Fortum Corporation

Financial Statements Bulletin January-December 2018

Fortum Corporation
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Contents

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

Improved 2018 results on higher market prices – New phase in strategy implementation started

October-December 2018

- Comparable EBITDA was EUR 473 (424) million, +12%
- Comparable operating profit was EUR 333 (295) million, +13%
- Operating profit was EUR 309 (315) million, -2%
- Earnings per share were EUR 0.22 (0.28), of which EUR -0.02 (0.01) related to items affecting comparability
- Cash flow from operating activities totalled EUR 38 (295) million, the decline was mainly due to the change in working capital from settlement of futures

January-December 2018

- Comparable EBITDA was EUR 1,523 (1,275) million, +19%, including EUR 26 million profit from selling a 54% share of Fortum's Indian solar power plants
- Comparable operating profit was EUR 987 (811) million, +22%, including EUR 26 million Indian solar profit
- Operating profit was EUR 1,138 (1,158) million, -2%
- Earnings per share were EUR 0.95 (0.98), of which EUR 0.15 (0.38) related to items affecting comparability, including capital gains of EUR 0.09 from the sale of the 10% stake in Hafslund Produksjon. In 2017, the sales gain from the Hafslund transaction was EUR 0.36 and the impact from a Swedish income tax case was EUR -0.14
- Cash flow from operating activities totalled EUR 804 (993) million
- In June, Fortum closed the Uniper offer and became the company's largest shareholder
- In November, Fortum updated its strategy and reconfirmed the financial targets and dividend policy
- Fortum's Board of Directors proposes a dividend of EUR 1.10 (1.10) per share

Summary of outlook

- The Generation segment's Nordic generation hedges: approximately 75% hedged at EUR 31 per MWh for 2019, and approximately 45% at EUR 29 per MWh for 2020
- Capital expenditure, including maintenance but excluding acquisitions, expected to be in the range of EUR 600-650 million in 2019. In 2020, capital expenditure is expected to decline

Key financial ratios

	2018	2017
Return on capital employed, %	6.7	7.1
Comparable net debt/EBITDA	3.6	0.8

Key figures

EUR million or as indicated	IV/18	IV/17	2018	2017
Sales	1,599	1,432	5,242	4,520
Comparable EBITDA	473	424	1,523	1,275
Comparable operating profit	333	295	987	811
Operating profit	309	315	1,138	1,158
Share of profits of associates and joint ventures	-44	34	38	148
Profit before income taxes	261	300	1,040	1,111
Earnings per share, EUR	0.22	0.28	0.95	0.98
Net cash from operating activities	38	295	804	993
Shareholders' equity per share, EUR			13.33	14.69
Interest-bearing net debt (at the end of the period)			5,509	988

Fortum's President and CEO Pekka Lundmark:

"2018 was an eventful year for Fortum. We continued our strategy implementation with the integration and development of our Hafslund and Ekokem acquisitions, further investments in renewables, and most significantly; closing the Uniper tender offer. Our long-term belief in the need for large-scale decarbonisation took a leap forward with the decision to strengthen the Market Stability Reserve and subsequent tripling of emission allowance prices, having a clear positive impact on power prices.

Over the previous years we have worked hard to deliver on our strategy announced in early 2016. As a result, we now have a portfolio of businesses with good profit potential for coming years. After taking significant steps in the capital redeployment that we began in 2016, we updated Fortum's strategy in November 2018. The updated strategy is a natural continuation of the previous one and builds on four priorities.

Our first strategic priority is to pursue operational excellence and increased flexibility in order to ensure benchmark performance of our existing businesses and improve our long-term competitiveness. After the large investments done during previous years it is only natural that the second priority is to ensure value creation from these investments. We will also continue to optimise our business portfolio, considering the ongoing transformation and decarbonisation of the sector. Despite the significant capital redeployment already made, we will, as our third priority, continue to drive focused growth in the power value chain. We will build on our long-standing expertise with the strategic focus on CO_2-free power generation – For a cleaner world. Foreseeing the market development towards the end of the 2020s will be increasingly challenging, but we believe that the uncertainty will also provide new business opportunities. Consequently, as our fourth priority, we aim to build on our existing competences and emerging technologies to create new businesses, independent of power prices, that have the potential for sizeable profit contribution. One example of initiatives in this area is our commitment to invest in Valo Ventures, a new global venture capital fund. Valo Ventures invests in digital start-ups focusing on key global megatrends that are central to Fortum's strategy. Fortum launched Valo Ventures together with Scott Tierney, former Google Capital co-founder.

The urgent need to decarbonise society is perhaps the greatest challenge of our time. The EU Commission published its long-term climate vision in November. Fortum supports the net zero emission target for 2050, as proposed in the most ambitious scenario. Cost-efficient emission reduction pathways should be established for all sectors. The EU emission trading scheme currently covers less than half of EU CO_2 emissions. Therefore, strengthening and broadening the scope of the EU ETS to e.g. heating, cooling, and transport should be a key tool to drive decarbonisation.

Our continued investments in wind and solar are starting to have a positive impact on our results. Commissioned in the beginning of 2018 and the first of its kind in Russia, the 35-MW Ulyanovsk wind park is one example of this. The sale of a 54% stake in our 185-MW solar power plants in India freed up capital for further investments, and in June Fortum won a 250-MW auction for an Indian solar park with a fixed tariff for 25 years. Our total wind and solar portfolio has grown substantially during 2018. Together with our associated companies, we have a portfolio of close to three gigawatts of solar and wind parks and development projects in the Nordics, Russia, and India.

Closing the offer on Uniper shares in June 2018 was the most significant milestone during the year. We have a clear vision for how Fortum and Uniper can jointly build 'The Utility of the Future', and we want to work with the company to explore how to best make this vision a reality for the benefit of all shareholders and stakeholders of both companies. To our disappointment, talks with Uniper have not yet proceeded as anticipated, but the fundamentals of our investment case are intact and we remain committed. Since the closing of the offer, we have increased our shareholding in Uniper in order to further secure Fortum’s voting position in any future Uniper General Meeting. At the end of 2018, Fortum held 49.99% of Uniper shares and voting rights.

Fortum’s fourth quarter results improved, mainly as a result of higher power prices and increased nuclear production, due to improved availability. The results were still burdened by lower than average hydropower generation volumes, due to low inflows and reservoir levels, although the situation improved from the record low volumes seen in the third quarter. The impact of the higher power prices is reflected in our full-year comparable operating profit, which increased by 22%. The investment in Uniper only had a marginal effect on Fortum's 2018 results, as they include only Fortum's share of Uniper's third-quarter results. In the future, Uniper's profit and dividends will contribute to Fortum's earnings per share and cash flow.

Highlight of the year for the Generation division was the clearly improved results, driven by higher market prices. During the year we also finalised the automation modernisation project at the Loviisa nuclear power plant, the biggest single project since the construction of the plant. Following strong improvement in Russia over the past years, the 2018 results in roubles improved slightly. In the City Solutions and Consumer Solutions divisions, 2018 was characterised by the integration of Hafslund, which proceeded well. Unfortunately, the financial results for these two divisions have not yet reached satisfactory levels. We will continue the integration work, and expect the synergies to materialise gradually during 2019 and 2020.

Based on the results of 2018 and the outlook for future years, Fortum's Board of Directors is proposing an unchanged dividend of EUR 1.10 per share for the calendar year 2018.

Finally, I would like to thank all our employees for their commitment and hard work during the year and our customers and all other stakeholders for their continued trust in us."

Strategy update in November 2018

On 12 November 2018, Fortum announced its updated strategy. The update is a continuation of the strategy execution towards Fortum’s vision "For a cleaner world". At the same time, Fortum reconfirmed its dividend policy and long-term financial targets. The strategy aims at strengthening Fortum’s competitiveness and ensuring a benchmark portfolio for the 2020's. Pursuing operational excellence and increased flexibility as well as ensuring value creation from investments and portfolio optimisation are the key priorities. Fortum will also drive focused growth in the power value chain and seek to build options for significant new businesses for the future. The updated strategy was presented in more detail on Fortum’s Capital Markets Day on 13 November 2018.

Uniper investment

In September 2017, Fortum announced it had signed a transaction agreement with E.ON under which E.ON had the right to decide to tender its 46.65% shareholding in Uniper SE into Fortum’s public takeover offer (PTO). In November 2017, Fortum launched a voluntary public takeover offer to all Uniper shareholders at a total value of EUR 22 per share, implying a premium of 36% to the price prior to intense market speculation on a potential transaction at the end of May 2017. In February 2018, Fortum announced that shareholders representing 47.12% of the shares in Uniper had accepted the offer.

The PTO was conditional to regulatory and merger control approvals in several countries. During the second quarter 2018, Fortum received the required clearances in Russia under the Strategic Investment Law as well as Competition Law. The clearances allow Fortum the acquisition of up to 50% of shares and voting rights in Uniper. During the second quarter, Fortum also received an unconditional merger clearance decision from the European Commission. Clearances in the United States and South Africa had already been granted earlier.

On 26 June 2018, Fortum closed the offer and became the largest shareholder in Uniper with 47.35% of the shares. Fortum paid a total consideration of EUR 3.7 billion for all shares tendered (EUR 21.31 per share). The total consideration was financed with existing cash resources of EUR 1.95 billion and bridge loan financing of EUR 1.75 billion from committed credit facilities. Since June 2018, Fortum has increased its shareholding in Uniper in order to further secure its voting position in any future Uniper General Meeting. On 31 December 2018, Fortum owned 49.99% of the shares in Uniper.

The share of Uniper's profit will contribute to the EPS and dividends to the cash flow of Fortum. As a result of this transaction, Fortum’s leverage rose above Fortum's long-term target level for net debt/EBITDA ratio of around 2.5x. Over time, however, Fortum expects its cash generation in combination with the dividend from Uniper to reduce this ratio towards the stated target.

Fortum has consolidated Uniper as an associated company from 30 June 2018. The total acquisition cost, including direct costs relating to the acquisition, is reported in 'Participations in associated companies and joint ventures'. The purchase price allocation will be completed within the one-year window from the acquisition date, according to IFRS. As Uniper publishes its interim reports later than Fortum, Fortum's share of Uniper's results will be accounted for with a time lag of one quarter, with potential adjustments. Fortum’s Financial Statements 2018 only includes Fortum’s share of Uniper's third-quarter results, amounting to EUR -2 million (Note 6). Uniper will report its full-year 2018 results on 12 March 2019.

Financial results

Sales by segment

EUR million	IV/18	IV/17	2018	2017
Generation	555	433	1,837	1,677
City Solutions	358	340	1,094	1,015
Consumer Solutions	555	453	1,759	1,097
Russia	305	314	1,069	1,101
Other Operations	34	30	129	102
Netting of Nord Pool transactions	-157	-103	-516	-367
Eliminations	-52	-34	-130	-103
Total	**1,599**	**1,432**	**5,242**	**4,520**

Comparable EBITDA by segment

EUR million	IV/18	IV/17	2018	2017
Generation	224	191	762	603
City Solutions	113	110	284	262
Consumer Solutions	31	25	110	57
Russia	127	121	417	438
Other Operations	-24	-23	-50	-83
Total	**473**	**424**	**1,523**	**1,275**

Comparable operating profit by segment

EUR million	IV/18	IV/17	2018	2017
Generation	189	160	631	478
City Solutions	68	61	113	98
Consumer Solutions	17	18	53	41
Russia	89	84	271	296
Other Operations	-30	-28	-79	-102
Total	**333**	**295**	**987**	**811**

Operating profit by segment

EUR million	IV/18	IV/17	2018	2017
Generation	184	163	738	501
City Solutions	56	64	109	102
Consumer Solutions	11	25	75	39
Russia	90	85	273	295
Other Operations	-32	-21	-57	221
Total	**309**	**315**	**1,138**	**1,158**

Nuclear-related adjustments in the fourth quarter

Fortum has reassessed the assumptions used for all nuclear-related assets and liabilities as of 31 December 2018. The increase in the nuclear provision for the Loviisa nuclear power plant in Finland leads to recognition of an additional share of the Finnish nuclear fund. As of 31 December 2018, Fortum still has

EUR 254 million in unrecognised nuclear waste fund assets for Loviisa (Note 14). The increase in the provision and the additional share in the fund are both included in items affecting comparability. The changes in assumptions also had a positive impact on interests presented in other financial expenses. The assumptions have also been changed for the respective balances of the co-owned nuclear companies in Finland and Sweden, i.e. Teollisuuden Voima Oyj (TVO), Oskarshamn Kraftgrupp AB (OKG), and Forsmarks Kraftgrupp AB. The total impact of the change to share of profit from associated companies and joint ventures was EUR -37 million, net of tax, and including additional nuclear waste liability related to legacy waste obligations for Swedish nuclear. The net profit impact from all these nuclear-related adjustments is close to zero.

October-December 2018

Fortum's sales increased by 12%, mainly due to higher power prices. Comparable operating profit increased by 13%, as a result of the higher achieved power price and higher nuclear production, while the positive impact was partly offset by lower hydropower production volumes.

Operating profit for the period decreased, due to EUR -24 (20) million of items affecting comparability, mainly due to the fair-value change of non-hedge-accounted derivatives and nuclear-related adjustments.

The share of profit from associates and joint ventures decreased to EUR -44 (34) million, mainly due to nuclear-related adjustments of EUR -37 million and other items relating to nuclear decommissioning of EUR -31 million, mainly from OKG. Uniper accounted for EUR -2 (0) million, Stockholm Exergi (formerly Fortum Värme) EUR 21 (27) million, and TGC-1 EUR 2 (4) million. The share of profit from Uniper and TGC-1 are based on the companies' published third-quarter 2018 interim reports (Note 11).

January-December 2018

Fortum's sales increased by 16%, mainly reflecting the consolidation of Hafslund and higher power prices. Comparable operating profit increased by 22%, mainly as a result of the higher achieved power price, the positive impact from the consolidation of the acquired Hafslund businesses, lower real-estate and capacity taxes in Swedish hydro and nuclear power plants, higher received Capacity Supply Agreement (CSA) payments in Russia, as well as the profit from the sale of a 54% share of Fortum's Indian solar power plants. The result improvement was partly offset by the very low hydropower production volumes in the third quarter and the weaker Russian rouble.

Operating profit for the period was positively impacted by EUR 151 (347) million of items affecting comparability, mainly due to the fair-value change of non-hedge-accounted derivatives, capital gains, and nuclear-related adjustments. In 2017, the items affecting comparability included a one-time capital gain of EUR 324 million from the divestment of Hafslund ASA (Note 4).

The share of profit from associates and joint ventures decreased to EUR 38 (148) million, mainly due to nuclear-related adjustments of EUR -37 million and other items relating to nuclear decommissioning of EUR -33 million, mainly from OKG. The decrease was also due to that the comparison period included the share of profit from Hafslund ASA of EUR 39 million, divested in August 2017. Uniper accounted for EUR -2 (0) million, Stockholm Exergi (formerly Fortum Värme) for EUR 61 (66) million, and TGC-1 for EUR 40 (32) million. The share of profit from TGC-1 is based on the company's published fourth-quarter 2017 and January-September 2018 interim reports. The share of profit from Uniper is based on the company's published third-quarter 2018 interim report (Note 11).

Net finance costs amounted to EUR 136 (195) million. The decline was mainly due to nuclear-related adjustments of EUR 49 million.

Profit before income taxes was EUR 1,040 (1,111) million.

Taxes for the period totalled EUR 181 (229) million. The effective income tax rate, according to the income statement, was 17.5% (20.6%). The comparable effective income tax rate, excluding the impact of the share of profit from associated companies and joint ventures, non-taxable capital gains, tax rate changes and other major one-time income tax effects, was 22.0% (18.8%) (Note 7).

The profit for the period was EUR 858 (882) million. Earnings per share were EUR 0.95 (0.98), of which EUR 0.15 (0.38) per share was related to items affecting comparability, including capital gains of EUR 0.09 from the sale of the 10% stake in Hafslund Produksjon. In the comparison period in 2017, the sales gain from the Hafslund transaction was EUR 0.36 and the impact from a Swedish income tax case was EUR -0.14.

Financial position and cash flow

Cash flow

In 2018, net cash from operating activities decreased by EUR 189 million to EUR 804 (993) million, mainly impacted by an increase in comparable EBITDA of EUR 248 million, an increase of realised foreign exchange gains and losses of EUR 314 million, and the negative effect of a EUR 751 million increase in working capital. The foreign exchange gains and losses of EUR 231 (-83) million relate to the rollover of foreign exchange contract hedging loans to Russian and Swedish subsidiaries. The EUR -670 (81) million change in working capital mainly resulted from the daily cash settlements for futures on Nasdaq Commodities (Additional cash flow information).

Capital expenditure decreased by EUR 78 million to EUR 579 (657) million and was below the 2018 guidance of EUR 600-700 million. Acquisition of shares was EUR 4,088 (972) million, mainly related to the Uniper transaction (Note 6). The impact of divestment of shares was EUR 259 (741) million, mainly resulting from the sale of the 10% stake in Hafslund Produksjon and a 54% share of a solar power company. Acquisitions and divestments in 2017 were mainly related to the Hafslund transaction. Net cash used in investing activities increased to EUR 4,398 (807) million.

Cash flow before financing activities was EUR -3,594 (187) million.

Proceeds from long-term liabilities were EUR 1,764 (35) million, of which the main part is related to the bridge loan financing from committed credit facilities for the acquisition of Uniper shares. Payments of long-term liabilities totalled EUR 586 (543) million. The dividends paid for 2017 amounted to EUR 977 million. The net decrease in liquid funds was EUR 3,268 (1,241) million.

Assets and capital employed

At the end of the reporting period, total assets amounted to EUR 22,409 (21,753) million. Liquid funds at the end of the period decreased to EUR 584 (3,897) million, impacted by the Uniper transaction. Capital employed was EUR 18,170 (18,172) million.

Equity

Equity attributable to owners of the parent company totalled EUR 11,841 (13,048) million. The decrease of EUR 1,207 million was mainly due to the dividends of EUR 977 million paid for 2017, the EUR -599 million impact from fair valuation of cash flow hedges, and translation differences of EUR -518 million, partly offset by the net profit for the period of EUR 843 million. The dividend of EUR 1.10 per share for 2017 was approved by the 2018 Annual General Meeting on 28 March 2018 and paid on 10 April 2018.

Financing

Net debt increased by EUR 4,521 million to EUR 5,509 (988) million, mainly due to the closing of the Uniper offer in the latter part of the second quarter.

At the end of 2018, the Group's liquid funds totalled EUR 584 (3,897) million. Liquid funds include cash and bank deposits of EUR 317 (246) million held by PAO Fortum. In addition to liquid funds, Fortum's undrawn committed credit facilities totalled EUR 1.8 (1.8) billion (Note 13).

Net financial expenses totalled EUR 136 (195) million, of which net interest expenses were EUR 114 (132) million. Net financial expenses included the impact of EUR 49 million from nuclear-related adjustments (Note 14). In 2017, net financial expenses included costs relating to financing arrangements of the Uniper transaction.

On 12 September 2018, Fortum received information from Nasdaq Commodities that it had closed-out the positions of a clearing member and that the funds from the commodity member default fund had been utilised to cover the loss. Fortum is trading on Nasdaq Commodities and is a member of the default fund. On 13 September, Nasdaq requested the members of the default fund to replenish their contribution in the fund. Fortum's participation in the default fund was approximately EUR 30 million and the requested replenishment was approximately EUR 20 million. Consequently, Fortum booked approximately EUR 20 million as a financing cost in its third quarter results. In November 2018, a legally binding agreement for a consensual arrangement was finalised between the defaulting member and the creditors of the defaulted member in order to recover part of the losses arising from the default.

In January 2018, Standard & Poor's downgraded Fortum's long-term credit rating from BBB+ to BBB with Negative Outlook. The short-term rating was affirmed at level A-2. In June 2018, Fitch Ratings downgraded Fortum's long-term credit rating from BBB+ to BBB with Stable Outlook. The short-term rating was downgraded to level F3. Having a solid investment-grade rating is a key priority for Fortum.

Key figures

At the end of 2018, the comparable net debt to EBITDA ratio for the last 12 months was 3.6x (0.8x), which is above the long-term, over-the-cycle target of approximately 2.5x.

Gearing was 46% (7%) and the equity-to-assets ratio 54% (61%). Equity per share was EUR 13.33 (14.69). Return on capital employed (ROCE) for the last twelve months was 6.7% (7.1%). Fortum targets a long-term, over-the-cycle return on capital employed of at least 10%.

Segment reviews

Generation

The Generation segment comprises power production in the Nordics, including nuclear, hydro, and thermal power production, power portfolio optimisation, trading, industrial intelligence, as well as nuclear services globally.

EUR million	IV/18	IV/17	2018	2017
Sales	555	433	1,837	1,677
- power sales	514	428	1,767	1,649
of which Nordic power sales*	394	350	1,401	1,342
- other sales	41	6	70	28
Comparable EBITDA	224	191	762	603
Comparable operating profit	189	160	631	478
Operating profit	184	163	738	501
Share of profits from associates and joint ventures**	-67	1	-72	-1
Comparable net assets (at period-end)			6,295	5,672
Comparable return on net assets, %			11.1	8.4
Capital expenditure and gross investments in shares	71	55	194	264
Number of employees			1,075	1,035

* The Nordic power sales income and volume includes hydro and nuclear generation. 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 18 in the Consolidated Financial Statements 2017).

Power generation by source

TWh	IV/18	IV/17	2018	2017
Hydropower, Nordic	4.8	5.7	19.1	20.7
Nuclear power, Nordic	6.1	5.6	22.8	23.0
Thermal power, Nordic	0.0	0.0	0.1	0.5
Total	**11.0**	**11.3**	**42.0**	**44.2**

Nordic sales volumes

TWh	IV/18	IV/17	2018	2017
Nordic sales volume	12.8	13.3	48.4	51.8
of which Nordic power sales volume*	10.6	10.9	40.5	42.2

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

Sales price

EUR/MWh	IV/18	IV/17	2018	2017
Generation's Nordic power price*	37.2	32.0	34.6	31.8

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

October-December 2018

The Generation segment's total power generation in the Nordic countries decreased as a consequence of 0.8 TWh lower hydropower generation caused by continued low inflows and low reservoir levels. Nuclear power generation increased by 0.5 TWh, due to the timing of annual outages. The CO_2-free production accounted for 100% (100%) of the total power production.

