear provisions	30	-40	-44
Unwinding of discount on other provisions	31, 32	-2	-5
Other financial income		12	38
Other financial expenses		-6	-5
Total		-29	-4
IS Finance costs - net		-169	-175

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Interest expenses include interest expenses on interest-bearing loans, interest on interest rate and currency swaps and forward points on forward foreign exchange contracts hedging loans and receivables.

Interest income includes EUR 15 million (2015: 15) from shareholders' loans in Finnish and Swedish nuclear companies, EUR 0 million (2015: 12) from Fortum Värme and EUR 12 million (2015: 20) from deposits and commercial papers.

Fair value gains and losses on financial instruments include change in clean price of interest rate and cross currency swaps not getting hedge accounting and fair value changes of interest rate derivatives in hedge relationship and hedged items. Accrued interest on these derivatives is entered in interest expenses of borrowings. Fair value gains and losses include also rate difference from forward contracts hedging loans and receivables without hedge accounting.

Exchange gains and losses includes exchange rate differences arising from valuation of foreign currency loans and receivables and exchange rate differences from forward foreign exchange contracts and interest rate and currency swaps.

Other financial income EUR 12 million (2015: 38) includes compensation from early prepayment of loans by Fortum Värme EUR 0 million (2015: 37).

Fair value changes on interest rate and currency derivatives

EUR million	2016	2015
Interest rate and cross currency swaps		
Interest expenses on borrowings	16	4
Exchange rate difference from derivatives	12	-12
Rate difference in fair value gains and losses on financial instruments [1]	2	-22
Total fair value change of interest rate derivatives in finance costs - net	**30**	**-30**
Forward foreign exchange contracts		
Interest expenses on borrowings	-62	-79
Exchange rate difference from derivatives	-156	63
Rate difference in fair value gains and losses on financial instruments	7	-9
Total fair value change of currency derivatives in finance costs - net	**-211**	**-25**
Total fair value change of interest and currency derivatives in finance costs - net	**-181**	**-55**

1) Fair value gains and losses on financial instruments include fair value changes from interest rate swaps not getting hedge accounting amounting to EUR -9 million (2015: -9) and fair value change of hedging derivatives in fair value hedge relationship EUR 11 million (2015: -13), totalling EUR 2 million (2015: -22).

13 Income tax expense

13.1 Profit before tax

EUR million	2016	2015
Finnish companies	59	154
Swedish companies	46	-922
Russian companies	202	173
Other companies	289	291
IS Total	595	-305

Profit before tax split by country represents the respective countries' part of the profit before tax for Fortum Group according to International Financial Reporting Standards (IFRS), i.e. based on the same accounting principles as for the Consolidated Financial Statements. This means that the respective country profits include such items as for example share of profits from associates and effects of accounting for nuclear provisions, which are not included in taxable profits in the local subsidiaries.

13.2 Major components of income tax expense by major countries

EUR million	2016	2015
Current taxes		
Finnish companies	-14	-64
Swedish companies	-1	0
Russian companies	-2	-3
Other companies	-24	-38
Total	-42	-106
Deferred taxes		
Finnish companies	0	35
Swedish companies	10	193
Russian companies	-36	-30
Other companies	-17	-15
Total	-42	184
Adjustments recognised for current tax of prior periods		
Finnish companies	-6	-2
Swedish companies	0	1
Russian companies	0	0
Other companies	0	0
Total	-6	-1
IS Income tax expense	-90	78

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13.3 Income tax rate

The table below explains the difference between the theoretical enacted tax rate in Finland compared to the tax rate in the consolidated income statement.

EUR million	2016	%	2015	%
Profit before tax	595		-305	
Tax calculated at nominal Finnish tax rate	-119	20.0	61	20.0
Differences in tax rates and regulations	16	-2.7	23	7.6
Income not subject to tax	0	0.0	1	0.2
Tax exempt capital gains	4	-0.7	2	0.7
Expenses not deductible for tax purposes	-5	0.8	-2	-0.6
Share of profit of associated companies and joint ventures	30	-5.0	5	1.7
Taxes related to dividend distributions	-8	1.4	-7	-2.2
Changes in tax valuation allowance related to not recognised tax losses	-6	1.0	-1	-0.4
Other items	0	0.0	-1	-0.4
Adjustments recognised for taxes of prior periods	-2	0.3	-3	-1.1
IS Income tax expense	-90	15.2	78	25.4

Key tax indicators:

- The weighted average applicable income tax rate for 2016 is 20.2% (2015: 20.2%)
- The effective income tax rate in the income statement for 2016 is 15.2% (2015: 25.4%)
- The comparable effective income tax rate (excluding the share of profits from associates and joint ventures, tax exempt capital gains and tax rate changes) for 2016 is 20.0% (2015: 23.5%)
- The total tax rate and total comparable tax rate (excluding the share of profits from associates and joint ventures and tax exempt capital gains) for 2016 is 40.0% and 47.5% (2015: not applicable).

Share of profit of associated companies and joint ventures during 2016 reduced the effective income tax rate with 5%.

During 2016 entities primarily in Russia and Sweden used a portion of the deferred tax asset relating to tax loss carry forwards.

Other items include tax effects from sales of shares in subsidiaries in Sweden, Russia and in Estonia.

Effective income tax rate and total tax rate are impacted by gains or losses on sale of shares. In many countries like in Finland, Sweden and Netherlands income on capital gains and losses is treated as tax exempt. The purpose of this is to tax the operative income of the company and avoid taxing the same income twice in case of the sale of the shares. Taxation of capital gains or losses is in line with the taxation of dividend income.

Fortum has a material deferred tax liability owing to its investments in non-current assets. These assets are depreciated more rapidly for tax than for accounting purposes resulting in lower current tax payments at the start of an asset's lifetime and higher tax payments at the end of its lifetime. This difference results in a deferred tax liability.

Taxes for the year 2015 were positive as the group was in loss position. This was mainly due to the write-down related to early closure of O1 and O2 units in Oskarshamn in Sweden. Deferred tax asset was recognized on this loss.

When the pre-tax profit is close to null or negative, the total tax rate is not illustrating the tax contribution in an informative way. Therefore we use "not applicable" for total tax rate in 2015.

Fortum has had several tax audits ongoing during 2016. Fortum has received income tax assessments in Sweden for the years 2009–2014 and Belgium for the years 2008–2012. Fortum has appealed all assessments received. Based on legal analysis, no provision has been accounted for in the financial statements related to these tax audits.

13.4 Total taxes

Taxes borne indicate different taxes that Fortum pays for the period. In 2016 Fortum's taxes borne were EUR 365 million (2015: 413). Taxes borne include corporate income taxes (excluding deferred taxes), production taxes, employment taxes, taxes on property and cost of indirect taxes. Production taxes include also production taxes and taxes on property paid through purchased electricity from associated companies. The total tax rate indicates the burden on taxes borne by Fortum from its profit before these taxes. In 2016 the total tax rate is 47.5% (2015: the total tax rate was not applicable because the group is in loss position but taxes borne are still a cost).

In addition, Fortum administers and collects different taxes on behalf of governments and authorities. Such taxes include VAT, and excise taxes on power consumed by customers, payroll taxes and withholding taxes. The amount of taxes collected by Fortum was EUR 376 million (2015: 352).

See also *Note 29* Income taxes in balance sheet and *Note 10* Materials and services.

For further information regarding the ongoing tax appeals see *Note 38* Legal actions and official proceedings.

14 Discontinued operations

There were no items classified as Discontinued operations during 2016.

In March 2015 Fortum signed a binding agreement to sell the Swedish Distribution business. The transaction was completed in June 2015.

After the divestment of the Swedish Distribution business Fortum did not have any distribution operations and therefore Distribution segment has been treated as discontinued operations in 2015 according to IFRS 5 Non-current Assets held for Sale and Discontinued operations. Discontinued operations are disclosed on one line, net of tax, in the face of the income statement. In the cash flow statement the net cash flows attributable to the operating, investing and financing activities of the discontinued operations are disclosed separately.

Discontinued operations include the distribution operations in Fortum, including sales gains from the divestment of Swedish operations in June 2015, and effects from internal sales and purchases have also been included. The net financial costs allocated to discontinued operations are based on the fact that the financing activities and risk management have been centralised on group level and subsidiaries have been funded with intra-group loans. No corporate overhead costs have been allocated to the discontinued operations. The assets relating to Distribution businesses have continued to be depreciated until the businesses were disposed.

Cash flow from discontinued operations include cash flow from distribution operations and allocated taxes, impact from sale of shares in Distribution companies and proceeds from interest-bearing receivables from sold subsidiaries.

Results of discontinued operations

EUR million	2016	2015
Sales	-	243
Other income	-	2
Materials and services	-	-34
Employee benefits	-	-14
Depreciation and amortisation	-	-50
Other expenses	-	-34
Comparable operating profit	-	**114**
Changes in fair values of derivatives	-	-1
Capital gains [1)]	-	4,282
Operating profit	-	**4,395**
Share of profit/loss of associates and joint ventures	-	0
Finance costs - net	-	-1
Profit before income tax	-	**4,393**
Income tax expenses	-	-24
IS Profit for the year from discontinued operations	-	**4,369**

1) Including tax exempt gain on sale of shares of Swedish Distribution.

Additional information of discontinued operations

EUR million	2016	2015
Comparable EBITDA	-	163
Capital expenditure	-	44
Gross divestments of shares	-	6,369

Net cash flows attributable to the discontinued operations

EUR million	2016	2015
Net cash from operating activities	-	154
Net cash used in investing activities	-	6,303
Net cash from financing activities	-	0
Total net increase in liquid funds	-	**6,457**

For more information see *Note 40* Acquisitions and disposals.

15 Earnings and dividend per share

ACCOUNTING POLICIES

EARNINGS PER SHARE

Basic earnings per share is calculated by dividing the net profit attributable to the owners of the parent company by the weighted average number of ordinary shares in issue during the year, excluding ordinary shares purchased by the Group and held as treasury shares.

Diluted earnings per share is calculated adjusting the weighted average number of ordinary shares outstanding to assume conversion of all dilutive potential ordinary shares. For the warrants and stock options a calculation is done to determine the number of shares that could have been acquired at fair value (determined as the average annual market share price of the Fortum share) based on the monetary value of the subscription rights attached to outstanding stock options.

The number of shares calculated as above is deducted from the number of shares that would have been issued assuming the exercise of the stock options. The incremental shares obtained through the assumed exercise of the options and warrants are added to the weighted average number of shares outstanding.

Options and warrants have a dilutive effect only when the average market price of ordinary shares during the period exceeds the exercise price of the options or warrants. Previously reported earnings per share are not retroactively adjusted to reflect changes in price of ordinary shares.

DIVIDENDS

Dividends proposed by the Board of Directors are not recognised in the financial statements until they have been approved by the Company's shareholders at the Annual General Meeting.

15.1 Earnings per share

Earnings per share, basic

	2016	2015
IS Profit attributable to owners of the parent (EUR million)	496	4,138
Weighted average number of shares (thousand)	888,367	888,367
Basic earnings per share (EUR)		
Total Fortum	0.56	4.66
Continuing operations	0.56	-0.26
Discontinued operations	4.92	4.92

As Fortum currently has no dilutive instruments outstanding, diluted earnings per share is the same as basic earnings per share.

15.2 Dividend per share

Dividends proposed by the Board of Directors are not recognised in the financial statements until they have been approved by the Company's shareholders at the Annual General Meeting.

A dividend in respect of 2016 of EUR 1.10 per share, amounting to a total dividend of EUR 977 million based on the amount of shares registered as at 1 February 2017, is to be proposed at the Annual General Meeting on 4 April 2017. These Financial statements do not reflect this dividend.

A dividend for 2015 of EUR 1.10 per share, amounting to a total of EUR 977 million, was decided in the Annual General Meeting on 5 April 2016. The dividend was paid on 14 April 2016.

A dividend for 2014 of EUR 1.10 per share and an extra dividend of EUR 0.20 per share, amounting to a total of EUR 1,155 million, was decided at the Annual General Meeting on 31 March 2015. The dividend and the extra dividend were paid on 14 April 2015.

16 Financial assets and liabilities by categories

ACCOUNTING POLICIES

FINANCIAL ASSETS

The Group classifies its investments in the following categories: financial assets at fair value through profit or loss, loans and receivables and available-for-sale financial assets. The classification depends on the purpose for which the investments were acquired. Management determines the classification of its financial assets at initial recognition and re-evaluates this designation at every reporting date.

FINANCIAL ASSETS AT FAIR VALUE THROUGH PROFIT OR LOSS

A financial asset is classified in this category if acquired principally for the purpose of selling in the short-term. Derivatives are also categorised as held for trading unless they are designated as hedges. Assets in this category are classified as current assets if they are either held for trading or are expected to be realised within 12 months of the closing date.

LOANS AND RECEIVABLES

Loans and receivables are non-derivative financial assets with fixed or determinable payments that are not quoted in an active market. They arise when the Group provides money, goods or services directly to a debtor. They are included in non-current assets, except for maturities under 12 months after the closing date. These are classified as current assets.

AVAILABLE-FOR-SALE FINANCIAL ASSETS

Available-for-sale financial assets are non-derivatives that are either designated in this category or not classified in any of the other categories. They are included in non-current assets unless there is an intention to dispose of the investment within 12 months of the closing date.

Purchases and sales of investments are recognised on the trade-date – the date on which the Group commits to purchase or sell the asset. Investments are initially recognised at fair value plus transaction costs for all financial assets not carried at fair value through profit or loss. Investments are derecognised when the rights to receive cash flows from the investments have expired or have been transferred and the Group has transferred substantially all risks and rewards of ownership.

Available-for-sale financial assets and financial assets at fair value through profit or loss are subsequently carried at fair value. Loans are carried at amortised cost using the effective interest method. Gains and losses arising from changes in the fair value of the 'financial assets at fair value through profit or loss' category is included in the income statement in the period in which they arise. Gains and losses arising from changes in the fair value of securities classified as available-for-sale are recognised in equity. When securities classified as available-for-sale are sold or impaired, the accumulated fair value adjustments are included in the income statement.

The fair values of quoted investments are based on current bid prices. If the market for a financial asset is not active (and for unlisted securities), the Group establishes fair value by using valuation techniques. These include the use of recent arm's length transactions, reference to other instruments that are substantially the same, discounted cash flow analysis, and option pricing models refined to reflect the issuer's specific circumstances.

The Group assesses at each closing date whether there is objective evidence that a financial asset or a group of financial assets is impaired. If any such evidence exists for available-for-sale financial assets, the cumulative loss – measured as the difference between the acquisition cost and the current fair value, less any impairment loss on that financial asset previously recognised in profit or loss – is removed from equity and recognised in the income statement.

ACCOUNTING FOR DERIVATIVE FINANCIAL INSTRUMENTS AND HEDGING ACTIVITIES

Within the ordinary course of business the Group routinely enters into sale and purchase transactions for commodities. The majority of these transactions take the form of contracts that were entered into and continue to be held for the purpose of receipt or delivery of the commodity in accordance with the Group's expected sale, purchase or usage requirements. Such contracts are not within the scope of IAS 39. All other net-settled commodity contracts are measured at fair value with gains and losses taken to the income statement.

Derivatives are initially recognised at fair value on the date a derivative contract is entered into and are subsequently re-measured at their fair value. The method of recognising 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 Group designates certain derivatives as either: 1) hedges of highly probable forecast transactions (cash flow hedges); 2) hedges of the fair value of recognised assets or liabilities or a firm commitment (fair value hedge); or 3) hedges of net investments in foreign operations. The Group 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 Group 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. Derivatives are divided into non-current and current based on maturity. Only for those electricity derivatives, which have cash flows in different years, the fair values are split between non-current and current assets or liabilities.

CASH FLOW HEDGE

The effective portion of changes in the fair value of derivatives that are designated and qualify as cash flow hedges are recognised in equity. The gain or loss relating to the ineffective portion is recognised immediately in the income statement. Amounts accumulated in equity are recycled in the income statement in the periods when the hedged item will affect profit or loss (for instance when the forecast sale that is hedged takes place). However, when the forecast transaction that is hedged results in the recognition of a non-financial asset (for example, inventory) or a liability, the gains and losses previously deferred in equity are transferred from equity and included in the initial measurement of the cost of the asset or liability. When a hedge no longer meets the criteria for hedge accounting, any cumulative gain or loss existing in equity is recognised in the income statement when the forecast transaction is ultimately also recognised in the income statement. When a forecast transaction is no longer expected to occur, the cumulative gain or loss that was reported in equity is immediately recognised in the income statement.

FAIR VALUE HEDGE

Changes in the fair value of derivatives that are designated and qualify as fair value hedges are recorded in the income statement, together with any changes in the fair value of the hedged asset or liability that are attributable to the hedged risk.

If the hedge no longer meets the criteria for hedge accounting, the adjustment to the carrying amount of a hedged item for which the effective interest method is used is amortised to profit or loss for the period to maturity.

NET INVESTMENT HEDGING IN FOREIGN OPERATIONS

Hedges of net investments in foreign operations are accounted for similarly to cash flow hedges. Any gain or loss on the hedging instrument relating to the effective portion of the hedge is recognised in equity; the gain or loss relating to the ineffective portion is recognised immediately in the income statement. Gains and losses accumulated in equity are included in the income statement when the foreign operation is disposed off.

DERIVATIVES THAT DO NOT QUALIFY FOR HEDGE ACCOUNTING

Certain derivative instruments hedging future cash flows do not qualify for hedge accounting. Fair value changes of these financial derivative instruments are recognised in items affecting comparability in the income statement.

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42

Financial assets and liabilities in the tables below are split into categories in accordance with IAS 39. The categories are further split into classes which are the basis for valuing a respective asset or liability. Further information can be found in the Notes mentioned in the table.

Financial assets by categories 2016

		Loans and receivables	Financial assets at fair value through profit and loss				
EUR million	Note	Amortised cost	Hedge accounting, fair value hedges	Non-hedge accounting	Fair value recognised in equity, cash flow hedges	Available-for-sale financial assets	Total financial assets
Financial instruments in non-current assets							
Other non-current assets	21	55				58	113
Derivative financial instruments	3						
Electricity derivatives				67	1		68
Interest rate and currency derivatives			179	103	61		343
Oil and other futures and forward contracts				5			5
Long-term interest-bearing receivables	22	985					985
Financial instruments in current assets							
Derivative financial instruments	3						
Electricity derivatives				88	0		88
Interest rate and currency derivatives				7	16		23
Oil and other futures and forward contracts				18	0		18
Trade receivables	24	562					562
Other short-term interest-bearing receivables	22	395					395
Cash and cash equivalents	25	1,444				3,711	5,155
Total		3,441	179	288	78	3,769	7,755

Financial assets by categories 2015

		Loans and receivables	Financial assets at fair value through profit and loss				
EUR million	Note	Amortised cost	Hedge accounting, fair value hedges	Non-hedge accounting	Fair value recognised in equity, cash flow hedges	Available-for-sale financial assets	Total financial assets
Financial instruments in non-current assets							
Other non-current assets	21	50				43	93
Derivative financial instruments	3						
Electricity derivatives				105	30		135
Interest rate and currency derivatives			170	115	84		369
Oil and other futures and forward contracts				5			5
Long-term interest-bearing receivables	22	773					773
Financial instruments in current assets							
Derivative financial instruments	3						
Electricity derivatives				55	101		156
Interest rate and currency derivatives				114	67		181
Oil and other futures and forward contracts				16	0		16
Trade receivables	24	396					396
Other short-term interest-bearing receivables	22	0					0
Cash and cash equivalents	25	2,854				5,348	8,202
Total		4,073	170	410	282	5,391	10,326

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42

Financial liabilities by categories 2016

EUR million	Note	Financial liabilities at fair value through profit and loss: Hedge accounting, fair value hedges	Financial liabilities at fair value through profit and loss: Non-hedge accounting	Fair value recognised in equity, cash flow hedges	Other financial liabilities: Amortised costs	Other financial liabilities: Fair value	Total financial liabilities
Financial instruments in non-current liabilities							
Interest-bearing liabilities	28				3,188	1,280 1)	4,468
Derivative financial instruments	3						
Electricity derivatives			90	48			138
Interest rate and currency derivatives		32	51	38			121
Oil and other futures and forward contracts			3				3
Financial instruments in current liabilities							
Interest-bearing liabilities	28				639		639
Derivative financial instruments	3						
Electricity derivatives			155	83			238
Interest rate and currency derivatives			130	10			140
Oil and other futures and forward contracts			18	0			18
Trade payables	34				323		323
Other liabilities	34				86		86
Total		32	447	179	4,236	1,280	6,174

Financial liabilities by categories 2015

EUR million	Note	Financial liabilities at fair value through profit and loss: Hedge accounting, fair value hedges	Financial liabilities at fair value through profit and loss: Non-hedge accounting	Fair value recognised in equity, cash flow hedges	Other financial liabilities: Amortised costs	Other financial liabilities: Fair value	Total financial liabilities
Financial instruments in non-current liabilities							
Interest-bearing liabilities	28				3,697	1,268 1)	4,965
Derivative financial instruments	3						
Electricity derivatives			122	4			126
Interest rate and currency derivatives		31	60	62			153
Oil and other futures and forward contracts			12				12
Financial instruments in current liabilities							
Interest-bearing liabilities	28				1,042		1,042
Derivative financial instruments	3						
Electricity derivatives			81	1			82
Interest rate and currency derivatives			28	4			32
Oil and other futures and forward contracts			6	0			6
Trade payables	34				249		249
Other liabilities	34				67		67
Total		31	309	71	5,055	1,268	6,734

1) Fair valued part of bond in fair value hedge relationship.

17 Financial assets and liabilities by fair value hierarchy

ACCOUNTING POLICIES

Fair value measurements are classified using a fair value hierarchy i.e. Level 1, Level 2 and Level 3 that reflects the significance of the inputs used in making the measurements.

FAIR VALUES UNDER LEVEL 1 MEASUREMENT HIERARCHY

The fair value of some commodity derivatives traded in active markets (such as publicly traded electricity options, coal and oil forwards) are market quotes at the closing date.

FAIR VALUES UNDER LEVEL 2 MEASUREMENT HIERARCHY

The fair value of financial instruments including electricity derivatives traded in active markets (such as publicly traded derivatives, and trading and available-for-sale securities) is based on quoted market prices at the closing date. Known calculation techniques, such as estimated discounted cash flows, are used to determine fair value of interest rate and currency financial instruments. The fair value of interest-rate swaps is calculated as the present value of the estimated future cash flows. The fair value of forward foreign exchange contracts is determined using forward exchange market rates at the closing date. Fair values of options are determined by using option valuation models. The fair value of financial liabilities is estimated by discounting the future contractual cash flows at the current market interest rate that is available to the Group for similar financial instruments. In fair valuation, credit spread has not been adjusted, as quoted market prices of the instruments used are believed to be consistent with the objective of a fair value measurement.

The Group bases the calculation on existing market conditions at each closing date. Financial instruments used in Fortum are standardised products that are either cleared via exchanges or widely traded in the market. Commodity derivatives are generally cleared through exchanges such as for example NASDAQ OMX Commodities Europe and financial derivatives done with creditworthy financial institutions with investment grade ratings.

FAIR VALUES UNDER LEVEL 3 MEASUREMENT HIERARCHY

Investments in unlisted shares classified as Available-for-sale financial assets, for which the fair value cannot be reliably determined. These assets are measured at cost less any impairments.

OTHER MEASUREMENTS

The nominal value less estimated credit adjustments of trade receivables and payables are assumed to approximate their fair values.

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42

Financial assets

		Level 1		Level 2		Level 3		Netting [2]		Total	
EUR million	Note	2016	2015	2016	2015	2016	2015	2016	2015	2016	2015
In non-current assets											
Available-for-sale financial assets [1]	21	0	1			58	42			58	43
Derivative financial instruments	3										
Electricity derivatives											
Hedge accounting				4	40			-3	-9	1	30
Non-hedge accounting		0		98	175			-31	-70	67	105
Interest rate and currency derivatives											
Hedge accounting				240	254					240	254
Non-hedge accounting				103	115					103	115
Oil and other futures and forward contracts											
Non-hedge accounting		7	7					-2	-2	5	5
In current assets											
Derivative financial instruments	3										
Electricity derivatives											
Hedge accounting				9	117			-9	-16	0	101
Non-hedge accounting		0	1	381	251			-293	-196	88	55
Interest rate and currency derivatives											
Hedge accounting				16	67					16	67
Non-hedge accounting				7	114					7	114
Oil and other futures and forward contracts											
Non-hedge accounting		106	47	2				-90	-31	18	16
Total		**113**	**56**	**860**	**1,133**	**58**	**42**	**-428**	**-324**	**603**	**907**

1) Available-for-sale financial assets, i.e. shares which are not classified as associated companies or joint ventures, consists mainly of shares in unlisted companies of EUR 58 million (Dec 31 2015: 42), for which the fair value cannot be reliably determined. This includes EUR 18 million (2015: 11) from Fortum's shareholding in Fennovoima. These assets are measured at cost less any impairments.

Available-for-sale financial assets include listed shares at fair value of EUR 0 million (2015: 1). The cumulative fair value change booked in Fortum's equity was EUR -3 million (2015: -3).

2) Receivables and liabilities against electricity, oil and other commodity exchanges arising from standard derivative contracts with same delivery period are netted.

Financial liabilities

EUR million	Note	Level 1 2016	Level 1 2015	Level 2 2016	Level 2 2015	Level 3 2016	Level 3 2015	Netting [2] 2016	Netting [2] 2015	Total 2016	Total 2015
In non-current assets											
Interest-bearing liabilities	28			1,280 [1]	1,268 [1]					1,280	1,268
Derivative financial instruments	3										
Electricity derivatives											
Hedge accounting				51	13			-3	-9	48	4
Non-hedge accounting				121	192			-31	-70	90	122
Interest rate and currency derivatives											
Hedge accounting				70	93					70	93
Non-hedge accounting				51	60					51	60
Oil and other futures and forward contracts											
Non-hedge accounting		5	14					-2	-2	3	12
In current assets											
Derivative financial instruments	3										
Electricity derivatives											
Hedge accounting				92	18			-9	-16	83	1
Non-hedge accounting		0	1	448	277			-293	-196	155	81
Interest rate and currency derivatives											
Hedge accounting				10	4					10	4
Non-hedge accounting				130	28					130	28
Oil and other futures and forward contracts											
Non-hedge accounting		106	37	2				-90	-31	18	6
Total		111	52	2,255	1,953	0	0	-428	-324	1,938	1,680

1) Fair valued part of bond in fair value hedge relationship.

2) Receivables and liabilities against electricity, oil and other commodity exchanges arising from standard derivative contracts with same delivery period are netted.

Net fair value amount of interest rate and currency derivatives is EUR 105 million, assets EUR 366 million and liabilities EUR 261 million. Fortum has cash collaterals based on Credit Support Annex agreements with some counterparties. At the end of December 2016 Fortum had received EUR 135 million from Credit Support Annex agreements. The received cash has been booked as short-term liability.

18 Intangible assets

ACCOUNTING POLICIES

Intangible assets, except goodwill, are stated at the historical cost less accumulated amortisation and impairment losses. They are amortised on a straight-line method over their expected useful lives.

COMPUTER SOFTWARE

Acquired computer software licences are capitalised on the basis of the costs incurred when bringing the software into use. Costs associated with developing or maintaining computer software are recognised as an expense as incurred. Costs that are directly associated with the production of identifiable and unique software products controlled by the Group, and that will generate economic benefits exceeding costs beyond one year, are recognised as intangible assets. Direct costs include the software development employee costs and an appropriate portion of relevant overheads. Computer software costs recognised as assets are amortised over their estimated useful lives (three to five years).

TRADEMARKS AND LICENSES

Trademarks and licences are shown at historical cost less accumulated amortisation and impairment losses, as applicable. Amortisation is calculated using the straight-line method to allocate the cost of trademarks and licences over their estimated useful lives (15–20 years).

CONTRACTUAL CUSTOMER RELATIONSHIPS

Contractual customer relationships acquired in a business combination are recognised at fair value on acquisition date. The contractual customer relations have a finite useful life and are carried at costs less accumulated amortisation. Amortisation is calculated using the straight-line method over the expected duration of the customer relationship.

GOODWILL

Goodwill represents the excess of the cost of an acquisition over the fair value of the Group's share of net identifiable assets of the acquired subsidiary/associate at the date of acquisition. Goodwill on acquisitions of subsidiaries is included in intangible assets and tested yearly for impairment. Goodwill on acquisition of associates is included in investments in associates and is tested for impairment as part of the overall balance. Goodwill is tested annually for impairment and carried at cost less accumulated impairment losses. Impairment losses on goodwill are not reversed. Gains and losses on disposal of an entity include the carrying amount of goodwill relating to the entity sold.

EMISSION ALLOWANCES

The Group accounts for emission allowances based on currently valid IFRS standards where purchased emission allowances are accounted for as intangible assets at cost, whereas emission allowances received free of charge are accounted for at nominal value. For CO_2 emissions from power and heat production, a provision is recognized. CO_2 emission costs is settled by returning emission allowances. To the extent that the Group already holds allowances to cover emission costs, the provision is measured at the carrying amount of those allowances. Any shortfall of allowances held over the obligation is valued at the current market value of allowances. The emission cost is recognised in the income statement within materials and services. The sales gains and losses of emission allowances not used for covering the obligation from CO_2 emissions, are reported in other income.

