

# Fortum Corporation

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## Financial Statements Bulletin January–December 2016

2 February 2017

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Fortum implemented ESMA's (European Securities and Markets Authority) new guidelines regarding Alternative Performance Measures ("APM") in the first quarter of 2016. Fortum has defined and presented its APM in a consistent and comprehensive manner since 2005 and, therefore the implementation had only a limited effect on the disclosures. For more information, see the first quarter 2016 interim report.

Financial results discussed in this financial statements bulletin are for the continuing operations of Fortum Group. The Distribution segment was classified as discontinued operations in 2015 upon the divestment of the Swedish distribution operations.

Figures in brackets refer to the comparison period, i.e. the same period last year, unless otherwise stated.

# Improved electricity prices, but very low hydro volumes ended a challenging year - Dividend proposal EUR 1.10 per share

## October–December 2016, continuing operations

- Comparable EBITDA EUR 298 (315) million, -5%
- Comparable operating profit EUR 188 (243) million, -23%
- Operating profit EUR 202 (38) million, of which EUR 14 (-205) million relates to items affecting comparability
- Earnings per share EUR 0.16 (0.02), of which EUR 0.01 (-0.20) relates to items affecting comparability
- Cash flow from operating activities totalled EUR 150 (332) million

## January–December 2016, continuing operations

- Comparable EBITDA EUR 1,015 (1,102) million, -8%
- Comparable operating profit EUR 644 (808) million, -20%
- Operating profit EUR 633 (-150) million, of which EUR -11 (-958) million relates to items affecting comparability. In 2015, the negative impact was mainly due to the decision on the early closing of two nuclear units in Sweden
- Earnings per share EUR 0.56 (-0.26), of which EUR -0.02 (-0.97) related to items affecting comparability including total effect from early closure decision of two nuclear units in Sweden, EUR -0.82 per share in 2015
- Cash flow from operating activities totalled EUR 621 (1,228) million
- Fortum completed its multi-year investment programme in Russia
- Fortum acquired Grupa DUON and Ekokem
- Fortum's business structure was reorganised and the new Executive Management Team took place as of 1 April 2016
- Fortum's Board of Directors proposes a dividend of EUR 1.10 per share

## Summary of outlook

- Fortum continues to expect the annual electricity demand to grow in the Nordic countries by approximately 0.5% on average
- The Generation segment's Nordic generation hedges: approximately 60% hedged at EUR 30 per MWh for 2017 and approximately 35% hedged at EUR 26 per MWh for 2018.
- Operating profit level (EBIT) for the Russia segment, RUB 18.2 billion, is targeted to be reached during 2017-2018. The euro-denominated result level will be volatile, due to currency translation effects

Key financial ratios	2016	2015
Return on capital employed, %	4.0	22.7
Comparable net debt/EBITDA	0.0	-1.7

\* Key financial ratios for 2015 are based on total Fortum, including discontinued operations

Key figures	IV/16	IV/15	2016	2015
Sales, EUR million	1,143	964	3,632	3,459
Comparable EBITDA, EUR million				
continuing operations	298	315	1,015	1,102
discontinued operations	-	-	-	163
total Fortum	298	315	1,015	1,265
Comparable operating profit, EUR million				
continuing operations	188	243	644	808
discontinued operations	-	-	-	114
total Fortum	188	243	644	922
Operating profit, EUR million				
continuing operations	202	38	633	-150
discontinued operations	-	-	-	4,395
total Fortum	202	38	633	4,245
Share of profits of associates and joint ventures, EUR million				
continuing operations	15	35	131	20
discontinued operations	-	-	-	0
total Fortum	15	35	131	20
Profit before taxes, EUR million				
continuing operations	184	20	595	-305
discontinued operations	-	-	-	4,393
total Fortum	184	20	595	4,088
Earnings per share, EUR				
continuing operations	0.16	0.02	0.56	-0.26
discontinued operations	-	-	-	4.92
total Fortum	0.16	0.02	0.56	4.66
Net cash from operating activities, EUR million, continuing operations	150	332	621	1,228
Shareholders' equity per share, EUR			15.15	15.53
Interest-bearing net debt (at end of period), EUR million			-48	-2,195

## Fortum's President and CEO Pekka Lundmark:

"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.

In the fourth quarter of 2016 Fortum's results continued to decline mainly due to significantly lower hydro production volumes. The hydro situation continued dry especially in our key areas in Sweden, but also the achieved power price was lower than in the fourth quarter of 2015. The decline was partially offset by strong performance in the Russia segment and improved availability and hence higher nuclear volumes, than in the fourth quarter of 2015.

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 a 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.

I would like to thank all our employees and partners for their excellent work in 2016. Thank you also to our customers and shareholders for your continued trust in us. “

# 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 first 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.

The financial results discussed in this financial statement bulletin are for the continuing operations of Fortum Group.

## 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.

## Financial results

### Sales by segment

EUR million	IV/16	IV/15	2016	2015
Generation	435	440	1,657	1,722
City Solutions	530	352	1,424	1,187
Russia	289	266	896	893
Other	31	28	121	114
Netting of Nord Pool transactions	-129	-97	-384	-336
<i>Eliminations</i>	-13	-26	-82	-122
<b>Total continuing operations</b>	<b>1,143</b>	<b>964</b>	<b>3,632</b>	<b>3,459</b>
Discontinued operations	-	-	-	274
<i>Eliminations</i>	-	-	-	-31
<b>Total Fortum</b>	<b>1,143</b>	<b>964</b>	<b>3,632</b>	<b>3,702</b>

## Comparable EBITDA by segment

EUR million	IV/16	IV/15	2016	2015
Generation	116	173	527	680
City Solutions	105	80	238	209
Russia	100	81	312	267
Other	-23	-18	-61	-53
<b>Total continuing operations</b>	<b>298</b>	<b>315</b>	<b>1,015</b>	<b>1,102</b>
Discontinued operations	-	-	-	163
<b>Total Fortum</b>	<b>298</b>	<b>315</b>	<b>1,015</b>	<b>1,265</b>

## Comparable operating profit by segment

EUR million	IV/16	IV/15	2016	2015
Generation	87	142	417	561
City Solutions	63	53	112	108
Russia	66	69	191	201
Other	-28	-21	-76	-63
<b>Total continuing operations</b>	<b>188</b>	<b>243</b>	<b>644</b>	<b>808</b>
Discontinued operations	-	-	-	114
<b>Total Fortum</b>	<b>188</b>	<b>243</b>	<b>644</b>	<b>922</b>

## Operating profit by segment

EUR million	IV/16	IV/15	2016	2015
Generation	77	-65	338	-396
City Solutions	85	54	145	105
Russia	67	69	226	203
Other	-27	-21	-76	-62
<b>Total continuing operations</b>	<b>202</b>	<b>38</b>	<b>633</b>	<b>-150</b>
Discontinued operations	-	-	-	4,395
<b>Total Fortum</b>	<b>202</b>	<b>38</b>	<b>633</b>	<b>4,245</b>

## October–December 2016

In the fourth quarter of 2016, sales were EUR 1,143 (964) million; the increase was mainly due to the consolidation of DUON and Ekokem into Fortum Group. Comparable EBITDA totalled EUR 298 (315) million. Comparable operating profit totalled EUR 188 (243) million and reported operating profit totalled EUR 202 (38) million. Fortum's operating profit for the period was impacted by items affecting comparability, including sales gains, 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 14 (-205) million (Note 4 and 6).

The share of profit from associates was EUR 15 (35) million, of which Hafslund represented EUR 9 (8), TGC-1 EUR 4 (-2), Fortum Värme EUR 25 (24) million and Oskarshamn (OKG) EUR -28 (-3) million. The share of profit from Hafslund and TGC-1 are based on the companies' published third-quarter 2016 interim reports (Note 14). The OKG impact comes from the new technical plan for nuclear waste management (Note 17).



## January–December 2016

In 2016, sales were EUR 3,632 (3,459) million. Comparable EBITDA totaled 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 4 and 6). The year 2015 included a EUR -794 million impact from the decision on the early closure of two nuclear units in Sweden (Note 4 and 6).

The share of profit from associates was EUR 131 (20) million, of which Hafslund represented EUR 51 (39), TGC-1 EUR 38 (32), 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 14). The OKG impact comes from the new technical plan for nuclear waste management (Note 17). 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 6). 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 14).

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 from associated companies and joint ventures as well as non-taxable capital gains, was 20.0% (23.5%) (Note 10).

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

### 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 22). 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.

## 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 16).

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.

## 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 was 107 (103) terawatt-hours (TWh) during the fourth quarter of 2016. In 2016, electricity consumption increased 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 the fourth quarter of 2016, the Nord Pool average system spot price in Nord Pool was EUR 34.4 (21.9) per MWh. The average area price in Finland was EUR 37.5 (30.6) per MWh and in Sweden SE3 (Stockholm) EUR 36.7 (23.0) per MWh. The spot price realisation for the fourth quarter was clearly stronger than 2015 due to the deficit in the Nordic hydro reservoirs, colder weather than in 2015 and strong development in the commodity market.

In January-December 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 the fourth quarter of 2016 was EUR 37.6 (33.2) per MWh, and in January-December 2016 EUR 29.0 (31.6) per MWh.

The market price of CO<sub>2</sub> 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 287 (275) TWh in the fourth quarter of 2016. The corresponding figure in Fortum's operating area in the First price zone (European and Urals part of Russia) was 220 (211) TWh. In January-December 2016, Russian electricity consumption was 1,027 (1,007) TWh and the corresponding figure in Fortum's operating area in the First price zone was 787 (772) TWh.

In the fourth quarter of 2016, the average electricity spot price, excluding capacity price, increased by 2.1% to RUB 1,203 (1,178) per MWh in the First price zone. In January-December 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.

More detailed information about the market fundamentals is included in the tables at the end of the report (page 64-66).

## 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<sub>2</sub> 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<sub>2</sub> tax component, while the original aim was to increase it to 100%. The agreed tax model increases the tax on both the CO<sub>2</sub> 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	IV/16	IV/15	2016	2015
Sales	435	440	1,657	1,722
- power sales	429	418	1,635	1,625
of which Nordic power sales*	318	390	1,339	1,526
- other sales	6	22	22	97
Comparable EBITDA	116	173	527	680
Comparable operating profit	87	142	417	561
Operating profit	77	-65	338	-396
Share of profits from associates and joint ventures**	-25	4	-34	-111
Comparable net assets (at period-end)			5,815	5,931
Comparable return on net assets, %			6.9	9.5
Capital expenditure and gross investments in shares	80	81	203	203
Number of employees			979	1,341

\* 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

\*\* 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 the consolidated financial statements 2016)

Power generation by source, TWh	IV/16	IV/15	2016	2015
Hydro power, Nordic	4.2	5.8	20.7	25.1
Nuclear power, Nordic	6.2	5.9	24.1	22.7
Thermal power, Nordic	0.3	0.1	0.5	0.3
<b>Total</b>	<b>10.7</b>	<b>11.9</b>	<b>45.3</b>	<b>48.1</b>

Nordic sales volumes, TWh	IV/16	IV/15	2016	2015
Nordic sales volume	13.0	12.6	52.4	50.5
of which Nordic power sales volume*	10.1	11.4	43.2	46.3

\* 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	IV/16	IV/15	2016	2015
Generation's Nordic power price*	31.5	34.2	31.0	33.0

\* Generation's Nordic power price includes hydro and nuclear generation, excluding minorities. It does not include thermal generation, minorities, customer business or other purchases

## October–December 2016

In the fourth quarter of 2016, the Generation segment's comparable EBITDA was EUR 116 (173) million. Comparable operating profit was 87 (142) million. The decline was mainly due to lower hydro volumes but also due to the lower achieved power price. It was partly offset by good nuclear availability and somewhat lower fixed costs compared to the corresponding period in 2015.