The achieved power price in the Generation segment increased by EUR 5.2, +16%, due to higher spot prices.

Comparable operating profit increased by 18%, due to the higher achieved power price and higher nuclear production, partly offset by the low hydropower production volumes.

Operating profit was negatively affected by EUR -5 (2) million of impairment charges, fair-value change of non-hedge-accounted derivatives, and nuclear-related adjustments (Note 4).

The negative result contribution from associates and joint ventures was mainly due to nuclear-related adjustments. The adjustments had a positive impact on other financial expenses, and the total impact on Fortum's net profit was marginal (Note 11).

During the fourth quarter, the automation modernisation project at Fortum’s Loviisa nuclear power plant was successfully completed. Since the construction of the nuclear power plant, this was the biggest single project; it improves safety and secures the safe and reliable operation of the plant for the future. The project was implemented in three phases during the annual outages in 2016-2018.

January-December 2018

The Generation segment's total power generation in the Nordic countries decreased, due to lower hydropower volumes caused by low inflows and low reservoir levels in the third and fourth quarters and slightly lower nuclear power generation resulting from the closure of Oskarshamn 1 in June 2017. The CO_2-free production accounted for 100% (99%) of the total power production.

The achieved power price in the Generation segment increased by EUR 2.8, +9%, due to higher spot prices.

Comparable operating profit increased by 32%, driven by the higher achieved power price and lower real-estate and capacity taxes in Swedish hydro and nuclear power plants, partly offset by lower hydro production volumes.

Operating profit was positively affected by EUR 108 (23) million of capital gains, fair-value change of non-hedge-accounted derivatives, nuclear-related adjustments, and impairment charges (Note 4).

The negative result contribution from associates and joint ventures was mainly due to nuclear-related adjustments. The adjustments had a positive impact on other financial expenses, and the total impact on Fortum's net profit was marginal (Note 11).

In June 2018, Fortum sold its 10% ownership in Hafslund Produksjon and booked a one-time, tax-free capital gain of EUR 77 million in the Generation segment's results.

City Solutions

City Solutions develops sustainable solutions for urban areas into a growing business for Fortum. The segment comprises heating, cooling, waste-to-energy, operation and maintenance services, biomass, and other circular economy solutions. The business operations are located in the Nordics, the Baltic countries, and Poland. The segment also includes Fortum's 50% holding in Stockholm Exergi (formerly Fortum Värme), which is a joint venture and is accounted for using the equity method.

EUR million	IV/18	IV/17	2018	2017
Sales	358	340	1,094	1,015
- heat sales	193	194	604	523
- power sales	50	34	119	121
- waste treatment sales*	62	59	211	195
- other sales**	53	54	161	175
Comparable EBITDA	113	110	284	262
Comparable operating profit	68	61	113	98
Operating profit	56	64	109	102
Share of profits from associates and joint ventures (Note 11)	24	31	74	80
Comparable net assets (at period-end)			3,743	3,728
Comparable return on net assets, %			5.0	5.5
Capital expenditure and gross investments in shares	79	69	222	556
Number of employees			1,956	1,907

* Waste treatment sales comprise gate fees at waste treatment plants and environmental construction services.
** Other sales comprise mainly operation and maintenance services and fuel sales.

Heat sales by country

TWh	IV/18	IV/17	2018	2017
Finland	1.2	1.2	3.8	3.9
Poland	1.2	1.2	3.5	3.7
Norway	0.5	0.6	1.6	0.7
Other countries	0.6	0.6	1.9	1.8
Total	**3.6**	**3.6**	**10.8**	**10.0**

Power sales by country

TWh	IV/18	IV/17	2018	2017
Finland	0.5	0.4	1.4	1.5
Poland	0.2	0.1	0.5	0.4
Other countries	0.2	0.2	0.8	0.7
Total	**0.9**	**0.8**	**2.7**	**2.6**

On 4 August 2017, Fortum concluded the restructuring of its ownership in Hafslund. As of 1 August 2017, Fortum's 50% ownership in Fortum Oslo Varme (the combined company of Hafslund's Heat business area and Klemetsrudanlegget) has been consolidated as a subsidiary to Fortum in the results of City Solutions.

October-December 2018

Heat sales volumes were at the same level as in the previous year, and power sales volumes from combined heat and power (CHP) production increased slightly.

Comparable operating profit increased by EUR 8 million, mainly due to increased power sales volumes and price as well as the change to seasonal heat pricing in Finland. The positive impact was partly offset by the weaker result in the recycling and waste business.

Operating profit was negatively affected by EUR -12 (3) million of fair-value change of non-hedge-accounted derivatives (Note 4).

January-December 2018

Heat sales volumes increased by 8%, mainly driven by the consolidation of Fortum Oslo Varme. The negative impact of the warm weather in the second quarter offset the positive effects of the cold weather in the first quarter.

Comparable operating profit increased by 15%. The positive effect of EUR 37 (15) million of the consolidation of Fortum Oslo Varme was partly offset by the weaker result in the recycling and waste business.

The seasonality of the City Solutions business has increased, due to the consolidation of Fortum Oslo Varme and the new seasonal pricing. On average, the annual effect of the seasonal pricing is neutral.

The consolidation of Fortum Oslo Varme had a positive effect of EUR 70 (29) million on the comparable EBITDA.

Operating profit was negatively affected by EUR -4 (4) million of fair-value change of non-hedge-accounted derivatives (Note 4).

Consumer Solutions

Consumer Solutions comprises electricity and gas retail businesses in the Nordics and Poland, including the customer service, invoicing, and debt collection business. Fortum is the largest electricity retailer in the Nordics, with approximately 2.5 million customers across different brands in Finland, Sweden, Norway, and Poland. The business provides electricity and related value-added products, as well as new digital customer solutions.

EUR million	IV/18	IV/17	2018	2017
Sales	555	453	1,759	1,097
- power sales	502	381	1,547	862
- other sales	53	72	212	235
Comparable EBITDA	31	25	110	57
Comparable operating profit	17	18	53	41
Operating profit	11	25	75	39
Comparable net assets (at period-end)			648	638
Capital expenditure and gross investments in shares	14	3	47	493
Number of employees			1,399	1,543

Sales volumes

TWh	IV/18	IV/17	2018	2017
Electricity	8.9	9.2	30.3	20.5
Gas*	1.3	1.2	4.1	4.0

* Not including wholesale volumes.

Number of customers

Thousands*	2018	2017
Electricity	2,440	2,470
Gas	30	20
Total	**2,470**	**2,490**

* Rounded to the nearest 10,000.

On 4 August 2017, Fortum concluded the restructuring of its ownership in Hafslund. As of 1 August 2017, Hafslund Markets has been consolidated into the results of Consumer Solutions.

October-December 2018

Electricity sales volumes decreased by 3%, mainly due to warm weather and lower consumption. Sales increased by 22%, mainly because of higher spot power prices. Tough competition and related customer churn in the Nordic market continued to be a challenge.

Comparable operating profit decreased marginally.

The implementation of IFRS 15 had a positive effect of EUR 9 million on the comparable EBITDA, due to the capitalisation of sales commissions. EUR 6 million of the IFRS 15 effect was related to the Hafslund operations.

Operating profit was negatively affected by EUR -5 (7) million of fair-value change of non-hedge-accounted derivatives (Note 4).

On 1 January 2019, the Polish government implemented an end-user price freeze and proposed a compensation mechanism for suppliers. The Impact on Fortum's Polish business is currently difficult to estimate. The Polish authorities have not yet issued detailed instructions or market regulations for the price freeze or the compensation scheme.

January-December 2018

The consolidation of Hafslund and the cold weather in February and March increased electricity sales volumes and, consequently, sales for the segment. Increasing spot power prices during the year also had a positive impact. The competition and customer churn in the Nordic market continued to be a challenge.

Comparable operating profit increased by 29%, due to the consolidation of Hafslund, partly offset by lower sales margins and the amended service agreements for the divested electricity distribution companies. The effect of the consolidation of Hafslund was EUR 31 (13) million.

The consolidation of Hafslund had a positive effect of EUR 54 (22) million on the comparable EBITDA. Due to the capitalisation of sales commissions, the implementation of IFRS 15 had a positive effect of EUR 32 million on the comparable EBITDA. EUR 22 million of the IFRS 15 effect was related to the Hafslund operations.

Operating profit was positively affected by EUR 22 (-2) million of fair-value change of non-hedge-accounted derivatives (Note 4).

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/18	IV/17	2018	2017
Sales	305	314	1,069	1,101
- power sales	237	226	872	837
- heat sales	65	87	193	258
- other sales	3	1	4	6
Comparable EBITDA	127	121	417	438
Comparable operating profit	89	84	271	296
Operating profit	90	85	273	295
Share of profits from associates and joint ventures (Note 11)	0	4	36	31
Comparable net assets (at period-end)			2,789	3,161
Comparable return on net assets, %			10.3	10.1
Capital expenditure and gross investments in shares	66	167	117	277
Number of employees			2,941	3,495

Russian power generation and heat production

TWh	IV/18	IV/17	2018	2017
Russian power generation	8.0	7.2	29.6	26.3
Russian heat production	6.4	7.0	20.4	20.0

Key electricity, capacity, and gas prices for Fortum Russia

	IV/18	IV/17	2018	2017
Electricity spot price (market price), Urals hub, RUB/MWh	1,099	1,038	1,043	1,041
Average regulated gas price, Urals region, RUB/1000 m^3	3,883	3,755	3,801	3,685
Average capacity price for CCS and other, tRUB/MW/month* **	158	157	148	148
Average capacity price for CSA, tRUB/MW/month**	1,196	983	1,075	899
Average capacity price, tRUB/MW/month	682	577	609	535
Achieved power price for Fortum in Russia, RUB/MWh	1,982	1,845	1,888	1,813
Achieved power price for Fortum in Russia, EUR/MWh***	26.0	27.0	25.6	27.5

* Including capacity receiving payments under "forced mode status", regulated tariffs, and bilateral agreements.
** Capacity prices paid for the capacity volumes, excluding unplanned outages, repairs, and own consumption.
*** Translated using the average exchange rate.

The Chelyabinsk GRES unit 3 was commissioned in November 2017. Fortum's 35-MW wind power plant was commissioned in January 2018, and the 35-MW solar plants have been consolidated since December 2017.

October-December 2018

Power generation volumes increased, due to better availability. Heat production volumes decreased, as the heat-only boilers in Chelyabinsk were transferred to the Yustek joint venture at the beginning of November 2018.

Sales declined, due to the weaker Russian rouble and the transfer of the heat business in Tyumen to the Yustek joint venture. The decline was partly offset by higher received CSA payments and higher power sales volumes. For further information on CSA payments, see Key drivers and risks and Outlook.

Comparable operating profit increased by 6%. The result was positively impacted by higher CSA payments, the contribution from new production units, and the compensation for the relocation of the heat pipeline in Tyumen, partly offset by the change in the Russian rouble exchange rate and bad-debt provisions. The increase in CSA payments was related to Nyagan 1 and Nyagan 2 receiving higher payments for the last years of the CSA period, positive spot market corrections, and contributions from renewable generation. The increase in CSA payments was partly offset by the corrections arising from lower bond yields. The effect of the change in the Russian rouble exchange rate was EUR -10 million.

January-December 2018

Power generation volumes increased, due to the commissioning of the Chelyabinsk GRES unit 3 and good availability. Heat production volumes increased, due to cold weather, partly offset by the transfer of the heat-only boilers in Chelyabinsk to the Yustek joint venture. Power generation volumes in the first quarter of 2017 were lower, due to a maintenance outage at the Nyagan power plant.

Sales declined, due to the weaker Russian rouble and the transfer of the heat business in Tyumen to the Yustek joint venture. The decline was partly offset by higher received CSA payments and higher power and heat sales volumes.

Comparable operating profit decreased by 8%. The new production units and higher received CSA payments had a positive effect on the results. The result was negatively impacted by the change in the Russian rouble exchange rate, bad-debt provisions, and lower electricity margins. The increase in CSA payments was related to Nyagan 1 and Nyagan 2 receiving higher payments for the last years of the CSA period, positive spot market corrections, and contributions from renewable generation. The increase in CSA payments was partly offset by the corrections arising from lower bond yields. The result for the comparison period in 2017 was positively affected by a one-time item from improved bad-debt collections. The effect of the change in the Russian rouble exchange rate was EUR -32 million.

Other Operations

Other Operations comprises the two development units 'M&A and Solar & Wind Development' and 'Technology and New Ventures' as well as corporate functions. Other Operations also includes Fortum's shareholding in Uniper, which is consolidated as an associated company as of 30 June 2018 (Note 6).

The total acquisition cost for Uniper, including direct costs relating to the acquisition, is reported in 'Participations in associated companies and joint ventures'. The purchase price allocation will be completed within the one-year window from the acquisition date, according to IFRS. As Uniper publishes its interim reports later than Fortum, Fortum's share of Uniper's results will be accounted for with a time lag of one quarter, with potential adjustments. Fortum’s Financial Statements 2018 only includes Fortum’s share of Uniper's third-quarter results amounting to EUR -2 million (Note 6). Uniper will report its full-year 2018 results on 12 March 2019.

In December 2018, Fortum committed to invest EUR 150 million in Valo Ventures over a period of 10 years. Valo Ventures is a new global venture capital fund launched by former Google Capital co-founder, Scott Tierney. It is an independent fund investing in digital and cloud-scale technology start-ups in North America and Europe. Valo Ventures is aligned with Fortum's vision ‘For a cleaner world’ and strategy. One of Fortum's strategic priorities, to drive decarbonisation, is building options for significant new innovative businesses. Becoming a digital leader is a critical enabler to achieve these goals.

In November 2018, Fortum announced that the solar and wind businesses were reorganised, as they have grown beyond the initial development phase. The wind operations became a business area within the Generation division and the solar operations a business within the City Solutions division. The Russian wind and solar operations continues as a part of the Russia division. The segment reporting will be changed as of 2019, and 2018 figures will be restated accordingly.

In June 2018, Fortum agreed to sell a 54% share of its solar power company operating four solar power plants in India. The transaction was closed in August 2018. The total consideration from the divestment on a debt- and cash-free basis, including the effect of deconsolidating Fortum's minority part of the net debt, was EUR 147 million. The positive impact on Fortum's third-quarter comparable operating profit was EUR 26 million. Fortum’s capital recycling business model enables Fortum to efficiently utilise its key competences to develop, construct, and operate power plants while utilising partnerships and other forms of cooperation to create a more asset-light structure and thereby enable more investments into building new renewable capacity. Profits from the capital recycling business model are recorded in comparable operating profit because the business results are realised through divesting the shareholding, either partially or totally.

Capital expenditures, divestments, and investments in shares

In the fourth quarter of 2018, capital expenditures and investments in shares totalled EUR 367 (331) million, including the purchase of Uniper shares (Note 6). Capital expenditures were EUR 200 (208) million (Note 4).

In 2018, capital expenditures and investments in shares totalled EUR 4,672 (1,815) million, mainly related to the purchase of Uniper shares. Capital expenditures were EUR 584 (690) million (Note 4), below the 2018 guidance of EUR 600-700 million. Capital expenditures for 2018 were below the guidance level, due to the timing of some capital expenditures being shifted to 2019.

Fortum expects to start power and heat production capacity of new power plants and to upgrade existing plants as follows:

	Type	Electricity capacity, MW	Heat capacity, MW	Supply starts/started
Generation				
Loviisa, Finland	Nuclear	5		2018
Hydro plants in Sweden and Finland	Hydro	5		2018
Hydro plants in Sweden and Finland	Hydro	~15		2019
City Solutions				
Zabrze, Poland	CHP	75	145	Q1/2019
Kivenlahti, Finland	Bio HOB*		58	2020
Russia				
Ulyanovsk	Wind	35		Jan 2018
Solar**	Solar	110		2021-2022
Other Operations				
Ånstadblåheia, Norway	Wind	50		Q4/2018
Sørfjord, Norway	Wind	97		2019
Pavagada 2, India	Solar	250		2019

* Biofuel-fired heat-only boiler (HOB).
** Separate investment decision needed.

Generation

Through its interest in TVO, Fortum is participating in the building of Olkiluoto 3 (OL3), a 1,600-MW nuclear power plant unit in Finland. OL3 is funded through external loans, share issues and shareholder loans according to shareholder agreements between the owners and TVO. As a 25% shareholder in OL3, Fortum has committed to funding of the project pro rata. At the end of 2018, Fortum's outstanding receivables regarding OL3 were EUR 170 million and the outstanding commitment was EUR 63 million (Note 11). In March 2018, TVO and the supplier consortium companies signed a comprehensive settlement agreement whereby the arbitration concerning the delay of OL3 is settled by financial compensation of EUR 450 million to be paid to TVO. Based on the project schedule of March 2018 and the effect of the settlement agreement, TVO estimated the total investment in OL3 to be approximately EUR 5.5 billion. According to the time plan updated by plant supplier Areva-Siemens Consortium in November 2018, the plant is expected to start regular electricity production in January 2020.

On 1 January 2019, Fortum acquired all remaining C-shares of TVO entitling to the power production of the Meri-Pori coal condensing power plant. Fortum is now entitled to 100% of the power production of the plant, an increase from 67% previously. The Meri-Pori power plant is mainly used in Fingrid's capacity reserve and as back-up capacity.

In June 2018, Fortum sold its 10% ownership in Hafslund Produksjon Holding AS to Svartisen Holding AS. As part of the restructuring of the Hafslund ownership in 2017, Fortum acquired the ownership in Hafslund Produksjon. The sales price for the shares was EUR 160 million. Fortum booked a capital gain of EUR 77 million in the Generation segment in the second-quarter 2018 results.

City Solutions

In October 2018, Fortum announced it is replacing part of its fossil-based heat production by building a biofuel-fired heating facility in Kivenlahti, Finland. The construction of the plant is a significant step towards carbon-neutral district heating production in Espoo, as the plant will allow for the decommissioning of the old coal-fired heating boiler in Suomenoja. The value of the investment is approximately EUR 40 million. The new facility will have a maximum heat output of 58 MW. Construction started in November 2018 and heat production is expected to begin in 2020.

The joint venture Kauno Kogeneracinė Jėgainė, owned by Fortum and Lietuvos Energija, is building a waste-to-energy CHP plant in Kaunas, Lithuania. The electricity capacity of the Kaunas plant will be 24 MW and the thermal capacity approximately 70 MW. Fortum's ownership in the joint venture is 49%. The CHP plant is expected to be commissioned in mid-2020.

In 2015, Fortum decided to build a new multi-fuel CHP plant in Zabrze, Poland, which primarily will be fuelled by refuse-derived fuel (RDF) and coal but can also use biomass and a mixture of fuels. The new plant replaces the existing purely coal-fired units in Zabrze and Bytom. It will have a production capacity of 145 MW of heat and 75 MW of electricity, and the planned start of commercial operations is during the first quarter of 2019.

Russia

In June 2018, Fortum won the right to build 110 MW of solar capacity in a CSA auction. The power plants are to be commissioned during the years 2021-2022.

In June 2018, the Fortum-Rusnano wind investment fund (Fortum's ownership 50%) won the right to build 823 MW of wind capacity in a CSA auction. The wind parks were to be commissioned during the years 2019-2023. During the fourth quarter of 2018, the wind investment fund made an investment decision on a 100-MW wind farm. Power production is expected to start during the first half of 2020.

In June 2017, the Fortum-Rusnano wind investment fund won the right to build 1,000 MW of wind capacity in a CSA auction. The wind parks were to be commissioned during the years 2018-2022. In October 2017 and October 2018, the wind investment fund made investment decisions on a 50-MW and a 200-MW wind farm, respectively. On 1 January 2019, the 50-MW wind farm started operation. Power production at the 200-MW wind farm is expected to start during the first half of 2020.

The investment decisions related to the renewable capacities won by Fortum and the Fortum-Rusnano wind investment fund in 2017 and 2018 are made on a case-by-case basis. Fortum's maximum equity commitment is RUB 15 billion. In the longer term, Fortum seeks to maintain an asset-light structure by forming potential partnerships and other forms of co-operation.

Other Operations

In December 2018, Fortum committed to invest EUR 150 million in Valo Ventures over a period of 10 years. It is an independent fund investing in digital and cloud-scale technology start-ups in North America and Europe.

In December 2018, Fortum won the right from Gujarat Urja Vikas Nigam Ltd. to build a 250-MW solar power plant in Raghanesda solar park in District Banaskhata, Gujarat, India. In January 2019, the Government of Gujarat cancelled the result of the auction on the grounds that it considers the winning tariffs to be too high. The Government of Gujarat has indicated that there will be a new auction, for which they intend to reduce the solar park charges to operators, in order to lower the costs for the bidders and enable lower bids.

In June 2018, Fortum won the right to build a 250-MW solar power plant in the Pavagada solar park in Karnataka, India. The capital expenditure is estimated to be approximately EUR 120 million. Commissioning of the plant is expected in 2019.

In June 2018, Fortum signed an agreement to sell a 54% share of its solar power company operating four solar power plants in India to UK Climate Investments (40%) and Elite Alfred Berg (14%). Elite Alfred Berg has the option to buy up to an additional 16% from Fortum. The total capacity of this portfolio is 185 MW. Fortum aims to retain a significant minority ownership in the solar power company and to continue to provide operation and maintenance services based on a long-term agreement. The total consideration from the divestment on a debt- and cash-free basis, including the effect of deconsolidating Fortum's minority part of the net debt, was EUR 147 million. The positive impact on Fortum's third-quarter comparable operating profit was EUR 26 million. The transaction was closed in August 2018.

In January 2017, Fortum finalised the acquisition of three wind power projects from the Norwegian company Nordkraft. The transaction consisted of the already operational Nygårdsfjellet wind farm, as well as the fully-permitted Ånstadblåheia and Sørfjord projects. The Ånstadblåheia wind farm was commissioned during the fourth quarter of 2018 and the Sørfjord wind farm is expected to be commissioned in 2019. The total installed capacity of the three wind farms will be approximately 180 MW.