CRITICAL ACCOUNTING ESTIMATES AND JUDGEMENTS

ASSIGNED VALUES AND USEFUL LIVES IN ACQUISITIONS

In an acquisition acquired intangible and tangible assets are fair valued and their remaining useful lives are determined. Management believes that the assigned values and useful lives, as well as the underlying assumptions, are reasonable. Different assumptions and assigned lives could have a significant impact on the reported amounts.

The Group has significant carrying values in property, plant and equipment, intangible assets and participations in associated companies and joint ventures which are tested for impairment according to the accounting policy described in ▸ *Note 19* Property, plant and equipment.

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42

EUR million	Goodwill 2016	Goodwill 2015	Other intangible assets 2016	Other intangible assets 2015	Total 2016	Total 2015
Cost 1 January	**152**	**170**	**332**	**379**	**485**	**549**
Translation differences and other adjustments	39	-18	-1	2	37	-16
Acquisition of subsidiary companies	163	0	59	1	221	1
Capital expenditure	0	0	3	8	3	8
Change in emission rights	0	0	0	-8	0	-8
Disposals	0	0	-11	-6	-11	-6
Sale of subsidiary companies	0	0	0	-58	0	-58
Reclassifications	0	0	4	14	4	14
Cost 31 December	**353**	**152**	**386**	**332**	**739**	**485**
Accumulated depreciation 1 January	**0**	**0**	**262**	**273**	**262**	**273**
Translation differences and other adjustments	0	0	-2	1	-2	1
Acquisition of subsidiary companies	0	0	5	0	5	0
Disposals	0	0	-11	-6	-11	-6
Sale of subsidiary companies	0	0	0	-28	0	-28
Reclassifications	0	0	0	0	0	0
Depreciation for the period [1]	0	0	19	22	19	22
Accumulated depreciation 31 December	**0**	**0**	**273**	**262**	**273**	**262**
BS Carrying amount 31 December	**353**	**152**	**113**	**70**	**467**	**222**

1) 2015 includes depreciations related to discontinued operations (see *Note 14* Discontinued operations).

The increase of goodwill arises from the acquisition of Ekokem Corporation and Grupa Duon S.A. in City Solutions segment during 2016. Total goodwill also includes the goodwill from the acquisition of OAO Fortum in the Russia segment. The goodwill has been tested for impairment by comparing recoverable amounts of the net operating assets, including goodwill, with their carrying amounts. The recoverable amounts were determined on the basis of value in use, applying discounted cash flow calculations.

See *Note 40* Acquisitions and disposals for additional information on the acquisition of Ekokem Corporation and Grupa Duon S.A.

See also *Note 19* Property, plant and equipment for information about impairment testing.

The main items in other intangible assets are customer contracts, costs for software products and software licenses, bought emission rights and emission rights received free of charge, which are recognised to the lower of fair value and historical cost.

19 Property, plant and equipment

ACCOUNTING POLICIES

Property, plant and equipment comprise mainly power and heat producing buildings and machinery buildings, transmission lines, tunnels, waterfall rights, district heating network and buildings and machinery as well as landfill sites and treatment areas used in waste treatment operations. Property, plant and equipment are stated at historical cost less accumulated depreciation and accumulated impairment losses as applicable in the consolidated balance sheet. Historical cost includes expenditure that is directly attributable to the acquisition of an item and capitalized borrowing costs. Cost may also include transfers from equity of any gains or losses on qualifying cash flow hedges of foreign currency purchases of property, plant and equipment. Acquired assets on the acquisition of a new subsidiary are stated at their fair values at the date of acquisition.

Subsequent costs are included in the asset's carrying amount or recognised as a separate asset, as appropriate, only when it is probable that future economic benefits associated with the item will flow to the Group and the cost of the item can be measured reliably. All other repairs and maintenance expenses are charged to the income statement during the financial period in which they are incurred.

Additionally the cost of an item of property, plant and equipment includes the estimated cost of its dismantlement, removal or restoration.

See *Note 31* Other provisions for information about asset retirement obligations and *Note 30* Nuclear related assets and liabilities, for information about provisions for decommissioning nuclear power plants.

Land, water areas, waterfall rights and tunnels are not depreciated since they have indefinite useful lives. Depreciation on other assets is calculated using the straight-line method to allocate their cost to their residual values over their estimated useful lives, as follows:

Hydro power plant buildings, structures and machinery	40–50 years
Thermal power plant buildings, structures and machinery	25 years
Nuclear power plant buildings, structures and machinery	25 years
CHP power plant buildings, structures and machinery	15–25 years
Substation buildings, structures and machinery	30–40 years
Distribution network (related to discontinued operations)	15–40 years
District heating network	30–40 years
Other buildings and structures	20–40 years
Other tangible assets	20–40 years
Other machinery and equipment	3–20 years
Other non-current investments	5–10 years

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42

The assets' residual values and useful lives are reviewed, and adjusted if appropriate, at each closing date. An asset's carrying amount is written down immediately to its recoverable amount if the asset's carrying amount is greater than its estimated recoverable amount.

IMPAIRMENT OF NON-FINANCIAL ASSETS

The individual assets' carrying values are reviewed at each closing date to determine whether there is any indication of impairment. An asset's carrying amount is written down immediately to its recoverable amount if it is greater than the estimated recoverable amount.

When considering the need for impairment the Group assesses if events or changes in circumstances indicate that the carrying amount may not be recoverable. This assessment is documented once a year in connection with the long-term forecasting process. Indications for impairment are analysed separately by each division as they are different for each business and include risks such as changes in electricity and fuel prices, regulatory/political changes relating to energy taxes and price regulations etc. Impairment testing needs to be performed if any of the impairment indications exists. Assets that have an indefinite useful life and goodwill, are not subject to amortisation and are tested annually for impairment.

An impairment loss is recognised in the income statement for the amount by which the asset's carrying amount exceeds its recoverable amount. The recoverable amount is the higher of an asset's fair value less costs to sell and value in use. For the purpose of assessing impairment, assets are grouped at the lowest levels for which there are separately identifiable cash flows (cash-generating units). Goodwill is allocated to cash-generating units for the purpose of impairment testing. The allocation is made to those cash-generating units or groups of cash-generating units that are expected to benefit from the business combination in which the goodwill arose.

Value in use is determined by discounting the future cash flows expected to be derived from an asset or cash-generating unit. Cash flow projections are based on the most recent long-term forecast that has been approved by management and the Board of Directors. Cash flows arising from future investments such as new plants are excluded unless projects have been started. The cash outflow needed to complete the started projects is included.

The period covered by cash flows is related to the useful lives of the assets reviewed for impairment. According to IFRS, projections used should cover a maximum period of five years, but a longer period can be justifiable in certain circumstances. The Group uses a longer projection period than normally allowed by IFRS, which reflects the long useful lives of power plants and other major assets. Cash flow projections beyond the period covered by the most recent business plan are estimated by extrapolating the projections using growth rates estimated by management for subsequent years.

Non-financial assets other than goodwill that suffered an impairment charge are reviewed for possible reversal of the impairment at each reporting date.

GOVERNMENT GRANTS

Grants from the government are recognised at their fair value when there is a reasonable assurance that the grant will be received and the Group will comply with all attached conditions. Government grants relating to costs are deferred and recognised in the income statement over the period necessary to match them with the costs that they are intended to compensate. Government grants relating to the purchase of property, plant and equipment are deducted from the acquisition cost of the asset and are recognised as income by reducing the depreciation charge of the asset they relate to.

BORROWING COSTS

Borrowing costs directly attributable to the acquisition, construction or production of qualifying assets are added to the cost of those assets, until such time as the assets are substantially ready for their intended use or sale. Qualifying assets are assets that necessarily take a substantial period of time to get ready for their intended use or sale.

All other borrowing costs are recognised in profit or loss in the period in which they are incurred.

JOINT OPERATIONS

Fortum owns, through its subsidiary Fortum Power and Heat Oy, the coal condensing power plant Meri-Pori in Finland. Teollisuuden Voima Oyj (TVO) has the contractual right to participate in the plant with 45.45%. The capacity and production is divided between Fortum and TVO. Each owner can decide when and how much capacity to use for production. Both Fortum and TVO purchase fuel and emission rights independently. Since Fortum and TVO are sharing control of the power plant, Meri-Pori is accounted for as a joint operation. Fortum is accounting for its part of the investment, i.e. 54.55%. Fortum is also entitled to part of the electricity TVO produces in Meri-Pori through its shareholding of 26.58% of TVO C-series shares.

For further information regarding Fortum's shareholding in TVO, see ▸ *Note 20* Participations in associated companies and joint ventures.

CRITICAL ACCOUNTING ESTIMATES AND JUDGEMENTS

ASSUMPTIONS RELATED TO IMPAIRMENT TESTING

The Group has significant carrying values in property, plant and equipment, intangible assets and participations in associated companies and joint ventures which are tested for impairment according to the accounting policy described in the notes. The recoverable amounts of cash-generating units have been determined based on value in use calculations. These calculations are based on estimated future cash flows from most recent approved long-term forecast. Preparation of these estimates requires management to make assumptions relating to future expectations. Assumptions vary depending on the business the tested assets are in. For power and heat generation business the main assumptions relate to the estimated future operating cash flows and the discount rates used to present value them.

Estimates are also made in an acquisition when determining the fair values and remaining useful lives of acquired intangible and tangible assets, see ▸ *Note 18* Intangible assets.

EUR million	Land, waterfall rights and tunnels 2016	2015	Buildings, plants and structures 2016	2015	Machinery and equipment 2016	2015	Other tangible assets 2016	2015	Advances paid and construction in progress 2016	2015	Total 2016	2015
Cost 1 January	**2,859**	**2,810**	**3,146**	**3,110**	**5,614**	**9,728**	**136**	**136**	**755**	**904**	**12,510**	**16,687**
Translation differences and other adjustments	-104	59	146	-72	325	-124	-2	1	66	-24	430	-160
Acquisition of subsidiary companies	3	0	211	1	954	1	0	0	9	0	1 178	2
Capital expenditure	1	1	38	24	24	20	0	0	526	575	588	619
Nuclear asset retirement cost	0	0	0	0	-6	0	0	0	0	0	-6	0
Disposals	-1	0	-17	-11	-41	-54	0	0	-4	-1	-63	-67
Sale of subsidiary companies	0	-11	-46	-92	-92	-4,319	0	-2	-2	-132	-140	-4,556
Reclassifications	7	0	142	187	371	363	1	2	-525	-566	-4	-14
Cost 31 December	**2,765**	**2,859**	**3,621**	**3,146**	**7,147**	**5,614**	**135**	**136**	**824**	**755**	**14,492**	**12,510**
Accumulated depreciation 1 January	**0**	**0**	**1,367**	**1,328**	**2,319**	**4,054**	**113**	**111**	**0**	**0**	**3,799**	**5,492**
Translation differences and other adjustments	0	0	21	-10	62	-16	-2	1	0	0	82	-25
Acquisition of subsidiary companies	0	0	97	0	333	1	0	0	0	0	430	1
Disposals	0	0	-14	-8	-40	-52	-2	0	0	0	-56	-60
Sale of subsidiary companies	0	0	-20	-43	-28	-1,978	0	-2	0	0	-48	-2,023
Depreciation for the period [1)]	0	0	102	100	246	312	7	3	0	0	355	416
Reclassifications	0	0	-3	0	5	-1	-2	0	0	0	0	0
Accumulated depreciation 31 December	**0**	**0**	**1,550**	**1,367**	**2,898**	**2,319**	**114**	**113**	**0**	**0**	**4,562**	**3,799**
BS Carrying amount 31 December	**2,764**	**2,859**	**2,071**	**1,779**	**4,249**	**3,295**	**21**	**23**	**824**	**755**	**9,930**	**8,710**

1) 2015 includes depreciations related to discontinued operations (see *Note 14* Discontinued operations).

The increase in property, plant and equipment was mainly resulting from acquisition of Ekokem Corporation and Grupa DUON S.A. in City Solutions segment. The increase was offset by the divestment of Fortum's 100% owned subsidiary OOO Tobolsk CHP to SIBUR.

See *Note 40* Acquisitions and disposals for additional information on the acquisition of Ekokem Corporation and Grupa Duon S.A.

Property, plant and equipment that are subject to restrictions in the form of real estate mortgages amount to EUR 236 million (2015: 255). See *Note 37* Pledged assets and contingent liabilities.

19.1 Capitalised borrowing costs

EUR million	Buildings, plants and structures 2016	2015	Machinery and equipment 2016	2015	Advances paid and construction in progress 2016	2015	Total 2016	2015
1 January	**43**	**35**	**132**	**125**	**41**	**42**	**217**	**202**
Translation differences and other adjustments	9	-4	28	-13	6	-4	43	-21
Increases / disposals	0	0	6	6	10	38	16	44
Sale of subsidiary companies	-1	0	-6	0	0	0	-7	0
Reclassification	5	14	9	21	-16	-36	-2	-1
Depreciation	-2	-1	-7	-6	0	0	-9	-7
31 December	**55**	**43**	**162**	**133**	**41**	**41**	**258**	**217**

Borrowing costs of EUR 16 million were capitalised in 2016 (2015: 44). The interest rate used for capitalisation varied between 2–13% (2015: 2–19%).

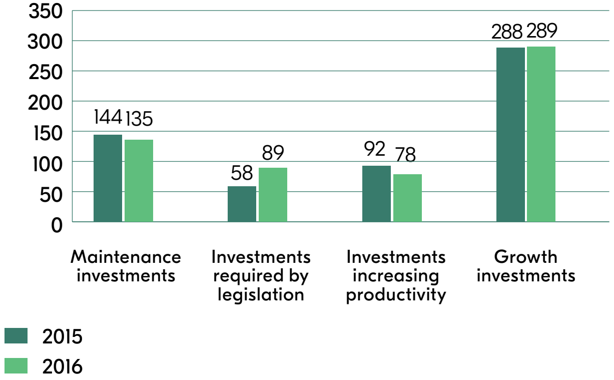
19.2 Capital expenditure [1)]

	Finland		Sweden		Russia		Poland		Estonia		Other countries		Total	
EUR million	2016	2015	2016	2015	2016	2015	2016	2015	2016	2015	2016	2015	2016	2015
Generation														
Hydropower	29	25	74	77									103	102
Nuclear power	90	75											90	75
Fossil-based electricity	1												1	
Renewable-based electricity			1	8								0	1	8
Other	2	2											2	2
Total Generation	122	102	75	85								0	196	187
City Solutions														
Fossil-based heat	7	7					14	14					21	21
Fossil-based electricity							1	1					1	1
Renewable, of which	17	26	2				29	11	1		2	1	50	38
waste	9		2				29	11			1	1	42	12
biofuels	8	25										1	8	25
other	0	2							1				1	2
District heat network	9	12					12	11	6	7		1	27	31
Other	5	5		1			3	0	4	3		5	12	14
Total City Solutions	38	49	2	1			58	37	11	11	1	7	112	105
Russia														
Fossil-based electricity					168	267							168	267
Fossil-based heat					17	18							17	18
Renewable-based electricity, wind					15	0							15	0
Total Russia					201	285							201	285
Other														
Renewable-based electricity, wind			11										11	
Renewable-based electricity, solar											43		43	
Other	13		3	1							12		29	
Total Other	13	5	14	1							55		83	6
Total for continuing operations	173	156	91	87	201	285	59	37	11	11	56	7	591	582
Discontinued operations (Distribution)				44										44
Total	173	156	91	132	201	285	59	37	11	11	56	7	591	626

1) Includes capital expenditure to both intangible assets and property, plant and equipment.

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42

Fortum classifies investments in four main categories (continuing operations, EUR million)



19.2.1 Generation

In Finland, Fortum invested EUR 90 million (2015: 75) into the Loviisa nuclear power plant. Fortum invested additionally EUR 103 million (2015: 102) into hydro production, mainly maintenance, legislation and productivity investments. The biggest of these were Långströmmen dam safety EUR 11 million and Järpströmmen refurbishment in Sweden EUR 6 million. Investments in CO_2 free production were EUR 193 million (2015: 184).

19.2.2 City Solutions

Growth investments in City Solutions totalled EUR 69 million (2015: 42) in year 2016. Maintenance, legislation and productivity investments totalled EUR 42 million (2015: 62). This amount consists mainly of investments in district heat networks and plants as well as the maintenance of existing CHP plants and measures defined by legal requirements. Larger ongoing projects in 2016 comprised of bio-pellet heat boiler in Espoo and new CHP plant in Zabrze, Poland. Investments in CO_2 free production were EUR 0 million (2015: 39).

19.2.3 Russia

OAO Fortum has completed its extensive investment programme which almost doubles its power capacity with 2,300 MW. During 2016 EUR 96 million (2015: 161) was invested in this programme. In February 2016 Fortum commissioned Chelyabinsk GRES 2, which started to receive capacity payments as of 1 March 2016. Russia has also started building wind park Ulyanovsk and investments in 2016 related to wind park were EUR 15 million. Investments in CO_2 free production were EUR 15 million (2015: 0).

19.2.4 Other

Other Division's investments contain solar investments in India EUR 43 million and investments in wind power production EUR 11 million. Wind investments contain Solberg and Blaiken wind parks in Sweden. Other Division invested also in Charge and Drive EUR 12 million, mainly charging poles in Norway. Investments in CO_2 free production were EUR 54 million (2015: 0).

19.3 Impairment testing of non-financial assets in 2016

Total goodwill in the balance sheet as of 31 December 2016 amounted to EUR 353 million (2015: 152). The goodwill allocated to Fortum's power and heat generation and sales in Russia, EUR 191 million, is included in Russian cash generating unit.

Goodwill arising from acquisition of Ekokem Corporation in August 2016 amounted to EUR 141 million. Acquisition supports Fortum's vision of creating solutions for sustainable cities. Ekokem is integrated as a business area into the City Solutions division, however allocation of goodwill to separate cash generating units is still on-going. Also the purchase price allocation is still preliminary. See more information in ▶ *Note 40* Acquisitions and disposals.

The impairment testing for the Russian cash generating unit in 2016 is described below.

Key assumptions used in impairment testing are presented below as well as the basis for determining the value of each assumption. Assumptions are based on internal and external data that are consistent with observable market information, when applicable. The assumptions are determined by management as part of the long-term forecasting process for the Fortum Group.

Key assumptions	Basis for determining the value for key assumptions
Power market development	Historical analysis and prospective forecasting
Regulation framework	Current market setup and prospective forecasting (e.g. CSA mechanism)
Utilisation of power plants	Past experience, technical assessment and forecasted market development
Forecasted maintenance investments	Past experience, technical assessment and planned maintenance work
Discount rate	Mostly market based information

The cash flows used in determining the value in use for each cash generating unit are based on the most recent long-term forecasts and are determined in local currency. The period covered by cash flows is related to the useful lives of the assets being reviewed for impairment. The growth rate used to extrapolate the cash flow projections until the end of assets' useful lives is in line with the assumed inflation. In Russia the generation capacity built after 2007 under the Russian Government's Capacity Supply Agreements receives guaranteed capacity payments for a period of 10 years.

The discount rate takes into account the risk profile of the country in which the cash flows are generated. There have not been any major changes in the discount rate components or in the methods used to determine them. The long-term pre-tax discount rate used for Russia was 11.1% (2015: 11.1%).

The net operating assets of OAO Fortum, including fair value adjustments and goodwill arising from the acquisition of the company are tested yearly for possible impairment. As of 31 December 2016, the recoverable values were greater than their carrying values and therefore no impairments were booked.

The Group has considered the sensitivity of key assumptions as part of the impairment testing. When doing this any consequential effect of the change on the other variables has also been considered. The calculations are most sensitive to changes in estimated future EBITDA levels and changes in discount rate.

Management estimates that a reasonably possible change in the discount rate used or in future earnings would not cause Russian cash generating unit's carrying amount to exceed its recoverable amount.

Based on the sensitivity analysis done, if the estimated future EBITDA were 10% lower than management's estimates or pre-tax discount rate applied was 10% higher than the one used, the Group would not need to recognise impairment losses for property plant and equipment or goodwill.

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42

20 Participations in associated companies and joint ventures

ACCOUNTING POLICIES

The Group's interests in associated companies and jointly controlled entities are accounted for using the equity method of accounting. Assets acquired and liabilities assumed in the investment in associates or joint ventures are measured initially at their fair values at the acquisition date. The excess of the cost of acquisition over the fair value of the Group's share of the identifiable net assets acquired is recorded as goodwill. If the cost of acquisition is less than the fair value of the net assets of the associate or joint venture acquired, the difference is recognised directly in the income statement.

The Group's share of its associates or joint ventures post-acquisition profits or losses after tax and the expenses related to the adjustments to the fair values of the assets and liabilities assumed are recognised in the income statement. The cumulative post-acquisition movements are adjusted against the carrying amount of the investment. The Group's share of post-acquisition adjustments to associates or joint ventures equity that has not been recognised in the associates or joint ventures income statement, is recognised directly in Group's shareholder's equity and against the carrying amount of the investment.

When the Group's share of losses in an associate or a joint venture equals or exceeds its interest in the associate or joint venture, including any other unsecured receivables, the Group does not recognise further losses, unless it has incurred obligations or made payments on behalf of the associate or joint venture.

Unrealised gains on transactions between the Group and its associates or joint ventures are eliminated to the extent of the Group's interest in the associate or joint venture. Unrealised losses are also eliminated unless the transaction provides evidence of an impairment of the asset transferred. Accounting policies of associates or joint ventures have been changed where necessary to ensure consistency with the policies adopted by the Group.

If more recent information is not available, the share of the profit of certain associated or joint venture companies is included in the consolidated accounts based on the latest available information.

CRITICAL ACCOUNTING ESTIMATES AND JUDGEMENTS

Management is required to make significant judgements when assessing the nature of Fortum's interest in its investees and when considering the classification of Fortum's joint arrangements. In the classification, emphasis has been put on decision-making, legal structure and financing of the arrangements.

Management judgement is required when testing the carrying amounts for participations in associated companies and joint ventures for impairment. See ▸ *Note 19* Property, plant and equipment for more information.

20.1 Principal associated companies and joint ventures

	OKG AB	Forsmarks Kraftgrupp AB	Kemijoki Oy	Hafslund ASA	TGC-1	TVO	Fortum Värme
Nature of the relationship	Power production company	Power production company	Power production company	Holding in energy company (listed)	Holding in energy company (listed)	Power production company	Holding in power and heat company
Classification	Associated company	Associated company	Associated company	Associated company	Associated company	Joint venture	Joint venture
Segment	Generation	Generation	Generation	Other	Russia	Generation	City Solutions
Domicile	Sweden	Sweden	Finland	Norway	Russia	Finland	Sweden
Ownership interest, % [1]	46	26	60	34	29	26	50
Votes, %	46	26	28	33	29	26	50

1) Kemijoki and TVO have different series of shares. The ownership interest varies due to the changes in equity assigned to the different share series. The ownership interests for 2015 for Kemijoki Oy and TVO were 60% and 26% respectively.

Shareholdings in power production companies

Power plants are often built jointly with other power producers. Under the consortium agreements, each owner is entitled to electricity in proportion to its share of ownership or other agreements and each owner is liable for an equivalent portion of costs. The production companies are not profit making, since the owners purchase electricity at production cost including interest cost and production taxes. The share of profit of these companies is mainly IFRS adjustments (e.g. accounting for nuclear related assets and liabilities) and depreciations on fair value adjustments from historical acquisitions since the companies are not profit making under local accounting principles.

Fortum has material shareholdings in such power production companies (mainly nuclear and hydro) that are consolidated using equity method either as associated companies (OKG AB, Forsmarks Kraftgrupp AB and Kemijoki Oy) or in some cases as joint ventures (Teollisuuden Voima Oyj (TVO)).

In Sweden nuclear production company shareholdings are 45.5% ownership of the shares in OKG AB and 25.5% ownership of the shares in Forsmarks Kraftgrupp AB. Excluding non-controlling interests in the subsidiaries, Fortum's participation in the companies are 43.4% and 22.2% respectively, which reflects the share of electricity produced that Fortum can sell further to the market. The minority part of the electricity purchased is invoiced further to each minority owner according to their respective shareholding and treated as pass-through. OKG AB and Forsmarks Kraftgrupp AB are accounted for as associated companies as Fortum has a representation on the Board of Directors and it participates in policy-making processes of the companies.

In Finland Fortum has an ownership in power production company TVO that has three series of shares which entitle the shareholders to electricity produced in the different power plants owned by TVO.

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42

Shares in series A entitle to electricity produced in nuclear power plants Olkiluoto 1 and 2 and Fortum owns 26.6% of these shares. Series B entitles to electricity in the nuclear power plant presently being built, Olkiluoto 3, and Fortum's ownership in this share series is 25%. Series C entitles to electricity produced in TVO's share of the thermal power plant Meri-Pori, and Fortum's ownership in this share series is 26.6%. The Meri-Pori power plant is accounted for as a joint operation in Fortum. See also Associated companies in ▶ *Note 38* Legal actions and official proceedings.

See also Joint operations in the accounting principles in ▶ *Note 19* Property, plant and equipment.

The most significant hydro production company shareholding is 63.8% of the hydro shares and 28.27% of the monetary shares in Kemijoki Oy. Each owner of hydro shares is entitled to the hydropower production in proportion to its hydro shareholding. Since Fortum has a representation on the Board of Directors and it participates in the policy-making processes, Kemijoki Oy is accounted for as an associated company.

Other shareholdings accounted for using the equity method

In Sweden Fortum has a 50% ownership in AB Fortum Värme Holding samägt med Stockholms stad (Fortum Värme) that is co-owned with the City of Stockholm through Stockholms Stadshus AB. Fortum Värme produces district heating, district cooling and electricity and supplies heat and cooling to customers in the Stockholm area. Fortum and the City of Stockholm have renewed the shareholders' agreement which came into force as of 1 January 2016. Parties also agreed that Fortum Värme's shareholder loans from Fortum would be replaced with external financing by the end of 2015. The refinancing was done and as of 31 December 2015 Fortum Värme no longer has interest-bearing liabilities to Fortum.

Previously Fortum owned 90.1% of the shares representing 50.1% of the votes in Fortum Värme and the City of Stockholm owned 9.9% of the shares as preference shares representing 49.9% of the votes. The preference shares entitled the City of Stockholm to 50% of the economic output of Fortum Värme. On 1 December 2015 the City of Stockholm exchanged their preference shares to ordinary shares after which the voting rights are equally divided (50/50) between Fortum and the City of Stockholm. The City of Stockholm and Fortum have had and will continue to have 50% right to the economic output. The shareholding is accounted for as a joint venture with the equity method, as according to the shareholders' agreement control is shared.

Fortum owns shareholdings in listed companies such as Hafslund ASA and Territorial Generating Company 1 (TGC-1). The shareholdings are accounted for as associated companies as Fortum has representatives in the Board of Directors of the companies. The share of profit of these companies is accounted for based on previous quarter information since updated interim information is not normally available.

Summarised financial information of the principal associated companies

Impact of different accounting principles presented in the tables below on the line Fair values on acquisitions and different accounting principles include mainly IFRS adjustments for Nuclear liabilities and assets and capitalised borrowing costs in Swedish associates. Fortum records its share of nuclear related assets and liabilities in its nuclear associated companies according to equity method. The basis for recognition is similar as for Loviisa power plant, see accounting principles in ▶ *Note 30* Nuclear related assets and liabilities.

2016

EUR million	OKG AB	Forsmarks Kraftgrupp AB	Kemijoki Oy	Hafslund ASA	TGC-1
Balance sheet	**31 Dec 2015**	**31 Dec 2015**	**31 Dec 2015**	**30 Sept 2016**	**30 Sept 2016**
Non-current assets	645	2,361	465	2,442	2,113
Current assets	448	440	9	303	332
Non-current liabilities	611	2,578	306	1,254	382
Current liabilities	469	186	88	468	332
Equity	13	37	80	1,023	1,732
Attributable to NCI	0	0	0	0	134
Attributable to the owners of the parent	13	37	80	1,022	1,598
Statement of comprehensive income	**1 Jan 2015–31 Dec 2015**	**1 Jan 2015–31 Dec 2015**	**1 Jan 2015–31 Dec 2015**	**1 Oct 2015–30 Sep 2016**	**1 Oct 2015–30 Sep 2016**
Revenue	1,987	695	60	1,393	1,032
Profit or loss from continuing operations	1	1	-3	154	116
Other comprehensive income	0	0	0	13	-2
Total comprehensive income	1	1	-3	167	114
Attributable to NCI	0	0	0	0	-3
Attributable to the owners of the parent	1	1	-3	167	117
Reconciliation to carrying amount in the Fortum group					
Group's interest in the equity of the associate at 1 January 2016	6	10	46	297	347
Change in share of profit and from OCI items	0	0	-1	56	33
Dividends received	0	0	0	-21	-4
Translation differences and other adjustments	0	0	3	16	95
Group's interest in the equity of the associate at 31 December 2016	**6**	**10**	**48**	**349**	**471**
Fair values on acquisitions and different accounting principles	8	90	158	8	-34
Carrying amount at 31 December 2016	**14**	**100**	**206**	**356**	**436**
Market value for listed shares [1]				693	265

1) The market quotation for the TGC-1 share is affected by the low liquidity of the TGC-1 shares in the Russian stock exchanges. During 2016 trading volumes of TGC-1 shares in relation to the number of shares of the company were approximately 12% (2015: 10%).