Operating profit of EUR 77 (-65) million was affected by the IFRS accounting treatment (IAS 39) of derivatives, mainly used for hedging Fortum's power production, and by nuclear fund adjustments amounting to EUR -10 (-207) million (Notes 4 and 6).

The share of profits from associated companies and joint ventures totalled EUR -25 (4) million (Note 14).

Generation's achieved Nordic power price was EUR 31.5 (34.2) per MWh, EUR 2.7 per MWh lower than in the corresponding period in 2015, mainly due to the lower average hedge price in the fourth quarter of 2016 compared to the same period in 2015. The average system spot price of electricity in Nord Pool was EUR 34.4 (21.9) per MWh. The average area price in Finland was EUR 37.5 (30.6) per MWh and in Sweden SE3 (Stockholm) EUR 36.7 (23.0) per MWh.

The segment's total power generation in the Nordic countries was 10.7 (11.9) TWh, 1.2 TWh lower than in the corresponding period in 2015, due to lower hydro volumes. CO<sub>2</sub>-free production amounted to 97% (99%) of total production.

## January–December 2016

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 4). Year 2015 included EUR -794 million from the decision on the early closure of two nuclear units in Sweden (Notes 4 and 6).

The share of profits from associated companies and joint ventures totalled EUR -34 (-111) million (Note 14).

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<sub>2</sub>-free production amounted to 99% (99%) of total production.

## 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	IV/16	IV/15	2016	2015
Sales	530	352	1,424	1,187
- heat sales	156	130	449	423
- power sales	206	198	648	682
- other sales	168	24	327	83
Comparable EBITDA	105	80	238	209
Comparable operating profit	63	53	112	108
of which electricity sales	11	20	44	55
Operating profit	85	54	145	105
Share of profits from associates and joint ventures	27	25	76	59
Comparable net assets (at period-end)			3,052	2,182
Comparable return on net assets, %			7.5	7.9
Capital expenditure and gross investments in shares	57	61	927	128
Number of employees			2,314	1,417

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.

### October–December 2016

In the fourth quarter of 2016, sales increased to EUR 530 (352) million, mainly due to the consolidation of DUON and Ekokem. Heat sales volumes of the City Solutions segment amounted to 3.3 (2.6) TWh. Power sales volumes from CHP production totalled 0.9 (0.8) TWh.

Comparable EBITDA was EUR 105 (80) million, and the comparable operating profit was EUR 63 (53) million. The increase was mainly attributable to the consolidation of DUON and Ekokem. The use of more accurate consumption estimates had a one-off, positive impact on electricity sales in 2015.

Operating profit of EUR 85 (54) million was affected mainly by the IFRS accounting treatment (IAS 39) of derivatives, totalling EUR 22 (1) million (Note 4).

The share of profits from associated companies and joint ventures totalled EUR 27 (25) million, including mainly the share of profit from Fortum Värme (Note 14).

### January–December 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 4).

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 14).

Heat sales by country, TWh	IV/16	IV/15	2016	2015
Finland	1.4	1.0	3.6	3.1
Poland	1.4	1.2	3.6	3.4
Other countries	0.6	0.4	1.5	1.2
<b>Total</b>	<b>3.4</b>	<b>2.6</b>	<b>8.7</b>	<b>7.8</b>

Power sales, TWh	IV/16	IV/15	2016	2015
CHP	0.9	0.8	2.8	2.5
Electricity Sales	3.6	3.9	12.3	14.2
<b>Total</b>	<b>4.5</b>	<b>4.7</b>	<b>15.1</b>	<b>16.7</b>

## 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	IV/16	IV/15	2016	2015
Sales	289	266	896	893
- power sales	206	182	691	661
- heat sales	81	82	199	228
- other sales	2	2	6	4
Comparable EBITDA	100	81	312	267
Comparable operating profit	66	69	191	201
Operating profit	67	69	226	203
Share of profits from associates and joint ventures	4	-2	38	32
Comparable net assets (at period-end)			3,284	2,561
Comparable return on net assets, %			8.0	8.2
Capital expenditure and gross investments in shares	67	87	201	285
Number of employees			3,745	4,126

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.

### October–December 2016

In the fourth quarter of 2016, the Russia segment's power sales volumes amounted to 7.9 (8.5) TWh and heat sales volumes totaled 7.7 (8.8) TWh. The divestment of the Tobolsk CHP plant in February 2016 was the main reason for the lower electricity and heat volumes.

The Russia segment's comparable EBITDA was EUR 100 (81) million. Comparable operating profit was EUR 66 (69) million, including a CSA provision release of EUR 0 (20) million. The commissioning of the new units as well as higher received CSA payments following the adjustments of the WACC component in the CSA prices had a positive impact. In addition, the Russian rouble had a positive effect of EUR 2 million.

Operating profit was EUR 67 (69) million.

The share of profits from associated companies and joint ventures totalled EUR 4 (-2) million (Note 14).

### January–December 2016

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 4).

The share of profits from associated companies and joint ventures totalled EUR 38 (32) million (Note 14). 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	IV/16	IV/15	2016	2015
Electricity spot price (market price), Urals hub, RUB/MWh	1,063	1,064	1,054	1,047
Average regulated gas price, Urals region, RUB/1000 m <sup>3</sup>	3,614	3,614	3,614	3,488
Average capacity price for CCS "old capacity", tRUB/MW/month*	155	157	140	149
Average capacity price for CSA "new capacity", tRUB/MW/month*	924	701	815	641
Average capacity price, tRUB/MW/month	556	396	481	359
Achieved power price for Fortum in Russia, RUB/MWh	1,818	1,552	1,734	1,555
Achieved power price for Fortum in Russia, EUR/MWh**	26.2	21.3	23.5	22.5

\* Capacity prices paid for the capacity volumes, excluding unplanned outages, repairs and own consumption

\*\* Translated using average exchange rate

## Discontinued operations (Distribution)

EUR million	IV/16	IV/15	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
Number of employees	-	-	-	-

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 expenditures, divestments and investments in shares

In the fourth quarter of 2016, capital expenditures and investments in shares for continuing operations totalled EUR 263 (234) million. Investments, excluding acquisitions, were EUR 235 (197) million (Note 4).

In 2016, capital expenditures and investments in shares for continuing operations totalled EUR 1,435 (625) million. Investments, excluding acquisitions, were EUR 591 (582) million (Note 4).

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
<b>Generation</b>				
Loviisa, Finland	Nuclear	6		Q4 2017
Several hydro plants in Sweden and Finland	Hydro	10		End 2017
<b>City Solutions</b>				
Zabrze, Poland	CHP	75	145	2018
<b>Russia</b>				
Ulyanovsk	Wind	35		2017
<b>Other</b>				
Bhadla, India	Solar	70		2017
Karnataka, India	Solar	100		2017
Solberg, Sweden	Wind	75*		2018

\* 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 15).

## 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.

## 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.

# Shares and share capital

## Fortum shares on Nasdaq Helsinki

January-December 2016	No. of shares traded	Total value EUR	High EUR	Low EUR	Average <sup>1)</sup> EUR	Last EUR
FUM1V <sup>2)</sup>	611,571,945	8,295,455,618	15.74	10.99	13.57	14.57

1) Volume weighted average

2) FORTUM as of 25 January 2017

	December 31, 2016	December 31, 2015
Market capitalisation, EUR million	12,944	12,366
No. of shareholders	131,882	136,259
Finnish State holding, %	50.8	50.8
Nominee registrations and direct foreign shareholders, %	28.1	25.2
Households, %	10.8	11.4
Financial and insurance corporations, %	2.0	2.9
Other Finnish investors, %	8.3	9.7

In addition to the Nasdaq Helsinki, Fortum shares were traded on several alternative market places, for example Boat, BATS Chi-X and Turquoise, and on the OTC market. During 2016, approximately 63% of Fortum's shares were traded on markets other than the Nasdaq Helsinki.

On 31 December 2016, Fortum Corporation's share capital was EUR 3,046,185,953 and the total number of registered shares was 888,367,045. Fortum Corporation did not own its own shares.

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 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.

## Group personnel

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.

## 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.

## 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 well-being, measured as a percentage of sickness-related absences, as a new Group target. In terms of specific carbon dioxide emissions (gCO<sub>2</sub>/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.

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.

## Fortum's sustainability targets and performance

Targets		IV/16	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 <sub>2</sub> emissions from total energy production (electricity and heat) as a five-year average, g/kWh	< 200	198	184	188
Energy-efficiency improvement by year 2020, base line year 2012, GWh/a	> 1,400	-	1,372	-
Major EHS incidents, no.	≤ 23	7	22	-
Energy availability of CHP plants, %	> 95	95.0	97.4	-
Total recordable injury frequency (TRIF) for own personnel	≤ 2.5	2	1.9	-
Lost workday injury frequency (LWIF) for own personnel	≤ 1.0	1.1	1.0	-
Lost workday injury frequency (LWIF) for contractors	≤ 3.0	3.7	3.0	-
Number of serious occupational accidents	≤ 8	3	13	-
Sickness-related absences, %	≤ 2.4	2.7	2.4	-

## 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.



## 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<sub>2</sub>-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<sub>2</sub> 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<sub>2</sub> 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<sub>2</sub> emissions from energy production were at 188 (191) g/kWh, which is better than the target level.

Fortum's total CO<sub>2</sub> 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.

Fortum's total CO <sub>2</sub> emissions (million tonnes, Mt)	IV/16	IV/15	2016	2015
Total emissions	5.8	5.7	18.6	19.2
Emissions subject to ETS	1.1	0.7	2.7	2.1
Free emissions allocation	-	-	1.0	1.3
Emissions in Russia	4.5	5.0	15.5	17.0

By 2020, Fortum's target is to achieve an 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 ( $\leq 2.5$ ). 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  $\leq 5$  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 Rätty, 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.

## Annual General Meeting 2016

Fortum Corporation's Annual General Meeting, which was held in Helsinki on 5 April 2016, adopted the financial statements of the parent company and the Group for the financial period 1 January - 31 December 2015, and discharged the members of Fortum's Board of Directors as well as the President and CEO and the deputy CEO from liability for the year 2015.

The Annual General Meeting decided to pay a dividend of EUR 1.10 per share for the financial year that ended on 31 December 2015. The record date for the dividend payment was 7 April 2016, and the dividend payment date was 14 April 2016.

The Annual General Meeting confirmed the number of members in the Board of Directors to be eight. Ms. Sari Baldauf was re-elected as Chairman, Mr. Kim Ignatius was elected as Deputy Chairman, Ms. Minoo Akhtarzand, Mr. Heinz-Werner Binzel, Ms. Eva Hamilton, Mr. Tapio Kuula and Mr. Jyrki Talvitie were re-elected as members, and Mr. Veli-Matti Reinikkala was elected as a new member.

The Annual General Meeting confirmed the remuneration of EUR 75,000 per year to the Chairman, EUR 57,000 per year to the Deputy Chairman, EUR 40,000 per year to each member of the Board, as well as EUR 57,000 per year to the Board member acting as the Chairman of the Audit and Risk Committee if he or she is not at the same time acting as Chairman or Deputy Chairman of the Board. In addition, a EUR 600 meeting fee is paid for Board meetings as well as for committee meetings. The meeting fee is doubled for Board members who live outside Finland in Europe and tripled for members living outside Europe. For Board members living in Finland, the fee for each Board and Board Committee meeting will be doubled for meetings held outside Finland, and tripled for meetings outside Europe. For Board and Committee meetings held as a telephone conference, the basic meeting fee will be paid to all members. No fee will be paid for decisions made without a separate meeting.

In addition, Authorised Public Accountant Deloitte & Touche Ltd was re-elected as auditor, and the auditor's fee is paid pursuant to an invoice approved by the company.