In 2016, Fortum made the final investment decision on the 75-MW Solberg wind park project in northern Sweden. Skellefteå Kraft is participating in the project with a 50% share. The wind park was taken into operation in the first quarter of 2018.

Operating and regulatory environment

Nordic countries

According to preliminary statistics, electricity consumption in the Nordic countries was 108 (108) TWh during the fourth quarter of 2018. During 2018, electricity consumption in the Nordic countries was 399 (392) TWh. The higher consumption was mainly driven by colder weather during the first quarter of 2018 and the somewhat higher industrial consumption.

At the beginning of 2018, the Nordic water reservoirs were at 86 TWh, which is 3 TWh above the long-term average and 11 TWh higher than one year earlier. At the end of 2018, the reservoirs were at 74 TWh, which is 9 TWh below the long-term average and 12 TWh lower than one year earlier.

In the fourth quarter of 2018, the average system spot price in Nord Pool was EUR 47.6 (30.6) per MWh. The average area price in Finland was EUR 49.6 (33.0) per MWh and in Sweden (SE3, Stockholm) EUR 48.2 (31.1) per MWh. The dry hydrological situation combined with the clearly higher marginal cost for coal condense were the main reasons for the price increase. In 2018, the average system spot price in Nord Pool was EUR 44.0 (29.4) per MWh, the average area price in Finland was EUR 46.8 (33.2) per MWh and in Sweden SE3 (Stockholm) EUR 44.5 (31.2) per MWh.

In Germany, the average spot price increased to EUR 52.6 (33.0) per MWh in the fourth quarter of 2018. In 2018, the average spot price was EUR 44.5 (34.2) per MWh.

The market price of CO_2 emission allowances (EUA) increased from EUR 8 per tonne at the beginning of the year to EUR 25 per tonne at the end of 2018.

Russia

Fortum operates mainly 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. The Russian market is divided into two price zones and Fortum operates in the First Price Zone (European and Urals part of Russia).

According to preliminary statistics, Russian electricity consumption was 286 (281) TWh during the fourth quarter of 2018. The corresponding figure for the First Price Zone was 219 (215) TWh. In 2018, Russian electricity consumption was 1,056 (1,035) TWh and the corresponding figure for the First Price Zone was 810 (799) TWh.

In the fourth quarter of 2018, the average electricity spot price, excluding capacity prices, increased by 7.2% to RUB 1,309 (1,221) per MWh in the First Price Zone. The spot price in the Urals hub increased by 5.9% and was RUB 1,099 (1,038) per MWh. In 2018, the average electricity spot price, excluding capacity price, increased by 3.6% to RUB 1,247 (1,204) per MWh in the First Price Zone and increased by 0.2% to RUB 1,043 (1,041) per MWh in the Urals hub.

More detailed information about the market fundamentals is included in the tables at the end of the report (pages 74-76).

European regulatory environment

COP24 agreed on the operational rules of the Paris Agreement

On 15 December, the United Nations climate conference (COP24) in Poland approved the rules of the implementation of the Paris Agreement. The Agreement will come into force in 2020. The rules include monitoring and reporting of greenhouse gas emissions, reporting on climate finance, and the process for increasing the climate ambition in the future. However, rules on market mechanisms and global carbon markets are pending and will be negotiated in late 2019.

The Paris Agreement asks countries to submit their long-term climate strategies and revisions of the existing emission reduction commitments by early 2020. The current aggregated commitments are far from enough to meet the global goal of keeping the temperature increase below 1.5 °C. According to the International Panel on Climate Change (IPCC), this requires “rapid and far-reaching transitions” including carbon dioxide removal from the atmosphere. Global net carbon dioxide emissions have to decline by 45% from 2010 to 2030 and be net-zero by 2050. According to the IPCC, the power sector should reduce emissions by 100% well before 2050.

The EU 2050 climate strategy sets the long-term framework

On 28 November, the European Commission published the proposal "A Clean Planet for All", establishing a strategic vision for 2050. The Commission foresees a 30-50% decline in energy consumption and a significantly growing role of electricity by 50-200%. Concrete proposals for the EU targets and policies post-2030 are expected from the next Commission.

Fortum considers the proposed strategy as ambitious and balanced. The carbon neutrality target for 2050 and the intermediate targets for 2030-2050 should be confirmed by the EU as soon as possible. In Fortum’s view, carbon pricing will be the key measure for reaching carbon neutrality, and the EU should develop a market mechanism to reward also the capture of CO_2 directly from the air or from flue gases.

The German Coal Commission adopts its final report

The Coal Commission suggests in its report to the German Government that coal would be phased out from the German energy mix by 2038. In 2032, there will be an assessment on the option to phase-out coal already in 2035. The report suggests that after 2022 30 GW of coal capacity could be online meaning that 12.5 GW of coal capacity would have to be closed down compared to 2017. In 2030, only 17 GW of coal capacity would remain. Closing down nuclear and coal at the same time underlines the important role of gas in the energy mix.

The report proposes compensations for coal plant operators. A compensation to customers should be offered through lower grid fees or lowered electricity tax rates, as the Commission expects the power price to increase as a result of the closures. Also the regions suffering from the coal phase-out should receive compensation in order to mitigate the resulting negative structural effects on their economies. Furthermore, it is suggested that a consequent amount of CO_2 allowances would be cancelled so that the national policy measure would not water down the operation of the EU Emission Trading Scheme (ETS).

Fortum hopes that the German Government will give its opinion on the report as soon as possible, and that the preparations for the respective laws and regulations will start swiftly. Detailed rules on compensations would be necessary for the operators to make decisions on their production capacities.

Sustainable financing rules affect the whole EU financing sector

In May 2018, the EU Commission presented the first set of legislative proposals based on the strategy and action plan of sustainable financing. This includes a proposal to develop an EU-wide taxonomy system to help investors assess the sustainability and impact of economic activities. In addition, the guidelines on non-financial reporting will be revised and EU labels for green financial products will be developed.

The risk related to the taxonomy development is, among other things, that it will take a negative view on certain low-carbon technologies (e.g. waste-to-energy and nuclear), which can increase the financing costs of future investments.

In Fortum's view, while supporting the overall objective of the Commission proposals, initiatives to promote sustainable investments in the energy sector have to be technology-neutral and aim for low-carbon fossil-free solutions. It is also essential to ensure that the planned taxonomy is developed in a transparent manner with a market-based approach.

EU waste package entered into force

The EU waste package, expected to effectively promote a circular economy, was officially published in June 2018 and member states are to implement the legislation by July 2020. The recycling targets for municipal solid waste and packaging waste will be increased and the landfilling of municipal waste will be further limited by 2030. Further, the quality and comparability of waste statistics will be improved, the calculation methods for recycling targets will be aligned, and e-registers for hazardous waste will be established.

Rules on sustainable plastics use

In January 2018, the EU Commission published a communication for an EU plastics strategy. The target is to transform the way plastic products are designed, produced, used, and recycled in the EU. Better design of plastic products, higher recycling rates, and better quality recyclates will help boost the markets for secondary raw material plastics with greater added value for a competitive European plastics industry. All Nordic countries have developed their own roadmaps on sustainable plastics use.

Fortum welcomes the initiative to boost the markets for recycled plastics. The plastics strategy is expected to result in business opportunities for Fortum's recycling and waste solutions.

Unexpected end-user price freeze in Poland

On 1 January 2019, the new Act on the Excise Tax and changes in other laws suddenly and unexpectedly came into effect in Poland, freezing end-user electricity prices at the level of 30 June 2018, with a proposed governmental mechanism to compensate suppliers for potential losses. The price freeze is a response to rapidly increased electricity prices, caused by the higher CO_2 price. The law is expected to be challenged by the European Commission, as the planned compensation to power companies can be regarded as illegal state aid and the measure should have been notified to the Commission before implementing it. Fortum will continue to monitor the situation closely and will work jointly with the relevant bodies to seek improved understanding and clarification of the new legislation.

Key drivers and risks

Fortum's financial results are exposed to a number of economic, strategic, energy policy and regulation, financial, and operational risks. Fortum is exposed to these risks both directly and indirectly through its associated companies.

Some of the key factors influencing Fortum's business performance are the European commodity and electricity wholesale prices. The key short-term drivers behind the electricity wholesale price development in the Nordic region are the prices of fuels and CO_2 emission allowances, the hydrological situation, temperature, economic development, and the electricity import-export balance.

Global economic growth impacts commodity and CO_2 emission allowance prices, which, in turn, impact the Nordic wholesale price of electricity. In all regions, fuel prices and power plant availability also impact profitability. In addition, increased volatility in exchange rates could have both translation and transaction effects on Fortum's financials, especially through the Russian rouble and Swedish krona.

In the Nordic countries, changes in the regulatory and fiscal environment add risks for the energy and environmental management sectors. 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 updated strategy includes broadening of the revenue base and diversification into new businesses, technologies, and markets. The environmental management business is based on the framework and opportunities created by environmental regulation. Being able to respond to customer needs created by the tightening regulation is a key success factor.

For Fortum's Russian business, the key drivers are economic growth, the rouble exchange rate, regulation of the heat business, and the further development of the electricity and capacity markets. A key profitability driver is the received capacity payment based on the CSA contracts and Competitive Capacity Selection (CCS) auctions. The main part of Fortum's generation capacity built after 2007 is entitled to CSA payments for approximately 10 years after commissioning of each new unit (approximately 15 years for renewable generation). 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 are adjusted for, among other factors, the weighted average cost of capital (WACC), the consumer price index (CPI), and re-examination of earnings from the electricity-only (spot) market (done every three and six years after commissioning of a unit). In addition, thermal power plants are entitled to clearly higher CSA payments starting approximately six years after commissioning.

For further information about the risks, see Fortum's Annual Report.

Outlook

Hedging

At the end of 2018, approximately 75% of the Generation segment's estimated Nordic power sales volume was hedged at EUR 31 per MWh for 2019 (at the end of the third quarter of 2018: 65% at EUR 30 per MWh), and approximately 45% at EUR 29 per MWh for 2020 (at the end of the third quarter of 2018: 35% at EUR 28 per MWh).

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 electricity derivatives quoted on Nasdaq Commodities.

Capital expenditure and divestments

Fortum currently estimates its capital expenditure, including maintenance but excluding acquisitions, to be in the range of EUR 600-650 million in 2019. This includes solar and wind investments, which can be divested through the capital recycling business model. The maintenance capital expenditure in 2019 is estimated at approximately EUR 300 million, well below the level of depreciation.

In 2020, capital expenditure is expected to decline.

Nordic market

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 the macroeconomic development in Europe and especially in the Nordic countries.

During the fourth quarter of 2018, oil and coal prices started to decrease, while EUA prices still increased. In late January 2019, the forward quotation for coal (ICE Rotterdam) for the remainder of 2019 was around USD 84 per tonne and the market price for EUAs for 2019 at the level of EUR 23 per tonne. The Nordic system electricity forward price at Nasdaq Commodities for the remainder of 2019 was around EUR 48 per MWh and for 2020 around EUR 39 per MWh. In Germany, the electricity forward price for the remainder of 2019 was around EUR 51 per MWh and for 2020 around EUR 49 per MWh. The Nordic water reservoirs were about 10 TWh below the long-term average and were 8 TWh lower than one year earlier.

Generation

The Generation segment’s achieved Nordic power price typically depends on factors such as hedge ratios, hedge prices, spot prices, availability and utilisation of Fortum's flexible production portfolio, as well as 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. The achieved power price also includes the results of optimisation of Fortum’s hydro and nuclear production, as well as operations in the physical and financial commodity markets.

As a result of the nuclear stress tests in the EU, the Swedish Radiation Safety Authority (SSM) has decided on new regulations for Swedish nuclear reactors. For the operators, this means that safety investments should be in place no later than 2020.

The process to review the Swedish nuclear waste fees is done in a three-year cycle. In March 2017, the Swedish Government decided on the new nuclear waste fees for years 2018-2020. In October 2017, the Swedish Parliament decided on changes in the legal framework, impacting calculations of nuclear waste fees and the investment of the nuclear waste fund. In the revised legal framework, the assumed operating time for calculating the waste fee is 50 years, as opposed to the previous assumption of 40 years. The fund is now also allowed to invest in other financial instruments in addition to bonds. Based on these changes, the annual waste fees for Fortum increased by EUR 8 million in 2018.

On 19 June 2018, the Swedish parliament adopted new hydro legislation to come into force on 1 January 2019. According to the new legislation, all hydropower shall apply for updated permits. At the same time, hydropower shall be protected to be able to play a key role in the future energy system. In order to protect hydropower, all exemptions of the Water Framework Directives shall be utilised when classifying water bodies. In the new legislation it is stated that the industry shall create a joint hydropower fund to finance major parts of the environmental actions needed. A fund has been established with a total financial cap of SEK 10 billion to be paid over a 20-year period. The major utilities will contribute to the fund based on their share of hydropower production. Fortum's share is expected to be 20-25% of the fund's total financing. In addition to the new legislation, the government has issued an ordinance to establish a national prioritisation plan for the revision of hydropower permits (valid from 11 January 2019).

On 11 June 2018, the Swedish Administrative Court of Appeal gave its decisions on Fortum Sverige AB’s hydropower production-related real-estate tax assessments for the years 2009-2014. The court decisions were not in Fortum’s favour. Fortum applied for the right to appeal from the Supreme Administrative Court, but did not receive permission to appeal. As the Administrative Court, the Administrative Court of Appeal in Stockholm, and the Supreme Administrative Court have handled only the arguments concerning state aid, the case concerning the other legal arguments is now transferred back to the Administrative Court. The disputed amount, excluding interest for the time period, totals approximately SEK 510 million (approximately EUR 50 million). Moreover, Fortum's Swedish companies have appeals for 2011-2016 pending in the Administrative Court relating to the property tax rate for their hydropower plants referring to the same legal grounds. Fortum has paid the real-estate tax in accordance with the legislation. If the final court decision is unfavourable to Fortum, it will not impact Fortum's results. In December 2018, Fortum Sverige AB filed a complaint to the EU Commission regarding the Swedish property tax for hydropower plants regarding 2017 and prior years. Fortum has asked the Commission to investigate whether the Swedish legislation regarding the property tax for hydropower plants and the Swedish court decisions are in line with EU state aid rules.

In September 2016, the Swedish Government presented the budget proposal for the coming years, according to which 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, Fortum's Swedish nuclear capacity tax was EUR 44 million. In 2018, there is no capacity tax. Further, the Swedish hydropower real-estate tax will decrease from 2.8% to 0.5%. The tax is being 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 2018, the tax for Fortum decreased by EUR 20 million to EUR 65 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 in 2019. The real-estate tax values are updated every six years. With the current electricity prices, the tax values for the 2019-2024 period would be lower than they are today.

In 2015, the Swedish OKG decided to permanently discontinue electricity production at Oskarshamn’s nuclear plant units 1 and 2. Unit 1 was shut down on 17 June 2017 and unit 2 has been out of operation since June 2013. The closing processes for both units are estimated to take several years.

City Solutions

In City Solutions, stable growth, cash flow and earnings are achieved through investments in new plants and through acquisitions. Fuel cost, availability, flexibility, efficiency, as well as gate fees are key drivers for profitability, but also the power supply/demand balance, electricity prices, and weather conditions affect profitability.

The development of Fortum Oslo Varme's business operations is estimated to require integration-related one-time costs and increased investments over the coming years. The realisation of cost synergies is estimated to gradually start materialising from 2019 onwards, with targeted annual synergies of EUR 5-10 million expected to be achieved by the end of 2020.

Consumer Solutions

After the acquisition of Hafslund Markets in August 2017, a new business strategy for Consumer Solutions was approved by the Fortum Board of Directors in December 2017. The strategic objective is to establish Consumer Solutions as the leading consumer business in the Nordics, with a customer-centric, multi-brand structure.

Competition in the Nordic electricity retail market is expected to remain challenging, with continued pressure on sales margins and customer churn. To counter the market challenges and create a solid foundation for competitive operations, Consumer Solutions will continue its cost spend in developing new digital services for consumers.

The combined Hafslund Markets and Fortum Markets business, while largely complementary, has identified synergy potential, in terms of both revenue and costs. The short-term priority will be on achieving identified revenue synergies by leveraging established best practices and providing additional products and services to the whole customer base. The realisation of cost synergies will start materialising once the integration of Hafslund Markets is completed, expected in 2019, with cost synergy realisation gradually increasing over the coming years and targeted annual synergies of approximately EUR 10 million to be achieved by the end of 2020.

Russia

In the Russia segment, capacity payments based on CSA contracts are a key driver for earnings growth, as it receives considerably higher capacity payments than through the CCS auctions. Currently, Fortum's CSA capacity amounts to 2,368 MW. In February 2018, the System Administrator of the wholesale market published data on the WACC and the CPI for 2017, which were used to calculate the 2018 CSA price. The CSA payments were revised downwards accordingly to reflect the lower bond rates. The regulator also reviewed the guaranteed CSA payments by re-examining earnings from the electricity-only market and revised the CSA payments upwards due to the lower earnings from the electricity-only market.

Fortum’s other Russian generation capacity, totalling 2,544 MW, is allowed to participate in the CCS auctions. The long-term CCS for the years 2017-2019 was held at the end of 2015, the CCS for the year 2020 in September 2016, and the CCS for the year 2021 in September 2017. All Fortum plants offered in the auction were selected. Fortum also obtained "forced mode status", i.e. it receives payments for the capacity at a higher rate for some of the units at the Argayash power plant. For the years 2017-2019, "forced mode status" was obtained for 195 MW; for the year 2020 for 175 MW, and for the year 2021 for

105 MW. The date of the CCS auction for 2022 has been postponed from 15 September 2018 to 1 May 2019.

In June 2018, Fortum won the right to build 110 MW of solar capacity in a CSA auction. The power plants are to be commissioned during 2021-2022 and will receive a guaranteed CSA price corresponding to approximately RUB 14,000 per MWh for a period of 15 years.

In June 2018, the Fortum-Rusnano wind investment fund (Fortum's ownership 50%) won the right to build 823 MW of wind capacity in a CSA auction. The wind parks were to be commissioned during 2019-2023 and will receive a guaranteed CSA price corresponding to approximately RUB 7,000-8,000 per MWh for a period of 15 years. In December 2018, the wind investment fund made an investment decision on a 100-MW wind farm.

As of January 2018, Fortum’s Ulyanovsk wind farm is listed in the registry of capacity. The 35-MW power plant is Russia’s first industrial wind park. It will receive CSA payments for a period of approximately 15 years after commissioning. The CSA price currently corresponds to approximately RUB 11,000 per MWh.

In December 2017, Fortum acquired three solar power companies. All three power plants are operational and will receive CSA payments for approximately 15 years after commissioning. The CSA price currently corresponds to approximately RUB 20,000 per MWh. The plants were commissioned in 2016 and 2017.

In June 2017, the Fortum-Rusnano wind investment fund won the right to build 1,000 MW of wind capacity in a CSA auction. The wind parks were to be commissioned during 2018-2022 and will receive a guaranteed CSA price corresponding to approximately RUB 7,000-9,000 per MWh for a period of 15 years. In October 2017 and October 2018, the wind investment fund made investment decisions on a 50-MW and a 200-MW wind farm, respectively.

The Russian annual average gas price growth was 3.1% in 2018. Fortum estimates the Russian annual average gas price growth to be 3% in 2019.

Other Operations

For information on the financial impact of the Uniper shareholding, please see the Uniper investment section of this Financial Statements Bulletin and Note 6.

In December 2018, Fortum won the right from Gujarat Urja Vikas Nigam Ltd. to build a 250-MW solar power plant in Raghanesda solar park in District Banaskhata, Gujarat, India. In January 2019, the Government of Gujarat cancelled the result of the auction on the grounds that it considers the winning tariffs to be too high. The Government of Gujarat has indicated that there will be a new auction, for which they intend to reduce the solar park charges to operators, in order to lower the costs for the bidders and enable lower bids.

In June 2018, Fortum won the right to build a 250-MW solar power plant in the Pavagada solar park in Karnataka, India. The capital expenditure is estimated to be approximately EUR 120 million, and the solar park will be entitled to a fixed tariff of 2.85 INR/kWh for 25 years. Commissioning of the plant is expected in 2019.

Income taxation

In 2019, the effective corporate income tax rate for Fortum is estimated to be 19-21%, excluding the impact of the share of profits of associated companies and joint ventures, non-taxable capital gains, as well as tax rate changes.

Fortum has received income tax assessments in Sweden for the years 2013, 2014, and 2015 concerning the loans given by Fortum's Dutch financing company to Fortum's subsidiaries in Sweden. The interest income for these loans was taxed in the Netherlands. After Fortum received a negative decision from the Administrative Court in Stockholm in 2017, Fortum filed an appeal to the Administrative Court of Appeal in Stockholm. In October 2018, the Administrative Court of Appeal in Stockholm, Sweden, announced its decision relating to the income tax assessment for the year 2013. The decision was favourable to Fortum. The Administrative Court of Appeal confirmed that Fortum had sufficient business reasons for the loans and accepted Fortum's appeal. The decision regarding the year 2013 is final. The Administrative Court in Stockholm announced its decisions in the cases for 2014 and 2015 in November 2018. Also these decisions were favourable to Fortum. The decisions became non-appealable by the end of January 2019. Fortum had not made provisions for the cases regarding the years 2013-2015, as Fortum considers the additional tax unjustified. Therefore, the favourable decisions issued by the Administrative Court of Appeal in October 2018 and by the Administrative Court in November 2018 did not have any impact on profits. The amount of additional tax claimed by the Swedish tax authority was originally SEK 273 million (EUR 26 million) for the year 2013, SEK 282 million (EUR 27 million) for the year 2014, and SEK 200 million (EUR 19 million) for the year 2015. The additional tax cost for 2013 was paid in 2017 and was refunded to Fortum in the fourth quarter of 2018. Additional taxes and interest for the years 2014 and 2015 had not been paid by Fortum.

In June 2018, the Swedish government decided to lower the Swedish corporate tax in two steps, from the current 22.0% to 21.4% from January 2019 and to 20.6% from January 2021.