2015

EUR million	OKG AB	Forsmarks Kraftgrupp AB	Kemijoki Oy	Hafslund ASA	TGC-1
Balance sheet	31 Dec 2014	31 Dec 2014	31 Dec 2014	30 Sept 2015	30 Sept 2015
Non-current assets	2,271	2,261	449	2,301	1,625
Current assets	475	491	4	336	236
Non-current liabilities	2,648	2,601	305	1,268	417
Current liabilities	85	114	71	496	156
Equity	12	38	77	873	1,288
Attributable to NCI				2	109
Attributable to the owners of the parent	12	38	77	872	1,178
Statement of comprehensive income	1 Jan 2014–31 Dec 2014	1 Jan 2014–31 Dec 2014	1 Jan 2014–31 Dec 2014	1 Oct 2014–30 Sep 2015	1 Oct 2014–30 Sep 2015
Revenue	542	707	55	1,351	1,011
Profit or loss from continuing operations	0	1	-10	120	62
Other comprehensive income				8	1
Total comprehensive income	0	1	-10	128	63
Attributable to NCI				0	4
Attributable to the owners of the parent	0	1	-10	128	59
Reconciliation to carrying amount in the Fortum group					
Group's interest in the equity of the associate at 1 January 2015	6	9	52	289	374
Change in share of profit and from OCI items			-6	44	18
Dividends received				-18	-4
Translation differences and other adjustments	0	1		-17	-41
Group's interest in the equity of the associate at 31 December 2015	**6**	**10**	**46**	**297**	**347**
Fair values on acquisitions and different accounting principles	39	88	160	9	-31
Carrying amount at 31 December 2015	**45**	**97**	**206**	**306**	**316**
Market value for listed shares				411	59

Summarised financial information of the principal joint ventures in 2016 and 2015

EUR million	2016 TVO	2016 Fortum Värme	2015 TVO	2015 Fortum Värme
Balance sheet	30 Sept 2016	31 Dec 2016	30 Sept 2015	31 Dec 2015
Non-current assets	7,098	2,692	6,785	2,777
Current assets	413	271	521	308
of which cash and cash equivalents	129	13	141	0
Non-current liabilities	5,280	1,488	5,201	1,645
of which non-current interest-bearing liabilities	4,318	1,105	4,247	1,247
Current liabilities	659	298	578	305
of which current financial liabilities	466	164	432	145
Equity [1)]	1,573	1,176	1,528	1,135
Attributable to NCI		0		0
Attributable to the shareholders of the company	1,573	1,176	1,528	1,135
Statement of comprehensive income	1 Oct 2015–30 Sep 2016	1 Jan 2016–31 Dec 2016	1 Oct 2014–30 Sep 2015	1 Jan 2015–31 Dec 2015
Revenue	322	699	379	661
Depreciation and amortisation	-54	-125	-115	-127
Interest income	17	0	23	0
Interest expense	-44	-13	-64	-57
Income tax expense or income	0	-33	0	-25
Profit or loss from continuing operations	-23	124	8	84
Other comprehensive income	-27	4	4	-2
Total comprehensive income	-51	128	12	82
Attributable to NCI		0		0
Attributable to the shareholders of the company	-51	128	12	82
Reconciliation to carrying amount in the Fortum group				
Group's interest in the equity of the joint venture at 1 January	294	567	292	535
Change in share of profit and from OCI items	-14	64	2	37
Dividends received	0	-21		-21
Translation differences and other adjustments		-21		16
Group's interest in the equity of the joint venture at 31 December	**279**	**588**	**294**	**567**
Fair values on acquisitions and different accounting principles [2)]	-6	-81	-11	-88
Carrying amount at 31 December	**274**	**507**	**283**	**479**

1) The equity of TVO includes subordinated loans of EUR 479 million (2015: 379). Fortum has given part of these loans, pro rata to the ownership.

2) Impact of different accounting principles include mainly IFRS adjustments for Nuclear liabilities and assets and capitalised borrowing costs. Fortum records its share of nuclear related assets and liabilities in its nuclear associated companies according to equity method. The basis for recognition is similar as for Loviisa power plant, see accounting principles in *Note 30* Nuclear related assets and liabilities.

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42

20.2 Participations and shares of profits in associated companies and joint ventures

EUR million	2016	2015
Principal associates	1,111	970
Principal joint ventures	781	762
Other associates	42	43
Other joint ventures	178	184
BS Carrying amount 31 December	**2,112**	**1,959**

Changes in participation during the year

EUR million	Joint ventures 2016	Associated companies 2016	Joint ventures 2015	Associated companies 2015
Historical cost				
1 January	558	800	546	838
Translation differences and other adjustments	-8	64	4	-37
Acquisitions	17	0	22	5
Reclassifications	83	-1	6	-5
Divestments	-14	0	-21	0
Historical cost 31 December	**636**	**864**	**558**	**800**
Equity adjustments				
1 January	388	213	366	277
Translation differences and other adjustments	-16	41	9	-17
Share of profits of associates and joint ventures [1)]	69	62	56	-37
Reclassifications	-83	1	-6	5
Divestments	-8	0	-6	0
Dividends received	-28	-26	-29	-23
OCI items associated companies and joint ventures	1	-2	-2	7
Equity adjustments 31 December	**324**	**289**	**388**	**213**
Carrying amount at 31 December	**959**	**1,153**	**946**	**1,013**

1) In 2015 including impairment charges of EUR -116 million, see *Note 7* Effects from early closure of nuclear units in Sweden.

For information about investments and divestments of shares in associated companies, see *Note 40* Acquisitions and disposals.

Share of profit of associates and joint ventures

EUR million	2016	2015
Principal associates		
OKG AB [1)]	-30	-107
Forsmarks Kraftgrupp AB	6	7
Kemijoki Oy	-3	-9
Hafslund ASA	51	39
TGC-1	38	32
Principal associates, total	**62**	**-38**
Principal joint ventures		
Fortum Värme	66	47
TVO	-7	-2
Principal joint ventures, total	**59**	**45**
Other associates	0	1
Other joint ventures	10	11
IS Total	**131**	**20**

1) In 2015 including impairment charges of EUR -116 million, see *Note 7* Effects from early closure of nuclear units in Sweden.

The unrecognized share of losses of associated companies and joint ventures (for the reporting period and cumulatively) is zero.

Share of profits from Teollisuuden Voima Oyj, Forsmarks Kraftgrupp AB and OKG AB includes EUR -30 million (2015: -37) arising from accounting of nuclear related assets and liabilities.

Share of profits from Värme include compensation paid to Fortum for early prepayment of the interest-bearing loans from Fortum EUR 0 million (2015: -19).

20.3 Transactions and balances

Associated company transactions

EUR million	2016	2015
Sales to associated companies	1	2
Interest on associated company loan receivables	14	15
Purchases from associated companies	385	418

Purchases from associated companies include mainly purchases of nuclear and hydro power at production cost including interest costs and production taxes.

Associated company balances

EUR million	2016	2015
Receivables from associated companies		
Long-term interest-bearing loan receivables	704	601
Trade receivables	1	0
Other receivables	0	0
Liabilities to associated companies		
Long-term loan payables	5	2
Trade payables	1	4
Other payables	0	160

For more info about receivables from associated companies, see ▸ *Note 22* Interest-bearing receivables.

Joint venture transactions

EUR million	2016	2015
Sales to joint ventures	104	79
Interest on joint venture loan receivables	2	12
Purchases from joint ventures	151	91
Other financial income	0	37

Purchases from joint ventures include mainly purchases of nuclear and hydro power at production cost including interest costs and production taxes.

Other financial income in 2015 includes compensation from early prepayment of loans by Fortum Värme.

Joint venture balances

EUR million	2016	2015
Receivables from joint ventures		
Long-term interest-bearing loan receivables	182	172
Trade receivables	19	11
Other receivables	16	14
Liabilities to joint ventures		
Long-term loan payables	273	268
Trade payables	6	6
Other payables	6	6

For more info about receivables from joint ventures, see ▸ *Note 22* Interest-bearing receivables.

21 Other non-current assets

EUR million	2016	2015
Available-for-sale financial assets	58	43
Other	55	50
BS Total	113	93

Available-for-sale financial assets, i.e. shares which are not classified as associated companies or joint ventures, consist mainly of shares in unlisted companies of EUR 58 million (2015: 43), for which the fair value can not be reliably determined. These assets are measured at cost less possible impairment.

Fortum decided in 2015 to participate in the Fennovoima nuclear power project in Finland with a 6.6% share. The participation is carried out through Voimaosakeyhtiö SF and the book value of the shares is EUR 18 million (2015: 11). The indirect investment in Fennovoima is classified as Available-for-sale financial assets, measured at cost, since fair value cannot be reliably determined.

22 Interest-bearing receivables

EUR million	Carrying amount 2016	Fair value 2016	Carrying amount 2015	Fair value 2015
Long-term loan receivables from associated companies	704	744	601	616
Long-term loan receivables from joint ventures	182	206	172	196
Other long-term interest bearing receivables	99	99	1	1
BS **Total long-term interest-bearing receivables**	**985**	**1,049**	**773**	**813**
Other short-term interest-bearing receivables	395	395	0	0
Total short-term interest-bearing receivables 1)	**395**	**395**	**0**	**0**
Total	**1,380**	**1,444**	**773**	**813**

1) Included in trade and other receivables in the balance sheet, see ▸ *Note 24* Trade and other receivables.

Long-term loan receivables include receivables from associated companies and joint ventures EUR 886 million (2015: 773). These receivables include EUR 686 million (2015: 582) from Swedish nuclear companies, OKG AB and Forsmarks Kraftgrupp AB, which are mainly funded with shareholder loans, pro rata each shareholder's ownership. The impairment charges in OKG AB during 2015 due to the decision to close down nuclear power units 1 and 2 will be invoiced from the shareholders when the costs are incurred. Fortum estimated the impact to be EUR 794 million and netted that against the shareholder

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loan. The main part of the netted amount has been invoiced to Fortum, the remaining part will be invoiced when the costs occur.

TVO is building Olkiluoto 3, the nuclear power plant, which is funded through external loans, share issues and shareholder loans according to shareholders' agreement between the owners of TVO. At end of December 2016 Fortum has EUR 120 million (2015: 120) outstanding receivables regarding Olkiluoto 3 and is additionally committed to provide at maximum EUR 75 million.

Interest-bearing receivables includes also EUR 131 million from SIBUR, a Russian gas processing and petrochemicals company regarding divested shares of OOO Tobolsk CHP.

Short-term interest-bearing receivables include EUR 360 million restricted cash mainly given as collateral for commodity exchanges which has increased during 2016 due to new European Market Infrastructure Regulation (EMIR) requiring fully-backed guarantees. The increase is mainly due to Nasdaq OMX cash collaterals of EUR 339 million (see *Additional cash flow information*).

For further information regarding credit risk management, see *Note 3.7* Credit risk.

For additional information regarding OKG AB, see *Note 7* Effects from early closure of nuclear units in Sweden.

Interest-bearing receivables

			Repricing					
EUR million	Effective interest rate, %	Carrying amount 2016	Under 1 year	1–5 years	Over 5 years	Fair value 2016	Carrying amount 2015	Fair value 2015
Long-term loan receivables	3.1	985	857	26	102	1,049	773	813
Short-term receivables	0.6	395	395			395	0	0
Total Interest bearing receivables	2.4	1,380	1,252	26	102	1,444	773	813

23 Inventories

ACCOUNTING POLICIES

Inventories mainly consist of fuels consumed in the production process or in the rendering of services. Inventories are stated at the lower of cost and net realisable value being the estimated selling price for the end product, less applicable variable selling expenses and other production costs. Cost is determined using the first-in, first-out (FIFO) method.

Inventories which are acquired primarily for the purpose of trading are stated at fair value less selling expenses.

EUR million	2016	2015
Nuclear fuel	91	98
Coal	51	62
Oil	7	6
Biofuels	3	5
Materials and spare parts	67	52
Other inventories	12	10
BS Total	233	231

Write downs in inventories amounted to EUR 1 million (2015: 5), mainly relating to obsolete spare parts.

24 Trade and other receivables

ACCOUNTING POLICIES

Trade receivables are recorded at their fair value. A provision for impairment of trade receivables is established when there is evidence that the Group will not be able to collect all amounts due according to the original terms of the receivable. Significant financial difficulties of the debtor, probability that the debtor will enter into bankruptcy or financial reorganisation, and default or delinquency in payments are considered as indicators that the receivable is impaired. The amount of the impairment charge is measured as the difference between the asset's carrying amount and the present value of estimated future cash flows.

Trade receivables include revenue based on an estimate of electricity, heat and cooling already delivered but not yet measured and not yet invoiced.

EUR million	2016	2015
Trade receivables	562	396
Accrued interest income	1	5
Accrued income and prepaid expenses	31	29
Other receivables	249	269
BS Total	844	698

The management considers that the carrying amount of trade and other receivables approximates their fair value. In the end of 2016 Nasdaq's market making for forwards ended and the trading moved from forwards with cash collaterals to futures with daily cash settlements.

The Nasdaq futures settlements are included in other receivables amounting to EUR 139 million in 2016.

24.1 Trade receivables

Ageing analysis of trade receivables

	2016		2015	
EUR million	Gross	Impaired	Gross	Impaired
Not past due	471	2	335	2
Past due 1–90 days	85	5	55	3
Past due 91–180 days	15	5	8	2
Past due more than 181 days	85	80	52	48
Total	655	93	449	54

Impairment losses recognised in the income statement were EUR 28 million (2015: 11), of which EUR 24 million (2015: 8) are impairment losses recognised in the OAO Fortum Group. On 31 December 2016, trade receivables of EUR 93 million (2015: 54) are impaired and provided for, of which EUR 79 million (2015: 47) refers to the OAO Fortum Group.

Trade receivables by currency (Gross)

EUR million	2016	2015
EUR	251	190
SEK	97	74
RUB	215	142
NOK	11	7
PLN	71	34
Other	10	4
Total	655	449

Trade receivables are arising from a large number of customers mainly in EUR, SEK, RUB and PLN mitigating the concentration of risk.

For further information regarding credit risk management and credit risks, see ▸ *Counterparty risks* in the Operating and financial review and ▸ *Note 3.7* Credit risk.

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42

25 Liquid funds

ACCOUNTING POLICIES

Cash and cash equivalents in Liquid funds include cash in hand, deposits held at call with banks and other short-term, highly liquid investments with maturities of three months or less. Deposits and securities with maturity more than 3 months include fixed term deposits and commercial papers with maturity more than three months but less than twelve months. Deposits and securities are classified as available-for-sale financial assets.

Bank overdrafts are shown within borrowings in current liabilities in the balance sheet. Cash collaterals or otherwise restricted cash are treated as short-term interest-bearing receivables.

EUR million	2016	2015
Cash at bank and in hand	1,444	2,854
Deposits and securities with maturity under 3 months	235	435
Cash and cash equivalents	**1,679**	**3,289**
Deposits and securities with maturity more than 3 months	3,475	4,913
BS Total	**5,155**	**8,202**

Liquid funds consists of deposits and cash in bank accounts amounting to EUR 4,544 million and commercial papers EUR 611 million. The average interest rate on deposits and securities excl. Russian deposits on 31 December 2016 was -0.01% (2015: 0.1%). Liquid funds held by OAO Fortum amounted to EUR 105 million (2015: 76) and the average interest rate for this portfolio was 9.0% at the balance sheet date.

Bank deposits include bank deposits held by OAO Fortum amounting to EUR 103 million (2015: 72). At the year-end 2016 OAO Fortum's deposits included EUR 1 million in euros and EUR 102 million in Russian roubles. The bank deposits in euros held by OAO Fortum are hedging future payments in euros.

Liquid funds totalling EUR 4,663 million (Dec 31 2015: 7,521) are placed with counterparties that have an investment grade rating. In addition, EUR 377 million (Dec 31 2015: 628) have been placed with counterparties separately reviewed and approved by the Group's credit control department.

For further information regarding credit risk management and credit risks, see ▶ *Counterparty risks* in the Operating and financial review and ▶ *Note 3.7* Credit risk.

26 Share capital

EUR million	2016		2015	
	Number of shares	Share capital	Number of shares	Share capital
Registered shares at 1 January	888,367,045	3,046	888,367,045	3,046
Registered shares at 31 December	888,367,045	3,046	888,367,045	3,046

Fortum Oyj has one class of shares. By the end of 2016, a total of 888,367,045 shares had been issued. Each share entitles the holder to one vote at the Annual General Meeting. All shares entitle holders to an equal dividend. At the end of 2016 Fortum Corporation's share capital, paid in its entirety and entered in the trade register, was EUR 3,046,185,953.00.

Fortum Corporation's shares are listed on Nasdaq Helsinki. The trading code is FUM1V (FORTUM as of 25 January 2017). Fortum Corporation's shares are in the Finnish book entry system maintained by Euroclear Finland Ltd.

Details on the President and CEO and other members of the Fortum Executive Management Team's shareholdings and interest in the equity incentive schemes is presented in ▶ *Note 11* Employee benefits.

26.1 Authorisations from the Annual General Meeting 2016

On 5 April 2016, the Annual General Meeting decided to authorise the Board of Directors to decide on the repurchase and disposal of the company's own shares up to a maximum number of 20,000,000 shares, which corresponds to approximately 2.25% of all the shares in the company. The authorisation is effective for a period of 18 months from the resolution of the General Meeting. The authorisation had not been used by the end of 2016.

26.2 Convertible bond loans and bonds with warrants

Fortum Corporation has not issued any convertible bonds or bonds with attached warrants, which would entitle the bearer to subscribe for Fortum shares. The Board of Directors of Fortum Corporation has no unused authorisations from the General Meeting of shareholders to issue convertible bond loans or bonds with warrants or increase the company's share capital.

27 Non-controlling interests

Principal non-controlling interests

EUR million		2016	2015
OAO Fortum Group	Russia	37	27
AS Fortum Tartu Group	Estonia	30	27
Other		17	16
BS Total		84	69

28 Interest-bearing liabilities

ACCOUNTING POLICIES

Borrowings are recognised initially at fair value less transaction costs incurred. In subsequent periods, they are stated at amortised cost; any difference between proceeds (net of transaction costs) and the redemption value is recognised as interest cost over the period of the borrowing using the effective interest method. Borrowings or portion of borrowings being hedged with a fair value hedge are recognised at fair value.

Net debt

EUR million	2016	2015
Interest-bearing liabilities	5,107	6,007
Liquid funds	5,155	8,202
Net debt	**-48**	**-2,195**

Net debt is calculated as interest-bearing liabilities less liquid funds without deducting interest-bearing receivables amounting to EUR 1,380 million (Dec 31 2015: 773). Interest-bearing receivables mainly consist of shareholder loans to partly owned nuclear companies regarded long-term financing. For more information see ▶ *Note 22* Interest-bearing receivables.

Interest-bearing debt

EUR million	2016	2015
Bonds	2,986	3,345
Loans from financial institutions	247	411
Reborrowing from the Finnish State Nuclear Waste Management Fund	1,094	1,074
Other long-term interest-bearing debt	140	135
BS Total long-term interest-bearing debt	**4,468**	**4,965**
Current portion of long-term bonds	343	750
Current portion of loans from financial institutions	145	78
Current portion of reborrowing from the Finnish State Nuclear Waste Management Fund	0	0
Current portion of other long-term interest-bearing debt	11	10
Other short-term interest-bearing debt	140	204
BS Total short-term interest bearing debt	**639**	**1,042**
Total interest-bearing debt	**5,107**	**6,007**

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Interest-bearing debt

EUR million	Effective interest rate, %	Carrying amount 2016	Repricing Under 1 year	Repricing 1–5 years	Repricing Over 5 years	Fair value 2016	Carrying amount 2015	Fair value 2015
Bonds	3.2	3,329	762	1,391	1,177	3,609	4,094	4,375
Loans from financial institutions	2.8	393	331	62	0	425	490	531
Reborrowing from the Finnish State Nuclear Waste Management Fund	0.5	1,094	1,094	-	-	1,156	1,074	1,132
Other long-term interest-bearing debt [1]	2.3	151	151	-	-	157	145	155
Total long-term interest-bearing debt [2]	**2.5**	**4,967**	**2,337**	**1,452**	**1,177**	**5,348**	**5,803**	**6,193**
Other short-term interest-bearing debt	-0.3	140	140	-	-	140	204	204
Total short-term interest-bearing debt	**-0.3**	**140**	**140**	**-**	**-**	**140**	**204**	**204**
Total interest-bearing debt [3]	**2.5**	**5,107**	**2,477**	**1,452**	**1,177**	**5,488**	**6,007**	**6,397**

1) Includes loans from Finnish pension institutions EUR 58 million (2015: 68) and other loans EUR 93 million (2015: 77).

2) Including current portion of long-term debt.

3) The average interest rate on loans and derivatives on 31 December 2016 was 3.5% (2015: 3.7%).

The interest-bearing debt decreased in 2016 by EUR 900 million to EUR 5,107 million (2015: 6,007). The amount of short-term financing decreased with EUR 64 million, and at the end of the year the amount of short-term financing EUR 140 million (2015: 204) included 135 million (2015: 202) from Credit Support Annex agreements.

In March 2016 Fortum increased the amount of re-borrowing from the Finnish nuclear waste fund and Teollisuuden Voima by EUR 20 million to EUR 1,094 million. On June 16th, Fortum Corporation signed a new EUR 1,750 million syndicated Multicurrency Revolving Facility Agreement at the same time as the previous facility from year 2011 was cancelled. The new committed back-up facility can be used for general corporate purposes with initial maturity of five years and Fortum may request two one-year extension options. In June Fortum repaid a EUR 750 million bond.

The average interest rate for the portfolio consisting mainly of EUR and SEK loans was 2.1% at the balance sheet date (2015: 2.6%). Part of the external loans EUR 805 million (2015: 641) have been swapped to RUB and the average interest cost for these loans including cost for hedging the RUB was 11.4% at the balance sheet date (2015: 12.8%). The average interest rate on total loans and derivatives at the balance sheet date was 3.5% (2015: 3.7%).

For more information please see ▶ *Note 3* Financial risk management and ▶ *Note 37* Pledged assets and contingent liabilities.

28.1 Bond issues

Issued/Maturity	Interest basis	Interest rate, %	Effective interest, %	Currency	Nominal value million	Carrying amount EUR million
Fortum Oyj EUR 8,000 million EMTN Programme [1]						
2009/2017	Fixed	6.125	6.240	NOK	500	55
2009/2019	Fixed	6.000	6.095	EUR	750	748
2011/2021	Fixed	4.000	4.123	EUR	500	523
2012/2017	Floating	Stibor 3M+1.2		SEK	1,000	105
2012/2017	Fixed	3.250	3.260	SEK	1,750	183
2012/2022	Fixed	2.250	2.344	EUR	1,000	1,080
2013/2018	Fixed	2.750	2.855	SEK	1,150	120
2013/2018	Floating	Stibor 3M+1.0		SEK	3,000	314
2013/2023	Floating	Stibor 3M+1.13		SEK	1,000	105
2013/2043	Fixed	3.500	3.719	EUR	100	96
Total outstanding carrying amount 31 December 2016						**3,329**

1) EMTN = Euro Medium Term Note

29 Income taxes in balance sheet

ACCOUNTING POLICIES

The tax currently payable is based on taxable profit for the year. Taxable profit differs from profit as reported in the consolidated income statement, because of items of income or expense that are taxable or deductible in other years and items that are never taxable or deductible. The Group's liability for current tax is calculated using tax rates that have been enacted or substantively enacted by the end of the reporting period.

Deferred tax is provided in full, using the liability method on temporary differences arising between the tax bases of assets and liabilities and their carrying amounts in the consolidated financial statements. However, if the deferred tax arises from initial recognition of an asset or liability in a transaction other than a business combination that at the time of the transaction affects neither accounting nor taxable profit or loss, it is not accounted for. Deferred tax is determined using tax rates (and laws) that have been enacted or substantially enacted by the closing date and are expected to apply when the related deferred tax asset is realised or the deferred tax liability is settled.

Deferred tax assets are recognised to the extent that it is probable that future taxable profit will be available against which the temporary differences can be utilised. Deferred tax assets are set off against deferred tax liabilities if they relate to income taxes levied by the same taxation authority.

Deferred tax is provided on temporary differences arising from investments in subsidiaries, associates and joint ventures, except where the timing of the reversal of the temporary difference is controlled by the Group, and it is probable that the temporary difference will not be reversed in the foreseeable future.

The Group recognises liabilities for anticipated tax dispute issues based on estimates of whether additional taxes will be due. No provision will be recognised in the financial statements if Fortum considers the claims unjustifiable. Therefore, if taxes regarding ongoing tax disputes have to be paid before final court decisions, they will be booked as a receivable. Where the final outcome of these matters is different from the amounts that were initially recorded, such differences will impact the income tax and deferred tax provisions in the period in which such determination is made.

CRITICAL ACCOUNTING ESTIMATES AND JUDGEMENTS

ASSUMPTIONS AND ESTIMATES REGARDING FUTURE TAX CONSEQUENCES

Fortum has deferred tax assets and liabilities which are expected to be realised through the income statement over the extended periods of time in the future. In calculating the deferred tax items, Fortum is required to make certain assumptions and estimates regarding the future tax consequences attributable to differences between the carrying amounts of assets and liabilities as recorded in the financial statements and their tax basis.

Assumptions made include the expectation that future operating performance for subsidiaries will be consistent with historical levels of operating results, recoverability periods for tax loss carry-forwards will not change, and that existing tax laws and rates will remain unchanged into foreseeable future. Fortum believes that it has prudent assumptions in developing its deferred tax balances.

Assumptions and estimates regarding uncertain tax positions are supported by external legal counsel or expert opinion.

If the actual final outcome (regarding tax disputes) would differ negatively from management's estimates with 10%, the Group would need to increase the income tax liability by EUR 29 million as of 31 December 2016. For additional information regarding tax disputes, see ▶ *Note 38* Legal actions and official proceedings.

29.1 Deferred income taxes in the balance sheet

	2016			2015		
EUR million	1 Jan	Change	31 Dec	1 Jan	Change	31 Dec
BS Deferred tax assets	80	-14	66	98	-18	80
BS Deferred tax liabilities	-483	-133	-616	-1,159	676	-483
Net deferred taxes	**-404**	**-146**	**-550**	**-1,061**	**658**	**-404**

Deferred income tax assets and liabilities are offset when there is a legally enforceable right to offset current tax assets against current tax liabilities and when the deferred income taxes relate to the same fiscal authority.

Movement in deferred tax assets and liabilities 2016

EUR million	Property, plant and equipment	Pension obligations	Provisions	Derivative financial instruments	Tax losses and tax credits carry-forward	Other	Net deferred taxes
1 Jan 2016	-551	11	14	-42	146	18	-404
Charged to income statement	-9	2	-3	27	-49	-11	-42
Charged to other comprehensive income		2		49			51
Exchange rate differences, reclassifications and other changes	-40			2	3	-6	-40
Acquisitions and disposals	-118		9			-6	-115
31 Dec 2016	-717	14	20	36	100	-4	-550

Retained earnings when distributed as dividends are subject to withholding tax (Russia) or distribution tax (Estonia). Provision has been made for these taxes only to extent that it is expected that these earnings will be remitted in the foreseeable future. Deferred income tax liabilities of EUR 19 million (2015: 13) have been recognised for the withholding tax and other taxes that would be payable on the distributions.

Deferred tax assets and liabilities from acquisitions and disposals in 2016 are mainly related to acquisition of Ekokem and Duon and disposal of Tobolsk. In addition, legal entities, primarily in Russia and Sweden used a portion of the deferred tax asset relating to tax loss carry forwards.

Movement in deferred tax assets and liabilities 2015

EUR million	Property, plant and equipment	Pension obligations	Provisions	Derivative financial instruments	Tax losses and tax credits carry-forward	Other	Net deferred taxes
1 Jan 2015	-1,150	28	1	-40	70	30	-1,061
Charged to income statement	96	3	13	13	71	-12	184
Charged to other comprehensive income		-20		-13			-32
Exchange rate differences, reclassifications and other changes	7			2	4		13
Acquisitions and disposals	496			-5			491
31 Dec 2015	-551	11	14	-42	146	18	-404

Deferred tax assets and liabilities from acquisitions and disposals in 2015 relate to the sale of Swedish electricity distribution business. Also during 2015 Swedish entities released a major part of the deferred tax liability related to property, plant and equipment. Additionally, deferred tax asset was recognized for the taxable loss in Sweden, which was mainly due to the write-down related to early closure of O1 and O2 units in Oskarshamn.

Deferred income tax assets recognised for tax loss carry-forwards

Deferred income tax assets are recognised for tax loss carry-forward to the extent that realisation of the related tax benefit through future profits is probable. The recognised tax assets relate to losses carry-forward with no expiration date and partly with expiry date as described below.