The Annual General Meeting also authorised the Board of Directors to decide on the repurchase 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. It was also decided that own shares could be disposed of in connection with acquisitions, investments or other business transactions, or to be retained or cancelled. The disposals could not be made for the purposes of the company's incentive and remuneration schemes. The authorisations are effective for a period of 18 months from the resolution of the General Meeting.

After the Annual General Meeting, Fortum's Board of Directors elected from among its members to the Nomination and Remuneration Committee Sari Baldauf as Chairman, and Eva Hamilton, Tapio Kuula and Veli-Matti Reinikkala as members.

Furthermore, the Board elected to the Audit and Risk Committee Kim Ignatius as Chairman, and Minoo Akhtarzand, Heinz-Werner Binzel and Jyrki Talvitie as members.

In September 2016, Eero Heliövaara (Chairman), Director General of Finnish Government Ownership Steering Department, Timo Ritakallio, President and CEO, Ilmarinen Mutual Pension Insurance Company, and Liisa Hyssälä, Director General, The Social Insurance Institution of Finland KELA, were appointed to Fortum's Shareholders' Nomination Board. In addition, the Chairman of Fortum's Board of Directors Sari Baldauf is a member of the Shareholders' Nomination Board. Following the retirement of Liisa Hyssälä, Director General of KELA, her successor Elli Aaltonen (b. 1953, D.Sc. (Soc.), docent, Director General) replaced her as a member of the Shareholders' Nomination Board as of 1 January 2017.

## Events after the balance sheet date

As of 25 January 2017 Fortum Corporation changed its trading and issuer codes. The trading code of Fortum Corporation's share changed from FUM1V to FORTUM and Fortum's issuer code was changed from FUM to FORTUM.

On 27 January 2016, Fortum's Nomination Board submitted its proposals to the Annual General Meeting 2017 that the Board would consist 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; and to be elected as new board member; 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<sub>2</sub> 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<sub>2</sub> 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.

### 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<sub>2</sub> 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<sub>2</sub> 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 today's 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.

# 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 be retained in shareholders' equity.

# Annual General Meeting 2017

Fortum's Annual General Meeting is planned to take place on 4 April 2017 at 2:00 p.m. (EET) at the Finlandia Hall, Mannerheimintie 13, Helsinki.

Espoo, 1 February 2017

Fortum Corporation  
Board of Directors

## Further information:

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Media, Corporate Press Officer, Pauliina Vuosio, tel. +358 50 453 2383

The Board of Directors has approved Fortum's 2016 Financial Statements and Fortum's auditors issued their unqualified Audit Report for 2016 on 1 February 2017. The Financial Statements Bulletin has been prepared in accordance with International Accounting Standard (IAS) 34, Interim Financial Reporting, as adopted by the EU.

## Financial calendar in 2017

Fortum's Financial Statements and Operating and Financial Review for 2016 will be published during week 10 at the latest.

In 2017, Fortum will publish:

- Interim report January-March on 27 April 2017, at approximately 9:00 EEST
- Half-year financial report January-June on 20 July 2017, at approximately 9:00 EEST
- Interim report January-September on 26 October 2017, at approximately 9:00 EEST

Fortum's Annual General Meeting is planned to take place on 4 April 2017. The possible dividend-related dates planned for 2017 are:

- Ex-dividend date 5 April 2017
- Record date for dividend payment 6 April 2017
- Dividend payment date 13 April 2017

## Distribution:

Nasdaq Helsinki  
Key media  
[www.fortum.com](http://www.fortum.com)

More information, including detailed quarterly information, is available on Fortum's website at [www.fortum.com/investors](http://www.fortum.com/investors)



**Fortum Corporation**  
**January-December 2016**

The Interim Statement is based on the audited 2016 Financial Statements approved by the Board of Directors on 1 February 2017

**Condensed consolidated income statement**

EUR million	Note	Q4 2016	Q4 2015	2016	2015
<b>Continuing operations:</b>					
<b>Sales</b>	4, 9	<b>1,143</b>	964	<b>3,632</b>	3,459
Other income		<b>7</b>	9	<b>34</b>	38
Materials and services		<b>-600</b>	-408	<b>-1,830</b>	-1,515
Employee benefits		<b>-99</b>	-95	<b>-334</b>	-351
Depreciation and amortisation	4,12,13	<b>-110</b>	-92	<b>-373</b>	-346
Other expenses		<b>-153</b>	-135	<b>-485</b>	-477
<b>Comparable operating profit</b>	4	<b>188</b>	243	<b>644</b>	808
Items affecting comparability		<b>14</b>	-205	<b>-11</b>	-958
<b>Operating profit</b>	4	<b>202</b>	38	<b>633</b>	-150
Share of profit/loss of associates and joint ventures	4, 14	<b>15</b>	35	<b>131</b>	20
Interest expense		<b>-37</b>	-47	<b>-169</b>	-203
Interest income		<b>7</b>	10	<b>30</b>	51
Fair value gains and losses on financial instruments		<b>-2</b>	-5	<b>-2</b>	-18
Other financial expenses - net		<b>-2</b>	-10	<b>-29</b>	-4
Finance costs - net		<b>-34</b>	-52	<b>-169</b>	-175
<b>Profit before income tax</b>		<b>184</b>	20	<b>595</b>	-305
Income tax expense	10	<b>-37</b>	-2	<b>-90</b>	78
<b>Profit for the period from continuing operations</b>		<b>147</b>	19	<b>504</b>	-228
<b>Profit for the period from discontinued operations</b>	7	<b>-</b>	-	<b>-</b>	4,369
<b>Profit for the period</b>		<b>147</b>	19	<b>504</b>	4,142
<b>Attributable to:</b>					
Owners of the parent		<b>145</b>	14	<b>496</b>	4,138
Non-controlling interests		<b>3</b>	5	<b>8</b>	4
		<b>147</b>	19	<b>504</b>	4,142
<b>Earnings per share for profit attributable to the equity owners of the company (EUR per share)</b>					
Total Fortum		<b>0.16</b>	0.02	<b>0.56</b>	4.66
Continuing operations		<b>0.16</b>	0.02	<b>0.56</b>	-0.26
Discontinued operations	7	<b>-</b>	0.00	<b>-</b>	4.92

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

EUR million	Note	Q4 2016	Q4 2015	2016	2015
<b>Comparable operating profit</b>		<b>188</b>	243	<b>644</b>	808
Impairment charges	4, 6	<b>27</b>	-119	<b>27</b>	-918
Capital gains and other	4, 8	<b>2</b>	1	<b>38</b>	22
Changes in fair values of derivatives hedging future cash flow	4	<b>-1</b>	-95	<b>-65</b>	-78
Nuclear fund adjustment	4	<b>-14</b>	7	<b>-11</b>	16
Items affecting comparability		<b>14</b>	-205	<b>-11</b>	-958
<b>Operating profit</b>		<b>202</b>	38	<b>633</b>	-150

The decision made by the Extraordinary shareholders' meeting of OJK AB in October 2015 to close Oskarshamn nuclear power plant units 1 and 2 in Sweden impacted net result for 2015 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 affecting comparability, see Note 6 Impairment charges.

Distribution segment has been treated as discontinued operations according to IFRS 5 in the comparative period 2015. For further information, see Note 7 Discontinued operations.

## Condensed consolidated statement of comprehensive income

EUR million	Q4 2016	Q4 2015	2016	2015
<b>Profit for the period</b>	<b>147</b>	19	<b>504</b>	4,142
<b>Other comprehensive income</b>				
<b>Items that may be reclassified to profit or loss in subsequent periods:</b>				
Cash flow hedges				
Fair value gains/losses in the period	-43	30	-142	124
Transfers to income statement	-9	-8	-85	-48
Transfers to inventory/fixed assets	-1	-1	-10	-6
Deferred taxes	11	-3	51	-14
Net investment hedges				
Fair value gains/losses in the period	-36	4	-2	-8
Deferred taxes	7	0	0	2
Exchange differences on translating foreign operations	263	-87	342	-191
Share of other comprehensive income of associates and joint ventures	3	0	-9	3
Other changes	1	0	0	3
	<b>196</b>	-65	<b>145</b>	-135
<b>Items that will not be reclassified to profit or loss in subsequent periods:</b>				
Actuarial gains/losses on defined benefit plans	16	33	-7	76
Actuarial gains/losses on defined benefit plans in associates and joint ventures	5	0	12	0
	<b>21</b>	33	<b>5</b>	76
<b>Other comprehensive income for the period from continuing operations, net of deferred taxes</b>	<b>217</b>	-32	<b>150</b>	-59
<b>Other comprehensive income for the period from discontinued operations, net of deferred taxes</b>	-	0	-	0
<b>Total comprehensive income for the period</b>	<b>365</b>	-13	<b>654</b>	4,082
<b>Total comprehensive income attributable to</b>				
Owners of the parent	<b>359</b>	-16	<b>639</b>	4,081
Non-controlling interests	<b>6</b>	2	<b>15</b>	1
	<b>365</b>	-13	<b>654</b>	4,082

Condensed consolidated balance sheet

EUR million	Note	Dec 31 2016	Dec 31 2015
<b>ASSETS</b>			
<b>Non-current assets</b>			
Intangible assets	12	467	222
Property, plant and equipment	13	9,930	8,710
Participations in associates and joint ventures	4, 14	2,112	1,959
Share in State Nuclear Waste Management Fund	17	830	810
Other non-current assets		113	93
Deferred tax assets		66	80
Derivative financial instruments	5	415	509
Long-term interest-bearing receivables	15	985	773
<b>Total non-current assets</b>		<b>14,918</b>	<b>13,157</b>
<b>Current assets</b>			
Inventories		233	231
Derivative financial instruments	5	130	355
Short-term interest-bearing receivables	15	395	0
Income tax receivables		290	124
Trade and other receivables		844	698
Deposits and securities (maturity over three months)		3,475	4,913
Cash and cash equivalents		1,679	3,289
Liquid funds	16	5,155	8,202
<b>Total current assets</b>		<b>7,046</b>	<b>9,610</b>
<b>Total assets</b>		<b>21,964</b>	<b>22,767</b>
<b>EQUITY</b>			
<b>Equity attributable to owners of the parent</b>			
Share capital		3,046	3,046
Share premium		73	73
Retained earnings		10,369	10,507
Other equity components		-29	168
<b>Total</b>		<b>13,459</b>	<b>13,794</b>
<b>Non-controlling interests</b>		<b>84</b>	<b>69</b>
<b>Total equity</b>		<b>13,542</b>	<b>13,863</b>
<b>LIABILITIES</b>			
<b>Non-current liabilities</b>			
Interest-bearing liabilities	16	4,468	4,965
Derivative financial instruments	5	262	290
Deferred tax liabilities		616	483
Nuclear provisions	17	830	810
Other provisions	18	116	81
Pension obligations		76	65
Other non-current liabilities		179	168
<b>Total non-current liabilities</b>		<b>6,546</b>	<b>6,863</b>
<b>Current liabilities</b>			
Interest-bearing liabilities	16	639	1,042
Derivative financial instruments	5	396	121
Trade and other payables		841	879
<b>Total current liabilities</b>		<b>1,876</b>	<b>2,042</b>
<b>Total liabilities</b>		<b>8,422</b>	<b>8,904</b>
<b>Total equity and liabilities</b>		<b>21,964</b>	<b>22,767</b>

## Condensed consolidated statement of changes in total equity

EUR million	Share capital	Share premium	Retained earnings		Other equity components			Owners of the parent	Non-controlling interests	Total equity
			Retained earnings	Translation of foreign operations	Cash flow hedges	Other OCI items	OCI items associated companies and joint ventures			
<b>Total equity 31 December 2015</b>	<b>3,046</b>	<b>73</b>	<b>12,663</b>	<b>-2,156</b>	<b>74</b>	<b>67</b>	<b>27</b>	<b>13,794</b>	<b>69</b>	<b>13,863</b>
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			-977					-977		-977
Other			3					3	-1	2
<b>Total equity 31 December 2016</b>	<b>3,046</b>	<b>73</b>	<b>12,186</b>	<b>-1,817</b>	<b>-115</b>	<b>58</b>	<b>27</b>	<b>13,459</b>	<b>84</b>	<b>13,542</b>
<b>Total equity 31 December 2014</b>	<b>3,046</b>	<b>73</b>	<b>9,676</b>	<b>-1,968</b>	<b>19</b>	<b>-5</b>	<b>22</b>	<b>10,864</b>	<b>71</b>	<b>10,935</b>
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			-1,155					-1,155		-1,155
Other			3					3	-2	1
<b>Total equity 31 December 2015</b>	<b>3,046</b>	<b>73</b>	<b>12,663</b>	<b>-2,156</b>	<b>74</b>	<b>67</b>	<b>27</b>	<b>13,794</b>	<b>69</b>	<b>13,863</b>

### Translation differences

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 during 2016 (2015: 8), is included in the other OCI items.