In March 2018, the Swedish Supreme Administrative Court decided not to grant leave to appeal to Fortum with respect to the interest deduction cases relating to the years 2009-2012. The unfavourable decision of the Administrative Court of Appeal from June 2017 therefore remains in force. The additional tax and interest, in total SEK 1,175 million (EUR 122 million), was paid in 2016 and booked as a cost in the second-quarter 2017 results. There are strong grounds to argue that these decisions of the Administrative Court of Appeal and the Supreme Administrative Court violate EU law and fundamental rights under EU law. On these grounds, Fortum filed a summons application in December 2018 to the District Court of Stockholm in which damages are claimed from the Swedish state in these cases. Fortum also filed a request to initiate a mutual agreement procedure between Sweden and the Netherlands for the year 2012 (Note 19).

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 is strengthening its in-house innovation and digitalisation efforts and building partnerships with leading global suppliers, technology and service companies, and research institutions. Fortum makes direct and indirect investments in start-ups that have promising new innovations focused 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 that 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.

The Group reports its R&D expenditure on a yearly basis. In 2018, Fortum’s R&D expenditure was EUR 56 (53) million, or 1.1% (1.2%) of sales.

Sustainability

Fortum strives for balanced management of economic, social, and environmental responsibility in the company's operations, emphasising the following focus areas:

Economic responsibility	Social responsibility	Environmental responsibility
Economic benefits to stakeholders	Operational and occupational safety	Energy and resource efficiency
Long-term value and growth	Secure energy supply for customers	Reduction of environmental impacts
Sustainable supply chain	Personnel wellbeing	Climate-benign energy production and systems
Customer satisfaction	Business ethics and compliance	Solutions for sustainable cities

The Group-level sustainability targets are linked to the main sustainability focus areas and emphasise Fortum's role in society. They measure not only environmental and safety targets, but also Fortum's reputation, customer satisfaction, employee wellbeing, and the security of power and heat production. Targets are set annually and are based on continuous operational improvement.

The achievement of the sustainability targets is monitored in monthly, quarterly, and annual reporting. Fortum publishes a yearly Sustainability Report with additional information on the company's sustainability performance.

Group sustainability targets and performance 2018

	Target	IV/18	2018	2017
Economic responsibility				
Reputation index, based on One Fortum Survey	73.0	-	72.5	72.3
Customer satisfaction index (CSI), based on One Fortum Survey	70-74	-	63-83	64-76
Net Promoter Score (NPS) in the Consumer Solutions division	-6	-	-18	-
Environmental responsibility				
Specific CO_2 emissions from total energy production as a five-year average, g/kWh	< 200	194	186	188
Energy-efficiency improvement by 2020, baseline 2012, GWh/a	> 1,900	-	1,637	1,502
Major EHS incidents, no.	≤ 20	1	18	20
Social responsibility				
Energy availability of CHP plants, %	> 95.0	97.1	96.4	96.1
Lost workday injury frequency, own personnel and contractors	≤ 2.1	1.4	1.8	2.4
Severe occupational accidents, no.	0	3	4	1
Quality of investigation process of occupational accidents, major EHS incidents and near misses	Level 3.0	Level 3.0	Level 3.0	Level 2.0*
GAP index, implementation of EHS minimum requirements	Level 3.0	-	Level 2.0	-
Sickness-related absences, %	≤ 2.2	3.0	2.8	2.2**

* Scaling revised.
** Excluding DUON and Hafslund.

Fortum is listed on the Nasdaq Helsinki exchange and is included in the STOXX Global ESG Leaders, OMX Sustainability Finland, ECPI®, Euronext Vigeo Eurozone 120, Euronext Vigeo Europe 120, MSCI ESG Ratings, and Equileap Gender Equality indices. Fortum is also ranked in category B in the annual CDP Climate Change rating 2018, and it has received a Prime Status (B-) rating by ISS-oekom Corporate Rating.

Fortum's sustainability reporting covers all functions under Fortum’s operational control, including subsidiaries in all countries of operation.

Economic responsibility

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 (long-term target: at least 10%) and capital structure (long-term target: comparable net debt/EBITDA around 2.5x).

Targets for reputation and customer satisfaction are monitored annually. In the One Fortum Survey in 2018 company reputation among key stakeholder groups was 72.5 (72.3) points, which did not meet the target of 73.0 points.

The Group-level target (70-74 points, on a scale of 0-100) for customer satisfaction was achieved among all business areas with two exceptions: retail electricity sales to major customers and EV charging solutions for consumers and businesses. The Consumer Solutions division also used the Net Promoter Score (NPS) method to measure the satisfaction of electricity sales customers; the score was -18, which did not meet the target of -6.

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 2018, Fortum conducted a total of 13 (11) supplier audits in Finland, Lithuania, Poland, Netherlands, Russia, Vietnam, and India. In addition, two of Fortum’s Russian coal suppliers were audited against the Bettercoal Code by a third party.

Environmental responsibility

Fortum’s Group-level environmental targets are related to CO_2 emissions, energy efficiency, and major Environmental, Health, and Safety (EHS) incidents. Operational-level activities follow the requirements set forth in the ISO 14001 environmental management standard, and 99.9% (99.8%) of Fortum’s power and heat production worldwide has ISO 14001 certification.

Fortum’s aim is to promote resource efficiency improvements and the transition towards a more extensive circular economy. Fortum’s energy production is primarily based on carbon dioxide-free hydropower and nuclear power and on energy-efficient CHP. In line with the strategy, Fortum is targeting a multi-gigawatt solar and wind portfolio. Fortum expects the concern about climate change to increase the demand for low-carbon production and energy-efficient solutions and products. Fortum aims to mitigate climate change by investing in CO_2-free energy production and by improving energy and resource efficiency.

In 2018, Fortum’s direct CO_2 emissions were 20.1 (18.4) Mt. Of the total CO_2 emissions, 2.5 (2.4) Mt were within the EU’s ETS. The estimate for Fortum’s free emission allowances in 2018 is 0.8 (1.0) Mt.

Fortum's total CO_2 emissions (million tonnes, Mt)	IV/18	IV/17	2018	2017
Total emissions	5.7	5.2	20.1	18.4*
Emissions subject to ETS	0.7	0.6	2.5	2.4*
Free emission allowances	-	-	0.8	1.0
Emissions in Russia	4.7	4.4	16.9	15.4

* The figure has been revised from the one presented in the Financial Statements bulletin 2017, Financials 2017 and Sustainability 2017.

In 2018, Fortum's specific carbon dioxide emissions from total energy production were 192 (184) g/kWh. The specific CO_2 emissions from total energy production as a five-year average were 186 (188) g/kWh, which is better than Fortum's Group target of 200 g/kWh.

Fortum has a Group-level target to achieve annual energy-efficiency improvements of more than 1,900 GWh by 2020 compared to 2012. Fortum achieved 1,637 GWh/a by the end of 2018.

Fortum's target regarding major EHS incidents is to have no more than 20 major EHS incidents annually. Major EHS incidents are monitored, reported and investigated, and corrective actions are implemented. In 2018, there were 18 (20) major EHS incidents in Fortum's operations. The major EHS incidents included 11 fires, two environmental non-compliances, four leaks, and one dam safety incident. The major EHS incidents did not have significant environmental impacts.

Social responsibility

Fortum's social responsibility targets are related to the secure supply of electricity and heat for customers, operational and occupational safety, as well as employee wellbeing.

For Fortum, excellence in safety is the foundation of the company's business and an absolute prerequisite for efficient and interruption-free production. Fortum strives to be a safe workplace for the employees, contractors, and service providers who work for the company. A certified OHSAS 18001 or ISO 45001 safety management system covers 97.0% (98.4%) of Fortum's power and heat production worldwide.

In 2018, the combined Lost Workday Injury Frequency (LWIF) for own personnel and contractors was 1.8 (2.4), which was better than the set target level (≤2.1). In 2018, 4 (1) severe occupational accidents took place in the company's operations in Sweden, Lithuania, and Russia; two of which led to a fatality. The Group target in 2018 was zero severe occupational accidents.

In 2018, the quality of the investigation process of occupational accidents, major EHS incidents, and serious near misses was at the level of 3.0, achieving the set target level (3.0). In 2018, Fortum implemented tools to assess contractor safety performance as part of the supplier qualification process and also evaluated their safety practices in a more systematic manner during the work.

In 2018, the GAP index was at the level of 2.0, which did not meet the set target level (3.0). The most significant deviations were detected in companies that Fortum had acquired in recent years and at the sites operated by contractors.

Fortum's goal of workplace wellbeing activities is to promote the health and occupational safety of employees and the functionality of the work community. In 2018, the percentage of sickness-related absences was 2.8 (2.2), which did not meet the target level of ≤ 2.2.

An uninterrupted and reliable energy supply is critical for society to function. The energy availability of the company's CHP plants in 2018 was, on average, 96.4% (96.1%), outperforming the target of >95.0%.

Shares and share capital

Fortum shares on Nasdaq Helsinki

January-December 2018	No. of shares traded	Total value EUR	High EUR	Low EUR	Average* EUR	Last EUR
FORTUM	474,704,676	9,065,229,824	22.91	16.43	19.09	19.10

* Volume weighted average.

	31 December 2018	31 December 2017
Market capitalisation, EUR million	16,966	14,658
Number of shareholders	122,980	127,297
Finnish State holding, %	50.8	50.8
Nominee registrations and direct foreign shareholders, %	30.8	30.6
Households, %	9.5	10.2
Financial and insurance corporations, %	1.7	1.4
Other Finnish investors, %	7.3	7.0

In addition to Nasdaq Helsinki, Fortum shares were traded on several alternative market places, for example Boat, Cboe and Turquoise, and on the OTC market. In 2018, approximately 68% of Fortum's shares were traded on markets other than Nasdaq Helsinki.

On 31 December 2018, Fortum Corporation's share capital was EUR 3,046,185,953 and the total number of registered shares was 888,294,465. Fortum Corporation does not hold any of the company's own shares.

On 17 December 2018, Fortum's Board decided to cancel all 72,580 Fortum shares owned by the company without decreasing the share capital. The cancellation was entered in the Trade Register on 21 December 2018.

On 28 March 2018, 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 of 20,000,000 shares, which corresponds to approximately 2.25% of all the shares in the company. The authorisation will be effective until the next Annual General Meeting and, in any event, for a period no longer than 18 months.

Group personnel

Fortum's operations are mainly based in the Nordic countries, Russia, Poland and the Baltic Rim area. The total number of employees at the end of 2018 was 8,286 (8,785).

At the end of 2018, the Generation segment had 1,075 (1,035) employees, City Solutions 1,956 (1,907), Consumer Solutions 1,399 (1,543), Russia 2,941 (3,495), and Other Operations 915 (805).

Changes in Fortum's Management

On 29 August 2018, Fortum announced that Mr. Kari Kautinen, Senior Vice President, Solar & Wind Development and M&A, had resigned. He left Fortum at the end of September 2018.

On 3 September 2018, Fortum announced that Mr. Arun Aggarwal, M.Sc. (Eng.), 49, was appointed Senior Vice President, Business Technology and member of Fortum's Executive Management. This is a new position at Fortum. Mr. Aggarwal has Group-wide responsibility to lead Fortum's strategic IT, as well as digital innovation and transformation. He assumed this position in mid-October 2018 and reports to the President and CEO.

Annual General Meeting 2018

Fortum Corporation's Annual General Meeting, held in Helsinki on 28 March 2018, adopted the Financial Statements and the Consolidated Financial Statements for the financial period 1 January-31 December 2017 and discharged from liability the members of the Fortum Board of Directors and the President and CEO for the year 2017.

The Annual General Meeting decided to pay a dividend of EUR 1.10 per share for the financial year that ended on 31 December 2017. The record date for the dividend payment was 3 April 2018, and the dividend payment date was 10 April 2018.

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 is 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 is paid to all members. No fee is paid for decisions made without a separate meeting.

The Annual General Meeting also confirmed the number of members in the Board of Directors to be eight. Mr. Matti Lievonen was elected as Chairman, Mr. Klaus-Dieter Maubach as a new member and Deputy Chairman, Mr. Heinz-Werner Binzel, Ms. Eva Hamilton, Mr. Kim Ignatius, Ms. Anja McAlister, and Mr. Veli-Matti Reinikkala were re-elected as members, and Ms. Essimari Kairisto was elected as a new member.

In addition, Deloitte Oy was re-elected as auditor, with Authorised Public Accountant Ms. Reeta Virolainen as the principal auditor. The auditor's fee is paid pursuant to an invoice approved by the company.

The Annual General Meeting authorised 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. It was also decided that own shares could be repurchased or disposed of in connection with acquisitions, investments or other business transactions, or be retained or cancelled. The repurchases or disposals could not be made for the purposes of the company's incentive and remuneration schemes. The authorisation cancelled the authorisation resolved by the Annual General Meeting of 2017 and it will be effective until the next Annual General Meeting and, in any event, for a period of no longer than 18 months.

The Annual General Meeting decided on the following amendments to the Articles of Association of the company:

The first sentence of Art. 6 is amended in order to set the maximum number of members of the Board of Directors of the company at ten members instead of the current eight members, as follows: "The Board of Directors shall have a Chairman, a Deputy Chairman, and a minimum of three (3) and a maximum of eight (8) ordinary members who are elected at the General Meeting." Art. 6 is otherwise unchanged.

Due to the new Auditing Act (1141/2015), which entered into force on 1 January 2015, the reference to approval by the Central Chamber of Commerce set forth in the first sentence of Art. 11 shall be deleted and replaced with a reference to an auditing firm referred to in the Auditing Act, as follows: “The company shall have one regular auditor who must be an Auditing Firm referred to in the Auditing Act.” Art. 11 is otherwise unchanged.

Due to the amendment of the Limited Liability Companies Act that entered into force on 21 June 2017, the reference to Chapter 4, Section 2, Subsection 2 of the Finnish Limited Liability Companies Act set forth in the last sentence of Art. 12 shall be replaced with a reference to Chapter 5, Section 6 a of the Limited Liability Companies Act, as follows: “However, the notice of GM must in any event be delivered at least nine (9) days prior to the General Meeting Record Date referred to in Chapter 5, Section 6 a of the Finnish Limited Liability Companies Act.” Art. 12 is otherwise unchanged.

The Annual General Meeting of Fortum Corporation decided, in accordance with Chapter 3, Section 14 a (3) of the Finnish Companies Act, that the rights to all such shares entered in the Joint Account and to the rights attached to such shares that had not been requested to be registered in the book-entry system in accordance with Chapter 6, Section 3 of the Act on the Book-Entry System and Clearing Operations prior to the decision by the Annual General Meeting, are forfeited. In the merger of Länsivoima Oyj (former Lounais-Suomen Sähkö Oy) to Fortum Corporation in 2000, those shareholders of Länsivoima Oyj that had not produced their share certificates and had not requested their rights to be registered in the book-entry system, received their respective shares of Fortum Corporation as merger consideration to a joint book-entry account opened on their behalf (the “Joint Account”). In addition to the shares, the rights attached to such shares, such as undrawn dividends, are forfeited. The provisions applicable to treasury shares held by the company will apply to the forfeited shares.

At the meeting held after the Annual General Meeting, Fortum’s Board of Directors elected, from among its members, to the Nomination and Remuneration Committee Matti Lievonen as Chairman and Eva Hamilton, Klaus-Dieter Maubach and Anja McAlister as members.

Furthermore, the Board elected to the Audit and Risk Committee Kim Ignatius as Chairman and Heinz-Werner Binzel, Essimari Kairisto and Veli-Matti Reinikkala as members.

Shareholders' Nomination Board

On 5 October 2018, Mr. Kimmo Viertola, Director General, Prime Minister's Office, Ownership steering department (Chairman), Mr. Risto Murto, President and CEO, Varma Mutual Pension Insurance Company, and Mr. Jouko Pölönen, President and CEO, Ilmarinen Mutual Pension Insurance Company, were appointed to Fortum's Shareholders' Nomination Board. In addition, the Chairman of Fortum's Board of Directors, Mr. Matti Lievonen, is a member of the Shareholders' Nomination Board.

Other major events during the fourth quarter

The Board of Directors of Fortum Corporation has decided to commence the 2019-2021 long-term incentive (LTI) plan for key employees and executives. The 2019-2021 LTI plan is part of Fortum's ongoing LTI programme and follows the same principles as the previous plan. The performance measure applied to the 2019-2021 LTI plan will be based on the total shareholder return measured relative to the peer group comprising selected European utility companies. The 2019-2021 LTI plan will comprise approximately 130 participants, including the members of Fortum Executive Management.

Events after the balance sheet date

On 29 January 2019, Fortum's Shareholders' Nomination Board submitted its proposals to Fortum's Board of Directors for the 2019 Annual General Meeting concerning the number of the Board members, the members to be nominated to the Board of Directors, and the election of the Chairman and Deputy Chairman. The Shareholders' Nomination Board did not reach a unanimous proposal, and consequently did not make a proposal for the remuneration paid to the Board of Directors for their following term of office.

Dividend distribution proposal

The distributable funds of Fortum Corporation as at 31 December 2018 amounted to EUR 4,991,388,741.37 including the profit of the financial period 2018 of EUR 797,840,404.43. The company's liquidity is good and the dividend proposed by the Board of Directors will not compromise the company's liquidity.

The Board of Directors proposes to the Annual General Meeting that a dividend of EUR 1.10 per share be paid for 2018.

Based on the number of registered shares as at 31 January 2019, the total amount of dividend would be EUR 977,123,911.50. The Board of Directors proposes that the remaining part of the distributable funds be retained in the shareholders' equity.

Annual General Meeting 2019

Fortum's Annual General Meeting 2019 is planned to take place on 26 March 2019 at 11:00 a.m. EET at the Finlandia Hall, Mannerheimintie 13, Helsinki. The possible dividend-related dates planned for 2019 are:

- The ex-dividend date 27 March 2019
- The record date for dividend payment 28 March 2019
- The dividend payment date 4 April 2019

Espoo, 31 January 2019

Fortum Corporation
Board of Directors

Further information:

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The Board of Directors has approved Fortum's 2018 Financial Statements and Fortum's auditors have issued their unqualified Audit Report for 2018 on 31 January 2019. 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 2019

Fortum's Financial Statements and Operating and Financial Review for 2018 will be published during week 8 at the latest.

Fortum will publish three interim reports in 2019:

- January-March on 26 April 2019 at approximately 9:00 EEST
- January-June on 19 July 2019 at approximately 9:00 EEST
- January-September on 24 October 2019 at approximately 9:00 EEST

Distribution:

Nasdaq Helsinki
Key media
www.fortum.com

More information, including detailed quarterly information, is available on Fortum's website at www.fortum.com/investors

Condensed consolidated income statement

EUR million	Note	Q4 2018	Q4 2017	2018	2017
Sales	4	1,599	1,432	5,242	4,520
Other income		41	29	130	55
Materials and services		-870	-747	-2,795	-2,301
Employee benefits		-119	-122	-459	-423
Depreciation and amortisation	4,9,10	-139	-128	-536	-464
Other expenses		-178	-168	-594	-576
Comparable operating profit	4	**333**	**295**	**987**	**811**
Items affecting comparability		-24	20	151	347
Operating profit	4	**309**	**315**	**1,138**	**1,158**
Share of profit/loss of associates and joint ventures	4, 11	-44	34	38	148
Interest expense		-36	-42	-148	-164
Interest income		6	6	34	32
Fair value gains and losses on financial instruments		-5	-2	-8	-12
Other financial expenses - net		30	-10	-15	-50
Finance costs - net		-4	-49	-136	-195
Profit before income tax		**261**	**300**	**1,040**	**1,111**
Income tax expense	7	-64	-43	-181	-229
Profit for the period		**197**	**257**	**858**	**882**
Attributable to:					
Owners of the parent		192	244	843	866
Non-controlling interests		5	12	15	16
		197	**257**	**858**	**882**
Earnings per share for profit attributable to the equity owners of the company (EUR per share)					
Basic		**0.22**	0.28	**0.95**	0.98

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

EUR million	Note	Q4 2018	Q4 2017	2018	2017
Comparable operating profit		**333**	**295**	**987**	**811**
Impairment charges	4	-4	6	-4	6
Capital gains and other	4, 6	-1	8	102	326
Changes in fair values of derivatives hedging future cash flow	4	2	5	98	14
Nuclear fund adjustment	4, 14	-21	1	-45	1
Items affecting comparability		-24	20	151	347
Operating profit		**309**	**315**	**1,138**	**1,158**

See Definitions for key ratios

Condensed consolidated statement of comprehensive income

EUR million	Q4 2018	Q4 2017	2018	2017
Profit for the period	**197**	**257**	**858**	**882**
Other comprehensive income				
Items that may be reclassified to profit or loss in subsequent periods:				
Cash flow hedges				
Fair value gains/losses in the period [1)]	-300	0	-778	22
Transfers to income statement	11	18	15	76
Transfers to inventory/fixed assets	0	0	-2	-4
Deferred taxes	63	-3	162	-19
Net investment hedges				
Fair value gains/losses in the period	10	24	32	23
Deferred taxes	-2	-5	-6	-5
Exchange differences on translating foreign operations [2)]	-138	-169	-525	-372
Share of other comprehensive income of associates and joint ventures	-41	1	-37	-10
Other changes	0	9	0	-2
	-397	**-127**	**-1,141**	**-291**
Items that will not be reclassified to profit or loss in subsequent periods:				
Actuarial gains/losses on defined benefit plans	4	-26	3	-13
Actuarial gains/losses on defined benefit plans in associates and joint ventures	45	-6	43	6
	50	**-32**	**46**	**-7**
Other comprehensive income for the period, net of deferred taxes	**-347**	**-158**	**-1,094**	**-298**
Total comprehensive income for the period	**-150**	**98**	**-236**	**584**
Total comprehensive income attributable to				
Owners of the parent	-145	87	-239	571
Non-controlling interests	-5	12	3	13
	-150	**98**	**-236**	**584**

1) Fair valuation of cash flow hedges mainly relates to fair valuation of derivatives, such as futures and forwards, hedging electricity price for future transactions, where hedge accounting is applied. When electricity price is higher (lower) than the hedging price, the impact on equity is negative (positive).