	2016		2015	
EUR million	Tax losses	Deferred tax asset	Tax losses	Deferred tax asset
Losses without expiration date	352	79	470	97
Losses with expiration date	108	22	217	49
Total	460	100	687	146

Deferred tax assets of EUR 56 million (2015: 50) have not been recognised in the consolidated financial statements, because the realisation is not probable. The major part of the unrecognised tax asset relates to loss carry-forwards that are unlikely to be used in the foreseeable future.

Tax loss carry-forwards decreased in 2016 mainly because of the use of taxable losses in Sweden and in Russia.

29.2 Income tax receivables

	2016	2015
Sweden	124	0
Belgium	114	114
Other	52	11
Total Income tax receivables	290	124

Income tax receivables reflect payments of corporate income tax done in relation to the year 2016 as well as payments according to received tax audit assessments in relation to previous years.

Fortum has in previous years received income tax assessments in Sweden for the years 2009–2012. The additional taxes and interest for 2009–2012 have already been paid in June 2016, in total 1.175 MSEK (EUR 123 million) and based on supporting legal opinions booked as an income tax receivable.

In Belgium has Fortum also in previous years received income tax assessments for the years 2008–2011. The additional taxes have been paid during prior years, in total EUR 114 million and based on supporting legal opinions booked as an income tax receivable. Legal procedures in Finland concerning 2007–2011 transfer pricing audit have been closed to Fortum's benefit.

See ▸ *Note 38* Legal actions and official proceedings.

30 Nuclear related assets and liabilities

ACCOUNTING POLICIES

Fortum owns Loviisa nuclear power plant in Finland. In Fortum's consolidated balance sheet, Share in the State Nuclear Waste Management Fund and the Nuclear provisions relate to Loviisa nuclear power plant. Fortum's nuclear related provisions and the related part of the State Nuclear Waste Management Fund are both presented separately in the balance sheet. Fortum's share in the State Nuclear Waste Management Fund is accounted for according to IFRIC 5, Rights to interests arising from decommissioning, restoration and environmental rehabilitation funds which states that the fund assets are measured at the lower of fair value or the value of the related liabilities since Fortum does not have control or joint control over the State Nuclear Waste Management Fund. The Nuclear Waste Management Fund is managed by governmental authorities. The related provisions are the provision for decommissioning and the provision for disposal of spent fuel.

The fair values of the provisions are calculated according to IAS 37 by discounting the separate future cash flows, which are based on estimated future costs and actions already taken. The initial net present value of the provision for decommissioning (at the time of commissioning the nuclear power plant) has been included in the investment cost and is depreciated over the estimated operating time of the nuclear power plant. Changes in the technical plans etc., which have an impact on the future cash flow of the estimated costs for decommissioning, are accounted for by discounting the additional costs to the current point in time. The increased asset retirement cost due to the increased provision is added to property, plant and equipment and depreciated over the remaining estimated operating time of the nuclear power plant. For power plant units taken from use the increase is taken to income statement.

The provision for spent fuel covers the future disposal costs for fuel used until the end of the accounting period. Costs for disposal of spent fuel are expensed during the operating time based on fuel usage. The impact of the possible changes in the estimated future cash flow for related costs is recognised immediately in the income statement based on the accumulated amount of fuel used until the end of the accounting period. The related interest costs due to unwinding of the provision, for the period during which the spent fuel provision has been accumulated and present point in time, are also recognised immediately in the income statement.

The timing factor is taken into account by recognising the interest expense related to discounting the nuclear provisions. The interest on the State Nuclear Waste Management Fund assets is presented as financial income.

Fortum's actual share of the State Nuclear Waste Management Fund, related to Loviisa nuclear power plant, is higher than the carrying value of the Fund in the balance sheet. The legal nuclear liability should, according to the Finnish Nuclear Energy Act, be fully covered by payments and guarantees to the State Nuclear Waste Management Fund. The legal liability is not discounted while the provisions are, and since the future cash flow is spread over 100 years, the difference between the legal liability and the provisions are material.

The annual fee to the Fund is based on changes in the legal liability, the interest income generated in the State Nuclear Waste Management Fund and incurred costs of taken actions.

Fortum also has minority interests in nuclear power companies, i.e. Teollisuuden Voima Oyj (TVO) in Finland and OKG Aktiebolag (OKG) and Forsmarks Kraftgrupp AB (Forsmark) in Sweden. The minority shareholdings are classified as associated companies and joint ventures and are consolidated with equity method. Both the Finnish and the Swedish companies are non-profit making, i.e. electricity production is invoiced to the owners at cost including depreciations, interest costs and production taxes accounted for according to local GAAP. Accounting policies of the associates regarding nuclear assets and liabilities have been changed where necessary to ensure consistency with the policies adopted by the Group.

CRITICAL ACCOUNTING ESTIMATES AND JUDGEMENTS

ASSUMPTIONS MADE WHEN ESTIMATING PROVISIONS RELATED TO NUCLEAR PRODUCTION

The provision for future obligations for nuclear waste management including decommissioning of Fortum's nuclear power plant and related spent fuel is based on long-term cash flow forecasts of estimated future costs. The main assumptions are technical plans, timing, cost estimates and discount rate. The technical plans, timing and cost estimates are approved by governmental authorities.

Any changes in the assumed discount rate would affect the provision. If the discount rate used would be lowered, the provision would increase. Fortum has contributed cash to the State Nuclear Waste Management Fund based on a non-discounted legal liability, which leads to that the increase in provision would be offset by an increase in the recorded share of Fortum's part of the State Nuclear Waste Management Fund in the balance sheet. The total effect on the income statement would be positive since the decommissioning part of the provision is treated as an asset retirement obligation. This situation will prevail as long as the legal obligation to contribute cash to the State Nuclear Waste Management Fund is based on a non-discounted liability and IFRS is limiting the carrying value of the assets to the amount of the provision since Fortum does not have control or joint control over the fund.

Based on the Nuclear Energy Act in Finland, Fortum has a legal obligation to fully fund the legal liability decided by the governmental authorities, for decommissioning of the power plant and disposal of spent fuel through the State Nuclear Waste Management Fund.

Both in Finland and in Sweden nuclear operators are legally obligated for the decommissioning of the plants and the disposal of spent fuel (nuclear waste management). In both countries the nuclear operators are obligated to secure the funding of nuclear waste management by paying to government operated nuclear waste funds. The nuclear operators also have to give securities to guarantee that sufficient funds exist to cover future expenses of decommissioning of the power plant and disposal of spent fuel.

30.1 Nuclear related assets and liabilities for 100% owned nuclear power plant, Loviisa

EUR million	2016	2015
Carrying values in the balance sheet		
BS Nuclear provisions	830	810
BS Fortum's share of the State Nuclear Waste Management Fund	830	810
Legal liability and actual share of the State Nuclear Waste Management Fund		
Liability for nuclear waste management according to the Nuclear Energy Act	1,141	1,094
Funding obligation target	1,125	1,094
Fortum's share of the State Nuclear Waste Management Fund	1,094	1,083
Share of the fund not recognised in the balance sheet	264	273

Legal liability for Loviisa nuclear power plant

The legal liability on 31 December 2016, decided by the Ministry of Economic Affairs and Employment in December 2016, was EUR 1,141 million.

The legal liability is based on a cost estimate, which is done every year, and a technical plan, which is made every third year. The current technical plan was updated in 2016. Following the update of the technical plan in 2016, the liability increased due to updated cost estimates related to interim and final storage of spent fuel. The legal liability is determined by assuming that the decommissioning would start at the beginning of the year following the assessment year.

Fortum's share in the State Nuclear Waste Management Fund

According to Nuclear Energy Act, Fortum is obligated to contribute funds in full to the State Nuclear Waste Management Fund to cover the legal liability. Fortum contributes funds to the Finnish State Nuclear Waste Management Fund based on the yearly funding obligation target decided by the governmental authorities in December in connection with the decision of size of the legal liability. The current funding obligation target decided in December 2016 is EUR 1,125 million.

Nuclear provisions

EUR million	2016	2015
BS 1 January	810	774
Additional provisions	6	10
Used during the year	-20	-18
Unwinding of discount	34	44
BS 31 December	830	810
Fortum's share in the State Nuclear Waste Management Fund	830	810

Nuclear provision and fund accounted according to IFRS

Nuclear provisions include the provision for decommissioning and the provision for disposal of spent fuel. The carrying value of the nuclear provisions, calculated according to IAS 37, increased by EUR 20 million compared to 31 December 2015, totalling EUR 830 million on 31 December 2016. The provisions are based on the same cash flows for future costs as the legal liability, but the legal liability is not discounted to net present value.

The carrying value of the Fund in the balance sheet cannot exceed the carrying value of the nuclear provisions according to IFRIC Interpretation 5. The Fund is from an IFRS perspective overfunded with EUR 264 million, since Fortum's share of the Fund on 31 December 2016 was EUR 1,094 million and the carrying value in the balance sheet was EUR 830 million.

Fortum's share of the Finnish Nuclear Waste Management Fund in Fortum's balance sheet can in maximum be equal to the amount of the provisions according to IFRS. As long as the Fund is overfunded from an IFRS perspective, the effects to operating profit from this adjustment will be positive if the provisions increase more than the Fund and negative if actual value of the fund increases more than the provisions. This accounting effect is not included in Comparable operating profit in Fortum financial reporting. For more information see ▸ *Note 6* Items affecting comparability.

Borrowing from the State Nuclear Waste Management Fund

Participants in the Finnish State Nuclear Waste Management Fund are allowed to borrow from the fund according to certain rules. Fortum uses the right to borrow back and has pledged shares in Kemijoki Oy as security for the loans. The loans are renewed yearly. See ▸ *Note 28* Interest-bearing liabilities and ▸ *Note 37* Pledged assets and contingent liabilities.

30.2 Nuclear power plants in associated companies and joint ventures

OKG, Forsmark and TVO are non-profit making companies, i.e. electricity production is invoiced to the owners at cost including depreciations, interest costs and production taxes. Invoiced cost is accounted for according to local GAAP. In addition to the invoiced electricity production cost, Fortum makes IFRS adjustments to comply with Fortum's accounting principles. These adjustments include also Fortum's share of the companies' nuclear waste funds and nuclear provisions.

The tables below present the 100% figures relating to nuclear funds and provisions for the companies as well as Fortum's net share.

TVO's total nuclear related assets and liabilities (100%)

EUR million	2016	2015
Carrying values in TVO's balance sheet		
Nuclear provisions	955	971
Share of the State Nuclear Waste Management Fund	955	971
of which Fortum's net share consolidated with equity method	**0**	**0**
TVO's legal liability and actual share of the State Nuclear Waste Management Fund		
Liability for nuclear waste management according to the Nuclear Energy Act	1,450	1,369
Share of the State Nuclear Waste Management Fund	1,380	1,358
Share of the fund not recognised in the balance sheet	425	387

TVO's legal liability and contribution to the fund are based on same principles as described above for Loviisa nuclear power plant.

TVO's share of the Finnish State Nuclear Waste Management Fund is from an IFRS perspective overfunded with EUR 425 million (of which Fortum's share EUR 113 million), since TVO's share of the Fund on 31 December 2016 was EUR 1,380 million and the carrying value in the balance sheet was EUR 955 million.

Participants in the Finnish State Nuclear Waste Management Fund are allowed to borrow from the fund according to certain rules. Fortum is using the right to reborrow funds through TVO based on its ownership. See more information in ▸ *Note 28* Interest-bearing liabilities.

OKG's and Forsmark's total nuclear related assets and liabilities (100%)

EUR million	2016	2015
OKG's and Forsmark's nuclear related assets and liabilities [1]		
Nuclear provisions	3,297	3,210
Share in the State Nuclear Waste Management Fund	3,068	3,025
Net amount	**-229**	**-185**
of which Fortum's net share consolidated with equity method	**-106**	**-71**

1) Accounted for according to Fortum's accounting principles. Companies' statutory financial statements are not prepared according to IFRS.

In Sweden Svensk Kärnbränslehantering AB (SKB), a company owned by the nuclear operators, takes care of all nuclear waste management related activities on behalf of nuclear operators. SKB receives its funding from the Swedish State Nuclear Waste Management Fund, which in turn is financed by the nuclear operators.

In addition to nuclear waste fees nuclear power companies provide guarantees for any uncovered liability and unexpected events.

For more information regarding Fortum's guarantees given on behalf of nuclear associated companies, see *Note 37* Pledged assets and contingent liabilities.

Nuclear waste fees and guarantees are updated every third year by governmental decision after a proposal from Swedish Radiation Safety Authority (SSM). The proposal is based on cost estimates done by SKB. Currently the fees and guarantees are decided for years 2015–2017. A new technical plan for nuclear waste management has been decided by SKB during 2016. During 2017 SKB will submit the cost estimates based on the revised technical plan to SSM, after which the Swedish government will decide the waste fees and guarantees for years 2018–2020. Nuclear waste fees are currently based on future costs with the assumed lifetime of 40 years for each unit of a nuclear power plant.

31 Other provisions

ACCOUNTING POLICIES

Provisions for environmental obligations, asset retirement obligations, restructuring costs and legal claims are recognised when the Group has a present legal or constructive obligation as a result of past events to a third party, it is probable that an outflow of resources will be required to settle the obligation and the amount can be reliably estimated.

Provisions are measured at the present value of the expenditures expected to be required to settle the obligation using a pre-tax rate that reflects current market assessments of the time value of money and the risks specific to the obligation. The increase in the provision due to the passage of time is recognised as interest expense.

ENVIRONMENTAL PROVISIONS

Environmental provisions are recognised, based on current interpretation of environmental laws and regulations, when it is probable that a present obligation has arisen and the amount of such liability can be reliably estimated. Environmental expenditures resulting from the remediation of an existing condition caused by past operations, and which do contribute to current or future revenues, are expensed as incurred.

Environmental provisions include provisions for obligations to cover landfills and clean-up obligations for contaminated land areas. Provisions are determined based on the surface area of the landfill site, remaining land area to be landscaped or otherwise cleaned-up, and the unit cost of conducting the coverage and clean-up activities in the future.

Environmental provisions are also booked for aftercare and monitoring obligations arising from landfill permit holder's requirement to take into account potential danger to health or the environment posed by a landfill site for a period of at least 30 (up to 60) years after the coverage. The aftercare and monitoring provision is determined on the basis of estimated costs and estimated number of years of filling the landfill.

ASSET RETIREMENT OBLIGATIONS

Asset retirement obligation is recognised either when there is a contractual obligation towards a third party or a legal obligation and the obligation amount can be estimated reliably. Obligating event is e.g. when a plant is built on a leased land with an obligation to dismantle and remove the asset in the future or when a legal obligation towards Fortum changes. The asset retirement obligation is recognised as part of the cost of an item of property, plant and equipment when the asset is put in service. The costs will be depreciated over the remainder of the asset's useful life.

RESTRUCTURING PROVISIONS

A restructuring provision is recognised when the Group has developed a detailed formal plan for the restructuring and has raised a valid expectation in those affected that it will carry out the restructuring by starting to implement the plan or announcing its main features to those affected by it. The measurement of a restructuring provision includes only the direct expenditures arising from the restructuring, which are those amounts that are both necessarily entailed by the restructuring and not associated with the ongoing activities of the entity. Restructuring provisions comprise mainly employee termination payments and lease termination costs.

CRITICAL ACCOUNTING ESTIMATES AND JUDGEMENTS

ASSUMPTIONS MADE WHEN ESTIMATING PROVISIONS

Provisions for present obligations require management to assess the best estimate of the expenditure needed to settle the present obligation at the end of the reporting period. The actual amount and timing of the expenditure might differ from estimates made.

EUR million	2016 CSA provision	2016 Environmental	2016 Other	2016 Total	2015 CSA provision	2015 Environmental	2015 Other	2015 Total
1 January	8	2	89	98	56	2	24	82
Acquisitions	0	44	4	48	0	0	0	0
Provisions for the period	0	1	14	15	0	1	83	84
Provisions used	-7	0	-18	-25	0	-1	-15	-16
Provisions reversed	-2	0	-7	-9	-50	0	-3	-53
Unwinding of discount	0	0	0	0	1	0	0	1
Exchange rate differences	1	0	1	2	1	0	0	1
31 December	0	47	82	129	8	2	89	98
Of which current provisions [1]	0	1	11	13	8	0	9	17
BS Of which non-current provisions	0	46	70	116	0	2	79	81

1) Included in trade and other payables in the balance sheet, see *Note 34*.

Fortum's investment programme in Russia was completed in Q1 2016 when Chelyabinsk GRES 2 unit started its commercial operation and there was no provision for CSA penalties at the end of 2016. Paid penalties for Chelyabinsk GRES unit 1 and 2 during 2016 amounted to EUR 7 million and the remaining provision of EUR 2 million was reversed to the income statement.

Environmental provisions include mainly provisions for obligations to cover and monitor landfills as well as to clean contaminated land areas. Main part of the provisions are estimated to be used within 10–15 years.

The increase in environmental provisions in 2016 is mainly arising from the acquisition of Ekokem (see *Note 40* Acquisitions and disposals). The increase in other provisions during 2015 arises mainly from a dismantling provision for the Finnish coal-fired power plant Inkoo.

Regarding provisions for decommissioning and provision for disposal of spent fuel for nuclear production, see *Note 30* Nuclear related assets and liabilities.

32 Pension obligations

ACCOUNTING POLICIES

The Group companies have various pension schemes in accordance with the local conditions and practises in the countries in which they operate. The schemes are generally funded through payments to insurance companies or the Group's pension funds as determined by periodic actuarial calculations. The Group has both defined benefit and defined contribution plans.

The Group's contributions to defined contribution plans are charged to the income statement in the period to which the contributions relate.

For defined benefit plans, pension costs are assessed using the projected unit credit method. The cost of providing pensions is charged to the income statement as to spread the service cost over the service lives of employees. The net interest is presented in financial items and the rest of the income statement effect as pension cost.

The defined benefit obligation is calculated annually on the balance sheet date and is measured as the present value of the estimated future cash flows using interest rates of high-quality corporate bonds that have terms to maturity approximating to the terms of the related pension liability. In countries where there is no deep market in such bonds, market yields on government bonds are used instead. The plan assets for pensions are valued at market value. The liability recognised in the balance sheet is the defined benefit obligation at the closing date less the fair value of plan assets. Prepaid contributions are recognised as an asset to the extent that a cash refund or a reduction in the future payments is available.

When the benefits of a plan are changed or when a plan is curtailed, the resulting change in benefit that relates to past service or the gain or loss related to a curtailment is recognised immediately in profit or loss. Gains or losses on settlements of defined benefits plans are recognised when the settlement occurs.

CRITICAL ACCOUNTING ESTIMATES AND JUDGEMENTS

ASSUMPTIONS USED TO DETERMINE FUTURE PENSION OBLIGATIONS

The present value of the pension obligations is based on actuarial calculations that use several assumptions. Any changes in these assumptions will impact the carrying amount of pension obligations.

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42

Fortum's pension arrangements

Finland

In Finland the most significant pension plan is the Finnish Statutory Employment Pension Scheme (TyEL) in which benefits are directly linked to employees' earnings. These pensions are funded in insurance companies and treated as defined contribution plans. The benefits provided under TyEL are old age pensions, disability pensions, unemployment pensions and survivors' pensions. Certain Fortum employees in Finland have an additional pension coverage, certain level of benefit promised after retirement, through the company's own pension fund (Fortum Pension Fund) or through insurance companies. The additional pensions through insurance companies provide old age pension and funeral grant and Fortum Pension Fund is providing old age pension, early old age benefit, disability pension, survivors' pension and funeral grant.

The Fortum Pension Fund is a closed fund managed by a Board, consisting of both employers' and employees' representatives. The Fund is operating under regulation from Financial Supervisory Authority (FSA). The liability has to be fully covered according to the regulations. The national benefit obligation related to the defined benefit plans is calculated so that the promised benefit is fully funded until retirement. After retirement the benefits payable are indexed yearly with TyEL-index. The promised benefit is defined in the rules of the Fund, mostly 66% at a maximum of the salary basis. The salary basis is an average of the ten last years' salaries, which are indexed with a common salary index to the accounting year.

Sweden

In Sweden the Group operates several defined benefit and defined contribution plans like the general ITP-pension plan and the PA-KL and PA-KFS plans that are eligible for employees within companies formerly owned by municipalities. The defined benefit plans are fully funded and have partly been financed through Fortum's own pension fund and partly through insurance premiums. The pension arrangements comprise normal retirement pension, complementary retirement pensions, survivors' pension and disability pension. The most significant pension plan is the ITP-plan for white-collar employees in permanent employment (or temporary employees after a certain waiting period), who fulfil the age conditions. To qualify for a full pension the employee must have a projected period of pensionable service, from the date of entry until retirement age, of at least 30 years.

The Swedish pension fund is managed by a Board, consisting of both employers' and employees' representatives. The fund is operating under regulation from Swedish Financial Supervisory Authority and the County Administrative Board and governed by Swedish law (no. 1967:531). The fund constitutes a security for the employers' defined benefit pension plan liability and the fund has no obligations in relation to pension payments. The employer must have a credit insurance from PRI Pensionsgaranti Mutual Insurance Company for the liability. The liability does not have to be fully covered by the fund according to the regulations.

The part of the ITP multiemployer pension plan that is secured by paying pension premiums to Alecta, in Fortum's case the collective family pension, is accounted for as a defined contribution plan due to that there is no consistent and reliable basis to allocate assets or liabilities to the participating entities within the ITP insurance. The reason for this is that it is not possible to determine from the terms of the plan to which extent a surplus or a deficit will affect future contributions.

Pension arrangements in other countries

Pension arrangements in Russia include payments made to the state pension fund. These arrangements are treated as defined contribution plans. The Russian (in addition to the defined contribution plans) and Polish companies participate in certain defined benefit plans, defined by collective agreements, which are unfunded and where the company meets the benefit payment obligation as it falls due. The benefits provided under these arrangements include, in addition to pension payments, one-time benefits paid in case of employee mortality or disability as well as lump sum payments for anniversary and financial support to honoured workers and pensioners.

The Norwegian companies are part of schemes that are common for municipalities in Norway. These are defined benefit pension plans and provide old age pensions, disability pension and survivor's pension, including pension benefits from the National Insurance Scheme (Folketrygden). The schemes are fully funded within the rules set out in the Norwegian insurance legislation.

In other countries the pension arrangements are done in accordance with the local legislation and practice, mostly being defined contribution plans.

Main risks relating to defined benefit plans — Sweden and Finland

Overall risks

Finland - If the return of the fund's assets is not enough to cover the raise in liability and benefit payments over the financial year then the employer funds the deficit with contributions unless the fund has sufficient equity.

Sweden - As the pension fund is separated from the funding companies Fortum is not obliged to make additional contributions to the pension fund in any case of deficit. However if the assets decrease to a level lower than the liability according to Swedish GAAP, Fortum's credit insurance cost from PRI will increase.

Change in discount rate

Finland - The discount rate which is used to calculate the defined benefit obligation (according to IFRS) depends on the value of corporate bond yields as at reporting date. A decrease in yields increases the benefit obligation that is offset by increase in the value of fixed income holdings.

Sweden - The discount rate which is used to calculate the defined benefit obligation (according to IFRS) is derived from market rates on Swedish covered bonds with an equivalent duration to the pension obligation, and the company therefore has a risk in the development of the bond market. Should the market rates decrease then the liability increases.

Investment and volatility risk

Finland - The pension fund's board accepts yearly an Investment Plan, which is based on an external asset-liability analysis. The assets are allocated to stocks and stock funds, fixed income instruments and real estate. The investments are diversified into different asset classes and to different asset managers taking into account the regulation of the Financial Supervisory Authority. The real estate investments consist mainly of the Fortum headquarters, rented by Fortum Oyj.

Sweden - The pension fund operation is regulated by law and supervised by central administrative authorities (Finansinspektionen and the County Administrative Board). The pension fund board decides yearly on a policy for asset allocation and a risk management model that stipulates a maximum acceptable market value decrease of the assets. The major assets are fixed income instruments, stock index funds and cash.

Risks relating to assumptions used

Actuarial calculations use assumptions for future inflation and salary levels and longevity. Should the actual outcome differ from these assumptions, this might lead to higher liability.

Movement in the net defined benefit liability

EUR million	Defined benefit obligation 2016	Defined benefit obligation 2015	Fair value of plan assets 2016	Fair value of plan assets 2015	Net defined benefit asset(-)/liability(+) 2016	Net defined benefit asset(-)/liability(+) 2015
Balance at 1 January	**448**	**540**	**-384**	**-400**	**64**	**140**
Included in profit or loss						
Current service cost	8	9	0	0	9	9
Past service cost [1]	-4	-5	0	2	-4	-3
Settlements	-6	-3	5	2	-1	-1
Net interest [2]	11	9	-9	-6	2	3
	9	**10**	**-3**	**-3**	**6**	**7**
Included in OCI						
Remeasurement gains(-)/losses(+)	15	-65	-5	-14	10	-79
Actuarial gains/losses arising from changes in demographic assumptions [3]	0	7			0	7
Actuarial gains/losses arising from changes in financial assumptions	28	-65			28	-65
Actuarial gains/losses arising from experience adjustments	-12	-7			-12	-7
Return on plan assets (excluding amounts included in net interest expense)			-5	-14	-5	-14
Exchange rate differences	-4	3	4	-3	0	0
	11	**-63**	**-1**	**-16**	**10**	**-79**
Other						
Contributions paid by the employer			-1	-2	-1	-2
Benefits paid	-16	-16	12	13	-4	-3
Disposals of subsidiary companies	0	-23	0	23	0	0
Balance at 31 December	**452**	**448**	**-378**	**-384**	**74**	**64**
Present value of funded defined obligation					447	444
Fair value of plan assets					-378	-384
Funded status					**70**	**60**
Present value of unfunded obligation [4]					5	4
Net liability arising from defined benefit obligation					**74**	**64**
Pension assets included in other non-current assets in the balance sheet					1	1
BS Pension obligations in the balance sheet					76	65

1) In 2016 including EUR -6 million from the pension reform in Finland.

2) Net interest is presented among financial items in income statement, the rest of costs related to defined benefit plans are included in staff costs (row defined benefits plans in the staff cost specification in ▶ Note 11 Employee benefits).

3) The mortality rates for Finland and Sweden used in the calculations were changed for year 2015.

4) The unfunded obligation relates to arrangements in Russia and Poland.

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42

At the end of 2016 a total of 864 (2015: 1,103) Fortum employees are included in defined benefit plans providing pension benefits. During 2016 pensions or related benefits were paid to a total of 2,865 (2015: 2,855) persons.

Contributions expected to be paid during year 2017 are EUR 1 million.

Fair value of plan assets

EUR million	2016	2015
Equity instruments	120	124
Debt instruments	140	136
Cash and cash equivalents	26	33
Real estate, of which EUR 66 million (2015: 65) occupied by the Group	69	68
Company's own ordinary shares	4	4
Other assets	19	18
Total	**378**	**384**

When the pension plan has been financed through an insurance company, a specification of the plan assets has not been available. In these cases the fair value of plan assets has been included in other assets.

The actual return on plan assets in Finland and Sweden totalled EUR 14 million (2015: 20).

Amounts recognised in the balance sheet by country 2016

EUR million	Finland	Sweden	Other countries	Total
Present value of funded obligations	308	130	9	447
Fair value of plan assets	-262	-110	-6	-378
Deficit(+)/surplus(-)	**46**	**20**	**3**	**70**
Present value of unfunded obligations			5	5
Net asset(-)/liability(+) in the balance sheet	**46**	**20**	**8**	**74**
Pension asset included in non-current assets	0	1	1	1
BS Pension obligations in the balance sheet	46	21	9	76

Amounts recognised in the balance sheet by country 2015

EUR million	Finland	Sweden	Other countries	Total
Present value of funded obligations	302	134	8	444
Fair value of plan assets	-265	-114	-5	-384
Deficit(+)/surplus(-)	**37**	**20**	**3**	**60**
Present value of unfunded obligations			4	4
Net asset(-)/liability(+) in the balance sheet	**37**	**20**	**7**	**64**
Pension asset included in non-current assets	0	0	1	1
BS Pension obligations in the balance sheet	37	20	7	65

The principal actuarial assumptions used

	2016		2015	
%	Finland	Sweden	Finland	Sweden
Discount rate	1.50	2.80	2.07	3.30
Future salary increases	1.90	3.00	2.20	3.00
Future pension increases	2.00	1.70	2.10	2.00
Rate of inflation	1.70	1.70	2.00	2.00

The discount rate in Finland is based on high quality European corporate bonds with maturity that best reflects the estimated term of the defined benefit pension plans. The discount rate in Sweden is based on yields on Swedish covered bonds with maturity that best reflects the estimated term of the defined benefit pension plans. The covered bonds in Sweden are considered high quality bonds as they are secured with assets.

The basis for the inflation rate assumption in Finland and Sweden has been changed. Until year 2015 the European Central Bank long term inflation target was used, but from year 2016 onwards a market based inflation assumption with a maturity that reflects the estimated term of the defined benefit pension plans have been used in the calculations.