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. For information regarding exchange rates used, see Note 2 Accounting policies.

### Cash flow hedges

The impact on equity attributable to owners of the parent from fair valuation of cash flow hedges, EUR -188 million during 2016 (2015: 54), mainly relates to cash flow hedges hedging electricity price for future transactions, where hedge accounting is applied. When electricity price is lower/higher than the hedging price, the impact on equity is positive/negative.

### Cash dividends

A dividend for 2015 was decided in the Annual General Meeting on 5 April 2016. See Note 11 Dividend per share.

## Condensed consolidated cash flow statement

EUR million	Q4 2016	Q4 2015	2016	2015
<b>Cash flow from operating activities</b>				
<b>Profit for the period from continuing operations</b>	147	19	504	-228
<b>Adjustments:</b>				
Income tax expenses	37	2	90	-78
Finance costs - net	34	52	169	175
Share of profit of associates and joint ventures	-15	-35	-131	-20
Depreciation and amortisation	110	92	373	346
<b>Operating profit before depreciations (EBITDA)</b>	312	130	1,006	196
Items affecting comparability	-14	205	11	958
Net release of CSA provision	0	-20	-2	-52
<b>Comparable EBITDA</b>	298	315	1,015	1,102
Non-cash flow items	12	2	-49	-15
Interest received	8	15	39	52
Interest paid	-26	-33	-214	-263
Dividends received	0	0	54	52
Realised foreign exchange gains and losses	-2	43	110	292
Income taxes paid	-5	10	-216	-65
Other items	0	10	-18	43
<b>Funds from operations</b>	286	363	723	1,199
Change in working capital	-136	-31	-102	29
<b>Net cash from operating activities, continuing operations</b>	150	332	621	1,228
<b>Net cash from operating activities, discontinued operations</b>	-	0	-	154
<b>Total net cash from operating activities</b>	150	331	621	1,381
<b>Cash flow from investing activities</b>				
Capital expenditures	-232	-180	-599	-527
Acquisitions of shares	-29	-37	-695	-43
Proceeds from sales of fixed assets	3	2	10	28
Divestments of shares	0	0	39	27
Shareholder loans to associated companies and joint ventures	-43	180	-117	481
Change in other interest-bearing receivables	38	0	-340	-1
<b>Net cash used in investing activities, continuing operations</b>	-263	-35	-1,701	-35
<b>Net cash from investing activities, discontinued operations</b>	-	-	-	6,303
<b>Total net cash from investing activities</b>	-263	-35	-1,701	6,268
<b>Cash flow before financing activities</b>	-113	296	-1,080	7,650
<b>Cash flow from financing activities</b>				
Proceeds from long-term liabilities	5	-1	32	37
Payments of long-term liabilities	-35	-76	-934	-956
Change in short-term liabilities	-34	-46	-97	-84
Dividends paid to the owners of the parent	0	0	-977	-1,155
Other financing items	0	-2	-8	-2
<b>Net cash used in financing activities, continuing operations</b>	-64	-124	-1,984	-2,160
<b>Net cash used in financing activities, discontinued operations</b>	-	-	-	0
<b>Total net cash used in financing activities</b>	-64	-124	-1,984	-2,160
<b>Total net increase(+)/decrease(-) in liquid funds</b>	-177	173	-3,064	5,490
<b>Liquid funds at the beginning of the period</b>	5,322	8,032	8,202	2,766
<b>Foreign exchange differences in liquid funds</b>	9	-3	18	-54
<b>Liquid funds at the end of the period</b>	5,155	8,202	5,155	8,202

### Realised foreign exchange gains and losses

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.

## Additional cash flow information for continuing operations

### Change in working capital

EUR million	Q4 2016	Q4 2015	2016	2015
Change in interest-free receivables, decrease(+)/increase(-)	-323	-320	-54	-121
Change in inventories, decrease(+)/increase(-)	11	24	14	24
Change in interest-free liabilities, decrease(-)/increase(+)	177	265	-62	126
<b>Total</b>	<b>-136</b>	<b>-31</b>	<b>-102</b>	<b>29</b>

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 15.

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 94 million in Q4/2016 and EUR 139 million for 2016.

### Capital expenditure in cash flow

EUR million	Q4 2016	Q4 2015	2016	2015
Capital expenditure	235	197	591	582
Change in not yet paid investments, decrease(+)/increase(-)	3	-8	24	-11
Capitalised borrowing costs	-6	-9	-16	-44
<b>Total</b>	<b>232</b>	<b>180</b>	<b>599</b>	<b>527</b>

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.

### 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 8 Acquisitions and disposals.

### Divestment of shares in cash flow

EUR million	Q4 2016	Q4 2015	2016	2015
Proceeds from sales of subsidiaries, net of cash disposed	0	0	6	0
Proceeds from sales of associates and joint ventures	0	0	34	27
<b>Total</b>	<b>0</b>	<b>0</b>	<b>39</b>	<b>27</b>

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 15 Interest-bearing receivables.

### Change in net debt, total Fortum

EUR million	Q4 2016	Q4 2015	2016	2015
<b>Net debt, beginning of the period</b>	<b>-137</b>	<b>-1,936</b>	<b>-2,195</b>	<b>4,217</b>
Foreign exchange rate differences	0	34	-70	89
EBITDA	312	130	1,006	4,640
Paid net financial costs, taxes and adjustments for non-cash and divestment items	-27	233	-283	-3,330
Change in working capital	-136	-32	-102	71
Capital expenditures	-232	-180	-599	-592
Acquisitions	-29	-37	-695	-43
Divestments	3	2	49	6,217
Proceeds from the interest-bearing receivables relating to divestments	0	0	0	207
Shareholder loans to associated companies	-43	180	-117	481
Change in other interest-bearing receivables	38	0	-340	-1
Dividends	0	0	-977	-1,155
Other financing activities	0	-2	-8	-2
<b>Net cash flow (- increase in net debt)</b>	<b>-113</b>	<b>294</b>	<b>-2,065</b>	<b>6,493</b>
Fair value change of bonds, amortised cost valuation, acquired debt and other	-23	0	152	-8
<b>Net debt, end of the period</b>	<b>-48</b>	<b>-2,195</b>	<b>-48</b>	<b>-2,195</b>

### Capital structure

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 without deducting interest-bearing receivables amounting to EUR 1,380 million (Dec 31 2015: 773). 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.

### Comparable Net debt/EBITDA ratio, total Fortum

EUR million	2016	2015
Interest-bearing liabilities	5,107	6,007
Less: Liquid funds	5,155	8,202
<b>Net debt</b>	<b>-48</b>	<b>-2,195</b>
Operating profit	633	4,245
Add: Depreciation and amortisation	375	395
<b>EBITDA</b>	<b>1,006</b>	<b>4,640</b>
Less: Items affecting comparability	-11	3,323
Less: Net release of CSA provision	2	52
<b>Comparable EBITDA</b>	<b>1,015</b>	<b>1,265</b>
<b>Comparable net debt/EBITDA</b>	<b>0.0</b>	<b>-1.7</b>

## Key ratios

Definition of key figures are presented in Note 25.

	Dec 31 2016	Dec 31 2015
Comparable EBITDA total Fortum, EUR million	<b>1,015</b>	1,265
Comparable EBITDA continuing operations, EUR million	<b>1,015</b>	1,102
Earnings per share total Fortum (basic) EUR	<b>0.56</b>	4.66
Earnings per share continuing operations (basic), EUR	<b>0.56</b>	-0.26
Earnings per share discontinued operations (basic), EUR	-	4.92
Capital employed, EUR million	<b>18,649</b>	19,870
Interest-bearing net debt, EUR million	<b>-48</b>	-2,195
Capital expenditure and gross investments in shares total Fortum, EUR million	<b>1,435</b>	669
Capital expenditure total Fortum, EUR million	<b>591</b>	626
Capital expenditure and gross investments in shares continuing operations, EUR million	<b>1,435</b>	625
Capital expenditure continuing operations, EUR million	<b>591</b>	582
Return on capital employed total Fortum, %	<b>4.0</b>	22.7
Return on shareholders' equity total Fortum, %	<b>3.7</b>	33.4
Comparable net debt / EBITDA total Fortum	<b>0</b>	-1.7
Interest coverage total Fortum	<b>4.6</b>	27.6
Interest coverage including capitalised borrowing costs total Fortum	<b>4.1</b>	21.5
Funds from operations/interest-bearing net debt total Fortum, %	<b>-1,503.4</b>	-59.7
Gearing, %	<b>0</b>	-16
Equity per share, EUR	<b>15.15</b>	15.53
Equity-to-assets ratio, %	<b>62</b>	61
Number of employees continuing operations	<b>8,108</b>	7,835
Average number of employees continuing operations	<b>7,994</b>	8,009
Average number of shares, 1 000 shares	<b>888,367</b>	888,367
Diluted adjusted average number of shares, 1 000 shares	<b>888,367</b>	888,367
Number of registered shares, 1 000 shares	<b>888,367</b>	888,367



## Notes to the condensed consolidated interim financial statements

### 1. Basis of preparation

The condensed interim financial statements have been prepared in accordance with International Accounting Standard (IAS) 34, Interim Financial Reporting, as adopted by the EU. The condensed interim financial report should be read in conjunction with the consolidated financial statements for the year ended 31 December 2015.

The figures in the consolidated interim financial statements have been rounded and consequently the sum of individual figures may deviate from the sum presented. Key figures have been calculated using exact figures.

### 2. Accounting policies

The same accounting policies and presentation have been followed in these condensed interim financial statements as were applied in the preparation of the consolidated financial statements for the year ended 31 December 2015.