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

Condensed consolidated balance sheet

EUR million	Note	Dec 31 2018	Dec 31 2017
ASSETS			
Non-current assets			
Intangible assets	9	1,087	1,064
Property, plant and equipment	10	9,981	10,510
Participations in associates and joint ventures	4, 11	5,978	1,900
Share in State Nuclear Waste Management Fund	14	899	858
Other non-current assets		139	140
Deferred tax assets		70	73
Derivative financial instruments	5	229	281
Long-term interest-bearing receivables	12	683	1,010
Total non-current assets		**19,065**	**15,835**
Current assets			
Inventories		233	216
Derivative financial instruments	5	326	240
Short-term interest-bearing receivables	12	409	395
Income tax receivables		172	172
Trade and other receivables		1,620	997
Deposits and securities (maturity over three months)		29	715
Cash and cash equivalents		556	3,182
Liquid funds	13	584	3,897
Total current assets		**3,344**	**5,918**
Total assets		**22,409**	**21,753**
EQUITY			
Equity attributable to owners of the parent			
Share capital		3,046	3,046
Share premium		73	73
Retained earnings		9,232	9,875
Other equity components		-510	54
Total		**11,841**	**13,048**
Non-controlling interests		**236**	**239**
Total equity		**12,077**	**13,287**
LIABILITIES			
Non-current liabilities			
Interest-bearing liabilities	13	5,007	4,119
Derivative financial instruments	5	362	214
Deferred tax liabilities		720	819
Nuclear provisions	14	899	858
Other provisions	15	91	100
Pension obligations		98	102
Other non-current liabilities		182	175
Total non-current liabilities		**7,358**	**6,388**
Current liabilities			
Interest-bearing liabilities	13	1,086	766
Derivative financial instruments	5	829	200
Trade and other payables		1,058	1,112
Total current liabilities		**2,973**	**2,078**
Total liabilities		**10,332**	**8,466**
Total equity and liabilities		**22,409**	**21,753**

Condensed consolidated statement of changes in total equity

EUR million	Share capital	Share premium	Retained earnings: Retained earnings	Retained earnings: Translation of foreign operations	Other equity components: Cash flow hedges	Other equity components: Other OCI items	Other equity components: OCI items associated companies and joint ventures	Owners of the parent	Non-controlling interests	Total equity
Total equity 31 December 2017	**3,046**	**73**	**12,062**	**-2,187**	**-40**	**70**	**24**	**13,048**	**239**	**13,287**
Impact from change in accounting principle (IFRS 9 and 15)			7					7		7
Total equity 1 January 2018	**3,046**	**73**	**12,069**	**-2,187**	**-40**	**70**	**24**	**13,055**	**239**	**13,295**
Net profit for the period			843					843	15	858
Translation differences				-519	0	1	-1	-518	-7	-525
Other comprehensive income			0		-599	28	6	-564	-5	-569
Total comprehensive income for the period			843	-519	-598	29	6	-239	3	-236
Cash dividend			-977					-977	-6	-983
Other			2					2	0	2
Total equity 31 December 2018	**3,046**	**73**	**11,937**	**-2,705**	**-638**	**99**	**30**	**11,841**	**236**	**12,077**
Total equity 31 December 2016	**3,046**	**73**	**12,186**	**-1,817**	**-115**	**58**	**27**	**13,459**	**84**	**13,542**
Net profit for the period			866					866	16	882
Translation differences				-369	1	1	-1	-369	-3	-372
Other comprehensive income			-9		74	11	-2	73	0	74
Total comprehensive income for the period			857	-369	75	11	-3	571	13	584
Cash dividend			-977					-977	-2	-979
Other			-4					-4	145	141
Total equity 31 December 2017	**3,046**	**73**	**12,062**	**-2,187**	**-40**	**70**	**24**	**13,048**	**239**	**13,287**

Translation differences

Translation differences impacted equity attributable to owners of the parent company with EUR -518 million during 2018 (2017: -369). 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 24 million during 2018 (2017: 28), 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 -598 million during 2018 (2017: 75), mainly relates to fair valuation of derivatives, such as futures and forwards, hedging electricity price for future transactions, where hedge accounting is applied. When electricity price is higher (lower) than the hedging price, the impact on equity is negative (positive).

Cash dividends

A dividend for 2017 was decided in the Annual General Meeting on 28 March 2018. See Note 8 Dividend per share.

Non-controlling interests

Non-controlling interests increased with EUR 155 million during 2017 mainly due to the acquisition of Fortum Oslo Varme AS which is consolidated as a subsidiary with 50% non-controlling interest. See also Note 6 Acquisitions and disposals.

Condensed consolidated cash flow statement

EUR million	Note	Q4 2018	Q4 2017	2018	2017
Cash flow from operating activities					
Profit for the period		**197**	**257**	**858**	**882**
Adjustments:					
Income tax expenses	7	64	43	181	229
Finance costs - net		4	49	136	195
Share of profit of associates and joint ventures	11	44	-34	-38	-148
Depreciation and amortisation	9, 10	139	128	536	464
Operating profit before depreciations (EBITDA)		**449**	**444**	**1,674**	**1,623**
Items affecting comparability	4	24	-20	-151	-347
Comparable EBITDA		**473**	**424**	**1,523**	**1,275**
Non-cash flow items		-22	-21	-90	-76
Interest received		5	7	23	35
Interest paid		-16	-38	-171	-187
Dividends received		7	0	61	58
Realised foreign exchange gains and losses		26	-12	231	-83
Income taxes paid		-25	-11	-94	-83
Other items		-4	-8	-9	-28
Funds from operations		**444**	**340**	**1,474**	**912**
Change in working capital		-406	-45	-670	81
Net cash from operating activities		**38**	**295**	**804**	**993**
Cash flow from investing activities					
Capital expenditures	9, 10	-185	-187	-579	-657
Acquisitions of shares	6	-175	-44	-4,088	-972
Proceeds from sales of fixed assets	9, 10	2	1	38	8
Divestments of shares	6	2	1	259	741
Shareholder loans to associated companies and joint ventures	12	5	7	-24	43
Change in cash collaterals and restricted cash	12	51	21	-36	-3
Change in other interest-bearing receivables	12	8	5	31	34
Net cash from investing activities		**-292**	**-195**	**-4,398**	**-807**
Cash flow before financing activities		**-254**	**99**	**-3,594**	**187**
Cash flow from financing activities					
Proceeds from long-term liabilities	13	0	0	1,764	35
Payments of long-term liabilities	13	-33	-76	-586	-543
Change in short-term liabilities	13	157	0	135	68
Dividends paid to the owners of the parent	8	0	0	-977	-977
Other financing items		0	-4	-9	-12
Net cash used in financing activities		**124**	**-80**	**326**	**-1,428**
Net increase(+)/decrease(-) in liquid funds		**-130**	**19**	**-3,268**	**-1,241**
Liquid funds at the beginning of the period [1)]	13	**731**	**3,877**	**3,896**	**5,155**
Foreign exchange differences in liquid funds		-16	1	-43	-16
Liquid funds at the end of the period	13	**584**	**3,897**	**584**	**3,897**

1) Opening balance 1 January 2018 adjusted EUR -1 million due to adoption of IFRS 9, see Note 2.1 Adoption of new IFRS standards.

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

Change in working capital

EUR million	Q4 2018	Q4 2017	2018	2017
Change in settlements for futures, decrease(+)/increase(-)	-226	17	-524	141
Change in interest-free receivables, decrease(+)/increase(-)	-379	-263	-186	-94
Change in inventories, decrease(+)/increase(-)	22	17	-3	19
Change in interest-free liabilities, decrease(-)/increase(+)	177	183	43	15
Total	**-406**	**-45**	**-670**	**81**

In Fortum's cash flow statement the daily cash settlements for futures are shown as change in working capital whereas the changes in cash collaterals for forwards are included in cash flow from investing activities. The daily cash settlements are included in trade and other receivables and the cash collaterals are included in the short-term interest-bearing receivables, see Note 12.

Capital expenditure in cash flow

EUR million	Q4 2018	Q4 2017	2018	2017
Capital expenditure	200	208	584	690
Change in not yet paid investments, decrease(+)/increase(-)	-11	-17	5	-17
Capitalised borrowing costs	-3	-4	-10	-16
Total	**185**	**187**	**579**	**657**

Capital expenditures for intangible assets and property, plant and equipment were in 2018 EUR 584 million (2017: 690). Capital expenditure in cash flow in 2018 EUR 579 million (2017: 657) is including payments related to capital expenditure made in previous year i.e. change in trade payables related to investments EUR 5 million (2017: -17) and excluding capitalised borrowing costs EUR -10 million (2017: -16), which are presented in interest paid.

Acquisition of shares in cash flow

Acquisition of shares, net of cash acquired, amounted to EUR 4,088 million during 2018 (2017: 972). Acquisition of shares during Q4 2018 include mainly the acquisition of shares in Uniper SE and the metal recycling business in Fincumet Group. For additional information, see note 6 Acquisitions and disposals.

Divestment of shares in cash flow

EUR million	Q4 2018	Q4 2017	2018	2017
Proceeds from sales of subsidiaries, net of cash disposed	0	1	88	54
Proceeds from sales of associates and joint ventures	2	0	171	687
Total	**2**	**1**	**259**	**741**

During Q4 2018 there were no material divestments. For further information, see note 6 Acquisitions and disposals.

Capital structure and key figures

Fortum updated its strategy and reconfirmed the dividend policy and long-term financial targets in November 2018. Financial targets give guidance on Fortum's view of the company's long-term value creation potential, its growth strategy and business activities. The long-term over-the-cycle financial targets are Return on capital employed, ROCE at least 10% and Comparable net debt to EBITDA around 2.5 times.

Change in net debt

EUR million	Q4 2018	Q4 2017	2018	2017
Net debt, beginning of the period	**5,244**	**1,075**	**988**	**-48**
Impact from change in accounting principle (IFRS 9)			1	
Foreign exchange rate differences	6	-12	15	-15
Comparable EBITDA	473	424	1,523	1,275
Non-cash flow items	-22	-21	-90	-76
Paid net financial costs	21	-46	138	-199
Income taxes paid	-25	-11	-94	-83
Change in working capital	-406	-45	-670	81
Capital expenditures	-185	-187	-579	-657
Acquisitions	-175	-44	-4,088	-972
Divestments	3	2	298	749
Shareholder loans to associated companies	5	7	-24	43
Change in other interest-bearing receivables	59	26	-5	31
Dividends	0	0	-977	-977
Other financing activities	-4	-9	-12	-17
Net cash flow (- increase in net debt)	-254	95	-4,580	-802
Fair value change of bonds, amortised cost valuation, acquired debt and other changes	5	20	-75	248
Net debt, end of the period	**5,509**	**988**	**5,509**	**988**

Comparable Net debt/EBITDA ratio

EUR million	2018	2017
Interest-bearing liabilities	6,093	4,885
- Liquid funds [1)]	584	3,897
Net debt	**5,509**	**988**
Operating profit	1,138	1,158
+ Depreciation and amortisation	536	464
EBITDA	**1,674**	**1,623**
- Items affecting comparability	151	347
Comparable EBITDA	**1,523**	**1,275**
Comparable net debt/EBITDA	**3.6**	**0.8**

1) Net debt is calculated as interest-bearing liabilities minus liquid funds without deducting interest-bearing receivables amounting to EUR 1,092 million (Dec 31 2017: 1,406).

Return on capital employed, %

EUR million	2018	2017
Profit before income tax	**1,040**	**1,111**
Interest expenses	148	164
Other financial expenses [1)]	26	25
+Interest and other financial expenses	**174**	**189**
Profit before taxes + interest and other financial expenses	**1,214**	**1,300**
1) Other financial expenses as disclosed in note 11 Finance costs-net in Financial statements 2017		
Capital employed		
Total assets	**22,409**	**21,753**
Total liabilities	10,332	8,466
- Interest-bearing liabilities	6,093	4,885
- Total interest-free liabilities	**4,239**	**3,581**
Capital employed	**18,170**	**18,172**
Capital employd at the end of previous period	**18,172**	**18,649**
Average capital employed	**18,171**	**18,411**
Return on capital employed, %	**6.7 %**	**7.1 %**

Key ratios

Definition of key figures are presented in Note 22.

	Dec 31 2018	Dec 31 2017
Comparable EBITDA, EUR million	1,523	1,275
Earnings per share (basic), EUR	0.95	0.98
Capital employed, EUR million	18,170	18,172
Interest-bearing net debt, EUR million	5,509	988
Capital expenditure and gross investments in shares, EUR million	4,672	1,815
Capital expenditure, EUR million	584	690
Return on capital employed, %	6.7	7.1
Return on shareholders' equity, %	6.8	6.6
Comparable net debt / EBITDA	3.6	0.8
Interest coverage	10.0	8.7
Interest coverage including capitalised borrowing costs	9.2	7.8
Funds from operations/interest-bearing net debt, %	26.8	83.9
Gearing, %	46	7
Equity per share, EUR	13.33	14.69
Equity-to-assets ratio, %	54	61
Number of employees	8,286	8,785
Average number of employees	8,767	8,507
Average number of shares, 1,000 shares	888,312	888,367
Diluted adjusted average number of shares, 1,000 shares	888,312	888,367
Number of registered shares, 1,000 shares [1)]	888,294	888,367
Number of registered shares excluding treasury shares, 1,000 shares	888,294	888,367

1) On 17 December 2018, Board of Directors decided to cancel all 72,580 treasury shares owned by the company without decreasing the share capital. The cancellation was entered in the Trade Register on 21 December 2018.

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 2017.

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.

According to the ESMA Guidelines on Alternative Performance Measures, an Alternative Performance Measure (APM) is understood as a financial measure of historical or future financial performance, financial position, or cash flows, other than a financial measure defined or specified in the applicable financial reporting framework.

Fortum uses Alternative performance measures (APMs) in the financial target setting and forecasting, management's follow up of financial performance of segments and the group as well as allocation of resources in the group's performance management process. The business performance of the operations cannot be compared from one period to another without adjusting for items affecting comparability and therefore they are excluded from Comparable operating profit and Comparable EBITDA. The main business performance measurements have been used consistently since 2005.

Fortum's financial targets for capital structure and long-term value creation and profitability are measured with Comparable net debt to EBITDA (long-term over-the-cycle target: around 2.5 times) and Return on capital employed, (long-term over-the-cycle target: at least 10%).

Definitions and reconciliation tables are presented in the section 'Capital structure and key figures' after cash flow statement and in Note 22.

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 2017 except for the two new IFRS standards (IFRS 9 Financial instruments and IFRS 15 Revenue from contracts with customers) that were adopted 1 January 2018. Other standards effective from 1 January 2018 do not have a material impact on Fortum's financial statements.

2.1 Adoption of the new IFRS standards

IFRS 9 Financial Instruments -standard has been adopted as of 1 January 2018. The standard has new requirements for the classification and measurement of financial assets and liabilities, hedge accounting and impairment of financial assets. Fortum has applied the new rules retrospectively, but utilises the transition relief for not restating the comparative figures and thus the transition effect is recognised as an adjustment to the retained earnings as of 1 January 2018. Changes to hedge accounting requirements are however implemented prospectively and have no impact on the prior year figures nor presentation.

IFRS 15 Revenue from Contracts with Customers introduces a comprehensive five-step model for recognising revenue. As a result of applying the five steps, revenue will be recognised when goods are transferred or services performed at the price that the company expects to be entitled to. Fortum has adopted the new standard from 1 January 2018 onwards by applying the modified retrospective approach, which means that comparative information from 2017 is not restated. In the modified retrospective approach the cumulative effect of transition is booked as an adjustment to the retained earnings as of 1 January 2018.

The following table presents the impact of applying IFRS 9 and 15 to the opening balance sheet as of 1 January 2018:

EUR million	1 Jan 2018 (IAS 39 and 18)	Change in hedge accounting status	Change of measurement basis	Remea-surement	Capitalisation of sales commi-ssions	Other	1 Jan 2018 (IFRS 9 and 15)
ASSETS							
Intangible assets	1,064				20		1,084
Participations in associates and joint ventures	1,900					165	2,066
Long-term interest-bearing receivables							
Measured at amortised cost	969		-77	-2		-145	746
Measured at fair value through profit and loss			77	-2			75
Other non-current assets	11,902				-5	-20	11,877
Total non-current assets	**15,835**	**0**	**0**	**-3**	**15**	**1**	**15,848**
Derivative financial instruments							
Cash flow hedges	106	14					121
Non-hedge accounting	134	-14					120
Short-term interest-bearing receivables							
Measured at amortised cost	395		-32				363
Measured at fair value through profit and loss			32				32
Other current assets	5,282				-3		5,279
Total current assets	**5,918**	**0**	**0**	**0**	**-3**	**0**	**5,915**
Total assets	**21,753**	**0**	**0**	**-3**	**12**	**1**	**21,763**
EQUITY							
Total equity	**13,287**	**0**	**0**	**-3**	**10**	**1**	**13,295**
LIABILITIES							
Derivative financial instruments							
Cash flow and fair value hedges	68	70					138
Non-hedge accounting	146	-70					76
Other non-current liabilities	6,174				3		6,176
Total non-current liabilities	**6,388**	**0**	**0**	**0**	**3**	**0**	**6,390**
Derivative financial instruments							
Cash flow hedges	44	82					126
Non-hedge accounting	156	-82					74
Other current liabilities	1,879						1,879
Total current liabilities	**2,078**	**0**	**0**	**0**	**0**	**0**	**2,078**
Total liabilities	**8,466**	**0**	**0**	**0**	**3**	**0**	**8,469**
Total equity and liabilities	**21,753**	**0**	**0**	**-3**	**12**	**1**	**21,763**

2.2 IFRS 9 - Transition impacts

Hedging

IFRS 9 simplifies the hedge accounting requirements and aligns them with the company's risk management strategy and objectives. This have had the biggest impact on Fortum's electricity price risk hedging, as majority of the non-hedge accounted electricity derivatives qualified for hedge accounting under IFRS 9. Fortum's profit and loss volatility from commodity derivatives hedging future cash flows is reduced as all fair value changes of the hedge accounted commodity derivatives are fully recognised in other comprehensive income. Income statement volatility is reduced gradually due to prospective implementation.

All Fortum's derivatives (electricity, currency and interest rate) that have qualified for hedge accounting under IAS 39 continued to do so also under IFRS 9. In addition the electricity system price products that have previously failed to meet the rule-based criteria of IAS 39 have qualified for hedge accounting under IFRS 9. The new possibility in IFRS 9 to apply hedge accounting for one or several risk components, separately or in aggregation, has allowed Fortum to expand the scope of hedge accounting to electricity price area differential (EPAD) commodity derivatives and FX derivatives, both of them being perfect hedges for corresponding electricity price risk components.

The implementation of new ECL models resulted in minor increase in bad debt provision, that was recognised as an adjustment of EUR 3 million (net of tax) in the retained earnings as of 1 January 2018. Future impacts will fluctuate due to seasonality and the amount of the trade receivables.

Impairment
The new impairment requirements are based on an expected credit loss (“ECL”) model and replaced the incurred loss model of IAS 39. The new impairment model covers financial assets such as trade receivables, loan receivables and liquid funds. The monetary impact of the change has been minor.

Classification and measurement
Most of Fortum’s financial assets such as interest bearing receivables and liquid funds are classified under "Held-to-Collect" business model. These assets are measured at Amortised cost as they meet the SPPI criteria (contractual terms define solely payments of principal and interest on specified dates). When the SPPI criteria is not met, financial assets are classified to Fair value through profit or loss-category. Reclassification of financial assets into the IFRS 9 categories had no impact on their respective measurement basis and therefore no adjustment to retained earnings as of 1 January 2018 was recognised.

Certain investments (shareholder loan to Teollisuuden Voima Oyj, EUR 145 million, and shareholding in Lapin Sähkövoima Oy, EUR 20 million) have been reclassified as Participation in associated company and joint venture.

Impacts to the 2018 classifications are presented below:

	Measument category	
	IAS 39	IFRS 9
ASSETS		
Loan receivables	Amortised cost	Amortised cost or fair value through profit and loss
Other financial assets	Available-for-sale financial assets	Fair value through other comprehensive income
Deposits and securities	Available-for-sale financial assets	Amortised cost

2.3 Accounting policies according to IFRS 9

Hedging
Fortum documents the relationship between hedging instruments and hedged items, as well as its risk management objective and hedge strategy. Fortum also documents its assessment, both at hedge inception and on an ongoing basis, of whether the derivatives that are used in hedging transactions are meeting the following hedge effectiveness criteria:
• There is an economic relationship between the hedged item and the hedging instrument;
• The effect of credit risk does not dominate the value changes that result from that economic relationship; and
• The hedge ratio of the hedging relationship is the same as that resulting from the quantity of the hedged item that the Group actually hedges and the quantity of the hedging instrument that the Group actually uses to hedge that quantity of hedged item.

Hedge accounting is discontinued only when the hedging relationship ceases to meet the hedge effectiveness criteria.

Impairment
Fortum recognises the loss allowance for expected credit losses on financial asset classified to amortised cost category at each reporting date. Loss allowances are recognised for loan receivables, trade receivables and liquid funds. If the credit risk on the financial asset has not increased significantly since the initial recognition, loss allowance equals to 12 month expected credit losses. If the credit risk on the financial asset has increased significantly since initial recognition, loss allowance equals to the lifetime expected credit losses. No impairment loss is recognised on cash at bank and in hand nor cash collaterals.

Classification and measurement
Measurement category is driven by the entity’s business model for managing financial assets and their contractual cash flow characteristics. Fortum classifies its financial assets in the following categories:

Measurement category	Business model
Amortised cost	Objective is to hold financial assets in order to collect contractual cash flows and the SPPI criteria is met
Fair value through other comprehensive income	Objective is to collect contractual cash flows and sell financial assets and the SPPI criteria is met
Fair value through profit and loss	Business models with other objectives as well as financial assets that do not meet the SPPI criteria.

2.4 IFRS 15 - Transition impacts
IFRS 15 transition did not have a significant impact to Fortum's financial statements. The biggest change relates to treatment of sales commission costs for obtaining customers in Consumer Solutions segment. Under IFRS 15 the sales commissions are capitalised and depreciated over the expected contract term. Before adoption of IFRS 15 the sales commissions were mostly expensed and the adoption of the new accounting standard thus impacts the timing and classification of sales commission expenses. The change is mainly impacting Comparable EBITDA and capital expenditure of Consumer Solutions segment.