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42

The life expectancy is the expected number of years of life remaining at a given age

Longevity at age 65	Finland	Sweden
45 – male	22.0	23.4
45 – female	27.0	25.3
65 – male	21.4	21.7
65 – female	25.4	24.2

The discount, inflation and salary growth rates used are the key assumptions used when calculating defined benefit obligations. Effects of 0.5 percentage point change in the rates to the defined benefit obligation on 31 December 2016, holding all other assumptions stable, are presented in the table below.

Sensitivity of defined benefit obligation to changes in assumptions

	Impact to the pension obligation increase(+)/decrease(-)	
Change in the assumption	Finland	Sweden
0.5% increase in discount rate	-7%	-10%
0.5% decrease in discount rate	8%	11%
0.5% increase in benefit	7%	10%
0.5% decrease in benefit	-6%	-8%
0.5% increase in salary growth rate	1%	3%
0.5% decrease in salary growth rate	-1%	-3%

The methods used in preparing the sensitivity analysis did not change compared to the previous period. Change in mortality basis so that life expectancy increases by one year would increase the net liability in Finland and Sweden with EUR 17 million (25.8%).

Maturity profile of the undiscounted defined benefit obligation for Finland and Sweden as of 31 December 2016

EUR million	Future benefit payments
Maturity under 1 year	16
Maturity between 1 and 5 years	68
Maturity between 5 and 10 years	87
Maturity between 10 and 20 years	161
Maturity between 20 and 30 years	124
Maturity over 30 years	93

The weighted average duration of defined benefit obligation in Finland and Sweden at the end of year 2016 is 15.9 years.

33 Other non-current liabilities

EUR million	2016	2015
Connection fees	109	109
Other liabilities	70	58
BS Total	179	168

Connection fees are refundable connection fees to the district heating network in Finland.

34 Trade and other payables

EUR million	2016	2015
Trade payables	323	249
Accrued expenses and deferred income		
Accrued personnel expenses	61	63
Accrued interest expenses	132	175
Other accrued expenses and deferred income	130	77
Other liabilities		
VAT-liability	43	22
Current tax liability	20	20
Energy taxes	14	13
Advances received	19	18
Current provisions [1]	13	17
Other liabilities	86	227
BS Total	841	879

1) See also Note 31 Other provisions.

The management considers that the amount of trade and other payables approximates fair value.

35 Lease commitments

ACCOUNTING POLICIES

OPERATING LEASES

Leases of property, plant and equipment, where the Group does not have substantially all of the risks and rewards of ownership are classified as operating leases. Payments made under operating leases are recognised in the income statement as costs on a straight-line basis over the lease term.

Payments received under operating leases where the Group leases out fixed assets are recognised as other income in the income statement.

FINANCE LEASES

Leases of property, plant and equipment, where the Group has substantially all the risks and rewards of ownership, are classified as finance leases. Finance leases are capitalised at the commencement of the lease term at the lower of the fair value of the leased property and the present value of the minimum lease payments determined at the inception of the lease.

36.1 Leases as a lessor

Operating leases

The operating rental income recognised in income statement was EUR 5 million (2015: 3).

Finance leases

Fortum does not have material finance lease arrangements where the Group is acting as a lessor.

36.2 Leases as lessee

Operating leases

Fortum leases office equipment and cars under various non-cancellable operating leases, some of which contain renewal options. The future costs for non-cancellable operating lease contracts are stated below. Lease rental expenses amounting to EUR 15 million (2015: 13) are included in the income statement in other expenses. Future minimum lease payments include land leases with long lease periods.

Future minimum lease payments on operating leases

EUR million	2016	2015
Not later than 1 year	16	14
Later than 1 year and not later than 5 years	31	23
Later than 5 years	27	24
Total	74	60

Finance leases

Fortum does not have material finance lease arrangements where the Group is acting as a lessee.

36 Capital commitments

EUR million	2016	2015
Property, plant and equipment	467	426
Intangible assets	0	2
Total	467	428

Capital commitments are capital expenditures contracted for at the balance sheet date but not recognised in the financial statements. Increase in capital commitments compared to previous year comes mainly from new investments in solar power plants in India. The increase is partly offset by progressing of the automation investment in Loviisa nuclear power plant and finalisation of the OAO Fortum investment programme in Russia.

In addition Fortum has committed to provide a maximum of EUR 100 million (2015: 107) to Voimaosakeyhtiö SF, for its participation in the Fennovoima nuclear power project in Finland.

For more information regarding capital expenditure, see *Note 19* Property, plant and equipment.

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42

37 Pledged assets and contingent liabilities

ACCOUNTING POLICIES

CONTINGENT LIABILITIES

A contingent liability is disclosed when there is a possible obligation that arises from past events and whose existence is only confirmed by one or more doubtful future events or when there is an obligation that is not recognised as a liability or provision because it is not probable that an outflow of resources will be required or the amount of the obligation cannot be reliably estimated.

EUR million	2016	2015
Pledged assets on own behalf		
For debt		
Pledges	291	294
Real estate mortgages	137	137
For other commitments		
Pledges	379	0
Real estate mortgages	99	118
Contingent liabilities on own behalf		
Other contingent liabilities	205	192
On behalf of associated companies and joint ventures		
Guarantees	603	624

37.1 Pledged assets for debt

Finnish participants in the State Nuclear Waste Management Fund are allowed to borrow from the fund. Fortum has pledged shares in Kemijoki Oy as a security. The value of the pledged shares is unchanged, EUR 269 million on 31 December 2016 (2015: 269).

Fortum Tartu in Estonia (60% owned by Fortum) has given real estate mortgages for a value of EUR 96 million (2015: 96) as a security for an external loan. Real estate mortgages have also been given for loan from Fortum's pension fund for EUR 41 million (2015: 41).

Regarding the relevant interest-bearing liabilities, see *Note 28* Interest-bearing liabilities.

37.2 Pledged assets for other commitments

Pledges also include restricted cash given as trading collateral of EUR 345 million (2015: 6) for trading of electricity and CO_2 emission allowances in Nasdaq Commodities Europe, in Intercontinental Exchange (ICE), European Energy Exchange (EEX) and Polish Power Exchange (TGE) and EUR 21 million (Dec 31 2015: 0) for windfarm construction in Russia. See also *Note 22* Interest-bearing receivables.

Fortum has given real estate mortgages in power plants in Finland, total value of EUR 99 million in December 2016 (Dec 31 2015: 118), as a security to the Finnish State Nuclear Waste Management Fund for the uncovered part of the legal liability and unexpected events relating to future costs for decommissioning and disposal of spent fuel in Loviisa nuclear power plant. According to the Nuclear Energy Act, Fortum is obligated to contribute the funds in full to the State Nuclear Waste Management Fund to cover the legal liability. Any uncovered legal liability relates to periodising of the payments to the fund, see more information in *Note 30* Nuclear related assets and liabilities. The size of the securities given is updated yearly in Q2 based on the decisions regarding the legal liabilities and the funding target which take place around year-end every year. Due to the yearly update, the amount of real estate mortgages given as a security decreased by EUR 19 million.

See also *Note 30* Nuclear related assets and liabilities.

37.3 Contingencies on own behalf

Fortum owns the coal condensing power plant Meri-Pori in Finland. Teollisuuden Voima Oyj (TVO) has the contractual right to participate in the plant with 45.45%. Based on the participation agreement Fortum has to give a guarantee to TVO against breach in contract. The amount of the guarantee is set to EUR 125 million (2015: 125).

37.4 Contingencies on behalf of associated companies

Guarantees and other contingent liabilities on behalf of associated companies and joint ventures mainly consist of guarantees relating to Fortum's associated nuclear companies Teollisuuden Voima Oyj (TVO), Forsmarks Kraftgrupp AB (FKA) and OKG AB (OKG). The guarantees are given in proportion to Fortum's respective ownership in each of these companies.

According to law, nuclear companies operating in Finland and Sweden shall give securities to the Finnish State Nuclear Waste Management Fund and the Swedish Nuclear Waste Fund respectively, to guarantee that sufficient funds exist to cover future expenses of decommissioning of the power plant and disposal of spent fuel. In Finland, Fortum has given a guarantee on behalf of TVO to the Finnish State Nuclear Waste Management Fund to cover Fortum's part of TVO's uncovered part of the legal liability and for unexpected events. The amount of guarantees is updated every year in June based on the legal liability decided in December the previous year. Due to the yearly update, the amount of guarantees given were EUR 38 million (2015: 37). The guarantee covers the unpaid legal liability due to periodisation as well as risks for unexpected future costs.

In Sweden, Fortum has given guarantees on behalf of FKA and OKG to the Swedish Nuclear Waste Fund to cover Fortum's part of FKA's and OKG's liability. Guarantees for the period of 2015–2017 has been given on behalf of Forsmarks Kraftgrupp AB and OKG AB amounting to SEK 5,393 million (EUR 565 million) at 31 December 2016 (Dec 31 2015: EUR 587 million). There are two types of guarantees given on behalf of Forsmark Kraftgrupp AB and OKG AB. The Financing Amount is given to compensate for the current deficit in the Nuclear Waste Fund, assuming that no further nuclear waste fees are paid in. This deficit is calculated as the difference between the expected costs and the funds to cover these costs at the time of the calculation. The Supplementary Amount constitutes a guarantee for deficits that can arise as a result of unplanned events. The Financing Amount given by Fortum on behalf of Forsmark Kraftgrupp AB and OKG AB was SEK 3,843 million (EUR 402 million) and the Supplementary Amount was SEK 1,550 million (EUR 162 million) at 31 December 2016.

38 Legal actions and official proceedings

38.1 Group companies

Tax cases in Finland

Fortum received an income tax assessment in Finland for 2007 in December 2013. Tax authorities claimed in the transfer pricing audit that detailed business decisions were done by Fortum Oyj and therefore re-characterized the equity Fortum has injected to its Belgium subsidiary Fortum Project Finance NV not to be equity, but funds to be available for the subsidiary. Tax authorities' view was that the interest income that Fortum Project Finance NV received from its loans should be taxed in Finland, not Belgium. The tax authorities claimed an additional tax of approximately EUR 136 million for the year 2007. Fortum considered the claims unjustifiable both for legal grounds and interpretation. Fortum appealed the decision.

The Board of Adjustment of the Large Taxpayers' Office approved Fortum's appeal for the year 2007 on 21 August 2014. The Board of Adjustment's decision is in line with the principle adopted in the Supreme Administrative Court's precedent in June 2014, according to which, under transfer pricing rules, the nature of business cannot be re-characterized for tax purposes, but can only adjust the pricing of goods or services. Despite the new precedent, the Tax Recipients' Legal Services Unit within the tax authorities appealed this decision to the Administrative Court in Helsinki. In May 2016 the Administrative Court announced its decision in the case. The court ruled in Fortum's favour and rejected the appeal of the Tax Recipients' Legal Services Unit. The Tax Recipient's Legal Service Unit appealed the Administrative Court's decision to the Supreme Administrative Court in July 2016.

In November 2016 the Supreme Administrative Court decided not to grant a permit to appeal. Thus the decision favourable to Fortum of the Board of Adjustment of the Large Taxpayer's office from August 2014, remains in force and is final. No additional tax is to be paid for the year 2007 based on the above-mentioned audit.

In December 2014 Fortum Oyj received a non-taxation decision from the large Taxpayers' office for the years 2008–2011 regarding the activities in the Belgian and Dutch financing companies. The decision was given due to the transfer pricing audit carried out in 2013–2014 and was in line with the Board of Adjustment's decision with respect to Fortum for the year 2007. The Tax Recipients' Legal Services Unit has appealed the decisions in February 2015 to the Board of Adjustment of the Large Taxpayers' office. According to the claim of correction an additional tax of approximately EUR 406 million for the years 2008–2011 was claimed. In December 2016 the Tax Recipients' Legal Services Unit cancelled its appeals for the years 2008–2011. In January 2017 the Board of Adjustment of the Large Taxpayers' office declared the cases for 2008–2011 annulled. Thus the non-taxation decision from August 2014 from the large Taxpayers' office remains in force for the years 2008–2011. No additional tax is to be paid for the years 2008–2011 based on the above-mentioned audit.

Tax cases in Sweden

Fortum received income tax assessments in Sweden for the years 2009, 2010, 2011 and 2012 in December 2011, December 2012, December 2013 and October 2014, respectively. According to the tax authorities, Fortum would have to pay additional income taxes for the years 2009, 2010, 2011 and 2012 for the reallocation of loans between the Swedish subsidiaries in 2004–2005, as well as additional income taxes for the years 2010, 2011 and 2012 for financing of the acquisition of TGC 10 (current OAO Fortum) in 2008. The claims are based on a change in tax regulation as of 2009. Fortum considered the claims unjustifiable and appealed the decisions.

In April 2016 the Administrative Court in Stockholm, Sweden, announced its decisions relating to the income tax assessments for 2009–2012. A part of the decisions were positive. The Court repealed the income assessments relating to the financing of the acquisition of TGC 10 for the years 2010–2012. However, with respect to the reallocation of the loans between the Swedish subsidiaries in 2004–2005, the Court mainly rejected the appeals of Fortum for the years 2009–2012. Fortum disagrees with the argumentation of the Court in those cases which were ruled in the favour of the Swedish tax authorities. Fortum has therefore in June 2016 filed an appeal to the Court of Appeal in Stockholm in these cases. The decisions of the Administrative Court which were favourable to Fortum have become non-appealable and thus final in July 2016.

In addition Fortum has received income tax assessments in Sweden for the years 2013 and 2014 in December 2015 and December 2016, respectively. The assessments concern the loans given in 2013 and 2014 by Fortum's Dutch financing company to Fortum's subsidiaries in Sweden. The interest income

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42

for these loans was taxed in the Netherlands. The tax authority considers just over a half of the interest relating to each loan as deductible, i.e. deriving from business needs. The rest of the interest is seen as non-deductible. The decision is based on the changes in the Swedish tax regulation in 2013. Fortum considers the claims unjustifiable and has appealed the decisions. The cases are pending before the Administrative Court.

Based on legal analysis supporting legal opinions, no provision has been recognised in the financial statements for the above-mentioned Swedish tax cases. Fortum's legal view has therefore not changed. If the decisions by the tax authority remain final despite the appeals processes, the impact on net profit would be approximately SEK 389 million (EUR 41 million) for the year 2009, approximately SEK 347 million (EUR 36 million) for the year 2010, approximately SEK 301 million (EUR 31 million) for the year 2011, approximately SEK 69 million (EUR 7 million) for the year 2012, SEK 273 million (EUR 29 million) for the year 2013 and SEK 282 million (EUR 29 million) for the year 2014. Moreover, for the years 2009–2012 an interest cost would impact the net profit with SEK 69 million (EUR 7 million). The additional taxes and interest for 2009–2012 have already been paid in June 2016, in total SEK 1,175 million (EUR 123 million) and based on the legal opinion booked as a receivable.

Tax cases in Belgium

Fortum has received income tax assessments in Belgium for the years 2008, 2009, 2010 and 2011. Tax authorities disagree with the tax treatment of Fortum EIF NV. Fortum finds the tax authorities' interpretation not to be based on the local regulation and has appealed the decisions. The court of First instance in Antwerpen rejected Fortum's appeal for the years 2008 and 2009 in June 2014. Fortum found the decision unjustifiable and appealed to the Court of Appeal.

In January 2016 Fortum received a favourable decision from the Court of Appeal in which the Court disagreed with the tax authorities' interpretation and the tax assessment for 2008 was nullified. The tax authorities disagreed with the decision and filed an appeal to Hof van Cassatie (Supreme Court) in March 2016. Fortum appeals concerning 2009–2011 are still pending and Fortum expects the remaining years to follow the final decision for 2008. Based on legal analysis and a supporting legal opinion, no provision has been accounted for in the financial statements. The amount of additional tax claimed is approximately EUR 36 million for the year 2008, approximately EUR 27 million for the year 2009, approximately EUR 15 million for the year 2010 and approximately EUR 21 million for the year 2011. The tax has already been paid. If the tax is repaid to Fortum, Fortum will receive a 7% interest on the amount.

In November 2015 Fortum received an income tax assessment from the Belgian tax authorities for the year 2012. The tax authorities disagree with the tax treatment of Fortum Project Finance NV. Fortum finds the tax authorities' interpretation not to be based on the local regulation and has filed an objection against the tax adjustment. In line with treatment of the cases concerning 2008–2011, no provision has been accounted for in the financial statements. The amount of additional tax claimed is approximately EUR 15 million for the year 2012. The tax has already been paid.

For critical accounting estimates regarding uncertain tax positions, see *Note 29* Income taxes in balance sheet. See also *Note 13* Income tax expense.

In addition to the litigations described above, some Group companies are involved in other routine tax and other disputes incidental to their normal conduct of business. Based on the information currently available, management does not consider the liabilities arising out of such litigations likely to be material to the Group's financial position.

38.2 Associated companies

In Finland Fortum is participating in the country's fifth nuclear power plant unit, Olkiluoto 3 (OL3), through the shareholding in Teollisuuden Voima Oyj (TVO) with an approximately 25% share representing some 400 MW in capacity. The civil construction works of the Olkiluoto 3 plant unit have been mainly completed. The installation of the electrical systems, the instrumentation and control system (I&C), and mechanical systems is still in progress. Test runs with the I&C commenced in January 2016. In April TVO submitted to the Ministry of Economic Affairs and Employment (TEM) an application for an operating licence. The training simulator was completed in October, and the Nuclear Circuit Cleaning (NCC) was carried out in September–November. The first phase of the turbine plant commissioning is completed. Some of the systems and components will be kept in operation; the rest will be preserved in accordance with a separate plan. According to the schedule updated by the AREVA-Siemens in September 2014, regular electricity production in the unit will commence at the end of 2018.

In December 2008 the OL3 Supplier initiated the International Chamber of Commerce (ICC) arbitration proceedings and submitted a claim concerning the delay and the ensuing costs incurred at the Olkiluoto 3 project. The Supplier's monetary claim, updated in February 2016, is approximately EUR 3.5 billion in total. The sum is based on the supplier's updated analysis of events that occurred through September 2014, with certain claims quantified to 31 December 2014.

In 2012, TVO submitted a counter-claim and defence in the matter. In July 2015, TVO updated its quantification estimate of its costs and losses to amount to approximately EUR 2.6 billion until December 2018, which is the estimated start of the regular electricity production of OL3.

The companies belonging to the Plant Supplier Consortium (AREVA GmbH, AREVA NP SAS and Siemens AG) are jointly and severally liable of the Plant Contract obligations.

In November 2016, the ICC Tribunal made a final and binding partial award. In the partial award, the ICC Tribunal addressed the early period of the project (time schedule, licensing and licensability, and system design). This comprised many of the facts and matters that TVO relies upon in its main claims against the supplier, as well as certain key matters that the supplier relies upon in its claims against TVO. In doing so, the partial award finally resolved the great majority of these facts and matters in favour of TVO, and conversely rejected the great majority of the supplier's contentions in this regard. The partial award did not take a position on the claimed monetary amounts. The arbitration proceeding is still going on with further partial awards to come before the final award where the Tribunal will declare the liabilities of the parties to pay compensation.

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In 2016, Areva Group announced a restructuring of its business. The restructuring plan involves a transfer of the operations of Areva NP, excluding the OL3 project and resources necessary for its completion, to an ad hoc structure which is to be sold to a consortium led by EDF. On November 16, Areva and EDF announced a binding agreement on the restructuring, which was informed to be completed during the second semester of 2017. The implementation of the restructuring plan is subject to decisions and clearances, such as those related to the contemplated state aid connected with the plan. TVO requires that the restructuring respects the completion of the OL3 project within the current schedule by the end of 2018 and that all liabilities of the plant contract are respected.

39 Events after the balance sheet date

There have been no material events after balance sheet date.

40 Acquisitions and disposals

40.1 Acquisitions

EUR million	2016	2015
Gross investments in shares in subsidiary companies	813	1
Gross investments in shares in associated companies and joint ventures	17	27
Gross investments in available for sale financial assets	14	15
Gross investments in shares, total Fortum	**844**	**43**

40.1.1 Acquisitions of subsidiary companies

On 27 May 2016 Fortum signed an agreement with the four biggest owners of the Nordic circular economy company Ekokem Corporation, representing approximately 81% of the shares, to acquire their shareholding in the company. The acquisition was finalised on 31 August 2016. Fortum also made a tender offer valid until the end of September to the remaining shareholders at the same price of 165 EUR per share. By the end of December Fortum's total shareholding was 98.2%. Fortum has initiated a redemption process for the remaining shares. The debt and cash-free purchase price for 100% of the company will be approximately EUR 680 million.

The redemption process for the remaining shares is ongoing and the consideration to be paid upon completion has been included in the total consideration. The initial goodwill from the purchase price allocation, prepared based on the 31 August balance sheet, is EUR 141 million and results mainly from the growth opportunities and synergies. The accounting of the acquisition is still preliminary as all valuation effects, especially regarding the provisions, have not been finalised.

Ekokem is fully consolidated into the Fortum Group from the end of August 2016. Ekokem has been integrated as a business area into the City Solutions segment resulting in an increase of EUR 105 million on sales, EUR 7 million on comparable operating profit and EUR 26 million on comparable EBITDA. The operating profit was impacted by the transaction costs of EUR 12 million (of which transfer tax EUR 9 million) recognized in the income statement during 2016 as Items affecting comparability (Capital gains and other).

On 8 January 2016, Fortum made a public tender offer in Poland to purchase all shares in Grupa DUON S.A., an electricity and gas sales company listed on the Warsaw Stock Exchange. During the subscription period that ended on 26 February 2016 Fortum received subscriptions from shareholders representing altogether 93.35% shares in the company at the offered price PLN 3.85 per share. The remaining shares were purchased from shareholders under the mandatory squeeze-out procedure at the same price per share. In April Fortum obtained 100% of shares in Grupa DUON S.A. and in June the company was delisted.

This financial statement includes the income statement effect of Grupa Duon S.A. group from 1 April 2016 onwards. The consolidated sales included in the City Solutions segment was EUR 155 million, comparable operating profit EUR 4 million and comparable EBITDA EUR 8 million. The purchase price allocation is based on the balance sheet as of 31 March 2016. The initial goodwill in the acquired group is EUR 22 million and represents the future prospects and growth potential. The initial accounting of the acquisition is still preliminary as all valuation effects have not been finalised, in particular regarding potential obligations.

Other acquisitions include the shares of Info24 AB and Turebergs Recycling AB. On 1 April 2016 Fortum acquired 100% of the shares in the Swedish IT company Info24, a company specialised in the development of business solutions within the IoT, Internet of Things. On 21 December 2016 Fortum acquired 100% of the shares in Turebergs Recycling AB, a Swedish company with main business in environmental construction, recycling and processing of bottom ash from waste-to-energy plants.

EUR million	Ekokem Corporation	Grupa Duon S.A.	Other	Fortum total
Consideration paid in cash	570	106	15	691
Unpaid consideration	10		3	13
Total consideration	**580**	**106**	**17**	**703**
Fair value of the acquired assets	440	86	17	543
Translation difference	0	2	0	2
Goodwill	**141**	**22**	**0**	**163**

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EUR million	Ekokem Corporation			Grupa Duon S.A.			Fortum total [1]		
	Acquired book values	Allocated fair value	Total fair value	Acquired book values	Allocated fair value	Total fair value	Acquired book values	Allocated fair value	Total fair value
Fair value of the acquired net identifiable assets									
Cash and cash equivalents	17		17	8		8	26		26
Tangible and intangible assets	315	387	702	49	34	83	366	438	804
Other assets	67		67	37		37	108		108
Deferred tax liabilities	-34	-77	-112	-1	-7	-7	-35	-88	-123
Other non-interest bearing liabilities	-117		-117	-16		-16	-135		-135
Interest-bearing liabilities	-117		-117	-19		-19	-136		-136
Net identifiable assets	**131**	**309**	**441**	**58**	**28**	**86**	**194**	**351**	**545**
Non-controlling interests	1		1	1		1	2		2
Total	**131**	**309**	**440**	**58**	**28**	**86**	**192**	**351**	**543**
Gross investment									
Purchase consideration settled in cash			570			106			691
Cash and cash equivalents in acquired subsidiaries			17			8			26
Cash outflow in acquisition			**553**			**98**			**664**
Unpaid consideration			10 [2]						13
Interest-bearing debt in acquired subsidiaries			117			19			136
Total gross investment in acquired subsidiaries			**680**			**117**			**813**

1) Including acquired book values and allocated fair values from the acqusition of Info24 AB and Turebergs Recycling AB.

2) Minority shares subject to redemption.

Fortum finalised the acquisition of three wind power projects from the Norwegian company Nordkraft in January 2017. The transaction consists of the Nygårdsfjellet wind farm, which is already operational, as well as the fully-permitted Ånstadblåheia and Sørfjord projects. Fortum is preparing for the construction of the Ånstadblåheia and Sørfjord projects, expected to be commissioned in 2018 and 2019. When built the installed capacity of the three wind farms would total approximately 170 MW.

There were no material acquisitions of subsidiary companies during 2015.

40.1.2 Other acquisitions

Fortum decided in 2015 to participate in the Fennovoima nuclear power project in Finland with a 6.6% share. The investment in Fennovoima is classified as Available-for-sale financial assets.

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42

40.2 Disposals

EUR million	2016	2015
Gross divestments of shares in subsidiary companies [1]	127	6,369
Gross divestments of shares in associated companies	34	27
Gross divestments of shares, total Fortum	**161**	**6,395**

1) In 2015 in addition to the proceeds from shares and repayments of interest-bearing debt in sold subsidiary, totalling approximately EUR 6.4 billion, Swedish distribution business paid group contribution liability net of cash amounting to approximately EUR 0.1 billion as a part of the total consideration of the divestment of Swedish distribution business.

40.2.1 Disposals of subsidiary companies

Fortum sold its 100% shareholding in its Russian subsidiary OOO Tobolsk CHP to SIBUR, Russia's largest integrated gas processing and petrochemicals company in February 2016. OOO Tobolsk CHP owns and operates the combined heat and power (CHP) plant in the city of Tobolsk in Western Siberia. Fortum booked a one-time pre-tax sales gain in Russia segment totalling EUR 35 million.

In March 2015 Fortum signed a binding agreement to sell the Swedish Distribution business to a consortium comprising Swedish national pension funds Första AP-Fonden (12.5%) and Tredje AP-Fonden (20.0%), Swedish mutual insurance and pension savings company Folksam (17.5%) and the international infrastructure investor, Borealis Infrastructure Management Inc. (50.0%). The divestment was completed on 1 June 2015. The total consideration from the divestment was SEK 60.6 billion on a debt- and cash-free basis corresponding to approximately EUR 6.4 billion. Fortum recognised a one-time sales gain of approximately EUR 4.3 billion corresponding to EUR 4.82 per share. The sales gain is reported as part of the 2015 results of the discontinued operations. Distribution segment has been presented as discontinued operations for 2015. For additional information see *Note 14* Discontinued operations.

Divestments of shares in subsidiaries—Impact on financial position, total Fortum

EUR million	2016	2015
Gross divestments of shares in subsidiary companies [1]	127	6,369
Proceeds from interest-bearing receivables	0	207
Sales price for the shares (net of cash)	**127**	**6,162**
Liquid funds in sold subsidiaries	10	12
Sales price including liquid funds in sold subsidiaries	**137**	**6,174**
Intangible assets and property, plant and equipment	92	2,577
Other non-current and current assets	15	120
Liquid funds	10	12
Interest-bearing loans	0	-207
Other liabilities and provisions	-15	-611
Net assets divested	**102**	**1,891**
Gain on sale, discontinued operations	-	4,282
Gain on sale, continuing operations	35	
Gain on sale, total Fortum	**35**	**4,282**

1) In 2015 in addition to the proceeds from shares and repayments of interest-bearing debt in sold subsidiary, totalling approximately EUR 6.4 billion, Swedish distribution business paid group contribution liability net of cash amounting to approximately EUR 0.1 billion as a part of the total consideration of the divestment of Swedish distribution business.

40.2.2 Other disposals

In March 2016 Fortum concluded the divestment of its 51.4% shareholding in the Estonian natural gas import, sales and distribution company AS Eesti Gaas. Fortum sold its shareholding to Trilini Energy OÜ. The sale resulted in a one-time pre-tax sales gain in City Solutions segment totalling EUR 11 million.

In January 2015 Fortum sold its 51.4% shareholding in the associated company AS Võrguteenus Valdus to the Estonian electricity transmission system operator Elering AS.

41 Related party transactions

41.1 The Finnish State and companies owned by the Finnish State

At the end of 2016, the Finnish State owned 50.76% of the Company's shares. The Finnish Parliament has authorised the Government to reduce the Finnish State's holding in Fortum Corporation to no less than 50.1% of the share capital and voting rights.

All transactions between Fortum and other companies owned by the Finnish State are on arm's length basis.

On 31 August 2016 Fortum finalised the acquisition of Ekokem Corporation with the four biggest owners, representing approximately 81% of the shares. The Finnish State was among the biggest owners with a 34%-shareholding in Ekokem. For more information see *Note 40* Acquisitions and disposals.