Fortum will adopt the following new IFRS standards in 2018-2019:

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 includes - 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 are 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

The balance sheet date rate is based on exchange rate published by the European Central Bank for the closing date. The average exchange rate is calculated as an average of each months ending rate from the European Central Bank during the year and ending rate previous year. Key exchange rates for Fortum Group applied in the accounts:

Average rate	Jan-Dec 2016	Jan-Sept 2016	Jan-June 2016	Jan-March 2016	Jan-Dec 2015	Jan-Sept 2015	Jan-June 2015	Jan-March 2015
Sweden (SEK)	9.4496	9.3673	9.2813	9.2713	9.3414	9.3656	9.3260	9.3534
Norway (NOK)	9.2888	9.3614	9.4060	9.5016	8.9953	8.8749	8.6949	8.7883
Poland (PLN)	4.3659	4.3570	4.3621	4.3289	4.1909	4.1682	4.1521	4.1796
Russia (RUB)	73.8756	75.8412	77.2497	80.6173	69.0427	67.6327	65.9096	70.9755

Balance sheet date rate	Dec 31 2016	Sept 30 2016	June 30 2016	March 31 2016	Dec 31 2015	Sept 30 2015	June 30 2015	March 31 2015
Sweden (SEK)	9.5525	9.6210	9.4242	9.2253	9.1895	9.4083	9.2150	9.2901
Norway (NOK)	9.0863	8.9865	9.3008	9.4145	9.6030	9.5245	8.7910	8.7035
Poland (PLN)	4.4103	4.3192	4.4362	4.2576	4.2639	4.2448	4.1911	4.0854
Russia (RUB)	64.3000	70.5140	71.5200	76.3051	80.6736	73.2416	62.3550	62.4400

### 3. Critical accounting estimates and judgements

The preparation of interim financial statements requires management to make judgements, estimates and assumptions that affect the reported amounts of assets and liabilities, income and expense. Actual results may differ from these estimates. 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.

In preparing these interim financial statements, the significant judgements made by management applying the Group's accounting policies and the key sources of estimation uncertainty were the same as those that applied to the consolidated financial statements for the year ended 31 December 2015.

### 4. Segment information

Fortum has reorganised its operating structure as of 1 April 2016. The segments as of the second quarter 2016 are: Generation (mainly the former Power and Technology); City Solutions (mainly the former Heat, Electricity Sales and Solutions); Russia, and Other, under which the two development units, M&A and Solar & Wind Development, Technology and New Ventures as well as corporate functions, are reported. Because of the minor financial impact, the comparable segment information for 2015 has not been restated. Updated segment information for the first quarter 2016 according to the new organisation can be found in the separate Quarterly information-excel published in connection with this report.

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. For definitions please see Note 25 Definition of key figures.

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. Until 2015 Fortum has not made adjustments for impairment charges as there had not been major impairment effects in the segments. In 2015 such items were treated as Items affecting comparability as there were material impacts from impairments during the year. Updates of these items are also treated 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, but Fortum has not had such costs after the implementation of the revised standard in 2009.

Distribution operations have been classified as discontinued operations from the first quarter interim report 2015 onwards. 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 7 Discontinued operations.

Quarter	EUR million	Generation <sup>1)</sup>		City Solutions <sup>1)</sup>		Russia		Other		Total		
		Note	Q4 2016	Q4 2015	Q4 2016	Q4 2015	Q4 2016	Q4 2015	Q4 2016	Q4 2015	Q4 2016	Q4 2015
<b>Income statement data by segment</b>												
External sales			440	422	531	360	289	266	12	12	1,272	1,061
Internal sales			-5	18	0	-8	0	0	18	16	13	26
Netting of Nord Pool transactions <sup>2)</sup>											-129	-97
Eliminations <sup>2)</sup>											-13	-26
<b>Sales</b>			<b>435</b>	<b>440</b>	<b>530</b>	<b>352</b>	<b>289</b>	<b>266</b>	<b>31</b>	<b>28</b>	<b>1,143</b>	<b>964</b>
<b>Comparable EBITDA</b>												
			116	173	105	80	100	81	-23	-18	298	315
Net release of CSA provision	18						0	20			0	20
Depreciation and amortisation			-30	-31	-42	-27	-34	-31	-4	-2	-110	-92
<b>Comparable operating profit</b>			<b>87</b>	<b>142</b>	<b>63</b>	<b>53</b>	<b>66</b>	<b>69</b>	<b>-28</b>	<b>-21</b>	<b>188</b>	<b>243</b>
Impairment charges	6		27	-116	0	-3	0	0	0	0	27	-119
Capital gains and other	8		0	0	-1	0	1	0	2	0	2	1
Changes in fair values of derivatives hedging future cash-flow			-23	-98	23	4	0	0	-1	0	-1	-94
Nuclear fund adjustment	17		-14	7							-14	7
Items affecting comparability			-10	-207	22	1	1	0	1	0	14	-205
<b>Operating profit</b>			<b>77</b>	<b>-65</b>	<b>85</b>	<b>54</b>	<b>67</b>	<b>69</b>	<b>-27</b>	<b>-21</b>	<b>202</b>	<b>38</b>
Share of profit/loss of associates and joint ventures	14		-25	4	27	25	4	-2	10	8	15	35
Finance costs - net											-34	-52
Income taxes											-37	-2
<b>Profit for the period</b>											<b>147</b>	<b>19</b>
<b>Investments / divestments by segment</b>												
Gross investments in shares			2	11	13	22	0	0	14	4	29	37
Capital expenditure			78	70	44	39	67	87	46	2	235	197
of which capitalised borrowing costs			3	1	0	0	2	8	1	0	6	9
Gross divestments of shares			0	0	0	0	3	0	0	0	3	0

Year-to-date	EUR million	Note	Generation <sup>1)</sup>		City Solutions <sup>1)</sup>		Russia		Other		Total	
			2016	2015	2016	2015	2016	2015	2016	2015	2016	2015
<b>Income statement data by segment</b>												
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 <sup>2)</sup>											-384	-336
Eliminations <sup>2)</sup>											-82	-122
<b>Sales</b>			<b>1,657</b>	<b>1,722</b>	<b>1,424</b>	<b>1,187</b>	<b>896</b>	<b>893</b>	<b>121</b>	<b>114</b>	<b>3,632</b>	<b>3,459</b>
<b>Comparable EBITDA</b>												
			527	680	238	209	312	267	-61	-53	1,015	1,102
Net release of CSA provision	18						2	52			2	52
Depreciation and amortisation			-110	-118	-126	-101	-123	-117	-15	-10	-373	-346
<b>Comparable operating profit</b>			<b>417</b>	<b>561</b>	<b>112</b>	<b>108</b>	<b>191</b>	<b>201</b>	<b>-76</b>	<b>-63</b>	<b>644</b>	<b>808</b>
Impairment charges	6		27	-915	0	-3	0	0	0	0	27	-918
Capital gains and other	8		1	18	0	3	35	1	2	0	38	22
Changes in fair values of derivatives hedging future cash-flow			-96	-76	33	-4	0	1	-2	1	-65	-78
Nuclear fund adjustment	17		-11	16							-11	16
Items affecting comparability			-79	-958	33	-3	35	2	0	1	-11	-958
<b>Operating profit</b>			<b>338</b>	<b>-396</b>	<b>145</b>	<b>105</b>	<b>226</b>	<b>203</b>	<b>-76</b>	<b>-62</b>	<b>633</b>	<b>-150</b>
Share of profit/loss of associates and joint ventures	14		-34	-111	76	59	38	32	51	40	131	20
Finance costs - net											-169	-175
Income taxes											-90	78
<b>Profit for the period</b>											<b>504</b>	<b>-228</b>
<b>Investments / divestments by segment</b>												
Gross investments in shares			7	16	815	23	0	0	22	4	844	43
Capital expenditure			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			0	0	34	27	127	0	0	0	161	27

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 Spot 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.

## Segment assets and liabilities

	Generation		City Solutions		Russia		Other		Total	
	Dec 31 2016	Dec 31 2015	Dec 31 2016	Dec 31 2015	Dec 31 2016	Dec 31 2015	Dec 31 2016	Dec 31 2015	Dec 31 2016	Dec 31 2015
EUR million										
<b>Non-interest bearing assets</b>	<b>6,206</b>	6,391	<b>2,948</b>	1,929	<b>2,967</b>	2,347	<b>321</b>	135	<b>12,442</b>	10,802
Participations in associated companies and joint ventures	711	758	573	559	436	316	392	346	2,112	1,979
Eliminations									-28	-43
<b>Total segment assets</b>	<b>6,917</b>	7,150	<b>3,521</b>	2,488	<b>3,402</b>	2,663	<b>713</b>	481	<b>14,526</b>	12,738
Interest-bearing receivables									1,380	773
Deferred tax assets									66	80
Other assets									838	974
Liquid funds									5,155	8,202
<b>Total assets</b>									<b>21,964</b>	22,767
<b>Segment liabilities</b>	<b>1,102</b>	1,219	<b>469</b>	306	<b>119</b>	102	<b>223</b>	222	<b>1,913</b>	1,849
Eliminations									-28	-43
<b>Total segment liabilities</b>									<b>1,885</b>	1,806
Deferred tax liabilities									616	483
Other liabilities									814	608
<b>Total liabilities included in capital employed</b>									<b>3,315</b>	2,898
Interest-bearing liabilities									5,107	6,007
Total equity									13,542	13,863
<b>Total equity and liabilities</b>									<b>21,964</b>	22,767
Number of employees	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

Average number of employees is based on a monthly average for the period in review.

## Comparable operating profit including share of profits from associates and joint ventures and Comparable return on net

	Note	Generation		City Solutions		Russia		Other	
		Dec 31 2016	Dec 31 2015	Dec 31 2016	Dec 31 2015	Dec 31 2016	Dec 31 2015	Dec 31 2016	Dec 31 2015
EUR million									
<b>Comparable operating profit</b>		417	561	112	108	191	201	-76	-63
Share of profit of associated companies and joint ventures	14	-34	-111	76	59	38	32	51	40
Adjustment for Share of profit of associated companies and joint ventures	6	16	112	0	0	0	0	0	0
<b>Comparable operating profit including share of profits from associates and joint ventures</b>		<b>399</b>	<b>563</b>	<b>188</b>	<b>167</b>	<b>229</b>	<b>233</b>	<b>-25</b>	<b>-23</b>
Segment assets at the end of the period		6,917	7,150	3,521	2,488	3,402	2,663	713	481
Segment liabilities at the end of the period		1,102	1,219	469	306	119	102	223	222
<b>Comparable net assets <sup>1)</sup></b>		<b>5,815</b>	<b>5,931</b>	<b>3,052</b>	<b>2,182</b>	<b>3,284</b>	<b>2,561</b>	<b>489</b>	<b>258</b>
<b>Comparable net assets average <sup>1) 2)</sup></b>		<b>5,820</b>	<b>5,945</b>	<b>2,523</b>	<b>2,124</b>	<b>2,857</b>	<b>2,831</b>	<b>391</b>	<b>269</b>
<b>Comparable return on net assets, %</b>		<b>6.9</b>	<b>9.5</b>	<b>7.5</b>	<b>7.9</b>	<b>8.0</b>	<b>8.2</b>	<b>-6.4</b>	<b>-8.5</b>

1) Since Q1 2016 Fortum is disclosing Comparable net assets instead of Net assets. Net assets disclosed until Q4 2015 are available in the interim reports published earlier and in additional Quarterly information published in connection with this interim report.

2) Average net assets are calculated using the opening balance and end of each quarter values.

## 5. Financial risk management

The Group has not made any significant changes in policies regarding risk management during the period. Aspects of the Group's financial risk management objectives and policies are consistent with those disclosed in the consolidated financial statements for the year ended 31 December 2015.

### Fair value hierarchy information

Financial instruments that are measured in the balance sheet at fair value are presented according to following fair value measurement hierarchy:

Level 1: quoted prices (unadjusted) in active markets for identical assets or liabilities;

Level 2: inputs other than quoted prices included within Level 1 that are observable for the asset or liability, either directly (i.e. as prices) or indirectly (i.e. derived from prices);

Level 3: inputs for the asset or liability that is not based on observable market data (unobservable inputs).

See also accounting policies in the consolidated financial statements 2015, in Note 17 Financial assets and liabilities by fair value hierarchy.