In addition to the changed treatment of sales commissions, there are certain reclassification changes in income statement and balance sheet, which mostly arise from IFRS 15 scope and principal versus agent considerations.

Impact to income statement and balance sheet is presented below:

Impact to income statement EUR million	Q4 2018 without IFRS 15	Sales com-missions	Reclassi-fications	Q4 2018 as reported	2018 without IFRS 15	Sales com-missions	Reclassi-fications	2018 as reported
Sales	1,712	0	-113	1,599	5,590		-348	5,242
Other income	33	0	8	41	101		29	130
Materials and services	-976	0	106	-870	-3,114		319	-2,795
Depreciation and amortisation	-131	-8	0	-139	-505	-31		-536
Other expenses	-187	9	0	-178	-626	32		-594
Comparable operating profit	**332**	**1**	**0**	**333**	**986**	**1**	**0**	**987**
Income tax expense	-64	0	0	-64	-181	0		-181
Profit for the period	**196**	**1**	**0**	**197**	**857**	**1**	**0**	**858**
Comparable EBITDA	**463**	**9**	**0**	**473**	**1,491**	**32**	**0**	**1,523**

Impact to balance sheet EUR million	December 31 2018 without IFRS 15	Sales com-missions	Reclassi-fications	December 31 2018 as reported
Intangible assets	1,062	25		1,087
Other non-current assets	147	-8		139
Inventories	225		8	233
Trade and other receivables	1,632	-4	-8	1,620
Total assets	**22,395**	**14**	**0**	**22,409**
Retained earnings	9,221	11	0	9,232
Deferred tax liabilities	722	-2		720
Trade and other payables	1,053	5		1,058
Total equity and liabilities	**22,395**	**14**	**0**	**22,409**

2.5 Accounting policies according to IFRS 15

Revenue is recognised when goods are transferred or services are performed, i.e. when (or as) a performance obligation is satisfied and control of the good or service underlying the particular performance obligations is transferred to the customer. Revenue is shown at the price that Fortum expects to be entitled to and is presented net of rebates, discounts, value-added tax and selective taxes such as electricity tax. The accounting policies for the different revenue streams are described below.

Power sales to wholesale markets

Physical electricity trades to Nord Pool or to other wholesale markets are made either during the same day or day before the delivery and the duration of the contract is thus very short. The transaction price is the spot price and there are no variable elements. Electricity sales are recognised upon delivery at the price defined in Nordpool or in other wholesale market. When Fortum is acting as an agent in the power trades by granting access to the Nord Pool power trading system, Fortum presents the bilateral trades between Fortum and the customer on a net basis, and only the fee from the service is recorded as revenue.

Power sales to retail customers

Fortum’s contracts with the consumer and business customers cover the electricity sales, while the distribution service is delivered by the transmission company operating the local network. There is only one performance obligation, which is to stand-ready to supply electricity to the customer. The transaction price generally includes both a fixed monthly fee and a variable fee that depends on the volume of electricity supplied. As Fortum's promise is to stand ready to deliver electricity, the fixed and variable components are recognised based on the fees chargeable from the customer. If automated meter reading is not available, the electricity consumption between the last meter reading and end of the month is estimated.

Heating sales

In many areas the district heating service covers both the distribution and sale of heat. Even if heat is produced by a third party, Fortum is usually responsible for delivering the whole service and is acting as a principal for the heat sales as well. Fortum has concluded that the distribution and sale of heat are not separate performance obligations and are both covered by the promise to stand-ready to supply heat to the customer. The fees charged from the customer generally comprise a fixed monthly charge and a variable component that is determined based on the volume of heat supplied. In accordance with the IFRS 15 principles, the fixed charge and the variable heat volume charge are allocated and recognised in line with the fees chargeable from the customer. In Russia, Baltics and Poland there are also areas, where Fortum operates only the heat production facilities while some third party is responsible for the distribution of heat. In these areas the performance obligation is to supply heat and revenue is recognised based on the volume of heat that Fortum is entitled to charge from the customer.

Waste treatment sales
A majority of the revenues from waste management services arises from the fees charged for receiving the waste from customers (i.e. gate fees). The fee is usually determined based on the volume of waste received and there are no variable elements in the pricing. Fortum is required to treat the waste and this performance obligation is satisfied when the treatment is performed. Transportation of the waste forms another performance obligation. The fees for waste treatment and transportation services are separately agreed in the contract and correspond to the price that would be charged for these services separately. Revenue for transportation service is recognised when service is provided.

Waste treatment business sales includes also various types of soil and landfill site projects which mostly take place at the customer site. The fees charged from the customers are invoiced based on payment schedules agreed with the customer. The customer obtains the benefits of the construction work simultaneously when the construction work proceeds and therefore the projects are recognised over time. The progress of the construction is best measured through the costs incurred or the completed area of the construction site.

Costs for obtaining customers
Incremental costs for obtaining new customers as well as renewing existing customer contracts in Consumer Solutions division are capitalised as intangible assets and amortised over the expected contract duration.

2.6 IFRS 16 Leases
IFRS 16 Leases is effective for financial periods starting on 1 January 2019. Currently under IAS 17, lessees recognise leases either as operating leases or finance leases. The new standard no longer distinguishes between operating and finance leases from a lessees point of view, and most right-of-use assets are recognised in the balance sheet. For lessors, there are no significant changes. In brief, IFRS 16 requirements contain the following:
• A lessee shall recognise all leases, except for short-term and low value leases, in the balance sheet.
• For lessees, both the value of the right-of-use asset and the corresponding liability shall be recognised in the balance sheet.

Fortum has assessed the impact of the new standard to its statement of financial position. Assessment has included:
• Reviewing current lease contracts reported as operating lease commitments
• Going through supplier lists and identifying potential lease arrangements
• Determining incremental borrowing rates
• Calculation of accounting impacts
• Implementing and integrating the new IFRS 16 software

Contracts have been gathered and reviewed. No material new leases have been identified. Majority of the current operating leases are for the use of land and office buildings.

Fortum will apply the standard using the modified retrospective method, which means the comparative figures will not be restated. Right-of-use assets will be initially recognised equal to the value of lease liabilities, adjusted by the amount of any prepaid or accrued lease payments relating to that lease recognised in the balance sheet before the initial application. In addition, Fortum will apply the exemption of not recognising short-term leases and leases of low-value assets in the balance sheet.

The implementation of IFRS 16 will add right-of-use assets and corresponding lease liabilities approximately EUR 100 million. The impact to the consolidated statement of income will not be material. Further details on the impact will be disclosed in the Q1/2019 interim report.

2.7 Other new standards from January 2019 or later
IFRIC 23 Uncertainty over Income Tax Treatment interpretation is effective for financial periods starting on 1 January 2019. IFRIC 23 specifies how to reflect uncertainty in accounting for income taxes. The systemically identified positions are analysed based on facts, circumstances, existing tax rules, court praxis, expert statements and tax authority policy statements. Based on the analysis Fortum does not expect that the interpretation will have any material effect on Fortum's financial statements.

Other new standards issued by the balance sheet date and effective from 1 January 2019 or later do not have a material impact on Fortum's financial statements.

2.8 The key exchange rates applied in the Fortum Group accounts

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 month's 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 2018	Jan-Sept 2018	Jan-June 2018	Jan-Mar 2018	Jan-Dec 2017	Jan-Sept 2017	Jan-June 2017	Jan-Mar 2017
Sweden (SEK)	10.2591	10.2392	10.1722	9.9962	9.6392	9.5803	9.5900	9.5257
Norway (NOK)	9.6432	9.6121	9.6294	9.6737	9.3497	9.2343	9.1923	9.0030
Poland (PLN)	4.2614	4.2467	4.2316	4.1790	4.2556	4.2707	4.2707	4.3189
Russia (RUB)	73.8035	72.9249	71.5430	69.7770	66.0349	65.1995	63.4507	62.6996

Balance sheet date rate	Dec 31 2018	Sept 30 2018	June 30 2018	Mar 31 2018	Dec 31 2017	Sept 30 2017	June 30 2017	Mar 31 2017
Sweden (SEK)	10.2548	10.3090	10.4530	10.2843	9.8438	9.6490	9.6398	9.5322
Norway (NOK)	9.9483	9.4665	9.5115	9.6770	9.8403	9.4125	9.5713	9.1683
Poland (PLN)	4.3014	4.2774	4.3732	4.2106	4.1770	4.3042	4.2259	4.2265
Russia (RUB)	79.7153	76.1422	73.1582	70.8897	69.3920	68.2519	67.5449	60.3130

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 2017.

4. Segment information

Fortum's reportable segments under IFRS are Generation, City Solutions, Consumer Solutions and Russia. Fortum's investment in M&A and Solar & Wind Development, Technology and New Ventures as well as corporate functions are reported under Other Operations. Fortum's participation in Uniper SE is also reported as part of Other Operations.

In November 2018, Fortum announced that the solar and wind businesses were reorganised and the wind operations became a business area within the Generation division and the solar operations within the City Solutions division. The Russian wind and solar operations continue as a part of the Russia division. The management and segment reporting will be changed from 2019 onwards and 2018 figures will be restated accordingly.

Quarter		Generation[1]		City Solutions[1]		Consumer Solutions		Russia		Other Operations		Total	
EUR million	Note	Q4 2018	Q4 2017	Q4 2018	Q4 2017	Q4 2018	Q4 2017	Q4 2018	Q4 2017	Q4 2018	Q4 2017	Q4 2018	Q4 2017
Income statement data by segment													
Power sales [3]		514	428	50	34	502	381	237	226	3	5	1,306	1,074
Heat sales		0	0	193	194	0	0	65	87	0	0	258	281
Waste treatment sales		0	0	62	59	0	0	0	0	0	0	62	59
Other sales		41	6	53	54	53	72	3	1	31	25	182	157
Sales		**555**	**433**	**358**	**340**	**555**	**453**	**305**	**314**	**34**	**30**	**1,808**	**1,570**
Internal eliminations		-11	-3	-12	-11	-8	-2	0	0	-22	-19	-52	-34
Netting of Nord Pool transactions [2]												-157	-103
External sales		545	431	347	330	547	451	305	314	13	10	1,599	1,432
Comparable EBITDA		**224**	**191**	**113**	**110**	**31**	**25**	**127**	**121**	**-24**	**-23**	**473**	**424**
Depreciation and amortisation		-35	-31	-45	-48	-15	-7	-38	-37	-6	-5	-139	-128
Comparable operating profit		**189**	**160**	**68**	**61**	**17**	**18**	**89**	**84**	**-30**	**-28**	**333**	**295**
Impairment charges		-4	6	0	0	0	0	0	0	0	0	-4	6
Capital gains and other	6	0	0	0	0	0	0	1	0	-2	7	-1	8
Changes in fair values of derivatives hedging future cash-flow		21	-4	-12	3	-5	7	0	0	0	0	2	5
Nuclear fund adjustment	14	-21	1	0	0	0	0	0	0	0	0	-21	1
Items affecting comparability		-5	2	-12	3	-5	7	1	0	-2	7	-24	20
Operating profit		**184**	**163**	**56**	**64**	**11**	**25**	**90**	**85**	**-32**	**-21**	**309**	**315**
Share of profit/loss of associates and joint ventures	11	-67	1	24	31	0	0	0	4	-1	-1	-44	34
Finance costs - net												-4	-49
Income taxes	7											-64	-43
Profit for the period												**197**	**257**
Gross investments / divestments by segment													
Gross investments in shares	6	4	2	17	1	0	0	42	120	104	0	167	123
Capital expenditure	9, 10	67	53	62	68	14	3	24	47	33	36	200	208
of which capitalised borrowing costs		1	1	1	1	0	0	0	0	1	2	3	4
Gross divestments of shares	6	0	0	0	0	0	1	0	0	0	0	0	1

Year-to-date		Generation[1]		City Solutions[1]		Consumer Solutions		Russia		Other Operations		Total	
EUR million	Note	2018	2017	2018	2017	2018	2017	2018	2017	2018	2017	2018	2017
Income statement data by segment													
Power sales [3]		1,767	1,649	119	121	1,547	862	872	837	26	15	4,331	3,483
Heat sales		0	0	604	523	0	0	193	258	0	0	797	782
Waste treatment sales		0	0	211	195	0	0	0	0	0	0	211	195
Other sales		70	28	161	175	212	235	4	6	102	87	549	531
Sales		**1,837**	**1,677**	**1,094**	**1,015**	**1,759**	**1,097**	**1,069**	**1,101**	**129**	**102**	**5,888**	**4,991**
Internal eliminations		-2	-15	-37	-19	-11	-3	0	0	-80	-67	-130	-103
Netting of Nord Pool transactions [2]												-516	-367
External sales		1,835	1,662	1,057	996	1,748	1,094	1,069	1,101	49	35	5,242	4,520
Comparable EBITDA		**762**	**603**	**284**	**262**	**110**	**57**	**417**	**438**	**-50**	**-83**	**1,523**	**1,275**
Depreciation and amortisation		-131	-125	-171	-163	-57	-16	-147	-142	-30	-18	-536	-464
Comparable operating profit		**631**	**478**	**113**	**98**	**53**	**41**	**271**	**296**	**-79**	**-102**	**987**	**811**
Impairment charges		-4	6	0	0	0	0	0	0	0	0	-4	6
Capital gains and other	6	77	1	0	1	0	2	2	0	23	322	102	326
Changes in fair values of derivatives hedging future cash-flow		79	15	-4	3	22	-4	0	0	0	0	98	14
Nuclear fund adjustment	14	-45	1	0	0	0	0	0	0	0	0	-45	1
Items affecting comparability		108	23	-4	4	22	-2	2	0	23	322	151	347
Operating profit		**738**	**501**	**109**	**102**	**75**	**39**	**273**	**295**	**-57**	**221**	**1,138**	**1,158**
Share of profit/loss of associates and joint ventures	11	-72	-1	74	80	0	0	36	31	0	38	38	148
Finance costs - net												-136	-195
Income taxes	7											-181	-229
Profit for the period												**858**	**882**
Gross investments / divestments by segment													
Gross investments in shares	6	8	90	32	386	0	486	63	125	3,985	39	4,088	1,125
Capital expenditure	9, 10	186	174	190	170	47	7	54	152	108	187	584	690
of which capitalised borrowing costs		3	3	4	2	0	0	0	7	3	4	10	16
Gross divestments of shares	6	160	0	0	0	0	55	0	0	147	687	306	742

1) Sales, both internal and external, include effects from realised hedging contracts. Effect on sales can be negative or positive depending on the difference between average contract price and realised spot price.
2) 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.
3) Power sales contains realised result from commodity derivatives, which have not had hedge accounting status under IFRS 9, but have been considered operatively as hedges.

4. Segment information

Segment assets and liabilities

EUR million	Note	Generation Dec 31 2018	Generation Dec 31 2017	City Solutions Dec 31 2018	City Solutions Dec 31 2017	Consumer Solutions Dec 31 2018	Consumer Solutions Dec 31 2017	Russia Dec 31 2018	Russia Dec 31 2017	Other Operations Dec 31 2018	Other Operations Dec 31 2017	Total Dec 31 2018	Total Dec 31 2017
Non-interest bearing assets		**6,669**	**6,097**	**3,555**	**3,517**	**1,044**	**923**	**2,408**	**2,812**	**395**	**452**	**14,072**	**13,801**
Participations in associated companies and joint ventures	11	846	785	613	611	0	0	495	472	4,024	32	5,978	1,900
Eliminations												-117	-19
Total segment assets		**7,515**	**6,882**	**4,168**	**4,128**	**1,044**	**923**	**2,903**	**3,284**	**4,419**	**483**	**19,933**	**15,682**
Interest-bearing receivables	12											1,092	1,406
Deferred tax assets												70	73
Other assets												731	696
Liquid funds												584	3,897
Total assets												**22,409**	**21,753**
Segment liabilities		**1,220**	**1,210**	**425**	**400**	**396**	**285**	**114**	**124**	**155**	**207**	**2,311**	**2,227**
Eliminations												-117	-19
Total segment liabilities												**2,194**	**2,208**
Deferred tax liabilities												720	819
Other liabilities												1,325	554
Total liabilities included in capital employed												**4,239**	**3,581**
Interest-bearing liabilities	13											6,093	4,885
Total equity												12,077	13,287
Total equity and liabilities												**22,409**	**21,753**
Number of employees		1,075	1,035	1,956	1,907	1,399	1,543	2,941	3,495	915	805	8,286	8,785
Average number of employees [1)]		1,087	1,036	1,940	1,807	1,473	1,180	3,378	3,710	888	774	8,767	8,507

1) 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 assets

EUR million	Note	Generation Dec 31 2018	Generation Dec 31 2017	City Solutions Dec 31 2018	City Solutions Dec 31 2017	Consumer Solutions Dec 31 2018	Consumer Solutions Dec 31 2017	Russia Dec 31 2018	Russia Dec 31 2017	Other Operations Dec 31 2018	Other Operations Dec 31 2017
Comparable operating profit		**631**	**478**	**113**	**98**	**53**	**41**	**271**	**296**	**-79**	**-102**
Share of profit of associated companies and joint ventures	11	-72	-1	74	80	0	0	36	31	0	38
Adjustment for Share of profit of associated companies and joint ventures		94	0	0	0	0	0	0	0	-38	0
Comparable operating profit including share of profits from associates and joint ventures		**653**	**482**	**186**	**178**	**53**	**41**	**307**	**327**	**-117**	**-63**
Segment assets at the end of the period		7,515	6,882	4,168	4,128	1,044	923	2,903	3,284	4,419	483
Segment liabilities at the end of the period		1,220	1,210	425	400	396	285	114	124	155	207
Comparable net assets		**6,295**	**5,672**	**3,743**	**3,728**	**648**	**638**	**2,789**	**3,161**	**4,264**	**276**
Comparable net assets average [1)]		**5,868**	**5,753**	**3,700**	**3,218**	**671**	**348**	**2,976**	**3,248**	**2,619**	**475**
Comparable return on net assets, %		**11.1**	**8.4**	**5.0**	**5.5**	**7.8**	**11.7**	**10.3**	**10.1**	**-4.5**	**-13.3**

1) 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 2017.

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 2017, in Note 15 Financial assets and liabilities by fair value hierarchy.

Financial assets

	Level 1		Level 2		Level 3		Netting [2]		Total	
EUR million	Dec 31 2018	Dec 31 2017	Dec 31 2018	Dec 31 2017	Dec 31 2018	Dec 31 2017	Dec 31 2018	Dec 31 2017	Dec 31 2018	Dec 31 2017
In non-current assets										
Other investments [1]		0			49	65			49	65
Derivative financial instruments										
Electricity derivatives										
Hedge accounting			23	5			-22	-5	1	0
Non-hedge accounting		0	146	66			-94	-30	52	35
Interest rate and currency derivatives										
Hedge accounting			149	153					149	153
Non-hedge accounting			4	85					4	85
Other commodity future and forward contracts										
Non-hedge accounting	29	8		0			-5	-1	24	7
Interest-bearing receivables					41	76			41	76
Total in non-current assets	**29**	**8**	**322**	**309**	**90**	**141**	**-121**	**-36**	**319**	**422**
In current assets										
Derivative financial instruments										
Electricity derivatives										
Hedge accounting			93	28			-83	-7	10	21
Non-hedge accounting	2	8	585	253			-502	-192	84	69
Interest rate and currency derivatives										
Hedge accounting			19	85					19	85
Non-hedge accounting			97	29					97	29
Other commodity future and forward contracts										
Non-hedge accounting	203	186		1			-87	-151	116	36
Interest-bearing receivables					30	32			30	32
Total in current assets	**205**	**194**	**794**	**396**	**30**	**32**	**-672**	**-350**	**356**	**272**
Total	**234**	**202**	**1,116**	**705**	**120**	**173**	**-793**	**-386**	**675**	**694**

Financial liabilities

EUR million	Level 1 Dec 31 2018	Level 1 Dec 31 2017	Level 2 Dec 31 2018	Level 2 Dec 31 2017	Level 3 Dec 31 2018	Level 3 Dec 31 2017	Netting [2] Dec 31 2018	Netting [2] Dec 31 2017	Total Dec 31 2018	Total Dec 31 2017
In non-current liabilities										
Interest-bearing liabilities [3]			930	1,037					930	1,037
Derivative financial instruments										
Electricity derivatives										
Hedge accounting			257	28			-22	-5	235	23
Non-hedge accounting			163	131			-94	-30	70	100
Interest rate and currency derivatives										
Hedge accounting			42	45					42	45
Non-hedge accounting			2	43					2	43
Other commodity future and forward contracts										
Non-hedge accounting	18	3	0	1			-5	-1	13	3
Total in non-current liabilities	**18**	**3**	**1,394**	**1,285**	**0**	**0**	**-121**	**-36**	**1,292**	**1,251**
In current liabilities										
Derivative financial instruments										
Electricity derivatives										
Hedge accounting			724	39			-83	-7	641	31
Non-hedge accounting	1	7	566	315			-502	-192	65	131
Interest rate and currency derivatives										
Hedge accounting			1	12					1	12
Non-hedge accounting			45	12					45	12
Other commodity future and forward contracts										
Non-hedge accounting	158	160	7	4			-87	-151	77	13
Total in current liabilities	**159**	**167**	**1,343**	**382**	**0**	**0**	**-672**	**-350**	**829**	**200**
Total	**177**	**170**	**2,737**	**1,667**	**0**	**0**	**-793**	**-386**	**2,121**	**1,451**

1) Other investments i.e. shares which are not classified as associated companies or joint ventures, consist mainly of shares in unlisted companies of EUR 49 million (Dec 31 2017: 65). This includes Fortum's indirect shareholding in Fennovoima of EUR 33 million (Dec 31 2017: 25). Fair value gains and losses of other investments are booked through profit and loss. Other investments at fair value through other comprehensive income are immaterial.

2) Receivables to and liabilities from electricity 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 178 million, including assets EUR 268 million and liabilities EUR 90 million. Fortum has cash collaterals based on Credit Support Annex agreements with some counterparties. At the end of December 2018 Fortum had received EUR 75 million from Credit Support Annex agreements. The received cash has been booked as short-term liability.