41.2 Board of Directors and Fortum Executive Management

The key management personnel of the Fortum Group are the members of Fortum Executive Management and the Board of Directors. Fortum has not been involved in any material transactions with members of the Board of Directors or Fortum Executive Management. No loans exist to any member of the Board of Directors or Fortum Executive Management at 31 December 2016. The total compensation (including pension benefits and social costs) for the key management personnel for 2016 was EUR 10 million (2015: 13).

See *Note 11* Employee benefits for further information on the Board of Directors and Fortum Executive Management remuneration and shareholdings.

41.3 Associated companies and joint ventures

In the ordinary course of business Fortum engages in transactions on commercial terms with associated companies and other related parties, which are on same terms as they would be for third parties, except for some associates as discussed later in this note.

Fortum owns shareholdings in associated companies and joint ventures which in turn own hydro and nuclear power plants. Under the consortium agreements, each owner is entitled to electricity in proportion to its share of ownership or other agreements. Each owner is liable for an equivalent portion of costs regardless of output. These associated companies are not profit making, since the owners purchase electricity at production cost including interest costs and production taxes.

For further information on transactions and balances with associated companies and joint ventures, see *Note 20* Participations in associated companies and joint ventures.

41.4 Pension fund

The Fortum pension funds in Finland and Sweden are stand-alone legal entities which manage pension assets related to the part of the pension coverage in Sweden and Finland. The assets in the pension fund in Finland include Fortum shares representing 0.04% (2015: 0.04%) of the company's outstanding shares. Real estate and premises owned by the Finnish pension fund have been leased to Fortum. Fortum has not paid contributions to the pension funds in 2016 nor in 2015. Real estate mortgages have also been given for loan from Fortum's pension fund for EUR 41 million (2015: 41).

42 Subsidiaries by segment on 31 December 2016

C = City Solutions
G = Generation
R = Russia
O = Other

1) New company
2) Shares held by the parent company
3) Consolidated in accordance with 100% (Ekopartnerit Turku Oy with 51%) ownership as minority redemption process is ongoing

Company name		Domicile	Segment	Group holding, %
Ekokem Oyj	1), 2), 3)	Finland	C	98.2
Ekokem-Palvelu Oy	1), 3)	Finland	C	98.2
Ekopartnerit Turku Oy	1), 3)	Finland	C	50.1
Fortum Asiakaspalvelu Oy	2)	Finland	C	100.0
Fortum Assets Oy		Finland	O	100.0
Fortum C&H Oy		Finland	O	100.0
Fortum Growth Oy		Finland	O	100.0
Fortum Heat and Gas Oy	2)	Finland	C, O	100.0
Fortum Markets Oy	2)	Finland	C	100.0
Fortum Norm Oy	2)	Finland	O	100.0
Fortum Power and Heat Holding Oy		Finland	G	100.0
Fortum Power and Heat Oy	2)	Finland	C, G, O	100.0
Fortum Real Estate Oy	2)	Finland	O	100.0
Kiinteistö Oy Espoon Energiatalo		Finland	O	100.0
Koillis-Pohjan Energiantuotanto Oy		Finland	G	100.0
Oy Pauken Ab		Finland	O	100.0
Oy Tersil Ab		Finland	O	100.0
Oy Tertrade Ab		Finland	O	100.0
Puhosvoima Oy	1), 3)	Finland	C	98.2
Fortum Project Finance N.V.	2)	Belgium	O	100.0
Ekokem A/S	1), 3)	Denmark	C	98.2
Ekokem OW A/S	1), 3)	Denmark	C	98.2
Fortum Energi A/S		Denmark	C	100.0
AS Anne Soojus		Estonia	C	60.0
AS Fortum Tartu		Estonia	C	60.0
AS Tartu Joujaam		Estonia	C	60.0
AS Tartu Keskkatlamaja		Estonia	C	60.0
Fortum CFS Eesti OU		Estonia	O	100.0
Fortum Eesti AS		Estonia	C	100.0

Company name	Domicile	Segment	Group holding, %
Fortum France S.A.S	France	O	100.0
Fortum Service Deutschland GmbH	Germany	C	100.0
Fortum Carlisle Limited [1]	Great Britain	C	100.0
Fortum Energy Ltd	Great Britain	O	100.0
Fortum Glasgow Limited [1]	Great Britain	C	100.0
Fortum O&M (UK) Limited	Great Britain	C	100.0
IVO Energy Limited	Great Britain	G	100.0
Fortum Insurance Ltd	Guernsey	O	100.0
Fortum Amrit Energy Private Limited	India	O	100.0
Fortum FinnSurya Energy Private Limited	India	O	100.0
Fortum India Private Limited	India	O	100.0
Fortum Solar India Private Limited	India	O	100.0
Fortum C&P Unlimited	Ireland	O	100.0
Fortum Finance Ireland Designated Activity Company [2]	Ireland	O	100.0
Fortum Jelgava, SIA	Latvia	C	100.0
Fortum Latvia SIA	Latvia	C	100.0
UAB Fortum Heat Lietuva	Lithuania	C	100.0
UAB Fortum Klaipeda	Lithuania	C	95.0
UAB Joniskio energija	Lithuania	C	66.2
UAB Svencioniu energija	Lithuania	C	50.0
Fortum Baltic Investments SNC	Luxembourg	C	100.0
Fortum Investment SARL [2]	Luxembourg	O	100.0
Fortum Luxembourg SARL	Luxembourg	O	100.0
Ekokem Norway AS [1,3]	Norway	C	98.2
Fortum Forvaltning AS	Norway	O	100.0
Fortum Markets AS	Norway	C	100.0
AMB Energia Sprzedaż Sp. z o.o. [1]	Poland	C	100.0
DUON Dystrybucja S.A. [1]	Poland	C	100.0
DUON Praszka Sp. z o.o. [1]	Poland	C	65.9
Fortum Customer Services Polska Sp. z o.o. [1]	Poland	C	100.0
Fortum Marketing and Sales Polska S.A. [1]	Poland	C	100.0
Fortum Markets Polska S.A. [1]	Poland	C	100.0
Fortum Network Częstochowa Sp. z o.o. [1]	Poland	C	100.0
Fortum Network Płock Sp. z o.o. [1]	Poland	C	100.0
Fortum Network Wrocław Sp. z o.o. [1]	Poland	C	100.0
Fortum Power and Heat Polska Sp. z o.o.	Poland	C	100.0
Fortum Silesia SA	Poland	C	100.0
Fortum Sprzedaż Sp. z o.o. [1]	Poland	C	100.0
PGS Sp. z o.o. [1]	Poland	C	100.0
Rejonowa Spółka Ciepłownicza Sp. z o.o.	Poland	C	100.0
Chelyabinsk Energoremont	Russia	R	98.2
LLC Fortum Energy OOO Fortum Energija	Russia	R	100.0

Company name	Domicile	Segment	Group holding, %
OAO Fortum	Russia	R	98.2
Ural Heat Networks Company Joint Stock Company	Russia	R	98.2
Blybergs Kraftaktiebolag	Sweden	G	66.7
Brännälven Kraft AB	Sweden	G	67.0
Bullerforsens Kraft Aktiebolag	Sweden	G	88.0
Ekokem AB [1,3]	Sweden	C	98.2
Ekokem Sweden Holding AB [1,3]	Sweden	C	98.2
Energikundservice Sverige AB	Sweden	O	100.0
Fortum 1 AB	Sweden	R	100.0
Fortum Fastigheter AB	Sweden	O	100.0
Fortum Markets AB	Sweden	C	100.0
Fortum Nordic AB [2]	Sweden	O	100.0
Fortum Produktionsnät AB	Sweden	G	100.0
Fortum Sweden AB [2]	Sweden	O	100.0
Fortum Sverige AB	Sweden	C, G, O	100.0
Fortum Vind Norr AB	Sweden	O	100.0
Info24 AB [1]	Sweden	O	100.0
Mellansvensk Kraftgrupp Aktiebolag	Sweden	G	86.9
Nordgroup Waste Management AB [1,3]	Sweden	C	98.2
Oreälvens Kraftaktiebolag	Sweden	G	65.0
Turebergs Recycling AB [1]	Sweden	C	100.0
Uddeholm Kraft Aktiebolag	Sweden	G	100.0
Värmlandskraft OKG-delägarna Aktiebolag	Sweden	G	73.3
FB Generation Services B.V.	The Netherlands	O	100.0
Fortum 2 B.V.	The Netherlands	O	100.0
Fortum 3 B.V.	The Netherlands	O	100.0
Fortum 4 B.V.	The Netherlands	O	100.0
Fortum Charge & Drive B.V.	The Netherlands	O	100.0
Fortum Finance II B.V.	The Netherlands	O	100.0
Fortum Holding B.V. [2]	The Netherlands	C, G, O	100.0
Fortum Hydro B.V.	The Netherlands	O	100.0
Fortum India B.V.	The Netherlands	O	100.0
Fortum Power Holding B.V.	The Netherlands	O	100.0
Fortum Russia B.V.	The Netherlands	R	100.0
Fortum Russia Holding B.V.	The Netherlands	O	100.0
Fortum SAR B.V.	The Netherlands	O	100.0
Fortum Star B.V.	The Netherlands	O	100.0
Fortum Sun B.V.	The Netherlands	O	100.0
Fortum Wave Power B.V.	The Netherlands	O	100.0
PolarSolar B.V.	The Netherlands	O	100.0
RPH Investment B.V.	The Netherlands	R	100.0
Fortum Enerji ve Ticaret A.Ş.	Turkey	C, O	100.0

Financial key figures

Comparability of information presented in tables and graphs

Fortum announced the sale of Swedish Distribution business in March 2015. After the divestment of the Swedish Distribution business Fortum has no electricity distribution operations and therefore Distribution segment was treated as discontinued operations in 2015, with restatement of year 2014, according to IFRS 5 Non-current Assets held for Sale and Discontinued operations.

Information in the tables and graphs presented for year 2012 or earlier is not restated due to the adoption of IFRS 10 and IFRS 11. Adoption of standards influences treatment of Fortum's holding in AB Fortum Värme samägt med Stockholms stad in the the consolidated financial statements.

EUR million or as indicated	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	Change 16/15, %
Income statement											
Sales total Fortum	4,479	5,636	5,435	6,296	6,161	6,159	5,309	4,751	3,702	3,632	-2
Sales continuing operations								4,088	3,459	3,632	5
EBITDA total Fortum [1)]	2,298	2,478	2,292	2,271	3,008	2,538	2,129	3,954	4,640	1,006	-78
EBITDA continuing operations								1,673	196	1,006	413
Comparable EBITDA total Fortum	2,015	2,360	2,398	2,396	2,374	2,416	1,975	1,873	1,265	1,015	-20
Comparable EBITDA continuing operations								1,457	1,102	1,015	-8
Operating profit total Fortum	1,847	1,963	1,782	1,708	2,402	1,874	1,508	3,428	4,245	633	-85
- of sales %	41.2	34.8	32.8	27.1	39.0	30.4	28.4	72.2	114.7	17.4	
Operating profit continuing operations								1,296	-150	633	522
- of sales %								31.7	-4.3	17.4	
Comparable operating profit total Fortum	1,564	1,845	1,888	1,833	1,802	1,752	1,403	1,351	922	644	-30
Comparable operating profit continuing operations								1,085	808	644	-20
Profit before income tax total Fortum	1,934	1,850	1,636	1,615	2,228	1,586	1,398	3,360	4,088	595	-85
- of sales %	43.2	32.8	30.1	25.7	36.2	25.8	26.3	70.7	110.4	16.4	
Profit before income tax continuing operations								1,232	-305	595	295
- of sales %								30.1	-8.8	16.4	
Profit for the period total Fortum	1,608	1,596	1,351	1,354	1,862	1,512	1,212	3,161	4,142	504	-88
- of which attributable to owners of the parent	1,552	1,542	1,312	1,300	1,769	1,416	1,204	3,154	4,138	496	-88
Profit for the period continuing operations								1,089	-228	504	321
- of which attributable to owners of the parent								1,081	-231	496	315

EUR million or as indicated	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	Change 16/15, %
Financial position and cash flow											
Capital employed total Fortum	13,544	15,911	15,350	16,124	17,931	19,420	19,183	17,918	19,870	18,649	-6
Interest-bearing net debt	4,466	6,179	5,969	6,826	7,023	7,814	7,793	4,217	-2,195	-48	98
Interest-bearing net debt without Värme financing							6,658	3,664	N/A	N/A	
Capital expenditure and gross investments in shares total Fortum	972	2,624	929	1,249	1,482	1,574	1,020	843	669	1,435	114
- of sales %	21.7	46.6	17.1	19.8	24.1	25.6	19.2	17.7	18.1	39.5	
Capital expenditure and gross investments in shares continuing operations								695	625	1,435	130
Capital expenditure total Fortum	655	1,108	862	1,222	1,408	1,558	1,005	774	626	591	-6
Capital expenditure continuing operations								626	582	591	2
Net cash from operating activities total Fortum	1,670	2,002	2,264	1,437	1,613	1,382	1,548	1,762	1,381	621	-55
Net cash from operating activities continuing operations								1,406	1,228	621	-49
Key ratios											
Return on capital employed total Fortum, %	16.5	15.0	12.1	11.6	14.8	10.2	9.0	19.5	22.7	4.0	
Return on shareholders' equity total Fortum, %	19.1	18.7	16.0	15.7	19.7	14.6	12.0	30.0	33.4	3.7	
Interest coverage total Fortum	12.8	9.4	12.4	13.7	10.5	7.6	6.7	19.9	27.6	4.6	
Interest coverage including capitalised borrowing costs total Fortum		8.6	10.3	10.0	8.5	5.7	5.3	15.7	21.5	4.1	
Funds from operations/interest-bearing net debt total Fortum, %	36.3	34.1	37.6	20.5	21.5	19.9	18.8	42.9	-59.7	-1,503.4	
Funds from operations/interest-bearing net debt without Värme financing total Fortum, %							22.1	49.3	N/A	N/A	
Gearing, %	52	73	70	78	69	73	77	39	-16	0	
Comparable net debt/EBITDA total Fortum	2.2	2.6	2.5	2.8	3.0	3.2	3.9	2.3	-1.7	0.0	
Comparable net debt/EBITDA without Värme financing							3.4	2.0	N/A	N/A	
Equity-to-assets ratio, %	49	41	43	40	44	43	43	51	61	62	
Other data											
Dividends	1,198	888	888	888	888	888	977	1,155	977	977 [2]	0
Dividends from recurring earnings in 2007	683										
Additional dividends in 2007	515										
Research and development	21	27	30	30	38	41	49	41	47	52	11
- of sales %	0.5	0.5	0.5	0.5	0.6	0.7	0.9	1.0	1.4	1.4	
Average number of employees total Fortum	8,304	14,077	13,278	11,156	11,010	10,600	9,532	8,821	8,193	7,994	
Average number of employees continuing operations								8,329	8,009	7,994	

1) EBITDA is defined as Operating profit + Depreciation and amortisation.

2) Board of Directors' proposal for the planned Annual General Meeting on 4 April 2017.

See ▸ *Definitions of key figures*.

Share key figures

EUR or as indicated	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	Change 16/15, %
Data per share											
Earnings per share total Fortum	1.74	1.74	1.48	1.46	1.99	1.59	1.36	3.55	4.66	0.56	-88
Earnings per share continuing operations								1.22	-0.26	0.56	315
Earnings per share discontinued operations	-	-	-	-	-	-	-	2.33	4.92	-	
Diluted earnings per share total Fortum	1.74	1.74	1.48	1.46	1.99	1.59	1.36	3.55	4.66	0.56	-88
Diluted earnings per share continuing operations								1.22	-0.26	0.56	315
Diluted earnings per share discontinued operations	-	-	-	-	-	-	-	2.33	4.92	-	
Cash flow per share total Fortum	1.88	2.26	2.55	1.62	1.82	1.56	1.74	1.98	1.55	0.70	-55
Cash flow per share continuing operations								1.38	1.38	0.70	-49
Equity per share	9.43	8.96	9.04	9.24	10.84	11.30	11.28	12.23	15.53	15.15	-2
Dividend per share	1.35	1.00	1.00	1.00	1.00	1.00	1.10	1.10	1.10	1.10 [1]	0
Extra dividend								0.20	-	-	
Dividend per share continuing operations	0.77	-	-	-	-	-	-	-	-	-	
Additional dividend per share in 2007	0.58	-	-	-	-	-	-	-	-	-	
Payout ratio, %	77.6 [2]	57.5	67.6	68.5	50.3	62.9	80.9	36.6	23.6	196.4 [1]	
Payout ratio continuing operations, %	44.3 [2]	-	-	-	-	-	-	-	-	-	
Payout ratio additional dividend in 2007, %	33.3 [2]	-	-	-	-	-	-	-	-	-	
Dividend yield, %	4.4	6.6	5.3	4.4	6.1	7.1	6.6	7.2	7.9	7.5 [1]	
Price/earnings ratio (P/E)	17.7	8.8	12.8	15.4	8.3	8.9	12.2	5.1	3.0	26.1	
Share prices											
At the end of the period	30.81	15.23	18.97	22.53	16.49	14.15	16.63	17.97	13.92	14.57	
Average	23.57	24.79	15.91	19.05	19.77	15.66	15.11	17.89	16.29	13.56	
Lowest	20.01	12.77	12.60	17.18	15.53	12.81	13.10	15.13	12.92	10.99	
Highest	31.44	33.00	19.20	22.69	24.09	19.36	18.18	20.32	21.59	15.74	
Other data											
Market capitalisation at the end of the period, EUR million	27,319	13,519	16,852	20,015	14,649	12,570	14,774	15,964	12,366	12,944	
Trading volumes [3]											
Number of shares, 1,000 shares	787,380	628,155	580,899	493,375	524,858	494,765	465,004	454,796	541,858	611,572	
In relation to weighted average number of shares, %	88.5	70.8	65.4	55.5	59.1	55.7	52.3	51.2	61.0	68.8	
Number of shares, 1,000 shares	886,683	887,638	888,367	888,367	888,367	888,367	888,367	888,367	888,367	888,367	
Number of shares excluding own shares, 1,000 shares	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
Average number of shares, 1,000 shares	889,997	887,256	888,230	888,367	888,367	888,367	888,367	888,367	888,367	888,367	
Diluted adjusted average number of shares, 1,000 shares	891,395	887,839	888,230	888,367	888,367	888,367	888,367	888,367	888,367	888,367	

1) Board of Directors' proposal for the Annual General Meeting on 4 April 2017.

2) Payout ratios for dividends in 2007 are based on the total earnings per share.

3) Trading volumes in the table represent volumes traded on Nasdaq Helsinki. In addition to the Nasdaq Helsinki, Fortum shares were traded on several alternative market places, for example at Boat, BATS Chi-X and Turquoise, and on the OTC market as well. In 2016, approximately 63% (2015: 58%) of Fortum's traded shares were traded on other markets than Nasdaq Helsinki.

See ▸ *Definitions of key figures*.

Segment key figures

Following the acquisition of the Russian company, OAO Fortum, Fortum changed its segment reporting during 2008. Comparison numbers were restated in 2008.

Fortum renewed its business structure as of 1 March 2014. The reorganisation lead to a change in Fortum's external financial reporting structure as previously separately reported segments Heat and Electricity Sales were combined into one segment: Heat, Electricity Sales and Solutions.

Fortum has applied new IFRS 10 Consolidated financial statements and IFRS 11 Joint arrangements from 1 January 2014. The effect of applying the new standards to Fortum Group financial information relates to AB Fortum Värme samägt med Stockholm Stad (Fortum Värme), that is treated as a joint venture and thus consolidated with equity method from 1 January 2014 onwards. Before the change the company was consolidated as a subsidiary with 50% minority interest.

Information for 2013 has been restated to reflect both the change in business structure and adoption of new IFRS standards.

Fortum announced the sale of Swedish Distribution business in March 2015. After the divestment of the Swedish Distribution business Fortum does not have any distribution operations and therefore Distribution segment has been treated as discontinued operations starting from 2015 with restatement of year 2014, according to IFRS 5 Non-current Assets held for Sale and Discontinued operations.

Fortum has reorganised its operating structure as of 1 April 2016. The segments are: Generation (mainly the former Power and Technology); City Solutions (mainly the former Heat, Electricity Sales and Solutions) and Russia. Because of the minor financial impact, the comparable segment information for 2015 has not been restated.

Sales by segment, EUR million	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Generation	2,350	2,892	2,531	2,702	2,481	2,415	2,252	2,156	1,722	1,657
- of which internal	323	0	254	-281	-24	296	69	85	83	15
City Solutions							1,516	1,332	1,187	1,424
- of which internal							87	34	-13	-5
Heat	1,356	1,466	1,399	1,770	1,737	1,628				
- of which internal	38	0	23	-8	8	18				
Electricity Sales	1,683	1,922	1,449	1,798	900	722				
- of which internal	155	177	67	158	95	55				
Russia		489	632	804	920	1,030	1,119	1,055	893	896
- of which internal		-	-	-	-	-	-	0	0	0
Other	81	83	71	51	108	137	63	58	114	121
- of which internal	72	82	-5	169	115	-66	54	44	75	72
Distribution	769	789	800	963	973	1,070	1,064			
- of which internal	9	10	13	18	15	37	19			
Eliminations and Netting of Nord Pool transactions	-1,760	-2,005	-1,447	-1,792	-958	-843	-706	-513	-458	-466
Total for continuing operations	**4,479**	**5,636**	**5,435**	**6,296**	**6,161**	**6,159**	**5,309**	**4,088**	**3,459**	**3,632**
Discontinued operations								751	274	
Eliminations [1]								-89	-31	
Total								**4,751**	**3,702**	**3,632**

1) Sales to and from discontinued operations.

Comparable operating profit by segment, EUR million	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Generation	1,095	1,528	1,454	1,298	1,201	1,146	859	877	561	417
City Solutions							109	104	108	112
Heat	290	250	231	275	278	271				
Electricity Sales	-1	-33	22	11	27	39				
Russia		-92	-20	8	74	68	156	161	201	191
Other	-51	-56	-61	-66	-73	-92	-54	-57	-63	-76
Distribution	231	248	262	307	295	320	332			
Comparable operating profit	**1,564**	**1,845**	**1,888**	**1,833**	**1,802**	**1,752**	**1,403**	**1,085**	**808**	**644**
Impairment charges								0	-918	27
Capital gains and other	250	85	29	93	284	155	61	305	22	38
Changes in fair values of derivatives hedging future cash flow										-65
Nuclear fund adjustment										-11
Other items affecting comparability [1]	33	33	-135	-218	316	-33	45	-94	-62	
Operating profit, continuing operations	**1,847**	**1,963**	**1,782**	**1,708**	**2,402**	**1,874**	**1,508**	**1,296**	**-150**	**633**
Discontinued operations								2,132	4,395	
Operating profit	**1,847**	**1,963**	**1,782**	**1,708**	**2,402**	**1,874**	**1,508**	**3,428**	**4,245**	**633**

1) Other items affecting comparability comprise Changes in fair values of derivatives hedging future cash flow and Nuclear fund adjustment.

Comparable EBITDA by segment, EUR million	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Generation	1,198	1,625	1,547	1,398	1,310	1,260	1,007	998	680	527
City Solutions							211	204	209	238
Heat	453	419	393	462	471	481				
Electricity Sales	10	-26	28	13	29	40				
Russia		-25	55	94	148	189	258	304	267	312
Other	-39	-46	-51	-56	-66	-83	-49	-49	-53	-61
Distribution	393	413	426	485	482	529	548			
Total for continuing operations	**2,015**	**2,360**	**2,398**	**2,396**	**2,374**	**2,416**	**1,975**	**1,457**	**1,102**	**1,015**
Discontinued operations								416	163	
Total								**1,873**	**1,265**	**1,015**

Depreciation and amortisation, EUR million	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Generation	103	97	93	100	109	114	148	121	118	110
City Solutions							102	100	101	126
Heat	163	169	162	187	193	210				
Electricity Sales	11	7	6	2	2	1				
Russia		67	75	86	108	121	150	147	117	123
Other	12	10	10	10	7	9	5	8	10	15
Distribution	162	165	164	178	187	209	216			
Total for continuing operations	**451**	**515**	**510**	**563**	**606**	**664**	**621**	**377**	**346**	**373**
Discontinued operations								150	50	
Total								**526**	**395**	**373**

Share of profit of associates and joint ventures by segment, EUR million	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Generation	-23	26	-35	-25	3	-12	4	-14	-111	-34
City Solutions							91	88	59	76
Heat	24	12	30	31	19	20				
Electricity Sales	0	5	0	1	2	0				
Russia		19	20	8	30	27	46	35	32	38
Other	222	48	-4	28	23	-20	32	37	40	51
Distribution	18	16	10	19	14	8	4			
Total for continuing operations	**241**	**126**	**21**	**62**	**91**	**23**	**178**	**146**	**20**	**131**
Discontinued operations								3	0	
Total								**149**	**20**	**131**

Capital expenditure by segment, EUR million	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Generation	93	134	96	97	131	190	179	197	187	196
City Solutions							123	86	105	112
Heat	309	408	358	304	297	464				
Electricity Sales	3	3	1	0	5	1				
Russia		256	215	599	670	568	435	340	285	201
Other	14	11	4	9	16	11	12	3	6	83
Distribution	236	296	188	213	289	324	255			
Total for continuing operations	**655**	**1,108**	**862**	**1,222**	**1,408**	**1,558**	**1,005**	**626**	**582**	**591**
Discontinued operations								147	44	
Total								**774**	**626**	**591**

Gross investments in shares by segment, EUR million	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Generation	52	0	57	25	17	-	2	2	16	7
City Solutions							11	37	23	815
Heat	18	23	1	1	32	10				
Electricity Sales	0	0	-	-	-	-				
Russia	245	1,492	3	-	24	-	0	27	0	0
Other	1	1	1	1	1	6	2	4	4	22
Distribution	1	0	5	0	-	-	0			
Total for continuing operations	**317**	**1,516**	**67**	**27**	**74**	**16**	**15**	**69**	**43**	**844**
Discontinued operations								0	0	
Total								**69**	**43**	**844**

Gross divestments of shares by segment, EUR million	2009	2010	2011	2012	2013	2014	2015	2016
Generation	10	0	3	102	79	67	0	0
City Solutions					11	446	27	34
Heat	1	52	203	269				
Electricity Sales	-	-	16	2				
Russia	-	43	23	-	-	0	0	127
Other	2	6	0	0	-	2	-	0
Distribution	1	46	323	37	52			
Total for continuing operations	**14**	**147**	**568**	**410**	**142**	**515**	**27**	**161**
Discontinued operations						2,681	6,369	
Total						**3,196**	**6,395**	**161**

Comparable net assets by segment, EUR million	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Generation									5,931	5,815
City Solutions									2,182	3,052
Russia									2,561	3,284
Other									258	489
Total for continuing operations									**10,932**	**12,641**

Fortum is disclosing Comparable net assets instead of Net assets from 2016 onwards. Net assets until 2015 are disclosed below.

Net assets by segment, EUR million	2007	2008	2009	2010	2011	2012	2013	2014	2015 [1]
Generation	5,599	5,331	5,494	5,806	6,247	6,389	6,355	6,001	5,913
City Solutions							2,295	2,112	2,170
Heat	3,507	3,468	3,787	4,182	4,191	4,286			
Electricity Sales	247	188	125	210	11	51			
Russia	456	2,205	2,260	2,817	3,273	3,848	3,846	2,597	2,561
Other	1,237	796	382	29	208	158	295	496	291
Distribution	3,239	3,032	3,299	3,683	3,589	3,889	3,745		
Total for continuing operations	**14,285**	**15,020**	**15,347**	**16,727**	**17,519**	**18,621**	**16,537**	**11,206**	**10,934**
Net assets related to discontinued operations								2,615	-
Total								**13,820**	**10,934**

1) Fortum is disclosing Comparable net assets instead of Net assets from 2016 onwards.

Comparable return on net assets by segment, %	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Generation	18.9	28.0	26.4	22.3	19.9	18.5	13.8	14.2	9.5	6.9
City Solutions							8.7	8.7	7.9	7.5
Heat	9.2	7.3	7.6	7.7	7.4	7.0				
Electricity Sales	-0.6	-15.3	18.6	9.3	33.5	203.1				
Russia	0.0	-3.8	0.0	0.7	3.5	2.7	5.2	5.6	8.2	8.0
Distribution [2]	7.6	8.2	8.6	9.3	8.6	8.8	8.8	9.3		

2) Classified as discontinued operations from 2014 onwards.

Return on net assets by segment, %	2007	2008	2009	2010	2011	2012	2013	2014	2015 [1]
Generation	19.2	29.6	24.5	19.5	24.6	18.7	14.5	13.6	-8.5
City Solutions							9.7	19.1	7.7
Heat	9.3	8.9	7.9	8.4	9.9	8.8			
Electricity Sales	6.9	-14.0	28.9	38.4	4.2	152.3			
Russia	66.3	3.7	0.0	2.4	3.5	3.0	5.2	5.6	8.3
Distribution [2]	7.7	8.1	8.7	9.7	13.7	9.1	9.3	73.6	

1) Fortum is disclosing Comparable net assets instead of Net assets from 2016 onwards.