### Financial assets

EUR million	Level 1		Level 2		Level 3		Netting <sup>2)</sup>		Total	
	Dec 31 2016	Dec 31 2015	Dec 31 2016	Dec 31 2015	Dec 31 2016	Dec 31 2015	Dec 31 2016	Dec 31 2015	Dec 31 2016	Dec 31 2015
<b>In non-current assets</b>										
Available for sale financial assets <sup>1)</sup>	0	1			58	42			58	43
Derivative financial instruments										
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	0				-2	-2	5	5
<b>Total in non-current assets</b>	<b>7</b>	<b>8</b>	<b>445</b>	<b>584</b>	<b>58</b>	<b>42</b>	<b>-36</b>	<b>-81</b>	<b>473</b>	<b>552</b>
<b>In current assets</b>										
Derivative financial instruments										
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
<b>Total in current assets</b>	<b>106</b>	<b>48</b>	<b>415</b>	<b>549</b>	<b>0</b>	<b>0</b>	<b>-392</b>	<b>-243</b>	<b>130</b>	<b>355</b>
<b>Total</b>	<b>113</b>	<b>56</b>	<b>860</b>	<b>1,133</b>	<b>58</b>	<b>42</b>	<b>-428</b>	<b>-324</b>	<b>603</b>	<b>907</b>

## Financial liabilities

EUR million	Level 1		Level 2		Level 3		Netting <sup>2)</sup>		Total	
	Dec 31 2016	Dec 31 2015	Dec 31 2016	Dec 31 2015	Dec 31 2016	Dec 31 2015	Dec 31 2016	Dec 31 2015	Dec 31 2016	Dec 31 2015
<b>In non-current liabilities</b>										
Interest-bearing liabilities <sup>3)</sup>			1,280	1,268					1,280	1,268
Derivative financial instruments										
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	0				-2	-2	3	12
<b>Total in non-current liabilities</b>	<b>5</b>	<b>14</b>	<b>1,573</b>	<b>1,626</b>	<b>0</b>	<b>0</b>	<b>-36</b>	<b>-81</b>	<b>1,542</b>	<b>1,559</b>
<b>In current liabilities</b>										
Derivative financial instruments										
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
<b>Total in current liabilities</b>	<b>106</b>	<b>38</b>	<b>682</b>	<b>327</b>	<b>0</b>	<b>0</b>	<b>-392</b>	<b>-243</b>	<b>396</b>	<b>121</b>
<b>Total</b>	<b>111</b>	<b>52</b>	<b>2,255</b>	<b>1,953</b>	<b>0</b>	<b>0</b>	<b>-428</b>	<b>-324</b>	<b>1,938</b>	<b>1,680</b>

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 Fortum's shareholding in Fennovoima of EUR 18 million (Dec 31 2015: 11). These assets are measured at cost less any impairment costs.

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

3) Fair valued part of bonds when hedge accounting is applied (fair value hedge).

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.

Regarding the relevant interest-bearing liabilities, see Note 16 Interest-bearing net debt and Note 21 Pledged assets and contingent liabilities.

## 6. Impairment charges

There were no impairment charges during 2016. Swedish associated company OKG Aktiebolag (OKG AB) updated the provision made in 2015 downwards in Q4 2016 and the positive impact of EUR 22 million has been included in Items affecting comparability for Q4 2016.

Impairment charges in 2015 in Generation segment, EUR -915 million, consists mainly of the effects from OKG AB EUR -794 million, dismantling provision for the Finnish coal-fired power plant Inkoo, impairment loss for Fortum's share of the Finnish coal-fired power plant Meri-Pori, as well as EUR -15 million effect of the cancelled Olkiluoto 4 nuclear power project in Finland.

### Impact of OKG's units early closures

The financial impacts of the decision made in the Extraordinary shareholder's meeting of OKG AB on 14 October 2015 to close early units 1 and 2 in Oskarshamn, Sweden, was recognised in the 2015 third quarter interim report. An additional write-down was recognised based on information received during the fourth quarter. E.ON is the majority owner of OKG and did unilaterally decide on the closing of units.

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 income statement				
EUR million		2016	2015	
<b>Comparable operating profit</b>		<b>0</b>	0	
Items affecting comparability - Impairment charges		<b>22</b>	-794	
<b>Operating profit</b>		<b>22</b>	-794	
Share of profit/loss of associates and joint ventures		<b>0</b>	-116	
<b>Profit before income tax</b>		<b>22</b>	-910	
Income tax expenses		<b>-5</b>	175	
<b>Profit for the period from continuing operations</b>		<b>17</b>	-735	
<b>Attributable to:</b>				
Owners of the parent		<b>17</b>	-729	
Non-controlling interests		<b>0</b>	-5	
Earnings per share effect was EUR -0.82 per share in 2015.				

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 has been netted against the shareholder loans to OKG. 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.

## 7. Discontinued operations

There were no items classified as Discontinued operations during 2016.

In June 2015 Fortum completed the divestment of the Swedish distribution business. The Finnish and Norwegian electricity distribution operations were divested in 2014. After the divestment of the Swedish Distribution business Fortum does not have any distribution operations left and therefore, in accordance with IFRS 5 Non-current Assets held for Sale and Discontinued operations, Distribution segment was treated as discontinued operations in Fortum's financial reporting for 2015.

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.

The following tables summarize the impact of discontinued operations on the comparative year 2015 for total Fortum. For additional financial information on the discontinued operations in 2015, see the consolidated financial statements 2015 and interim report for Q1 2015. For information regarding the divestment of the Swedish distribution operations, see Note 8 Acquisitions and disposals.

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
<b>Comparable operating profit</b>	-	<b>114</b>
Changes in fair values of derivatives	-	-1
Capital gains <sup>1)</sup>	-	4,282
<b>Operating profit</b>	-	<b>4,395</b>
Share of profit/loss of associates and joint ventures	-	0
Finance costs - net	-	-1
<b>Profit before income tax</b>	-	<b>4,393</b>
Income tax expenses	-	-24
<b>Profit for the year from discontinued operations attributable to the owners of the parent</b>	-	<b>4,369</b>

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 from the discontinued operations		
EUR million	2016	2015
Net cash from operating activities	-	154
Net cash from investing activities	-	6,303
Net cash from financing activities	-	0
<b>Total net increase in liquid funds</b>	-	<b>6,457</b>



## 8. Acquisitions and disposals

### Acquisitions

EUR million	Q4 2016	Q4 2015	2016	2015
Gross investments in shares in subsidiary companies	12	0	813	1
Gross investments in shares in associated companies and joint ventures	7	22	17	27
Gross investments in available for sale financial assets	9	14	14	15
<b>Gross investments in shares, total Fortum</b>	<b>29</b>	<b>37</b>	<b>844</b>	<b>43</b>

#### Acquisitions during 2016

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 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 started a redemption process for the remaining shares. The debt and cash-free purchase price for 100% of the company is 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 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 Q3/2016 as Items affecting comparability (Capital gains and other). Impact from Ekokem acquisition during the fourth quarter was on sales EUR 81 million, comparable operating profit EUR 9 million and comparable EBITDA EUR 24 million.

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 interim report includes the income statement effect of Grupa Duon S.A. group from 1 April 2016 onwards. The consolidated sales for the fourth quarter included in the City Solutions segment was EUR 66 million, comparable operating profit EUR 3 million and comparable EBITDA EUR 4 million (2016 sales 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 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
<b>Total consideration</b>	<b>580</b>	<b>106</b>	<b>17</b>	<b>703</b>
Fair value of the acquired assets	440	86	17	543
Translation difference	0	2	0	2
<b>Goodwill</b>	<b>141</b>	<b>22</b>	<b>0</b>	<b>163</b>

Fair value of the acquired net identifiable assets	Ekokem Corporation			Grupa Duon S.A.			Fortum total <sup>1)</sup>		
	Acquired book values	Allocated fair values	Total fair value	Acquired book values	Allocated fair values	Total fair value	Acquired book values	Allocated fair values	Total fair value
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
<b>Net identifiable assets</b>	<b>131</b>	<b>309</b>	<b>441</b>	<b>58</b>	<b>28</b>	<b>86</b>	<b>194</b>	<b>351</b>	<b>545</b>
Non-controlling interests	1	0	1	1		1	2		2
<b>Total</b>	<b>131</b>	<b>309</b>	<b>440</b>	<b>58</b>	<b>28</b>	<b>86</b>	<b>192</b>	<b>351</b>	<b>543</b>
<b>Gross investment</b>									
Purchase consideration settled in cash			570			106			691
Cash and cash equivalents in acquired subsidiaries			17			8			26
<b>Cash outflow in acquisition</b>			<b>553</b>			<b>98</b>			<b>664</b>
Unpaid consideration			10						13
Interest-bearing debt in acquired subsidiaries			117			19			136
<b>Total gross investment in acquired subsidiaries</b>			<b>680</b>			<b>117</b>			<b>813</b>

1) Including acquired book values and allocated fair values from the acquisition of Info24 AB and Turebergs Recycling AB.

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 other material acquisitions during 2016.

### Acquisitions during 2015

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.

### Disposals

EUR million	Q4 2016	Q4 2015	2016	2015
Gross divestments of shares in subsidiary companies <sup>1) 2)</sup>	3	0	127	6,369
Gross divestments of shares in associated companies and joint ventures	0	0	34	27
<b>Gross divestments of shares, total Fortum</b>	<b>3</b>	<b>0</b>	<b>161</b>	<b>6,395</b>

### Divestments of shares in subsidiaries - Impact on financial position, total Fortum

EUR million	Q4 2016	Q4 2015	2016	2015
Gross divestments of shares in subsidiary companies <sup>1) 2)</sup>	3	0	127	6,369
Proceeds from interest-bearing receivables	0	0	0	207
<b>Sales price for the shares (net of cash)</b>	<b>3</b>	<b>0</b>	<b>127</b>	<b>6,162</b>
Liquid funds in sold subsidiaries	1	0	10	12
<b>Sales price including liquid funds in sold subsidiaries</b>	<b>4</b>	<b>0</b>	<b>137</b>	<b>6,174</b>
Intangible assets and property, plant and equipment	3	0	92	2,577
Other non-current and current assets	1	0	15	120
Liquid funds	1	0	10	12
Interest-bearing loans	0	0	0	-207
Other liabilities and provisions	-2	0	-15	-611
<b>Net assets divested</b>	<b>3</b>	<b>0</b>	<b>102</b>	<b>1,891</b>
<b>Gain on sale</b>	<b>1</b>	<b>0</b>	<b>35</b>	<b>4,282</b>

1) In 2015 in addition to the proceeds from shares and repayments of interest-bearing debt in sold subsidiary, totaling 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.

2) There were no additional divestments of shares in subsidiaries during Q4 2016. The change during Q4 arise from the divestment of OOO Tobolsk CHP due to changes in RUB average exchange rate.

### *Disposals during 2016*

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 the first quarter 2016 results.

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.

There were no other material disposals during 2016.

### *Disposals during 2015*

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%). The divestment was completed on 1 June 2015. The total consideration from the divestment is 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 was reported as part of the second quarter 2015 results of the discontinued operations. Distribution segment has been presented as discontinued operations since the first quarter of 2015.

In Q1 2015 Fortum sold its 51.4%-shareholding in the associated company AS Võrguteenus Valdus to the Estonian electricity transmission system operator Elering AS.

## 9. Sales

EUR million	Q4 2016	Q4 2015	2016	2015
Power sales excluding indirect taxes	721	692	2,587	2,582
Heating sales	238	212	648	651
Other sales	185	61	398	226
<b>Total for continuing operations</b>	<b>1,143</b>	<b>964</b>	<b>3,632</b>	<b>3,459</b>

## 10. Income taxes

Taxes for the year 2016 totalled EUR -90 (2015: 78) million. The effective income tax rate according to the income statement was 15.2% (2015: 25.4%). The comparable effective income tax rate, excluding the impact of the share of profit from associated companies and joint ventures as well as tax exempt capital gains, was 20.0% (Q1-Q4 2015: 23.5%).