Regarding the interest-bearing receivables and liabilities, see Note 12 Interest-bearing receivables, Note 13 Interest-bearing net debt and Note 18 Pledged assets and contingent liabilities.

6. Acquisitions and disposals

6.1 Acquisitions

EUR million	Q4 2018	Q4 2017	2018	2017
Gross investments in shares in subsidiary companies	17	80	36	982
Gross investments in shares in associated companies and joint ventures	146	41	4,041	135
Gross investments in other shares	4	2	11	8
Gross investments in shares	**167**	**123**	**4,088**	**1,125**

Acquisitions during 2018

In September 2017, Fortum signed a transaction agreement with E.ON under which E.ON had the right to decide to tender its 46.65% shareholding in Uniper SE into Fortum's public takeover offer. In November 2017, Fortum launched a voluntary public takeover offer ("offer") to all Uniper shareholders. On 8 January 2018, E.ON decided to tender its shares to Fortum's offer. In February 2018, Fortum announced that shareholders representing 47.12% of the shares in Uniper had accepted the offer. The completion of Fortum's offer was subject to several competition and regulatory approvals. The final regulatory decisions were received 15 June 2018. In line with the Russian regulatory approvals, Fortum is allowed to purchase additional shares up to the 50% of shares and voting rights in Uniper. The final settlement of the offer took place on 26 June 2018.

The shareholders who tendered their shares to Fortum's offer were paid EUR 21.31 per share. The shareholders also benefitted from Uniper's dividend that was paid following the Annual General Meeting in early June. Fortum paid a total consideration of EUR 3.7 billion for all shares tendered. The total consideration was financed with existing cash resources of EUR 1.95 billion and bridge loan financing from committed credit facilities of EUR 1.75 billion. On 26 June 2018, Fortum closed the Uniper offer and became the company's largest shareholder with 47.35% of the shares. Since then Fortum has acquired additional shares in Uniper and holds 49.99% of the shares as of 31 December 2018.

Uniper is an international energy company with activities in Europe, Russia and other markets worldwide. Uniper's businesses are well aligned with Fortum's core competencies. The company operates power plants in Europe and Russia, with a total installed generation capacity of around 36 gigawatts, and it runs extensive energy trading operations as well as maintains gas storage facilities in Germany, Austria and the UK.

In 2017, Uniper's sales totaled EUR 72.2 billion and adjusted EBITDA was EUR 1.7 billion. Uniper employs around 12,000 people and had total assets of EUR 43 billion at the end of 2017. Uniper is listed on the Frankfurt stock exchange.

Fortum consolidates Uniper as an associated company from 30 June 2018. The total acquisition cost including direct costs relating to the acquisition, approximately EUR 4.0 billion as of 31 December 2018, is reported in the 'Participations in associated companies and joint ventures'.

Fortum uses Uniper's balance sheet as of 30 June 2018 (published 7 August 2018) as the starting point for the purchase price allocation. Purchase price allocation is still on-going and Fortum is evaluating potential fair value adjustments for the acquired assets and liabilities and identifying potential differences in order to align the accounting principles. The purchase price allocation will take time due to the size of transaction and will be completed within the one-year window from the acquisition date according to IFRS.

As Uniper publishes its interim reports later than Fortum, Fortum's share of Uniper's results will be accounted for with a time-lag of one quarter with potential adjustments. The share of profits of associates in Fortum's fourth quarter interim report 2018 includes Fortum's share of Uniper's third quarter results amounting to EUR -2 million.

In August 2018 Fortum acquired all shares of three independent Latvian heat producers SIA BK Enerģija, SIA Energy & Communication and SIA Sprino as well as the shares of SIA Lake Development. The acquired production companies will continue to deliver heat to Daugavpil's municipal district heating company PAS Daugavpils Siltumtikli.

In October 2018 Fortum acquired the metal recycling business in Fincumet Group. In the transaction Fortum acquired shares in three companies: Fincumet Oy, Niemen Romukauppa Oy and NJS-Patentti Oy.

During 2018 Fortum invested EUR 61 million to the wind investment fund 50/50 owned by Fortum and RUSNANO in Russia.

There were no other material acquisitions during 2018.

Acquisitions during 2017

In January 2017 Fortum completed the acquisition of 100% of the shares in three wind power companies 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. The Ånstadblåheia wind farm was commissioned during the fourth quarter of 2018 and the Sørfjord wind farm is expected to be commissioned in 2019. The total installed capacity of the three wind farms will be approximately 180 MW.

Fortum started a redemption process for the remaining shares of Ekokem Corporation (renamed as Fortum Waste Solution Oy) in October 2016. The process was finalized in March 2017 after which Fortum owns 100% of the shares in the company.

In April 2017, Fortum and RUSNANO, a Russian state-owned development company, signed a 50/50 investment partnership in order to secure the possibility of a Russian Capacity Supply Agreement (CSA) wind portfolio in Russia. The wind investment fund 50/50 owned by Fortum and RUSNANO was awarded 1,000 MW wind capacity in Russian wind CSA auction in June 2017. The investments decisions will be made on a case-by-case basis within the total mandate of the wind investment fund. Fortum's equity stake in the wind investment fund totals a maximum of RUB 15 billion. The amount is invested over time (within approximately 5 years) as it is subject to positive investment decisions. During 2017 Fortum invested EUR 43 million in the fund.

On 4 August Fortum concluded the restructuring of the ownership in Hafslund together with City of Oslo. Fortum sold its 34.1% stake in Hafslund ASA to the City of Oslo. Fortum acquired 100% of Hafslund Markets AS, 50% of Hafslund Varme AS including the City of Oslo's waste-to-energy company Klemetsrudanlegget AS (KEA), currently Fortum Oslo Varme AS, and 10% of Hafslund Produksjon Holding AS. The total debt-free price of the acquisition was approximately EUR 940 million.

The combined net cash investment of the transactions, including the dividend received in May 2017, was approximately EUR 230 million.

Hafslund Markets and Fortum Oslo Varme are consolidated into Fortum Group from 1 August 2017. Hafslund Markets is consolidated as a part of the Consumer Solutions segment. Fortum has operational responsibility of Fortum Oslo Varme, which is consolidated as a subsidiary with 50% non-controlling interest into the results of City Solutions segment. Hafslund Produksjon Holding was treated as an associated company and reported in the Generation segment until the divestment in June 2018, see further information in 6.2 below.

The initial purchase price allocation as of 31 July 2017 was finalised during Q3 2018. No material changes were made compared to the information disclosed in the consolidated financial statements for 2017.

In October 2017 Fortum and SUENKO established a joint venture, JSC Ural-Siberian Heat and Power Company (YUSTEK), for the heat supply in Tyumen, Russia. Fortum will continue as CHP owner and selling heat to YUSTEK.

In December 2017 Fortum acquired three solar power companies from Hevel Group.The Pleshanovskaya (10 MW) and Grachevskaya (10 MW) solar power plants are located in the Orenburg region and the Bugulchanskaya (15 MW) solar power plant in the Republic of Bashkortostan. All three power plants are operational and will receive capacity Supply Agreement (CSA) payments for approximately 15 years after commissioning at an average CSA price corresponding to approximately EUR 400/MWh. The plants were commissioned in 2016 and 2017.

2017 EUR million	Hafslund Markets AS	Fortum Oslo Varme AS	Other	Fortum total
Consideration paid in cash	589	152	70	811
Unpaid consideration	0	0	9	9
Total consideration	**589**	**152**	**79**	**820**
Fair value of the acquired net assets	374	84	77	535
Translation difference	1	0	2	2
Goodwill	**215**	**69**	**1**	**286**

EUR million	Hafslund Markets AS			Fortum Oslo Varme AS			Fortum total [1)]		
Fair value of the acquired net identifiable assets	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	158		158	37		37	201		201
Intangible assets	12	284	296	0		0	17	334	352
Property, plant and equipment	5		5	526	207	733	604	208	811
Other assets	179		179	21		21	206		206
Deferred tax liabilities	-19	-68	-88	-21	-50	-71	-46	-129	-175
Other non-interest bearing liabilities	-176		-176	-39		-39	-217		-217
Interest-bearing liabilities	0		0	-445		-445	-489		-489
Net identifiable assets	**158**	**216**	**374**	**79**	**157**	**237**	**275**	**413**	**688**
Non-controlling interests	0	0	0	51	102	153	51	102	**153**
Total	**158**	**216**	**374**	**29**	**55**	**84**	**225**	**310**	**535**

1) Including acquired book values and allocated fair values from the acquisition of Norwegian wind park companies, Russian solar power companies as well as other smaller acquisitions.

EUR million	Hafslund Markets AS	Fortum Oslo Varme AS	Other	Fortum total
Gross investment				
Purchase consideration settled in cash	589	152	70	811
Cash and cash equivalents in acquired subsidiaries	158	37	6	201
Translation difference	1	0	2	3
Cash outflow in acquisition	**432**	**116**	**65**	**613**
Unpaid consideration			9	9
Interest-bearing debt in acquired subsidiaries		445	44	489
of which loans given by Fortum		-213		-213
Transaction adjustments to debt-like items	54	26	0	80
Translation difference	0	1	2	4
Total gross investment in acquired subsidiaries	**486**	**375**	**121**	**982**

6.2 Disposals

EUR million	Q4 2018	Q4 2017	2018	2017
Gross divestments of shares in subsidiary companies	0	1	147	55
Gross divestments of shares in associated companies and joint ventures	0	0	160	687
Gross divestments of shares	**0**	**1**	**306**	**742**

Disposals during 2018

In June 2018 Fortum sold its 10% ownership in Hafslund Produksjon Holding AS to Svartisen Holding AS, a Norwegian company owned by the Finnish energy companies Vantaan Energia Oy, Oy Turku Energia – Åbo Energi Ab and Oulun Seudun Sähkö. As part of the restructuring of the Hafslund ownership in 2017, Fortum acquired the ownership in Hafslund Produksjon. The sales price for the shares was EUR 160 million and Fortum booked a sales gain of EUR 77 million in the Generation segment in the second quarter 2018 results.

On 31 August 2018, Fortum sold a 54% share of its solar power company operating four solar power plants in India to UK Climate Investments (40%) and Elite Alfred Berg (14%). In line with Fortum's 'capital recycling' business model, the result from the transaction, EUR 26 million, is recognized in Other operations' Comparable operating profit. The total consideration from the divestment on a debt- and cash-free basis, including the effect of deconsolidating Fortum's minority part of the net debt, is EUR 147 million. In addition, Elite Alfred Berg has an option to buy up to an additional 16% from Fortum.

There were no other material disposals during 2018.

Disposals during 2017

On 3 August 2017 Fortum sold its 34.1% stake in Hafslund ASA to the City of Oslo in connection with the restructuring of the ownership in Hafslund. Fortum booked a one-time tax-free sales gain in Other segment in the third quarter 2017 results totalling approximately EUR 324 million including transaction costs, corresponding EUR 0.36 earnings per share.

In November 2017 Fortum sold its 51% stake in the Norwegian electricity sales company Røyken Kraft AS to the minority shareholder Røyken Energiverk AS. The company was acquired as part of the Hafslund Markets AS group in the restructuring of the ownership in Hafslund.

In July 2017 Fortum sold 100% of its shares in the Polish gas infrastructure company DUON Dystrybucja S.A. to Infracapital, the infrastructure investment arm of M&G Investments. DUON Dystrybucja S.A. is transporting grid gas and LNG in Poland. The company was acquired as part of the acquisition of the electricity and gas sales company Grupa DUON S.A. (currently Fortum Markets Polska S.A.) in 2016. Fortum booked in the third quarter of 2017 a one-time pre-tax sales gain in Consumer Solution segment totalling EUR 2 million.

7. Income taxes

Taxes for the period totalled EUR 181 (2017: 229) million. The effective income tax rate according to the income statement was 17.5% (2017: 20.6%). 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, tax rate changes and other major one time income tax effects, was 22.0% (2017: 18.8%).

The major one time income tax effect in Q2 2017 was related to decision from the Administrative Court of Appeal in Sweden. For the years 2009-2012, Fortum had to pay additional tax and interest, in total SEK 1,175 million (EUR 122 million).

Fortum has paid taxes in previous years 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 114 (2017: 142) million, included in Income tax receivables. For additional information see Note 19 Legal actions and official proceedings.

8. Dividend per share

A dividend for 2017 of EUR 1.10 per share, amounting to a total of EUR 977 million, was decided in the Annual General Meeting on 28 March 2018 and the dividend was paid on 10 April 2018.

A dividend for 2016 of EUR 1.10 per share, amounting to a total of EUR 977 million, was decided in the Annual General Meeting on 4 April 2017. The dividend was paid on 13 April 2017.

9. Changes in intangible assets

EUR million	Dec 31 2018	Dec 31 2017
Closing balance 31 Dec	**1,064**	**467**
Impact from change in accounting principle (IFRS 15) 1)	20	0
Opening balance 1 Jan	**1,083**	**467**
Acquisitions	22	637
Capital expenditures	53	18
Changes in emission rights	16	0
Depreciation and amortisation	-81	-30
Divestments	-6	0
Reclassifications	37	14
Translation differences and other adjustments	-37	-41
Closing balance	**1,087**	**1,064**

1) See additional information in Note 2 Accounting policies

Goodwill included in the intangible assets EUR million	Dec 31 2018	Dec 31 2017
Goodwill included in opening balance	**613**	**353**
Acquisitions 1)	0	286
Translation differences and other adjustments	-25	-27
Goodwill included in closing balance	**588**	**613**

1) See additional information in Note 6 Acquisitions and disposals.

10. Changes in property, plant and equipment

EUR million	Dec 31 2018	Dec 31 2017
Opening balance	**10,510**	**9,930**
Acquisitions	14	811
Capital expenditures	532	672
Changes of nuclear asset retirement cost	16	-6
Disposals	-2	-8
Depreciation and amortisation	-455	-434
Divestments	-136	-53
Reclassifications	-37	-14
Translation differences and other adjustments	-459	-389
Closing balance	**9,981**	**10,510**

11. Changes in participations in associates and joint ventures

EUR million	Dec 31 2018	Dec 31 2017
Closing balance 31 Dec	**1,900**	**2,112**
Impact from change in accounting principle (IFRS 9)[1)]	165	-
Opening balance 1 Jan	**2,066**	**2,112**
Investments	4,066	135
Share of profits from associates and joint ventures	38	148
Dividend income received	-61	-58
Divestments and capital returns	-95	-363
Reclassifications	58	-
OCI items associated companies	6	-3
Translation differences and other adjustments	-99	-71
Closing balance	**5,978**	**1,900**

1) See additional information in Note 2 Accounting policies.

Participations in associates and joint ventures

During 2018 Fortum has acquired 49.99% of the shares in Uniper, see Note 3 Acquisitions and disposals.

On 31 August 2018, Fortum sold a 54% share of its solar power company and as a consequence the subsidiary was reclassified as a joint venture.

In August 2017 Fortum sold its 34.1% stake in Hafslund ASA to the City of Oslo in connection with the restructuring of the ownership in Hafslund. Hafslund ASA was accounted for as an associated company and the share of profits was accounted for according to the latest quarter information available.

For more information about acquisitions and disposals, see note 6 Acquisitions and disposals.

Share of profits from associates and joint ventures

EUR million	Q4 2018	Q4 2017	2018	2017
Principal associates				
OKG AB	-62	0	-58	8
Forsmarks Kraftgrupp AB	-6	4	-7	2
Kemijoki Oy	-2	-2	-9	-9
Uniper	-2	-	-2	-
TGC-1	2	4	40	32
Hafslund ASA (divested in August 2017)	-	-	-	39
Principal associates, total	**-70**	**6**	**-35**	**73**
Principal joint ventures				
Stockholm Exergi AB	21	27	61	66
TVO Oyj	3	-1	1	-4
Principal joint ventures, total	**24**	**26**	**62**	**63**
Other associates	0	2	3	0
Other joint ventures	1	0	9	12
Total	**-44**	**34**	**38**	**148**

The share of profit from associates and joint ventures during Q4 2018 decreased to EUR -44 (34) million, mainly due to nuclear-related adjustments of EUR -37 million and other items relating to nuclear decommissioning of EUR -31 million, mainly from OKG.

Fortum has reassessed assumptions used for all nuclear related assets and liabilities as of 31 December 2018. Assumptions have been changed for the respective balances of the co-owned nuclear companies in Finland and Sweden, i.e. Teollisuuden Voima Oyj (TVO), Oskarshamn Kraft Grupp AB (OKG), and Forsmarks Kraftgrupp AB. The total impact of the change to share of profit from these associated companies and joint ventures was EUR -37 million, net of tax, and including additional nuclear waste liability related to legacy waste obligations for Swedish nuclear. The net profit impact from all these nuclear related adjustments is close to zero. For additional information see Note 14 Nuclear related assets and liabilities.

According to Fortum Group accounting policies the share of profits from associates and joint ventures are included in Fortum Group figures based on the latest available information. As Uniper is a listed company and publishes its interim reports later than Fortum, Fortum's share of Uniper's results will be accounted for with a time-lag of one quarter with potential adjustments. This means that the Q4 2018 interim report includes Fortum's share of Uniper's third quarter results.

The share of profit of TGC-1 (and Hafslund ASA in 2017) is accounted for based on previous quarter information since updated interim information is normally not available.

The share of profit from associates and joint ventures during 2018 decreased to EUR 38 (148) million, mainly due to nuclear-related adjustments of EUR -37 million and other items relating to nuclear decommissioning of EUR -33 million, mainly from OKG. The decrease was also due to that the year 2017 included the share of profit from Hafslund ASA of EUR 39 million, divested in August 2017. For additional information about divestments of shares in associates and joint ventures see Note 6.2 Disposals.

Dividends received

During 2018 Fortum received EUR 61 million (2017: 58) in dividends from associates and joint ventures of which EUR 39 million (2017: 21) was received from Stockholm Exergi. Dividends received during 2017 include EUR 23 million from Hafslund ASA.

12. Interest-bearing receivables

EUR million	Carrying amount Dec 31 2018	Fair value Dec 31 2018	Carrying amount Dec 31 2017	Fair value Dec 31 2017
Long-term loan receivables from associated companies	581	601	656	689
Long-term loan receivables from joint ventures	60	68	208	229
Finance lease receivables from joint ventures	0	0	41	41
Other long-term interest-bearing receivables	43	43	106	111
Total long-term interest-bearing receivables	**683**	**712**	**1,010**	**1,071**
Short-term interest bearing receivables	409	409	395	395
Total interest-bearing receivables	**1,092**	**1,121**	**1,406**	**1,466**

Long-term interest-bearing receivables include receivables from associated companies and joint ventures EUR 641 million (Dec 31 2017: 905). These receivables include EUR 575 million (Dec 31 2017: 638) from Swedish nuclear companies, OKG AB and Forsmarks Kraftgrupp AB, which are mainly funded with shareholder loans, pro rata each shareholder's ownership.

Finance lease relating to heat pipelines in Tyumen area, which are leased to joint venture YUSTEK, has been reassessed and classified as operating lease.

Interest-bearing receivables includes also EUR 70 million (Dec 31 2017: 102) receivable from SIBUR, a Russian gas processing and petrochemicals company regarding divested shares of OOO Tobolsk CHP.

Short-term interest-bearing receivables include EUR 379 million (Dec 31 2017: 363) restricted cash mainly given as collateral for commodity exchanges. The European Market Infrastructure Regulation (EMIR) requires fully-backed guarantees.

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 statement the daily cash settlements for futures are shown as change in working capital whereas the changes in cash collaterals for forwards are included in cash flow from investing activities.

13. Interest-bearing net debt

Net debt EUR million	Dec 31 2018	Dec 31 2017
Interest-bearing liabilities	6,093	4,885
Liquid funds	584	3,897
Net debt	**5,509**	**988**

Net debt is calculated as interest-bearing liabilities less liquid funds without deducting interest-bearing receivables amounting to EUR 1,092 million (Dec 31 2017: 1,406). Interest-bearing receivables mainly consist of shareholder loans to partly owned nuclear companies regarded as long-term financing. For more information see Note 12 Interest-bearing receivables.

Interest-bearing debt EUR million	Carrying amount Dec 31 2018	Fair value Dec 31 2018	Carrying amount Dec 31 2017	Fair value Dec 31 2017
Bonds	2,496	2,629	2,943	3,143
Loans from financial institutions	1,847	1,901	283	303
Reborrowing from the Finnish State Nuclear Waste Management Fund	1,158	1,218	1,129	1,192
Other long-term interest-bearing debt [1)]	309	351	324	373
Total long-term interest-bearing debt [2)]	**5,810**	**6,099**	**4,679**	**5,011**
Short-term interest-bearing debt	283	284	206	207
Total	**6,093**	**6,383**	**4,885**	**5,218**

1) Including loans from Finnish pension institutions EUR 38 million (Dec 31 2017: 48) and other loans EUR 270 million (Dec 31 2017: 276).
2) Including current portion of long-term debt EUR 803 million (Dec 31 2017: 560).

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 2018 Fortum increased the amount of reborrowing from the Finnish State Nuclear Waste Management Fund and TVO by EUR 29 million to EUR 1,158 million. In March Fortum repaid two SEK bonds equivalent to EUR 413 million (SEK 4.15 billion). In June Fortum Oyj made a bridge loan drawdown of EUR 1.75 billion from existing committed credit facilities for Fortum's offer for Uniper shares. No major financing transactions during last quarters.

At the end of December 2018, the amount of short-term financing included 75 million (Dec 31 2017: 113) from Credit Support Annex agreements. The interest-bearing debt increased during the last quarter by EUR 118 million from EUR 5,975 million to EUR 6,093 million.

The average interest rate for the portfolio consisting mainly of EUR and SEK loans was 1.7% at the balance sheet date (Dec 31 2017: 2.4%). Part of the external loans, EUR 686 million (Dec 31 2017: 773) have been swapped to RUB and the average interest cost for these loans including cost for hedging the RUB was 8.3% at the balance sheet date (Dec 31 2017: 9.5%). The average interest rate on total loans and derivatives at the balance sheet date was 2.4% (Dec 31 2017: 3.6%).