2) Classified as discontinued operations from 2014 onwards.

Average number of employees	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Generation	3,475	3,591	2,068	1,891	1,873	1,896	1,900	1,685	1,389	1,064
City Solutions							2,051	1,913	1,458	2,043
Heat	2,302	2,422	2,652	2,482	2,682	2,354				
Electricity Sales	936	766	629	538	510	515				
Russia		5,566	6,170	4,555	4,436	4,301	4,245	4,196	4,180	3,814
Other	531	510	593	592	607	661	550	536	983	1,073
Distribution	1,060	1,222	1,166	1,098	902	873	786			
Total for continuing operations	**8,304**	**14,077**	**13,278**	**11,156**	**11,010**	**10,600**	**9,532**	**8,329**	**8,009**	**7,994**
Discontinued operations								492		
Total								**8,821**		

Definitions of key figures

EBITDA (Earnings before interest, taxes, depreciation and amortisation)	=	Operating profit + depreciation and amortisation
Comparable EBITDA	=	EBITDA - items affecting comparability - net release of CSA provision
Items affecting comparability	=	Impairment charges + capital gains and other + changes in fair values of derivatives hedging future cash flow + nuclear fund adjustment
Comparable operating profit	=	Operating profit - items affecting comparability
Impairment charges	=	Impairment charges and related provisions (mainly dismantling)
Capital gains and other	=	Capital gains, transaction costs from acquisitions and other
Changes in fair values of derivatives hedging future cash flow	=	Effects from financial derivatives hedging future cash-flows where hedge accounting is not applied according to IAS 39.
Nuclear fund adjustment	=	Effects from the accounting of Fortum's part of the Finnish Nuclear Waste Fund where the asset in the balance sheet cannot exceed the related liabilities according to IFRIC interpretation 5.
Adjustment for Share of profit of associated companies and joint ventures	=	Adjustment for IAS 39 effects, major sales gains and impairment charges
Funds from operations (FFO)	=	Net cash from operating activities before change in working capital
Capital expenditure	=	Capitalised investments in property, plant and equipment and intangible assets including maintenance, productivity, growth and investments required by legislation including borrowing costs capitalised during the construction period. Maintenance investments expand the lifetime of an existing asset, maintain usage/availability and/or maintains reliability. Productivity investments improve productivity in an existing asset. Growth investments' purpose is to build new assets and/or to increase customer base within existing businesses. Legislation investments are done at a certain point of time due to legal requirements.
Gross investments in shares	=	Investments in subsidiary shares, shares in associated companies and other shares in available for sale financial assets. Investments in subsidiary shares are net of cash and grossed with interest-bearing liabilities in the acquired company.
Return on shareholders' equity, %	=	$\frac{\text{Profit for the year}}{\text{Total equity average}} \times 100$
Return on capital employed, %	=	$\frac{\text{Profit before taxes + interest and other financial expenses}}{\text{Capital employed average}} \times 100$
Return on capital employed continuing operations, %	=	$\frac{\text{Profit before taxes continuing operations + interest and other financial expenses continuing operations}}{\text{Capital employed continuing operations average}} \times 100$
Comparable return on net assets, %	=	$\frac{\text{Comparable operating profit + share of profit (loss) in associated companies and joint ventures + adjustment for Share of profit of associated companies and joint ventures}}{\text{Comparable net assets average}} \times 100$
Capital employed	=	Total assets - non-interest bearing liabilities - deferred tax liabilities - provisions
Comparable net assets	=	Non-interest bearing assets + interest-bearing assets related to the Nuclear Waste Fund - non-interest bearing liabilities - provisions (non-interest bearing assets and liabilities do not include finance related items, tax and deferred tax and assets and liabilities from fair valuations of derivatives used for hedging future cash flows)

Interest-bearing net debt	=	Interest-bearing liabilities - liquid funds	
Gearing, %	=	Interest-bearing net debt / Total equity	x 100
Equity-to-assets ratio, %	=	Total equity including non-controlling interests / Total assets	x 100
Comparable net debt/EBITDA	=	Interest-bearing net debt / Comparable EBITDA	
Comparable net debt/EBITDA continuing operations	=	Interest-bearing net debt / Comparable EBITDA continuing operations	
Interest coverage	=	Operating profit / Net interest expenses	
Interest coverage including capitalised borrowing costs	=	Operating profit / Net interest expenses-capitalised borrowing costs	
Average number of employees		Based on monthly average for the whole period	
Earnings per share (EPS)	=	Profit for the period - non-controlling interests / Average number of shares during the period	
Cash flow per share	=	Net cash from operating activities / Average number of shares during the period	
Equity per share	=	Shareholders' equity / Number of shares at the end of the period	
Payout ratio, %	=	Dividend per share / Earnings per share	x 100
Payout ratio continuing operations, %	=	Dividend per share continuing operations / Earnings per share continuing operations	x 100
Dividend yield, %	=	Dividend per share / Share price at the end of the period	x 100
Price/earnings (P/E) ratio	=	Share price at the end of the period / Earnings per share	
Average share price	=	Amount traded in euros during the period / Number of shares traded during the period	
Market capitalisation	=	Number of shares at the end of the period x share price at the end of the period	
Trading volumes	=	Number of shares traded during the period in relation to the weighted average number of shares during the period	
Effective income tax rate	=	Income tax expense / Profit before income tax	
Comparable effective income tax rate	=	Income tax expense - effects from tax rate changes / Profit before income tax decreased by profits from associated companies and joint ventures and tax exempt capital gains or losses	
Taxes borne	=	Taxes that a company is obliged to pay to a government, directly or indirectly, on that company's own behalf in respect of an accounting period. Taxes borne include corporate income taxes (excluding deferred taxes), production taxes, employment taxes, taxes on property and cost of indirect taxes. Production taxes include also taxes paid through electricity purchased from associated companies.	
Total tax rate	=	Taxes borne / Profit before income tax increased by taxes borne in operating profit	
Comparable total tax rate	=	Taxes borne / Profit before income tax increased by taxes borne in operating profit and decreased by profits from associated companies and joint ventures and by tax exempt capital gains or losses	
Weighted average applicable income tax rate	=	Sum of the proportionately weighted share of profits before taxes of each group operating country multiplied with an applicable nominal tax rate of the respective countries.	

Parent company financial statements, Finnish GAAP (FAS)

Income statement

EUR million	Note	2016	2015
Sales	2	70	71
Other income	3	8	9
Employee costs	4	-31	-37
Depreciation, amortisation and write-downs	7	-6	-9
Other expenses		-67	-78
Operating profit		**-26**	**-44**
Financial income and expenses	5	675	794
Profit after financial items		**649**	**750**
Group contributions 1)		145	447
Profit before income tax		**794**	**1,198**
Income tax expense	6	-14	-64
Profit for the period		**780**	**1,134**

1) Taxable profits transferred from Finnish subsidiaries.

Balance sheet

EUR million	Note	31 Dec 2016	31 Dec 2015 restated	31 Dec 2015
ASSETS				
Non-current assets				
Intangible assets	7	9	14	14
Property, plant and equipment	7	7	4	4
Shares in Group companies	7	16,379	15,800	15,800
Participations in associated companies	7	6	6	6
Interest-bearing receivables from Group companies	7	717	714	714
Interest-bearing receivables from associated companies	7	15	13	13
Other non-current assets	7	0	1	1
Derivative financial instruments	12, 13	344	370	0
Deferred tax assets		6	7	1
Total non-current assets		**17,484**	**16,930**	**16,553**
Current assets				
Other current receivables from Group companies	8	155	458	458
Other current receivables from associated companies	8	0	0	0
Derivative financial instruments	12, 13	127	268	0
Other current receivables	8	45	9	263
Deposits and securities (maturity over three months)		3,473	4,706	4,706
Cash and cash equivalents		1,463	2,939	2,939
Liquid funds		4,935	7,645	7,645
Total current assets		**5,263**	**8,380**	**8,366**
Total assets		**22,746**	**25,310**	**24,919**
EQUITY				
Shareholders' equity	9			
Share capital		3,046	3,046	3,046
Share premium		2,822	2,822	2,822
Hedging reserve		-23	-31	0
Retained earnings		4,447	4,290	4,284
Profit for the period		780	1,134	1,134
Total shareholders' equity		**11,072**	**11,261**	**11,285**
Provisions for liabilities and charges		**1**	**0**	**0**
LIABILITIES				
Non-current liabilities				
External interest-bearing liabilities	10, 12, 13	4,018	4,516	4,415
Interest-bearing liabilities to Group companies		2,323	6,252	6,252
Interest-bearing liabilities to associated companies	10	273	268	268
Derivative financial instruments	12, 13	124	155	0
Other non-current liabilities		61	83	5
Total non-current liabilities		**6,799**	**11,275**	**10,940**
Current liabilities				
External interest-bearing liabilities	10	617	1,014	1,014
Trade and other payables to Group companies	11	4,002	1,545	1,545
Trade and other payables to associated companies	11	6	4	4
Derivative financial instruments	12, 13	149	98	0
Trade and other payables	11	101	113	131
Total current liabilities		**4,875**	**2,774**	**2,694**
Total liabilities		**11,674**	**14,049**	**13,634**
Total equity and liabilities		**22,746**	**25,310**	**24,919**

Cash flow statement

EUR million	2016	2015
Cash flow from operating activities		
Profit for the period	780	1,134
Adjustments:		
Income tax expense	14	64
Group contributions	-145	-447
Finance costs - net	-675	-794
Depreciations, amortisation and write-downs	6	9
Operating profit before depreciations (EBITDA)	**-20**	**-35**
Non-cash flow items and divesting activities	8	0
Interest and other financial income	21	36
Interest and other financial expenses paid	-88	-147
Dividend income	756	1,060
Group contribution received	447	565
Realised foreign exchange gains and losses	113	-80
Taxes	-46	-36
Funds from operations	**1,191**	**1,363**
Other short-term receivables increase(-)/decrease(+)	-1	7
Other short-term payables increase(+)/decrease(-)	-6	0
Change in working capital	-7	7
Net cash from operating activities	**1,184**	**1,370**
Cash flow from investing activities		
Capital expenditures	-5	-4
Acquisition of shares and capital contributions in subsidiaries	-583	-1
Capital returns from subsidiaries	0	97
Acquisition of other shares	0	0
Proceeds from sales of fixed assets	2	0
Proceeds from sales of shares in subsidiaries	0	0
Change in interest-bearing receivables and other non-current assets	-5	854
Net cash used in investing activities	**-591**	**947**

EUR million	2016	2015
Cash flow before financing activities	593	2,317
Cash flow from financing activities		
Proceeds from long-term liabilities	27	33
Payment of long-term liabilities	-811	-901
Change in cashpool liabilities	-3,940	3,604
Change in short-term liabilities	2,398	1,429
Dividends paid	-976	-1,155
Net cash used in financing activities	**-3,302**	**3,010**
Net increase(+)/decrease(-) in liquid funds	**-2,710**	**5,327**
Liquid funds at the beginning of the period	**7,645**	**2,318**
Liquid funds at the end of the period	**4,935**	**7,645**

Notes to the parent company financial statements, FAS

1 Accounting policies and principles

The financial statements of Fortum Oyj are prepared in accordance with Finnish Accounting Standards (FAS).

Change in the accounting principles of financial derivatives and interest-bearing liabilities at fair value in the 2016 financial statements

A new requirement issued by Finnish Accounting Board (KILA 1963/2016) relating to accounting for financial derivatives was published 13 December 2016. The requirements have to be applied in 2016 separate financial statements. Based on this requirement Fortum has chosen to apply IFRS principles for accounting financial derivatives in Fortum Oyj.

Applying IFRS principles means that financial derivatives are fair valued at each balance sheet date, which may create volatility in income statement and equity. The changes due to the new requirement had a minor effect to net profit and equity of Fortum Oyj in 2015 and 2016.

For year 2015 adopted balance sheet and restated balance sheet including the impact from new accounting principles have been presented. Income statement and notes for 2015 are not restated. New notes for financial derivatives have been disclosed for year 2016. Additional information regarding financial instruments for 2015 can be found in *Note 3*, *Note 16* and *Note 17* in the Consolidated financial statements.

Impact of change in accounting principles of financial derivatives and interest-bearing liabilities at fair value on balance sheet of 2015

EUR million	31 Dec 2015	Change	31 Dec 2015 restated
ASSETS			
Derivative financial instruments, non-current assets	0	370	370
Deferred tax assets	1	6	7
Derivative financial instruments, current assets	0	268	268
Other current receivables, current assets	263	-254	9
Total	**264**	**391**	**655**
EQUITY AND LIABILITIES			
Shareholders' equity			
Share capital	3,046	0	3,046
Share premium	2,822	0	2,822
Hedging reserve	0	-31	-31
Retained earnings	4,284	6	4,290
Profit for the period	1,134	0	1,134
Total shareholder's equity	**11,285**	**-25**	**11,261**

EUR million	31 Dec 2015	Change	31 Dec 2015 restated
LIABILITIES			
External interest-bearing liabilities, long-term	4,415	102	4,516
Derivative financial instruments, long-term	0	155	155
Other non-current liabilities	5	79	83
Derivative financial instruments, short-term	0	98	98
Trade and other current payables	131	-18	113
Total	**4,550**	**415**	**4,965**
Total	**15,835**	**391**	**16,226**

1.1 Sales

Sales include sales revenue from actual operations and exchange rate differences on trade receivables, less discounts and indirect taxes such as value added tax.

1.2 Other income

Other income includes gains on the sales of property, plant and equipment and shareholdings, as well as all other operating income not related to the sales of products or services, such as rents.

1.3 Foreign currency items and derivative instruments

Transactions denominated in foreign currencies have been valued using the exchange rate at the date of the transaction. Receivables and liabilities denominated in foreign currencies outstanding on the balance sheet date have been valued using the exchange rate quoted on the balance sheet date. Exchange rate differences have been entered in the financial net in the income statement.

Fortum Oyj enters into derivative contracts mainly for hedging foreign exchange and interest rate exposures in Fortum Group.

Accounting principles of financial derivatives, see *Notes 3*, *Note 16* and *Note 17* in the Consolidated financial statements.

1.4 Income taxes

Income taxes presented in the income statement consist of accrued taxes for the financial year and tax adjustments for prior years.

1.5 Shares in group companies

The balance sheet value of shares in group companies consists of historical costs less write-downs. If the estimated future cash flows generated by a non-current asset are expected to be permanently lower than the balance of the carrying amount, an adjustment to the value must be made to write-down the difference as an expense. If the basis for the write-down can no longer be justified at the balance sheet date, it must be reversed.

1.6 Property, plant and equipment and depreciation

The balance sheet value of property, plant and equipment consists of historical costs less depreciation and other deductions. Property, plant and equipment are depreciated using straight-line depreciation based on the expected useful life of the asset.

The depreciation is based on the following expected useful lives:

Buildings and structures	15–40 years
Machinery and equipment	3–15 years
Other intangible assets	5–10 years

1.7 Pension expenses

Statutory pension obligations are covered through a compulsory pension insurance policy or Group's own pension fund. Costs for pension fund are recorded in the income statement based on contributions paid pursuant to the Finnish pension laws and regulations.

1.8 Long-term incentive schemes

Costs related to the Fortum long-term incentive plans are accrued over the vesting period and the related liability is booked to the balance sheet.

1.9 Provisions

Foreseeable future expenses and losses that have no corresponding revenue to which Fortum is committed or obliged to settle, and whose monetary value can be reasonably assessed, are entered as expenses in the income statement and included as provisions in the balance sheet.

1.10 Presentation of the primary statements and notes

Information presented in the notes is given separately for Fortum Group companies and for associated companies of the Group.

2 Sales by market area

EUR million	2016	2015
Finland	43	50
Other countries	28	21
Total	70	71

3 Other income

EUR million	2016	2015
Gain on sales of shareholdings	-	0
Rental and other income	8	9
Total	8	9

4 Employee costs

EUR million	2016	2015
Personnel expenses		
Wages, salaries and remunerations	24	30
Indirect employee costs		
Pension costs	5	5
Other indirect employee costs	1	1
Other personnel expenses	1	1
Total	31	37

	2016	2015		
EUR thousand	Pekka Lundmark, President and CEO	Pekka Lundmark, President and CEO from 7 Sep 2015 2)	Timo Karttinen, Interim President and CEO until 6 Sep 2015 2)	Tapio Kuula, President and CEO until 31 Jan 2015 3)
Compensation for the President and CEO				
Salaries and fringe benefits	982	305	372	279
Performance bonuses 1)	248	21	15	0
Share-based incentives	433	114	282	903
Pensions (statutory)	209	55	66	47
Pensions (voluntary)	356	0	37	25
Social security expenses	73	17	20	14
Total	2,299	513	791	1,269

1) Performance bonuses are based on estimated amounts.

2) Includes the compensation CFO Timo Karttinen received during his position as Fortum's Interim President and CEO during 1 February - 6 September 2015 and as a substitute to the President and CEO in January 2015. Also included is a lump sum payment of EUR 70 thousand for his success in assuming the responsibilities of Interim President and CEO.

3) Share-based incentives includes the gross payment Tapio Kuula received from the share plans commenced in 2012, 2013 and 2014. Mr Kuula received the net amount of the payment as shares, after deducting the taxes and tax-related charges arising from the payment. These shares, totalling 30,271 shares, are under lock-up until the spring 2018.

EUR thousand	2016	2015
Compensation for the Board of Directors	518	499

The compensation above is presented on accrual basis. Paid salaries and remunerations for the President and CEO Pekka Lundmark were EUR 1,012 thousand (2015:305). In 2015 paid salaries and remunerations for Interim President and CEO Timo Karttinen were EUR 372 thousand and for former President and CEO Tapio Kuula EUR 1,595 thousand.

For the President and CEO Pekka Lundmark the retirement age of old-age pension is 63. The pension obligations for Pekka Lundmark are covered through insurance company and for Timo Karttinen through pension fund. The pension obligation for Tapio Kuula was covered through insurance company.

Board members are not in an employment relationship or service contract with Fortum, and they are not given the opportunity to participate in Fortum's STI or LTI programme, nor does Fortum have a pension plan that they can opt to take part in. The compensation of the board members is not tied to the sustainability performance of the Group.

See *Note 11* Employee benefits and *Note 32* Pension obligations in the Consolidated financial statements.

	2016	2015
Average number of employees	272	283

5 Financial income and expenses

EUR million	2016	2015
Dividend income from group companies	756	1,060
Dividend income from associated companies and other companies	0	0
Interest and other financial income from group companies	8	18
Interest and other financial income from associated companies	0	7
Write-downs of participations in group companies	-4	-160
Interest and other financial income	3	7
Exchange rate differences	41	18
Changes in fair values of derivatives	-11	0
Interest and other financial expenses to group companies	0	-1
Interest and other financial expenses	-116	-155
Total	**675**	**794**
Interest income	11	32
Interest expenses	-113	-152
Interest net	**-102**	**-120**

Write-downs of participations in group companies are related to shares in Fortum Heat and Gas Oy and received dividend payments. Interest and other financial income from associated company is related to AB Fortum Värme samägt med Stockholm Stad.

6 Income tax expense

EUR million	2016	2015
Taxes on regular business operations	-15	-25
Taxes on group contributions	29	89
Total	**14**	**64**
Current taxes for the period	9	61
Current taxes for prior periods	7	3
Changes in deferred tax	-1	1
Total	**14**	**64**

For more information, see *Note 14* Contingent liabilities.

7 Non-current assets

Intangible assets

EUR million	Total
Cost 1 January 2016	**59**
Additions	1
Disposals	-12
Cost 31 December 2016	**47**
Accumulated depreciation 1 January 2016	**45**
Disposals	-11
Depreciation for the period	5
Accumulated depreciation 31 December 2016	**39**
Carrying amount 31 December 2016	**9**
Carrying amount 31 December 2015	14

Property, plant and equipment

EUR million	Buildings and structures	Machinery and equipment	Advances paid and construction in progress	Total
Cost 1 January 2016	1	15	1	17
Additions and transfers between categories	0	1	3	5
Disposals		-7		-7
Cost 31 December 2016	1	9	4	14
Accumulated depreciation 1 January 2016	1	13		13
Disposals		-7		-7
Depreciation for the period	0	1		1
Accumulated depreciation 31 December 2016	1	6		7
Carrying amount 31 December 2016	0	2	4	7
Carrying amount 31 December 2015	0	2	1	4

Investments

EUR million	Shares in Group companies	Participation in associated companies	Receivables from Group companies	Receivables from associated companies	Other non-current assets	Total
1 January 2016	16,884	6	714	13	8	17,625
Additions [1)]	583		3	2		588
31 December 2016	17,467	6	717	15	8	18,213
Accumulated write-downs 1 January 2016	-1,084	0	0	0	-7	-1,091
Impairment charges	-4					-4
Accumulated write-downs 31 December 2016 [2)]	-1,088	0	0	0	-7	-1,095
Carrying amount 31 December 2016	16,379	6	717	15	0	17,118

1) Additions regarding shares comprise acquisitions of shares and capital contributions and reclassification between other non-current assets and shares in Group companies.

2) Write-downs of participations in group companies are related to shares in Fortum Heat and Gas Oy due to received dividend payments.

8 Other current receivables

EUR million	2016	2015
Other current receivables from group companies		
Trade receivables	10	6
Group contribution and other receivables	145	447
Accrued income and prepaid expenses	0	5
Total	**155**	**458**
Other current receivables from associated companies		
Accrued income and prepaid expenses	0	0
Total	**0**	**0**
Other current receivables		
Trade receivables	0	1
Other receivables	0	3
Accrued income and prepaid expenses	44	259
Total	**45**	**263**

9 Changes in shareholders' equity

EUR million	Share capital	Share premium	Hedging reserve	Retained earnings	Total
Total equity 31 December 2015	3,046	2,822		5,417	11,285
Change in accounting policy			-31	6	-25
Total equity 31 December 2015 restated	3,046	2,822	-31	5,424	11,261
Cash dividend				-977	-977
Change in hedging reserve			8		
Profit for the period				780	780
Total equity 31 December 2016	3,046	2,822	-23	5,226	11,072
Total equity 31 December 2014	3,046	2,822		5,439	11,307
Cash dividend				-1,155	-1,155
Profit for the period				1,134	1,134
Total equity 31 December 2015	3,046	2,822		5,417	11,285

EUR million	2016	2015
Distributable funds		
Retained earnings 31 December	5,226	5,417
Hedging reserve	-23	0
Distributable funds 31 December	5,204	5,417

10 Interest-bearing liabilities

EUR million	2016	2015
External interest-bearing liabilities 1)		
Bonds	2,986	3,243
Loans from financial institutions	210	365
Other long-term interest-bearing debt	822	807
Total long-term interest-bearing debt	**4,018**	**4,415**
Current portion of long-term bonds	343	750
Current portion of loans from financial institutions	139	63
Other short-term interest-bearing debt	135	202
Total short-term interest-bearing debt	**617**	**1,014**
Total external interest-bearing debt	**4,635**	**5,429**

Maturity of external interest-bearing liabilities 1)

EUR million	2016
2017	617
2018	560
2019	792
2020	30
2021	534
2022 and later	2,102
Total	**4,635**

EUR million	2016	2015
External interest-bearing liabilities due after five years 1)		
Bonds	1,282	1,694
Loans from financial institutions	0	15
Other long-term liabilities	821	805
Total	**2,102**	**2,514**

EUR million	2016	2015
Other interest-bearing liabilities due after five years		
Interest-bearing liabilities to associated companies	273	268
Total	**273**	**268**

1) Does not include liabilities to group and associated companies.

Non-discounted cash flows of interest-bearing liabilities and their maturities, see *Note 12* Financial derivatives.

11 Trade and other payables

EUR million	2016	2015
Trade and other payables to group companies		
Trade payables	0	1
Deposits from group companies and other liabities	4,002	1,544
Accruals and deferred income	0	0
Total	**4,002**	**1,545**
Trade and other payables to associated companies		
Accruals and deferred income	6	4
Total	**6**	**4**
Trade and other payables		
Trade payables	6	9
Other liabilities	4	4
Accruals and deferred income	91	117
Total	**101**	**131**

12 Financial derivatives

Interest rate and currency derivatives by instrument 2016

	Notional amount				Fair value		
	Remaining lifetimes						
EUR million	Under 1 year	1—5 years	Over 5 years	Total	Positive	Negative	Net
Forward foreign exchange contracts	6,369	252		6,621	131	141	-11
Interest rate swaps	259	2,718	1,105	4,081	269	127	142
Interest rate and currency swaps	29	798		827	71	5	66
Total	**6,657**	**3,767**	**1,105**	**11,529**	**471**	**273**	**198**
Of which long-term					344	124	220
Short-term					127	149	-22

Derivatives notes for 2015

EUR million	2015		
	Contract or notional value	Fair value	Not recognised as income
Interest rate swaps	5,197	141	139
Forward foreign exchange contracts [1]	9,073	87	-4
Interest rate and currency swaps	1,244	157	9

1) Includes also future positions.

Maturity analysis of interest-bearing liabilities and derivatives

Amounts disclosed below are non-discounted expected cash flows (future interest payments and amortisations) of interest-bearing liabilities and interest rate and currency derivatives.

EUR million	2015			
	Under 1 year	1–5 years	Over 5 years	Total
Interest-bearing liabilities	6,047	2,239	2,491	10,777
Interest rate and currency derivatives liabilities	6,669	1,234	20	7,924
Interest rate and currency derivatives receivables	-6,650	-1,404	-27	-8,080
Total	**6,067**	**2,069**	**2,485**	**10,621**

Interest-bearing liabilities include loans from the State Nuclear Waste Management Fund and Teollisuuden Voima Oyj of EUR 1,094 million. These loans are renewed yearly and the related interest payments are calculated for ten years in the table above.

13 Derivatives and liabilities by fair value hierarchy

Fair value measurements are classified using a fair value hierarchy i.e. Level 1, Level 2 and Level 3 that reflects the significance of the inputs used in making the measurements. For further information see accounting principles in *Note 17* Financial assets and liabilities by fair value hierarchy in the Consolidated financial statements.

Derivatives in financial assets

EUR million	2016			
	Level 1	Level 2	Level 3	Total
Derivatives in non-current assets				
Derivative financial instruments				
Interest rate and currency derivatives				
Hedge accounting		240		240
Non-hedge accounting		103		103
Derivatives in current assets				
Derivative financial instruments				
Interest rate and currency derivatives				
Hedge accounting		17		17
Non-hedge accounting		110		110
Total	-	**471**	-	**471**

Derivatives and liabilities at fair value in financial liabilities

EUR million	2016			
	Level 1	Level 2	Level 3	Total
In non-current liabilities				
Interest-bearing liabilities [1]		1,280		1,280
Derivative financial instruments				
Interest rate and currency derivatives				
Hedge accounting		72		72
Non-hedge accounting		52		52
In current liabilities				
Derivative financial instruments				
Interest rate and currency derivatives				
Hedge accounting		12		12
Non-hedge accounting		137		137
Total	-	**1,554**	-	**1,554**

1) Fair valued part of bond in the fair value hedge relationship.

Net fair value amount of interest rate and currency derivatives is EUR 198 million, assets EUR 471 million and liabilities EUR 273 million. Fortum Oyj has cash collaterals based on Credit Support Annex agreements with some counterparties. At the end of December 2016 Fortum Oyj had received EUR 135 million from Credit Support Annex agreements. The received cash has been booked as short-term interest-bearing liability.

14 Contingent liabilities

EUR million	2016	2015
On own behalf		
Other contingent liabilities	2	2
On behalf of group companies		
Guarantees	135	164
On behalf of associated companies		
Guarantees on behalf of Swedish associated companies	565	587
Contingent liabilities total	702	753

Operating leases

EUR million	2016	2015
Lease payments		
Not later than 1 year	2	3
Later than 1 year and not later than 5 years	2	3
Total	5	6

Fortum received an income tax assessment in Finland for 2007 in December 2013. Tax authorities claimed in the transfer pricing audit that detailed business decisions were done by Fortum Oyj and therefore re-characterized the equity Fortum has injected to its Belgium subsidiary Fortum Project Finance NV not to be equity, but funds to be available for the subsidiary. Tax authorities' view was that the interest income that Fortum Project Finance NV received from its loans should be taxed in Finland, not Belgium. The tax authorities claimed an additional tax of approximately EUR 136 million for the year 2007. Fortum considered the claims unjustifiable both for legal grounds and interpretation. Fortum appealed the decision.

The Board of Adjustment of the Large Taxpayers' Office approved Fortum's appeal for the year 2007 on 21 August 2014. The Board of Adjustment's decision is in line with the principle adopted in the Supreme Administrative Court's precedent in June 2014, according to which, under transfer pricing rules, the nature of business cannot be re-characterized for tax purposes, but can only adjust the pricing of goods or services. Despite the new precedent, the Tax Recipients' Legal Services Unit within the tax authorities appealed this decision to the Administrative Court in Helsinki. In May 2016 the Administrative Court announced its decision in the case. The court ruled in Fortum's favour and rejected the appeal of the Tax Recipients' Legal Services Unit. The Tax Recipient's Legal Service Unit appealed the Administrative Court's decision to the Supreme Administrative Court in July 2016.