In June Fortum paid income taxes in Sweden totalling EUR 127 million regarding ongoing tax disputes. Fortum has also paid taxes in Belgium regarding ongoing tax disputes. The appeal processes are ongoing and based on legal analysis and legal opinions the payments are booked as a receivable, EUR 237 (31 Dec 2015: 98) million, included in Income tax receivables. For additional information see Note 22 Legal actions and official proceedings.

## 11. Dividend per share

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 in the Annual General Meeting on 31 March 2015. The dividend and the extra dividend were paid on 14 April 2015.

## 12. Changes in intangible assets

EUR million	Dec 31 2016	Dec 31 2015
Opening balance	222	276
Acquisitions	216	1
Capital expenditures	3	8
Changes of emission rights	0	-8
Depreciation and amortisation <sup>1)</sup>	-19	-22
Divestments	0	-30
Reclassifications	4	14
Translation differences and other adjustments	39	-16
<b>Closing balance</b>	<b>467</b>	<b>222</b>

Of which goodwill	Dec 31 2016	Dec 31 2015
EUR million		
Goodwill included in opening balance	152	170
Translation differences	38	-18
Acquisitions <sup>2)</sup>	163	0
<b>Goodwill included in closing balance</b>	<b>353</b>	<b>152</b>

1) 2015 includes depreciations related to discontinued operations (see additional information Note 7 Discontinued operations).

2) See additional information in Note 8 Acquisitions and disposals.

## 13. Changes in property, plant and equipment

EUR million	Dec 31 2016	Dec 31 2015
Opening balance	8,710	11,195
Acquisitions	747	1
Capital expenditures	588	619
Changes of nuclear asset retirement cost	-6	0
Disposals	-7	-6
Depreciation and amortisation <sup>1)</sup>	-355	-416
Divestments	-92	-2,533
Reclassifications	-4	-14
Translation differences and other adjustments	348	-135
<b>Closing balance</b>	<b>9,930</b>	<b>8,710</b>

1) 2015 includes depreciations related to discontinued operations (see additional information Note 7 Discontinued operations) as well as impairment loss recognised in Q4 2015 for Fortum's share of the Finnish coal-fired power plant Meri-Pori.

## 14. Changes in participations in associates and joint ventures

EUR million	Dec 31 2016	Dec 31 2015
Opening balance	1,959	2,027
Acquisitions	17	27
Share of profits of associates and joint ventures <sup>1)</sup>	131	20
Dividend income received	-54	-52
OCI items associated companies	0	5
Divestments	-22	-26
Translation differences and other adjustments	81	-41
<b>Closing balance</b>	<b>2,112</b>	<b>1,959</b>

1) In December 2015 including impairment charges of EUR -116 million.

### Share of profits from associates and joint ventures

Fortum's share of profit from associates and joint ventures in Q4 2016 was EUR 15 million (Q4 2015: 35), of which Hafslund represented EUR 9 million (Q4 2015: 8), Territorial Generating Company (TGC-1) EUR 4 million (Q4 2015: -2), Fortum Värme EUR 25 million (Q4 2015: 24) and OKG EUR -28 (-3) million. OKG impact arises from the new technical plan for nuclear waste management (Note 17). Share of profits in Q4 2015 included impairment charges of EUR -12 million related to the Swedish nuclear associated company OKG AB. For additional information, see Note 6.

According to Fortum Group accounting policies the share of profits from Hafslund and TGC-1 are included in Fortum Group figures based on the previous quarter information since updated interim information is not normally available.

Fortum's share of profit for the year 2016 amounted to EUR 131 million (2015: 20), of which Hafslund represented EUR 51 million (2015: 39), TGC-1 EUR 38 million (2015: 32), Fortum Värme EUR 66 million (2015: 47) and OKG EUR -30 (2015: -107) million. OKG impact arises from the new technical plan for nuclear waste management (Note 17). Share of profits in 2015 included impairment charges of EUR -116 million related to the Swedish nuclear associated company OKG AB. For additional information, see Note 6.

### Dividends received

During 2016 Fortum has received EUR 54 million (2015: 52) in dividends from associates of which EUR 21 million (2015: 21) was received from Fortum Värme and EUR 21 million (2015: 18) from Hafslund.

## 15. Interest-bearing receivables

EUR million	Carrying amount	Fair value	Carrying amount	Fair value
	Dec 31 2016	Dec 31 2016	Dec 31 2015	Dec 31 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
<b>Total long-term interest-bearing receivables</b>	<b>985</b>	<b>1,049</b>	<b>773</b>	<b>813</b>
Short-term interest bearing receivables	395	395	0	0
<b>Total interest-bearing receivables</b>	<b>1,380</b>	<b>1,444</b>	<b>773</b>	<b>813</b>

Long-term loan receivables include receivables from associated companies and joint ventures EUR 886 million (Dec 31 2015: 773). These receivables include EUR 686 million (Dec 31 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.

TVO is building Olkiluoto 3, a nuclear power plant, which is funded through external loans, share issues and shareholder loans according to shareholders' agreement between the owners of TVO. At the end of December 2016 Fortum has EUR 120 million (Dec 31 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).

## 16. Interest-bearing net debt

Net debt		Dec 31 2016	Dec 31 2015
EUR million			
Interest-bearing liabilities		5,107	6,007
Liquid funds		5,155	8,202
<b>Net debt</b>		<b>-48</b>	<b>-2,195</b>

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 15 Interest-bearing receivables.

Interest-bearing debt	Carrying	Fair	Carrying	Fair
	amount Dec 31 2016	value Dec 31 2016	amount Dec 31 2015	value Dec 31 2015
EUR million				
Bonds	3,329	3,609	4,094	4,375
Loans from financial institutions	393	425	490	531
Reborrowing from the Finnish State Nuclear Waste Management Fund	1,094	1,156	1,074	1,132
Other long term interest-bearing debt <sup>1)</sup>	151	157	145	155
Total long term interest-bearing debt <sup>2)</sup>	4,967	5,348	5,803	6,193
Short term interest-bearing debt	140	140	204	204
<b>Total</b>	<b>5,107</b>	<b>5,488</b>	<b>6,007</b>	<b>6,397</b>

1) Including loans from Finnish pension institutions EUR 58 million (Dec 31 2015: 68) and other loans EUR 93 million (Dec 31 2015: 77).

2) Including current portion of long-term debt EUR 499 million (Dec 31 2015: 838).

The reborrowing from the Finnish State Nuclear Waste Management Fund includes the part relating to Loviisa nuclear power plant as well as borrowing done through TVO.

During the first quarter of 2016 Fortum increased the amount of reborrowing from the Finnish State Nuclear Waste Management Fund and TVO by EUR 20 million to EUR 1,094 million. During the second quarter 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. There have been no major changes in last quarter.

At the end of December 2016, the amount of short term financing included 135 million (Dec 31 2015: 202) from Credit Support Annex agreements. The interest-bearing debt decreased during the last quarter by EUR 78 million from EUR 5,185 million to EUR 5,107 million.

The average interest rate for the portfolio consisting mainly of EUR and SEK loans was 2.1% at the balance sheet date (Dec 31 2015: 2.6%). Part of the external loans, EUR 805 million (Dec 31 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 (Dec 31 2015: 12.8%). The average interest rate on total loans and derivatives at the balance sheet date was 3.5% (Dec 31 2015: 3.7%).

Maturity of interest-bearing liabilities		Dec 31 2016
EUR million		
2017 <sup>1)</sup>		639
2018		582
2019		803
2020		69
2021		539
2022 and later		2,475
<b>Total</b>		<b>5,107</b>

1) The cash received as collateral based on Credit Support Annex agreements, amounting to EUR 135 million, has been booked as short-term liability.

Liquid funds		Dec 31 2016	Dec 31 2015
EUR million			
Deposits and securities with maturity more than 3 months		3,475	4,913
Cash and cash equivalents		1,679	3,289
<b>Total</b>		<b>5,155</b>	<b>8,202</b>

Total liquid funds decreased by EUR 167 million from EUR 5,322 million to EUR 5,155 million during the last quarter.

Liquid funds consist of deposits and cash in bank accounts amounting to EUR 4,544 million and commercial papers EUR 611 million. Deposits and securities include fixed term deposits and commercial papers with maturity more than three months but less than twelve months. The average interest rate on deposits and securities excluding Russian deposits on 31 December 2016 was -0.01% (Dec 31 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.

Liquid funds totaling EUR 4,663 million (Dec 31 2015: 7,521) are placed with counterparties that have an investment credit 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.

### 17. Nuclear related assets and liabilities

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 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.

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.

#### 17.1 Nuclear related assets and liabilities for 100% owned nuclear power plant, Loviisa

EUR million	Dec 31 2016	Dec 31 2015
<b>Carrying values in the balance sheet</b>		
Nuclear provisions	830	810
Fortum's share of the State Nuclear Waste Management Fund	830	810
<b>Legal liability and actual share of the State Nuclear Waste Management Fund</b>		
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 provision and fund accounted for 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, totaling 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.

Fortum's share of the Finnish Nuclear Waste Management 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. The Fund in Fortum's balance sheet can at maximum be equal to the amount of the provisions according to IFRS. As long as the Fund is overfunded from an IFRS perspective, the operating profit is adjusted positively if the provisions increase more than the Fund and negatively 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, see Note 4 Segment information.

#### 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 16 Interest-bearing net debt and Note 21 Pledged assets and contingent liabilities).

#### 17.2 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 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	Dec 31 2016	Dec 31 2015
<b>Carrying values in TVO's balance sheet</b>		
Nuclear provisions	955	971
Share of the State Nuclear Waste Management Fund	955	971
<b>of which Fortum's net share consolidated with equity method</b>	<b>0</b>	<b>0</b>
<b>TVO's legal liability and actual share of the State Nuclear Waste Management Fund</b>		
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 16 Interest-bearing net debt.

OKG's and Forsmark's total nuclear related assets and liabilities (100%)		
EUR million	Dec 31 2016	Dec 31 2015
<b>OKG's and Forsmark's nuclear related assets and liabilities <sup>1)</sup></b>		
Nuclear provisions	3,297	3,210
Share in the State Nuclear Waste Management Fund	3,068	3,025
<b>Net amount</b>	<b>-229</b>	<b>-185</b>
<b>of which Fortum's net share consolidated with equity method</b>	<b>-106</b>	<b>-71</b>

1) Accounted for according to Fortum's accounting principles. The 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. Fortum's guarantees given on behalf of nuclear associated companies are presented in Note 21 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.

## 18. Other provisions

EUR million	CSA provisions		Other provisions	
	Dec 31 2016	Dec 31 2015	Dec 31 2016	Dec 31 2015
Opening balance	8	56	91	26
Acquisitions	0	0	48	0
Increase in the provisions	0	0	15	84
Provisions used	-7	0	-19	-16
Unused provisions reversed	-2	-50	-7	-3
Unwinding of discount	0	1	0	0
Exchange rate differences	1	1	1	-1
<b>Closing balance</b>	<b>0</b>	<b>8</b>	<b>129</b>	<b>91</b>
<b>Current provisions</b> <sup>1)</sup>		8	13	9
<b>Non-current provisions</b>		0	116	81

1) Included in trade and other payables in the balance sheet.

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 Q1 2016 amounted to EUR 7 million and the remaining provision of EUR 2 million was reversed to the income statement.

The increase in other provisions in 2016 is mainly arising from environmental provisions related to the acquisition of Ekokem (Note 8). The increase in other provisions during 2015 arises mainly from a dismantling provision for the Finnish coal-fired power plant Inkoo.

## 19. Operating lease commitments

EUR million	Dec 31 2016	Dec 31 2015
Due within a year	16	14
Due after one year and within five years	31	23
Due after five years	27	24
<b>Total</b>	<b>74</b>	<b>60</b>

## 20. Capital commitments

EUR million	Dec 31 2016	Dec 31 2015
Property, plant and equipment	467	426
Intangible assets	0	2
<b>Total</b>	<b>467</b>	<b>428</b>

In addition Fortum has committed to provide a maximum of EUR 100 million (Dec 31 2015: 107) to Voimaosakeyhtiö SF, for its participation in the Fennovoima nuclear power project in Finland.

For information regarding commitments related to associated companies and joint ventures, see Note 15 Interest-bearing receivables.

## 21. Pledged assets and contingent liabilities

EUR million	Dec 31 2016	Dec 31 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
Contingent liabilities on behalf of associated companies and joint ventures		
Guarantees	603	624

### Pledged assets for debt

Participants in the Finnish State Nuclear Waste Management Fund are allowed to borrow from the Fund. Fortum has pledged shares in Kemijoki Oy as a security. As of 31 December 2016 the value of the pledged shares amounted to EUR 269 million (Dec 31 2015: 269).

Fortum Tartu in Estonia (60% owned by Fortum) has given real estate mortgages for a value of EUR 96 million (Dec 31 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 (Dec 31 2015: 41).

Regarding the relevant interest-bearing liabilities, see Note 16 Interest-bearing net debt.

### Pledged assets for other commitments

Pledges also include restricted cash given as trading collateral of EUR 345 million (Dec 31 2015: 6) for trading of electricity, gas and CO2 emission allowances in Nasdaq Commodities Europe, 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 15 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 17 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.

### Contingent liabilities 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 (Dec 31 2015: 125).

### Contingent liabilities on behalf of associated companies

Guarantees on behalf of associated companies and joint ventures mainly consist of guarantees relating to Fortum's associated nuclear companies (Teollisuuden Voima Oyj, Forsmarks Kraftgrupp AB and OKG AB). Guarantees for the period of 2015-2017 have 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.

The guarantee given on behalf of Teollisuuden Voima Oyj to the Finnish State Nuclear Waste Management Fund amounted to EUR 38 million at 31 December 2016 (Dec 31 2015: 37). The guarantee covers the unpaid legal liability due to periodisation as well as risks for unexpected future costs.

Fortum has minority shares in legal companies owning nuclear power plants in Finland and Sweden. Fortum consolidates these companies according to equity method meaning that Fortum's share of the assets and liabilities are netted to the balance sheet. For information regarding nuclear related assets and liabilities of Loviisa nuclear power plant as well as Swedish and Finnish nuclear production companies where Fortum has a minority shareholding see Note 17 Nuclear related assets and liabilities.

### Other contingent liabilities

Fortum's 100% owned subsidiary Fortum Heat and Gas Oy has a collective contingent liability with Neste Oyj of the in 2004 demerged Fortum Oil and Gas Oy's liabilities based on the Finnish Companies Act's (734/1978) Chapter 14a Paragraph 6.

## 22. Legal actions and official proceedings

### 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 favor 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 favorable 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 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 69 MSEK (EUR 7 million). 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 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 favorable 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.

### Litigations in 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 defense 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.

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.

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.

## 23. Related party transactions

Related parties are described in the annual financial statements as of the year ended 31 December 2015. 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 8 Acquisitions and disposals. No other material changes have occurred during 2016.

At the year-end 2015 the Finnish State owned 50.76% of the shares in Fortum. There has been no change in the shareholding during 2016.

**Transactions with associated companies and joint ventures**

EUR million	2016	2015
Sales	105	81
Purchases	536	509
Interest on loan receivables	16	27
Other financial income	0	37

**Associated company and joint ventures balances**

EUR million	Dec 31 2016	Dec 31 2015
Long-term interest-bearing loan receivables	886	773
Trade receivables	20	11
Other receivables	17	14
Long-term loan payables	278	270
Trade payables	6	9
Other payables	6	166

**24. Events after the balance sheet date**

There has been no material events after balance sheet date.

## 25. Definition 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 useage/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 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, %	=	$\frac{\text{Profit before taxes + interest and other financial expenses}}{\text{Capital employed average}} \times 100$
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

25. Definition of key figures

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, %	=	$\frac{\text{Interest-bearing net debt}}{\text{Total equity}}$	x 100
Equity-to-assets ratio, %	=	$\frac{\text{Total equity including non-controlling interest}}{\text{Total assets}}$	x 100
Comparable net debt / EBITDA	=	$\frac{\text{Interest-bearing net debt}}{\text{Comparable EBITDA}}$	
Interest coverage	=	$\frac{\text{Operating profit}}{\text{Net interest expenses}}$	
Interest coverage including capitalised borrowing costs	=	$\frac{\text{Operating profit}}{\text{Net interest expenses - capitalised borrowing costs}}$	
Earnings per share (EPS)	=	$\frac{\text{Profit for the period - non-controlling interests}}{\text{Average number of shares during the period}}$	
Equity per share	=	$\frac{\text{Shareholder's equity}}{\text{Number of shares at the end of the period}}$	
Effective income tax rate	=	$\frac{\text{Income tax expense}}{\text{Profit before income tax}}$	
Comparable effective income tax rate	=	$\frac{\text{Income tax expense - effects from tax rate changes}}{\text{Profit before income tax decreased by profits from associated companies and joint ventures as well as tax exempt capital gains or losses}}$	

## Market conditions and achieved power prices

Power consumption				
TWh	Q4 2016	Q4 2015	2016	2015
Nordic countries	107	103	390	381
Russia	287	275	1,027	1,007
Tyumen	25	25	94	93
Chelyabinsk	10	9	35	35
Russia Urals area	71	70	259	258

Average prices				
	Q4 2016	Q4 2015	2016	2015
Spot price for power in Nord Pool power exchange, EUR/MWh	34.4	21.9	26.9	21.0
Spot price for power in Finland, EUR/MWh	37.5	30.6	32.4	29.7
Spot price for power in Sweden, SE3, Stockholm EUR/MWh	36.7	23.0	29.2	22.0
Spot price for power in Sweden, SE2, Sundsvall EUR/MWh	36.7	21.6	29.0	21.2
Spot price for power in European and Urals part of Russia, RUB/MWh <sup>1)</sup>	1,203	1,178	1,204	1,154
Average capacity price, tRUB/MW/month	556	396	481	359
Spot price for power in Germany, EUR/MWh	37.6	33.2	29.0	31.6
Average regulated gas price in Urals region, RUB/1000 m <sup>3</sup>	3,614	3,614	3,614	3,488
Average capacity price for old capacity, tRUB/MW/month <sup>2)</sup>	155	157	140	149
Average capacity price for new capacity, tRUB/MW/month <sup>2)</sup>	924	701	815	641
Spot price for power (market price), Urals hub, RUB/MWh <sup>1)</sup>	1,063	1,064	1,054	1,047
CO <sub>2</sub> , (ETS EUA), EUR/tonne CO <sub>2</sub>	6	8	5	8
Coal (ICE Rotterdam), USD/tonne	81	51	59	57
Oil (Brent Crude), USD/bbl	51	45	45	54

1) Excluding capacity tariff.

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

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

Export/import				
TWh (+ = import to, - = export from Nordic area)	Q4 2016	Q4 2015	2016	2015
Export / import between Nordic area and Continental Europe + Baltics	-1	-4	-10	-18
Export / import between Nordic area and Russia	2	1	6	4
Export / import Nordic area, Total	1	-3	-4	-14

Power market liberalisation in Russia				
%	Q4 2016	Q4 2015	2016	2015
Share of power sold at the liberalised price	80%	82%	81%	83%

Achieved power prices				
	Q4 2016	Q4 2015	2016	2015
Generation segment's Nordic power price, EUR/MWh	31.5	34.2	31.0	33.0
Russia segment's power price, RUB/MWh	1,818	1,552	1,734	1,555
Russia segment's power price, EUR/MWh <sup>1)</sup>	26.2	21.3	23.5	22.5

<sup>1)</sup> Translated using average exchange rate.



## Fortum's production and sales volumes

Power generation				
TWh	Q4 2016	Q4 2015	2016	2015
Power generation in the EU	11.5	2.5	47.5	50.2
Power generation in Russia	6.9	7.5	25.5	25.7
<b>Total</b>	<b>18.4</b>	<b>20.1</b>	<b>73.1</b>	<b>75.9</b>

Heat production				
TWh	Q4 2016	Q4 2015	2016	2015
Heat production in the EU	2.5	2.0	7.1	6.4
Heat production in Russia	8.0	9.0	20.7	25.8
<b>Total</b>	<b>10.5</b>	<b>11.0</b>	<b>27.8</b>	<b>32.2</b>

Power generation capacity by segment				
MW			Dec 31 2016	Dec 31 2015
Generation <sup>1)</sup>			8,039	8,046
City Solutions			760	743
Russia <sup>2)</sup>			4,482	4,903
Other			53	0
<b>Total</b>			<b>13,334</b>	<b>13,962</b>

1) Excluding 750 MW mothballed capacity of Inkoo power plant of which preparations for permanent dismantling has started in 2015. Capacities includes unit 1 (205 MW) in Oskarshamn that will be taken out of operation at the end of June 2017.

2) Change compared to 2015 is mainly arising from the divestment of Tobolsk CHP of (665 MW) and commissioning the new unit Chelyabinsk 2 (248 MW).

Heat production capacity by segment				
MW			Dec 31 2016	Dec 31 2015
City Solutions			3,818	3,915
Russia <sup>1)</sup>			9,920	12,696
<b>Total</b>			<b>13,738</b>	<b>16,611</b>

1) Decrease compared to 2015 is mainly arising from the divestment of Tobolsk CHP (2,585 MW).

Power generation by source in the Nordic area				
TWh	Q4 2016	Q4 2015	2016	2015
Hydro and wind power	4.2	5.8	20.8	25.1
Nuclear power	6.2	5.9	24.1	22.7
Thermal power	0.6	0.4	1.4	1.0
<b>Total</b>	<b>11.1</b>	<b>12.1</b>	<b>46.2</b>	<b>48.8</b>

Power generation by source in the Nordic area				
%	Q4 2016	Q4 2015	2016	2015
Hydro and wind power	38	48	45	51
Nuclear power	56	49	52	47
Thermal power	6	3	3	2
<b>Total</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>

Power sales				
EUR million	Q4 2016	Q4 2015	2016	2015
Power sales in the EU and Norway	514	510	1,893	1,918
Power sales in Russia	206	182	691	661
Power sales in other countries	1	0	3	3
<b>Total</b>	<b>721</b>	<b>692</b>	<b>2,587</b>	<b>2,582</b>

### Fortum's production and sales volumes

Heat sales				
EUR million	Q4 2016	Q4 2015	2016	2015
Heat sales in the EU	156	130	449	423
Heat sales in Russia	81	82	199	228
<b>Total</b>	<b>238</b>	<b>212</b>	<b>648</b>	<b>651</b>

Power sales by area				
TWh	Q4 2016	Q4 2015	2016	2015
Finland	6.0	5.8	22.8	22.3
Sweden	7.0	7.2	28.8	29.8
Russia	7.9	8.5	29.5	29.4
Other countries	0.3	0.8	2.7	2.8
<b>Total</b>	<b>21.9</b>	<b>22.4</b>	<b>84.7</b>	<b>84.3</b>

NordPool transactions are calculated as a net amount of hourly sales and purchases at the Group level.

Heat sales by area				
TWh	Q4 2016	Q4 2015	2016	2015
Russia	7.7	8.8	20.7	25.4
Finland	1.4	1.0	3.6	3.1
Poland	1.4	1.2	3.6	3.4
Other countries	0.6	0.4	1.5	1.2
<b>Total</b>	<b>11.0</b>	<b>11.3</b>	<b>29.4</b>	<b>33.2</b>