In November 2016 the Supreme Administrative Court decided not to grant a permit to appeal. Thus the decision favourable to Fortum of the Board of Adjustment of the Large Taxpayer's office from August 2014, remains in force and is final. No additional tax is to be paid for the year 2007 based on the above-mentioned audit.

In December 2014 Fortum Oyj received a non-taxation decision from the large Taxpayers' office for the years 2008–2011 regarding the activities in the Belgian and Dutch financing companies. The decision was given due to the transfer pricing audit carried out in 2013–2014 and was in line with the Board of Adjustment's decision with respect to Fortum for the year 2007. The Tax Recipients' Legal Services Unit has appealed the decisions in February 2015 to the Board of Adjustment of the Large Taxpayers' office. According to the claim of correction an additional tax of approximately EUR 406 million for the years 2008–2011 was claimed. In December 2016 the Tax Recipients' Legal Services Unit cancelled its appeals for the years 2008–2011. In January 2017 the Board of Adjustment of the Large Taxpayers' office declared the cases for 2008–2011 annulled. Thus the non-taxation decision from August 2014 from the large Taxpayers' office remains in force for the years 2008–2011. No additional tax is to be paid for the years 2008–2011 based on the above-mentioned audit.

For more information, see ▸ *Note 38* Legal actions and official proceedings in the Consolidated financial statements.

15 Related party transactions

See ▸ *Note 41* Related party transactions in the Consolidated financial statements.

Investments in group companies, associated companies and other holdings

		No. of shares units	Holding %
Investments in group companies			
Ekokem Oyj	Finland	3,458,974	98.24
Fortum Asiakaspalvelu Oy	Finland	10,010	100.00
Fortum Heat and Gas Oy	Finland	2,000,000	100.00
Fortum Markets Oy	Finland	24,039	100.00
Fortum Norm Oy	Finland	250	100.00
Fortum Power and Heat Oy	Finland	91,197,543	100.00
Fortum Real Estate Oy	Finland	2,000,000	100.00
Fortum Project Finance N.V.	Belgium	727,820	99.99
Fortum India Private Ltd	India	1	0.10
Fortum Finance Ireland Ltd	Ireland	25,000	100.00
Fortum Investment S.A.R.L.	Luxembourg	990	0.45
Fortum Nordic AB	Sweden	596,000	100.00
Fortum Sweden AB	Sweden	1,000	100.00
Fortum Holding B.V.	The Netherlands	61,062	100.00
Investments in associated companies			
AW Energy Oy	Finland	806	13.60
Wello Oy	Finland	1,508	16.18
Other holdings			
Clic Innovation Oy	Finland	100	3.80
East Office of Finnish Industries Oy	Finland	1	5.88
Prototype Carbon Fund	USA	N/A	

Proposal for the use of the profit shown on the balance sheet

The distributable funds of Fortum Oyj as at 31 December 2016 amounted to EUR 5,203,674,879.03 including the profit of the financial period 2016 of EUR 779,867,542.66. After the end of the financial period there have been no material changes in the financial position of the Company.

The Board of Directors proposes to the Annual General Meeting that a dividend of EUR 1.10 per share be paid for 2016.

Based on the number of registered shares as at 1 February 2017 the total amount of dividend proposed to be paid is EUR 977,203,749.50. The Board of Directors proposes, that the remaining part of the distributable funds be retained in the shareholders' equity.

Espoo, 1 February 2017

Sari Baldauf

Kim Ignatius

Minoo Akhtarzand

Heinz-Werner Binzel

Eva Hamilton

Tapio Kuula

Veli-Matti Reinikkala

Jyrki Talvitie

Pekka Lundmark
President and CEO

Auditor's report

To the Annual General Meeting of Fortum Oyj

Report on the Audit of Financial Statements

Opinion

We have audited the financial statements of Forum Oyj (business identity code 1463611-4) for the year ended 31 December, 2016. The financial statements comprise the consolidated statement of financial position, income statement, statement of comprehensive income, statement of changes in equity, statement of cash flows and notes, including a summary of significant accounting policies, as well as the parent company's balance sheet, income statement, cash flow statement and notes to the financial statements.

In our opinion

- the consolidated financial statements give a true and fair view of the group's financial performance and financial position in accordance with International Financial Reporting Standards (IFRS) as adopted by the EU and
- the financial statements give a true and fair view of the parent company's financial performance and financial position in accordance with the laws and regulations governing the preparation of financial statements in Finland and comply with statutory requirements.

Basis for opinion

We conducted our audit in accordance with good auditing practice in Finland. Our responsibilities under good auditing practice are further described in the Auditor's Responsibilities for the Audit of Financial Statements section of our report.

We are independent of the parent company and of the group companies in accordance with the ethical requirements that are applicable in Finland and are relevant to our audit, and we have fulfilled our other ethical responsibilities in accordance with these requirements.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

Key audit matters

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

Key audit matter	How our audit addressed the key audit matter
Valuation of fixed assets and goodwill Refer to Notes 2, 18 and 19. • The consolidated balance sheet includes property, plant and equipment amounting to EUR 9 930 million and goodwill amounting to EUR 353 million. • The main assumptions used in the valuation of energy production property, plant and equipment and goodwill relate to the estimated future operating cash flows and the discount rates. • In acquisition the assumptions relates to determining the fair values and remaining useful lives of acquired intangible and tangible assets. • The potential indicators for impairment are among other things changes in electricity and fuel prices, regulatory/political changes relating to energy taxes and price regulations. • The assumptions used in the valuation of the balances in question require management judgment.	• We have evaluated the process how management has assessed the indicators for potential impairment. We have performed audit procedures on impairment models relating to material cash generating units. • We obtained entity's impairment testing documentation for goodwill and energy production assets when tested and evaluated the rationale of key assumptions applied by management, including commodity price forecasts, profit and cash flow forecasts, terminal values, foreign exchange rates and the selection of discount rates. • We have compared, that the forecasts used in the impairment testing calculations are based on long term forecast approved by management. • We challenged management's assumptions and judgments with reference to historical data and, where applicable, external benchmarks. • We assessed the models used in the impairment testing and carried out our testing for the sensitivity calculations. • We assessed the adequacy of related disclosures in the financial statements.

Key audit matter	How our audit addressed the key audit matter
Associated companies and joint ventures Refer to Notes 2, 20 and 38. • Fortum participates in a number of associated companies and joint ventures with a total carrying amount of EUR 2,112 million in the consolidated financial statements. • The assessment of the recoverable value of the associated companies and joint ventures incorporates significant management judgments and estimates. • The associated companies and joint ventures are joint contractual arrangements, which include several complex accounting, regulatory and legal aspects as described in note 38. These aspects may have significant impact on Fortum's financial reporting.	• We have reviewed and evaluated the management's process to monitor and control the significant associated companies and joint ventures as well as to follow the related legal cases. • We have assessed and challenged the management judgment and assumptions used determining the recoverable amount for associated companies and joint ventures. We have also evaluated the accuracy of the calculations prepared to quantify the recoverable amount. • We assessed the adequacy of related disclosures in the financial statements.

Key audit matter	How our audit addressed the key audit matter
Fair value measurement of derivatives and hedge accounting Refer to Notes 3, 6, 8, 16 and 17. • In Fortum's 2016 consolidated financial statements total derivative assets amounts to EUR 545 million and total derivative liabilities amounts to EUR 658 million. The net effect of changes in fair values of derivatives hedging future cash flow amounts to EUR -65 million in items affecting comparability in the consolidated income statement and the cash flow hedges in other equity components amount to EUR -115 million. • The fair value of derivative financial instruments is determined through the application of valuation techniques which often involve management judgment. Fortum's business is exposed to fluctuations in prices and availability of commodities used in the production and sales of energy products. The main exposure is toward energy prices and volumes. Electricity price risk is hedged by entering into electricity derivative contracts. Fortum uses hedging instruments to reduce the effect of electricity price volatility.	• Our audit procedures included an assessment of internal controls over the hedge accounting documentation and effectiveness testing, measurement of fair value measures, and evaluating the methodologies, inputs, judgments made and assumptions used by management in determining fair values. • For Fortum's fair valuation models, we evaluated rationale of the models and accounting treatment applied. We compared observable inputs against independent sources and externally available market data. • We have assessed the existence and completeness of outstanding derivative contracts as of 31 December 2016 by requesting confirmations from the counterparties. • We have assessed that financial instruments included in hedge relationships are accounted for in accordance with IAS 39. • We have assessed the adequacy of the presentation for derivative financial instruments and hedge accounting applied in the financial statements.

Key audit matter	How our audit addressed the key audit matter
Nuclear related assets and liabilities Refer to Note 30. • Nuclear related assets and liabilities in consolidated balance sheet amount to EUR 830 million. • Fortum's nuclear related provisions and the related part of the Finnish State Nuclear Waste Management Fund are both presented separately as disclosed in note 30. • Fortum's share in the Finnish State Nuclear Waste Management Fund is accounted for according to IFRIC 5 which states that the fund assets are measured at the lower of fair value or the value of the related liabilities. • Due to complexity and materiality, the accounting treatment for nuclear decommissioning is complex and requires application of special accounting practice and management judgment when forming estimates for the basis of accounting such as technical plans, timing, cost estimates and discount rate.	• We have assessed Fortum's accounting manual and principles for Nuclear Decommissioning Accounting, whether they are in line with IFRS accounting principles. • We have assessed the assumptions and judgments made and adopted by the management in the accounting for the nuclear waste provisions and share in state nuclear waste management fund have been based on current legislation and decisions set by Finnish State Nuclear Waste Management Fund. • We assessed the adequacy of related disclosures in the financial statements.

Key audit matter	How our audit addressed the key audit matter
Income taxes Refer to Note 29 and 38. • Fortum has several tax assessments ongoing. • The accounting treatment and disclosing of tax cases require management to make judgments and estimates in disclosing and accounting tax contingencies and receivables as described in note 29. • Ongoing tax assessments are lengthy and at various stages from preliminary discussions with tax authorities through to court proceedings, where obtaining the final tax assessments can take a number of years prior to concluding.	• We performed testing regarding Fortum's tax positions in the significant tax jurisdictions in which Fortum operates. • We assessed the rationale of management's assumptions and challenged the management judgment applied in relation to disclosing and accounting the tax contingencies and receivables of the tax cases. Together with our tax specialist we have also assessed the company's external opinions which have been used to support the management's assumptions. • We assessed the adequacy of related disclosures in the financial statements.

Responsibilities of the Board of Directors and the President and CEO for the financial statements

The Board of Directors and the President and CEO are responsible for the preparation of consolidated financial statements that give a true and fair view in accordance with International Financial Reporting Standards (IFRS) as adopted by the EU, and of financial statements that give a true and fair view in accordance with the laws and regulations governing the preparation of financial statements in Finland and comply with statutory requirements. The Board of Directors and the President and CEO are also responsible for such internal control as they determine is necessary to enable the preparation of financial statements that are free from material misstatement, whether due to fraud or error.

In preparing the financial statements, the Board of Directors and the President and CEO are responsible for assessing the parent company's and the group's ability to continue as going concern, disclosing, as applicable, matters relating to going concern and using the going concern basis of accounting. The financial statements are prepared using the going concern basis of accounting unless there is an intention to liquidate the parent company or the group or cease operations, or there is no realistic alternative but to do so.

Auditor's responsibilities in the audit of financial statements

Our objectives are to obtain reasonable assurance on whether the financial statements as a whole are free from material misstatement, whether due to fraud or error, and to issue an auditor's report that includes our opinion. Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with good auditing practice will always detect a material misstatement when it exists. Misstatements can arise from fraud or error and are considered material if, individually or in aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of the financial statements.

As part of an audit in accordance with good auditing practice, we exercise professional judgment and maintain professional skepticism throughout the audit. We also:

- Identify and assess the risks of material misstatement of the financial statements, whether due to fraud or error, design and perform audit procedures responsive to those risks, and obtain audit evidence that is sufficient and appropriate to provide a basis for our opinion. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control.
- Obtain an understanding of internal control relevant to the audit in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the parent company's or the group's internal control.
- Evaluate the appropriateness of accounting policies used and the reasonableness of accounting estimates and related disclosures made by management.
- Conclude on the appropriateness of the Board of Directors' and the President and CEO use of the going concern basis of accounting and based on the audit evidence obtained, whether a material uncertainty exists related to events or conditions that may cast significant doubt on the parent company's or the group's ability to continue as a going concern. If we conclude that a material uncertainty exists, we are required to draw attention in our auditor's report to the related disclosures in the financial statements or, if such disclosures are inadequate, to modify our opinion. Our conclusions are based on the audit evidence obtained up to the date of our auditor's report. However, future events or conditions may cause the company to cease to continue as a going concern.
- Evaluate the overall presentation, structure and content of the financial statements, including the disclosures, and whether the financial statements represent the underlying transactions and events so that the financial statements give a true and fair view.
- Obtain sufficient appropriate audit evidence regarding the financial information of the entities or business activities within the group to express an opinion on the consolidated financial statements. We are responsible for the direction, supervision and performance of the group audit. We remain solely responsible for our audit opinion.

We communicate with those charged with governance regarding, among other matters, the planned scope and timing of the audit and significant audit findings, including any significant deficiencies in internal control that we identify during our audit. We also provide those charged with governance with a statement that we have complied with relevant ethical requirements regarding independence, and communicate with them all relationships and other matters that may reasonably be thought to bear on our independence, and where applicable, related safeguards.

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

Other Reporting Requirements

Other information

The Board of Directors and the President and CEO are responsible for the other information. The other information comprises information included in the Operating and Financial Review and in the

Financials, but does not include the financial statements and our report thereon. We obtained the Operating and Financial Review prior to the date of the auditor's report, and the Financials is expected to be made available to us after the date of the auditor's report.

Our opinion on the financial statements does not cover the other information.

In connection with our audit of the financial statements, our responsibility is to read the other information identified above and, in doing so, consider whether the other information is materially inconsistent with the financial statements or our knowledge obtained in the audit, or otherwise appears to be materially misstated. With respect to Operating and Financial Review, our responsibility also includes considering whether the Operating and Financial Review has been prepared in accordance with the applicable laws and regulations.

In our opinion, the information in the Operating and Financial Review is consistent with the information in the financial statements and the Operating and Financial Review has been prepared in accordance with the applicable laws and regulations.

If, based on the work we have performed, we conclude that there is a material misstatement in of the information included in the Operating and Financial Review, we are required to report this fact. We have nothing to report in this regard.

Other opinions

We support that the financial statements should be adopted. The proposal by the Board of Directors regarding the use of the profit shown on the balance sheet is in compliance with the Limited Liability Companies Act. We support that the Board of Directors of the parent company and the President and CEO should be discharged from liability for the financial period audited by us.

Espoo, 1 February 2017

Deloitte & Touche Oy
Audit Firm

Jukka Vattulainen
Authorised Public Accountant (KHT)

Operational key figures

Note: Operational key figures are unaudited.

Comparability of information presented in tables and graphs

Information in the tables and graphs presented for year 2012 or earlier is not restated due to the adoption of IFRS 10 and IFRS 11. Adoption of standards influences treatment of Fortum's holding in AB Fortum Värme samägt med Stockholms stad in the the consolidated financial statements.

Generation

Fortum's total power and heat generation in EU and Norway, TWh	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Power generation	52.2	52.6	49.3	53.7	55.3	53.9	47.4	50.1	50.2	47.5
Heat generation	26.1	25.0	23.2	26.1	22.0	18.5	10.4	8.2	6.4	7.1

Fortum's total power and heat generation in Russia, TWh	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Power generation	-	11.6	16.0	16.1	17.4	19.2	20.0	23.3	25.7	25.5
Heat generation	-	15.3	25.6	26.0	25.4	24.8	24.2	26.4	25.8	20.7

Fortum's own power generation by source, total in the Nordic area, TWh	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Hydro and wind power	20.0	22.9	22.1	22.0	21.0	25.2	18.1	22.4	25.1	20.8
Nuclear power	24.9	23.7	21.4	22.0	24.9	23.4	23.7	23.8	22.7	24.1
Thermal power	6.2	5.0	4.6	8.3	7.2	3.0	3.4	1.8	1.0	1.4
Total	**51.1**	**51.6**	**48.1**	**52.3**	**53.1**	**51.6**	**45.2**	**48.0**	**48.8**	**46.2**

Fortum's own power generation by source, total in the Nordic area, %	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Hydro and wind power	39	44	46	42	40	49	40	46	51	45
Nuclear power	49	46	44	42	47	45	52	50	47	52
Thermal power	12	10	10	16	13	6	8	4	2	3
Total	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**

Capacity

Power generation capacity by segment, MW	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Generation [1)]	9,560	9,575	9,709	9,728	9,752	9,702	9,475	9,063	8,046	8,039
Heat	1,360	1,213	1,446	1,600	1,670	1,569				
City Solutions							793	803	743	760
Russia	-	2,785	2,785	2,785	3,404	3,404	4,250	4,758	4,903	4,482
Other										53
Total	**10,920**	**13,573**	**13,940**	**14,113**	**14,826**	**14,675**	**14,518**	**14,624**	**13,692**	**13,334**

1) 2015 figure excluding 750MW mothballed capacity of Inkoo power plant of which preparations for permanent dismantling has started.

Heat production capacity by segment, MW	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Generation	250	250	250	250	250	250	250	0		
Heat	10,973	10,218	10,284	10,448	10,375	8,785				
City Solutions							4,317	3,936	3,915	3,818
Russia	-	13,796	13,796	13,796	14,107	13,396	13,466	13,466	12,696	9,920
Total	**11,223**	**24,264**	**24,330**	**24,494**	**24,732**	**22,431**	**18,033**	**17,402**	**16,611**	**13,738**

	Finland		Sweden		Russia		Poland		Other		Total	
Fortum's power generation capacity by type and area, MW	2016	2015	2016	2015	2016	2015	2016	2015	2016	2015	2016	2015
Hydropower	1,535	1,535	3,117	3,088	0	-	0	-	0	-	4,652	4,623
Nuclear power	1,472	1,465	1,539	1,539	0	-	0	-	0	-	3,011	3,004
Combined heat and power	456	438	9	0	4,482	4,903	186	197	109	93	5,242	5,631
Condensing power	376	376	0	12	0	-	0	-	0	-	376	389
Other	0	-	38	30	0	-	0	-	15	15	53	45
Total	**3,839**	**3,815**	**4,703**	**4,669**	**4,482**	**4,903**	**186**	**197**	**124**	**108**	**13,334**	**13,692**

	Finland		Sweden		Russia		Poland		Other		Total	
Fortum's heat production capacity by area, MW	2016	2015	2016	2015	2016	2015	2016	2015	2016	2015	2016	2015
Heat	2,024	1,974	35	0	9,920	12,696	961	1,129	798	812	13,738	16,611

Sales

Fortum's total power and heat sales in EU and Norway, EUR million	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Electricity sales	2,370	2,959	2,802	3,110	2,868	2,700	2,462	2,344	1,921	1,893
Heat sales	1,096	1,157	1,095	1,309	1,278	1,201	538	468	423	449

Fortum's total power and heat sales in Russia, EUR million	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Electricity sales	-	332	390	505	590	713	822	758	661	691
Heat sales	-	141	219	287	324	300	290	285	228	199

Fortum's total power sales by area, TWh	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Finland	29.0	28.7	26.1	30.7	24.6	21.6	23.4	21.6	22.3	22.8
Sweden	27.6	28.5	26.9	28.3	29.4	30.1	23.3	28.2	29.8	28.8
Russia	-	14.8	19.5	18.7	20.2	23.3	25.6	26.5	29.4	29.5
Other countries	3.1	3.0	3.2	3.2	3.6	3.8	4.3	3.8	2.8	3.6
Total	**59.7**	**75.0**	**75.7**	**80.9**	**77.8**	**78.8**	**76.6**	**80.1**	**84.3**	**84.7**

Fortum's total heat sales by area, TWh	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Finland	11.1	10.8	8.0	9.6	8.5	5.8	5.5	3.2	3.1	3.6
Russia	-	15.3	25.6	26.8	26.7	26.4	24.1	26.0	25.4	20.7
Sweden	9.2	9.1	9.8	10.9	8.5	8.5	-	-	-	0.1
Poland	3.5	3.6	3.7	4.0	4.3	4.3	4.1	3.4	3.4	3.6
Other countries	3.3	3.4	3.5	3.6	3.4	2.9	3.1	2.8	1.2	1.4
Total	**27.1**	**42.2**	**50.6**	**54.9**	**51.4**	**47.9**	**36.8**	**35.4**	**33.2**	**29.4**

Volume of distributed electricity in distribution networks, TWh	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Finland	9.2	9.3	9.4	10.0	9.5	9.8	9.5	2.8	-	-
Sweden	14.3	14.0	14.0	15.2	14.2	14.4	14.1	13.7	6.4	-
Norway	2.3	2.3	2.3	2.5	2.3	2.4	2.5	1.1	-	-
Estonia	0.2	0.2	0.2	0.2	0.1	0.0	-	-	-	-
Total	**26.0**	**25.8**	**25.9**	**27.9**	**26.1**	**26.6**	**26.1**	**17.6**	**6.4**	**-**

Quarterly financial information

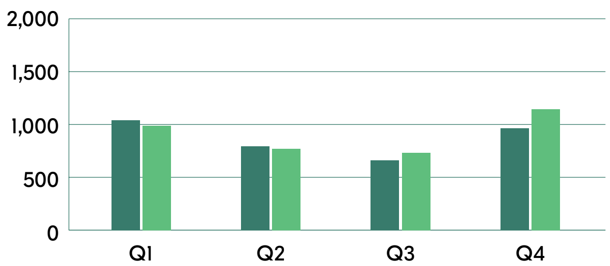
Note: Quarterly financial information is unaudited.

Selected data based on quarterly consolidated income statement

EUR million	Q1/2015	Q2/2015	Q3/2015	Q4/2015	2015	Q1/2016	Q2/2016	Q3/2016	Q4/2016	2016
IS Sales	1,040	794	661	964	3,459	989	768	732	1 143	3,632
Comparable EBITDA continuing operations	396	228	163	315	1,102	357	209	151	298	1,015
IS Comparable operating profit	343	143	79	243	808	275	122	58	188	644
IS Operating profit	350	144	-682	38	-150	369	67	-6	202	633
IS Share of profit/loss of associates and joint ventures	58	22	-95	35	20	67	38	11	15	131
IS Finance costs - net	-57	-24	-42	-52	-175	-47	-44	-44	-34	-169
IS Profit before income tax	350	143	-818	20	-305	390	61	-40	184	595
IS Income tax expense	-55	-25	160	-2	78	-59	-4	9	-37	-90
IS Profit for the period from continuing operations	295	118	-659	19	-228	331	57	-31	147	504
IS Profit for the period from discontinued operations	63	4,306	-	-	4,369	-	-	-	-	-
IS Profit for the period	358	4,424	-659	19	4,142	331	57	-31	147	504
IS Non-controlling interests	-4	-1	5	-5	-4	-5	-1	0	-3	-8
IS Profit for the period, owners of the parent	354	4,424	-654	14	4,138	326	57	-31	145	496
Earnings per share for profit attributable to the equity owners of the company (EUR per share)										
Total Fortum	0.40	4.98	-0.74	0.02	4.66	0.37	0.06	-0.03	0.16	0.56
Continuing operations	0.33	0.13	-0.74	0.02	-0.26	0.37	0.06	-0.03	0.16	0.56
Discontinued operations [1)]	0.07	4.85	0.00	0.00	4.92	-	-	-	-	-

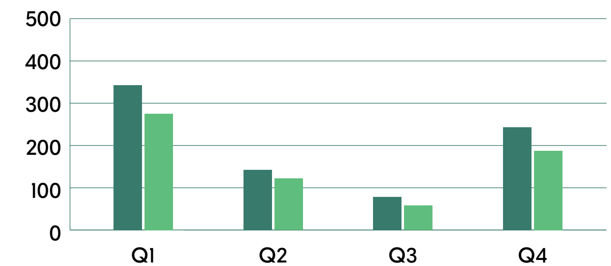
1) Includes impact from sales gains of the Swedish distribution business amounting to EUR 4.82 in Q2 2015.

Sales by quarter, EUR million



2015
2016

Comparable operating profit by quarter, EUR million



2015
2016

Quarterly sales by segment

EUR million	Q1/2015	Q2/2015	Q3/2015	Q4/2015	2015	Q1/2016	Q2/2016	Q3/2016	Q4/2016	2016
Generation 1)	500	404	377	440	**1,722**	467	384	371	435	**1,657**
City Solutions 1)	406	244	185	352	**1,187**	397	260	237	530	**1,424**
Russia	263	211	154	266	**893**	249	182	175	289	**896**
Other 1)	29	29	28	28	**114**	31	30	29	31	**121**
Netting of Nord Pool transactions 2)	-119	-64	-57	-97	**-336**	-120	-69	-66	-129	**-384**
Eliminations	-38	-31	-26	-26	**-122**	-34	-20	-15	-13	**-82**
IS Total for continuing operations	**1,040**	**794**	**661**	**964**	**3,459**	**989**	**768**	**732**	**1 143**	**3,632**
Discontinued operations	180	95	0	0	**274**	-	-	-	-	-
Eliminations 3)	-20	-11	0	0	**-31**	-	-	-	-	-
Total	**1,200**	**878**	**660**	**964**	**3,702**	**989**	**768**	**732**	**1 143**	**3,632**

1) Sales, both internal and external, includes effects from realised hedging contracts. Effect on sales can be negative or positive depending on the average contract price and realised spot price.

2) Sales and purchases with Nord Pool Spot is netted on Group level on an hourly basis and posted either as revenue or cost depending on if Fortum is a net seller or net buyer during any particular hour.

3) Sales to and from discontinued operations.

Quarterly comparable operating profit by segments

EUR million	Q1/2015	Q2/2015	Q3/2015	Q4/2015	2015	Q1/2016	Q2/2016	Q3/2016	Q4/2016	2016
Generation	203	114	102	142	561	155	98	77	87	417
City Solutions	58	11	-13	53	**108**	58	7	-16	63	**112**
Russia	97	35	0	69	**201**	79	34	12	66	**191**
Other	-15	-17	-10	-21	**-63**	-16	-18	-15	-28	**-76**
IS Comparable operating profit	**343**	**143**	**79**	**243**	**808**	**275**	**122**	**58**	**188**	**644**
Impairment charges	0	-15	-784	-119	**-918**	0	0	0	27	**27**
Capital gains and other	7	0	14	1	**22**	44	2	-10	2	**38**
Changes in fair values of derivatives hedging future cash flow	-3	13	5	-95	**-78**	50	-57	-57	-1	**-65**
Nuclear fund adjustment	3	3	3	7	**16**	0	0	2	-14	**-11**
IS Operating profit	**350**	**144**	**-682**	**38**	**-150**	**369**	**67**	**-6**	**202**	**633**

The first and last quarters of the year are usually the strongest quarters for power and heat businesses.

Investor information

Fortum's 2016 reporting entity comprises the Online Annual Review, CEO Letter, Financials, Corporate Governance Statement, Remuneration Statement, Tax Footprint as well as the Sustainability Report. Our reporting for the year 2016 is based on the integrated reporting principles and includes material information on aspects we estimate to have a significant effect on Fortum's ability to create value for its stakeholders.

Annual General Meeting

The Annual General Meeting of Fortum Corporation will be held on Tuesday, 4 April 2017, starting at 2:00 p.m. EET at Finlandia Hall, address: Mannerheimintie 13 e, Helsinki, Finland. The reception of shareholders who have registered for the meeting will commence at 12.30 p.m. EET.

Payment of dividends

The Board of Directors proposes to the Annual General Meeting that Fortum Corporation pays a dividend of EUR 1.10 per share for 2016, totalling approximately EUR 977 million based on the registered shares as of 1 February 2017. The possible dividend related dates planned for 2017 are:

- the ex-dividend date 5 April 2017,
- the record date for dividend payment 6 April 2017 and
- the dividend payment date 13 April 2017.

Financial information in 2017

Fortum will publish three interim reports in 2017:

- January-March interim report on 27 April
- January-June half year financial review on 20 July, and
- January-September on 26 October.

The reports are published at approximately 9:00 EET in Finnish and English, and are available on Fortum's website at *www.fortum.com/investors*

Fortum's management hosts regular press conferences, targeted at analysts and the media. A webcast of these conferences is available online at *www.fortum.com*. Management also gives interviews on a one-on-one and group basis. Fortum observes closed and silent period of 30 days prior to publishing its results.

Fortum share basics

Listed on Nasdaq Helsinki
Trading ticker: FORTUM
Number of shares, 1 February 2017: 888,367,045.
Sector: Utilities

Fortum's activities in capital markets during 2016

Fortum's Investor Relations (IR) activities cover equity and fixed-income markets to ensure full and fair valuation of the Company's shares, access to funding sources and stable bond pricing. Investors and analysts primarily are met on a regular basis in Europe and North America.

In 2016, Fortum met approximately 200 professional equity investors individually or in group meetings and at investor conferences, whilst maintaining regular contact with equity research analysts at investment banks and brokerage firms. In November, Fortum held Capital Markets Day for institutional investors and analysts that gathered some 80 professionals to the company's head offices.