Maturity of interest-bearing liabilities EUR million	Dec 31 2018
2019 [1)]	1,086
2020	33
2021	2,267
2022	1,042
2023	100
2024 and later	1,565
Total	**6,093**

1) The cash received as collateral based on Credit Support Annex agreements, amounting to EUR 75 million, has been booked as short-term liability.

Liquid funds EUR million	Dec 31 2018	Dec 31 2017
Deposits and securities with maturity more than 3 months	29	715
Cash and cash equivalents	556	3,182
Total	**584**	**3,897**

Total liquid funds decreased by EUR 147 million from EUR 731 million to EUR 584 million during Q4 2018.

Liquid funds consist of deposits and cash in bank accounts amounting to EUR 518 million and commercial papers EUR 66 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 2018 was -0.11% (Dec 31 2017: -0.27%). Liquid funds held by PAO Fortum amounted to EUR 317 million (Dec 31 2017: 246), of which EUR 316 million (Dec 31 2017: 231) was held as bank deposits. The average interest rate for this portfolio was 6.9% at the balance sheet date.

Liquid funds totaling EUR 168 million (Dec 31 2017: 3,348) are placed with counterparties that have an investment grade credit rating. In addition, EUR 416 million (Dec 31 2017: 549) have been placed with counterparties separately reviewed and approved by the Group's credit control department.

At the end of December 2018, the committed and undrawn credit facilities amounted to EUR 1.8 billion (Dec 31 2017: 1.8). At the end of year 2017, in relation to offer for Uniper shares, Fortum had commitments from 10 relationship banks to provide credit facilities at the request of Fortum. In February 2018 the original amount of EUR 12.0 billion was reduced to EUR 3.8 billion and after EUR 1.75 billion drawdown in June 2018 the total facilities for Fortum's offer for Uniper shares has been cancelled.

14. 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.

Fortum has reassessed the assumptions used for all nuclear related assets and liabilities as of 31 December 2018. The increase in the nuclear provision for the Loviisa nuclear power plant in Finland leads to recognition of an additional share of the Finnish nuclear fund. As of 31 December 2018, Fortum still has EUR 254 million in unrecognised nuclear waste fund assets for Loviisa. The increase in the provision and the additional share in the fund are both included in Items affecting comparability. The changes in assumptions also had a positive impact on interests presented in other financial expenses. The assumptions have also been changed for the respective balances of the co-owned nuclear companies in Finland and Sweden, i.e. TVO, OKG and Forsmark. The total impact of the change to share of profit from these associated companies and joint ventures was EUR -37 million, net of tax, and including additional nuclear waste liability related to legacy waste obligations for Swedish nuclear. The net profit impact from all these nuclear-related adjustments is close to zero.

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

EUR million	Dec 31 2018	Dec 31 2017
Carrying values in the balance sheet		
Nuclear provisions	899	858
Fortum's share of the State Nuclear Waste Management Fund	899	858
Legal liability and actual share of the State Nuclear Waste Management Fund		
Liability for nuclear waste management according to the Nuclear Energy Act	1,180	1,161
Funding obligation target	1,180	1,153
Fortum's share of the State Nuclear Waste Management Fund	1,153	1,125
Share of the fund not recognised in the balance sheet	254	267

Legal liability for Loviisa nuclear power plant

The legal liability on 31 December 2018, decided by the Ministry of Economic Affairs and Employment in November 2018, was EUR 1,180 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. 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 connection with the decision of size of the legal liability. The current funding obligation target decided in November 2018 is EUR 1,180 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 provisions are based on the same cash flows for future costs as the legal liability, but the legal liability is not discounted to net present value. The carrying value of the nuclear provisions, calculated according to IAS 37, increased by EUR 41 million compared to 31 December 2017, totaling EUR 899 million on 31 December 2018. The increase is mainly arising from the change in the assumptions used for the provisions.

Fortum's share of the Finnish Nuclear Waste Management Fund is from an IFRS perspective overfunded with EUR 254 million, since Fortum's share of the Fund on 31 December 2018 was EUR 1,153 million and the carrying value in the balance sheet was EUR 899 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 13 Interest-bearing net debt and Note 18 Pledged assets and contingent liabilities.

14.2 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 2018	Dec 31 2017
Carrying values in TVO's balance sheet		
Nuclear provisions	1,016	953
Share of the State Nuclear Waste Management Fund	1,016	953
of which Fortum's net share consolidated with equity method	**0**	**0**
TVO's legal liability and actual share of the State Nuclear Waste Management Fund		
Liability for nuclear waste management according to the Nuclear Energy Act	1,506	1,482
Share of the State Nuclear Waste Management Fund	1,471	1,437
Share of the fund not recognised in the balance sheet	455	484

TVO's legal liability, provision and share of the fund are based on same principles as described above for Loviisa nuclear power plant and includes in 2018 the impact from adjustments following the reassessment.

TVO's share of the Finnish State Nuclear Waste Management Fund is from an IFRS perspective overfunded with EUR 455 million (of which Fortum's share EUR 121 million), since TVO's share of the Fund on 31 December 2018 was EUR 1,471 million and the carrying value in the balance sheet was EUR 1,016 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 13 Interest-bearing net debt.

OKG's and Forsmark's total nuclear related assets and liabilities (100%) EUR million	Dec 31 2018	Dec 31 2017
OKG's and Forsmark's nuclear related assets and liabilities [1)]		
Nuclear provisions	3,930	3,398
Share in the State Nuclear Waste Management Fund	3,230	3,105
Net amount	**-701**	**-293**
of which Fortum's net share consolidated with equity method	**-242**	**-114**

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.

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. A new technical plan for nuclear waste management was decided by SKB during 2016. In 2017 SKB submitted the cost estimates based on the revised technical plan to SSM. In December 2017 the Swedish government decided the waste fees and guarantees for years 2018-2020. Nuclear waste fees are currently based on future costs with the assumed lifetime of 50 years (40 years in previous decision) for each unit of a nuclear power plant.

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 18 Pledged assets and contingent liabilities.

15. Other provisions

EUR million	Environmental provisions Dec 31 2018	Environmental provisions Dec 31 2017	Other provisions Dec 31 2018	Other provisions Dec 31 2017
Opening balance	**43**	**47**	**79**	**82**
Acquisitions	0	0	0	7
Increase in the provisions	0	0	25	31
Provisions used	0	0	-33	-35
Unused provisions reversed	0	0	-4	-10
Unwinding of discount	0	0	0	0
Exchange rate differences and other changes	-1	-4	-3	4
Closing balance	**41**	**43**	**65**	**79**
Current provisions 1)	**0**	**0**	**14**	**22**
Non-current provisions	**41**	**43**	**50**	**57**

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

Environmental provisions include mainly provisions for obligations to cover and monitor landfills as well as to clean contaminated land areas. Main part of the provisions are estimated to be used within 10-15 years.

Dismantling provisions for the Finnish coal fired power plants are included in Other provisions.

16. Operating lease commitments

EUR million	Dec 31 2018	Dec 31 2017
Due within a year	30	23
Due after one year and within five years	88	72
Due after five years	98	65
Total	**216**	**160**

17. Capital commitments

EUR million	Dec 31 2018	Dec 31 2017
Property, plant and equipment	322	362

Other commitments

Fortum has committed to provide a maximum of EUR 85 million to Voimaosakeyhtiö SF, for its participation in the Fennovoima nuclear power project in Finland. Furthermore, Fortum's remaining direct commitment regarding the construction of a waste-to-energy combined heat and power plant (CHP) in Kaunas, Lithuania is EUR 7 million at maximum. The investment is made through Kauno Kogeneracinė Jėgainė (KKJ), a joint venture owned together with Lietuvos Energija.

Fortum has also commited to provide a maximum of EUR 12 million to a joint venture with Numaligarh Refinery Limited (NRL) and Chempolis to build and operate a biorefinery in Assam, India.

Teollisuuden Voima Oyj (TVO) is building Olkiluoto 3, the nuclear power plant, which is funded through external loans, share issues and shareholder loans according to shareholders' agreement between the owners of TVO. As of January 1, 2018 TVO shareholder loans EUR 145 million has been classified as participation in joint ventures, which is described in Note 2.1 Adoption of the new IFRS standards. At end of December 2018 Fortum had EUR 170 million (2017: 145) outstanding receivables regarding Olkiluoto 3 and is additionally committed to provide at maximum EUR 63 million.

In June 2018 the Swedish Government approved the legislation regarding Sweden's national strategy for implementation of the EU's Water Framework Directive. The largest hydro industry companies will create a common hydro-power fund to finance large parts of the environmental actions needed. The fund will have a total financial cap of SEK 10 billion to be paid over a 20-year period, and the largest operators will contribute to the fund proportionately based on their respective market share of hydro-power production. Fortum's share is expected to be 20-25% of the funds' total financing.

18. Pledged assets and contingent liabilities

EUR million	Dec 31 2018	Dec 31 2017
Pledged assets on own behalf		
For debt		
Pledges	288	300
Real estate mortgages	137	177
For other commitments		
Pledges	346	346
Real estate mortgages	21	141
Pledged assets on behalf of others		
Pledges	31	12
Contingent liabilities on own behalf		
Other contingent liabilities	167	161
Contingent liabilities on behalf of associated companies and joint ventures		
Guarantees	622	598

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 2018 the value of the pledged shares amounted to EUR 269 million (Dec 31 2017: 269).

Fortum Tartu in Estonia (60% owned by Fortum) has given real estate mortgages for a value of EUR 96 million (Dec 31 2017: 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 2017: 41).

During Q1 2018 mortgage for loans of Russian solar plants was released (Dec 31 2017: 41).

Regarding the relevant interest-bearing liabilities, see Note 13 Interest-bearing net debt.

Pledged assets for other commitments

Pledges also include restricted cash given as trading collateral of EUR 346 million (Dec 31 2017: 346) for trading of electricity, gas and CO_2 emission allowances in Nasdaq Commodities, Intercontinental Exchange (ICE), European Energy Exchange (EEX) and Polish Power Exchange (TGE). See also note 12 Interest-bearing receivables.

Fortum has given real estate mortgages in power plants in Finland, total value of EUR 21 million in December 2018 (Dec 31 2017: 141), 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 decomissioning 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. The size of the securities given is updated yearly in Q2 based on the decisions regarding the legal liabilities and the funding target which are determined at the end of the previous year.

See more information in Note 14 Nuclear related assets and liabilities.

Pledged assets on behalf of others

Pledged assets on behalf of others consist of restricted cash EUR 31 million (Dec 31 2017: 12) posted as collateral toward Nasdaq Clearing AB covering Fortum's required contribution to the Commodity Market Default Fund (default fund). The default fund is a mutualized fund whereby all participants on the Nordic power exchange (OMX Nasdaq Commodities) post collateral in relation to their exposure on the market in order to cover potential defaults by members which may cause losses exceeding the members' own collateral. The increase in the pledged amount is due to the replenishment given in September 2018. See also Note 12 Interest-bearing receivables.

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 2017: 125). The guarantee was released on 1 January 2019, see note 21 Events after the balance sheet date.

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 have been given on behalf of Forsmarks Kraftgrupp AB and OKG AB amounting to SEK 5,393 million (EUR 526 million) at 31 December 2018 (Dec 31 2017: EUR 548 million). There are two types of guarantees given. The Financing Amount is given to cover Fortum's share of the uncovered part in the Nuclear Waste Fund, assuming no further production and that no further nuclear waste fees are paid in. The uncovered amount is calculated by the authorities and is based on 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 amounts for the guarantees are updated every third year by governmental decision. The Financing Amount given by Fortum on behalf of Forsmarks Kraftgrupp AB and OKG AB was SEK 3,843 million (EUR 375 million) and the Supplementary Amount was SEK 1,550 million (EUR 151 million) at 31 December 2018.

The guarantee given on behalf of Teollisuuden Voima Oyj to the Finnish State Nuclear Waste Management Fund amounted to EUR 36 million at 31 December 2018 (Dec 31 2017: 50). 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 the 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 14 Nuclear related assets and liabilities.

Fortum has given guarantees to secure bank loans obtained by WEDF Second Wind Farm LLC and WEDF Third Wind Farm LLC, which are subsidiaries of the 50-50 Wind fund with Rusnano. The guarantees given on pro rata basis are security for loans relating to wind farms' development and amount to RUB 3,840 million (EUR 48 million) at 31 December 2018.

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.

19. Legal actions and official proceedings

Tax cases in Finland

No tax cases with material impact in Finland.

Tax cases in Sweden

Cases relating to Swedish interest deductions

In March 2018 the Swedish Supreme Administrative Court decided not to grant leave to appeal to Fortum with respect to the interest deduction cases relating to the years 2009-2012. The unfavourable decision of the Administrative Court of Appeal from June 2017 therefore remains in force. The additional tax and interest claimed, in total SEK 1,175 million (EUR 122 million), was paid in 2016 and booked as a cost in 2017. There are strong grounds to argue that the aforementioned decisions of the Administrative Court of Appeal and the Supreme Administrative Court violate EU law and fundamental rights under EU law. On these grounds Fortum has in December 2018 filed a summons application to the District Court of Stockholm in which damages are claimed from the Swedish state in these cases. Moreover, Fortum has filed a request to initiate a mutual agreement procedure between Sweden and the Netherlands for the year 2012.

Fortum has received income tax assessments in Sweden for the years 2013, 2014 and 2015 in December 2015, December 2016 and October 2017, respectively. The assessments concern the loans given in 2013, 2014 and 2015 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 authorities considered, based on 2013 tax regulation, 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. After Fortum received a negative decision from the Administrative Court in Stockholm in 2017, Fortum filed an appeal to the Administrative Court of Appeal in Stockholm. In October 2018 the Administrative Court of Appeal in Stockholm, Sweden announced its decision relating to the income tax assessment for the year 2013. The decision was favorable to Fortum. The Administrative Court of Appeal confirmed that Fortum had sufficient business reasons for the loans and accepted Fortum's appeal. The decision regarding the year 2013 is final.

The Administrative Court of Stockholm announced its decisions in the cases for 2014 and 2015 in November 2018. Also these decisions, like the decision from the Administrative Court of Appeal for 2013, were favorable to Fortum and in line with the tax authorities' changed opinion based on the year 2013 decision. The decisions will become non-appealable by the end of January 2019.

Fortum had not made provisions for the cases regarding the years 2013-2015, as Fortum considers the additional tax unjustified. Therefore, the favorable decisions issued by the Administrative Court of Appeal in October 2018 and by the Administrative Court in November 2018 do not have any impact on profits.

The amount of additional tax claimed by the Swedish tax authority has originally been SEK 273 million (EUR 26 million) for the year 2013, SEK 282 million (EUR 27 million) for the year 2014, and SEK 200 million (EUR 19 million) for the year 2015. The additional tax for 2013 was paid in 2017 and was refunded to Fortum due to the favorable decision from the Administrative Court of Appeal in the fourth quarter of 2018. Additional taxes and interest for the years 2014 and 2015 have not been paid by Fortum.

Cases relating to the Swedish hydro real estate tax

Fortum Sverige AB has through an appeal process in Swedish courts claimed that the property tax rate for hydropower plants shall be lowered to the normal 0,5 percent of the tax assessment value. The case concerns the years 2009-2014 and includes several legal arguments for the claim including state aid arguments. Fortum Sverige AB did not receive a permission to appeal from the Supreme Administrative Court in this matter. As the Administrative Court, the Administrative Court of Appeal in Stockholm and the Supreme Administrative Court have handled only the arguments concerning state aid, the case is now transferred back to the Administrative Court concerning the other legal arguments. The disputed amout, excluding interest for the time period, totals approximately SEK 510 million (approximately EUR 50 million).

Moreover, Swedish Fortum companies have appeals for 2011-2016 pending in the Administrative Court relating to the property tax rate for their hydropower plants referring to the same legal grounds. Fortum has paid the real estate tax in accordance with the legislation. If the final court decision would be unfavorable to Fortum, this would not have any result impact for Fortum.

Fortum Sverige AB has in December 2018 filed a complaint to the EU commission regarding the Swedish property tax for hydropower plants regarding 2017 and prior years. Fortum has asked the commission to investigate whether the Swedish legislation regarding the property tax for hydropower plants and the Swedish court decisions are in line with EU state aid rules.

Tax cases in Belgium

Fortum has received income tax assessments in Belgium for the years 2008, 2009, 2010 and 2011. The tax authorities disagree with the tax treatment of Fortum EIF NV. Fortum finds the tax authorities interpretation not to be based on the local regulation and has appealed the decisions. The court of First instance in Antwerpen rejected Fortum's appeal for the years 2008 and 2009 in June 2014. Fortum found the decision unjustifiable and appealed to the Court of Appeal.

In January 2016 Fortum received a favourable decision from the Court of Appeal in which the Court disagreed with the tax authorities' interpretation and the tax assessment for 2008 was nullified. The tax authorities disagreed with the decision and filed an appeal to Hof van Cassatie (Supreme Court) in March 2016. Fortum's 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. 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.

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. 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.

OL3 was procured as a fixed-price turnkey project from a consortium (Supplier) formed by AREVA GmbH, AREVA NP SAS and Siemens AG. As stipulated in the plant contract, the consortium companies have joint and several liability for the contractual obligations. In accordance with the Supplier’s schedule updated in November 2018, regular electricity generation at the plant unit will commence in January 2020. According to the Supplier, nuclear fuel will be loaded into the reactor in June 2019 and the first connection to the grid takes place in October 2019. According to the Supplier’s plant ramp-up program the unit will produce 2–4 TWh of electricity, at varying power levels, during the period of time between the first connection to the grid and the start of regular electricity production.

According to the comprehensive settlement agreement signed in March 2018, TVO and the Supplier jointly withdrew the pending arbitration proceedings under the International Chamber of Commerce (ICC) rules with respect to costs and losses incurred in relation to delays in the construction of the OL3 EPR project. In June 2018, the ICC tribunal confirmed the arbitration settlement by a consent award, and the arbitration proceedings were terminated. The parties also withdrew the pending appeals in the General Court of the European Union.

The settlement agreement between TVO and the plant supplier consortium companies Areva NP, Areva GmbH and Siemens AG as well as with Areva Group parent company Areva SA, a company wholly owned by the French State, concerning the completion of the OL3 EPR project and related disputes entered into force late March 2018.

The settlement agreement stipulates that:

- In order to provide and maintain adequate and competent technical and human resources for the completion of the OL3 EPR project, Areva will source the necessary additional resources from Framatome S.A.S., whose majority owner is Electricité de France (EDF). The supplier consortium companies undertake that the funds dedicated to the completion of the OL3 EPR project will be adequate and will cover all applicable guarantee periods, including setting up a trust mechanism funded by Areva companies to secure the financing of the costs of completion of the OL3 EPR project.
- The turnkey principle of the OL3 EPR plant contract and the joint and several liability of the supplier consortium companies remain in full force. The agreement also noted the plant supplier’s schedule at the time the agreement was signed, according to which regular electricity production in the unit will commence in May 2019. The ICC arbitration concerning the costs and losses caused by the delay of the OL3 EPR project is settled by financial compensation of EUR 450 million to be paid to TVO in two installments by the supplier consortium companies.
- The parties withdraw all on-going legal actions related to OL3 EPR, including the ICC arbitration and appeals in the General Court of the European Union.
- The supplier consortium companies are entitled to receive an incentive payment, in a maximum amount of EUR 150 million, upon timely completion of the OL3 EPR project.

- In the event that the supplier consortium companies fail to complete the OL3 EPR project by the end of 2019, they will pay a penalty to TVO for such delay in an amount which will depend on the actual time of completion of the OL3 EPR project and may not exceed EUR 400 million.

TVO received the first payment of EUR 328 million of the settlement amount in March 2018 at the entry into force of the settlement agreement. The second payment of EUR 122 million is payable upon completion of the OL3 EPR project or, in any event, on December 31, 2019 at the latest. The amount corresponding to the total settlement amount has been entered as property, plant and equipment in the TVO Group balance sheet.

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.

20. Related party transactions

Related parties are described in the consolidated financial statements for the year ended 31 December 2017. There has been no material changes except for the acquisition of the shares in Uniper SE, see note 6 Acquisitions and disposals.

At year-end 2018 the Finnish State owned 50.76% (2017: 50.76%) of the shares in Fortum. There has been no change in the number of shares the Finnish State owns in Fortum during 2018.

Transactions with associated companies and joint ventures

EUR million	2018	2017
Sales	39	110
Purchases	379	472
Interest income on loan receivables	13	13

Balances with associated companies and joint ventures

EUR million	Dec 31 2018	Dec 31 2017
Long-term interest-bearing loan receivables	641	864
Finance lease receivable from joint ventures	0	41
Trade receivables	54	24
Other receivables	18	17
Long-term loan payables	294	287
Trade payables	33	19
Other payables	14	7

21. Events after the balance sheet date

On 1 January 2019, Fortum acquired all remaining C-shares of TVO entitling to the power production of the Meri-Pori coal condensing power plant. Fortum is now entitled to 100% of the power production of the plant, an increase from 67% previously. The Meri-Pori power plant is mainly used in Fingrid’s capacity reserve and as back-up capacity.

22. Definitions of key figures

Alternative performance measures

Business performance	Definition	Reason to use the measure	Reference to reconciliation
Comparable EBITDA	Operating profit + depreciations and amortisations - items affecting comparablity	Comparable EBITDA is representing the underlying cash flow generated by the total Group and segments. Used as a component in the capital structure target of Comparable net debt /EBITDA.	Capital structure and key ratios after cash flow statement
Comparable operating profit	Operating profit - items affecting comparability	Comparable operating profit is 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.	Income statement
Items affecting comparability	Impairment charges + capital gains and other + changes in fair values of derivatives hedging future cash flow + nuclear fund adjustment	Component used in calculating comparable operating profit and comparable EBITDA.	Income statement
Impairment charges	Impairment charges and related provisions (mainly dismantling), which are adjusted from depreciation and amortisation.	Component used in calculating comparable operating profit and comparable EBITDA.	Income statement
Capital gains and other	Capital gains and transaction costs from acquisitions, which are adjusted from other income and other expenses respectively. Profits from the capital recycling business model are presented in comparable operating profit because the business results are realised through divesting the shareholding, either partially or totally.	Component used in calculating comparable operating profit and comparable EBITDA.	Income statement
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 IFRS 9, which are adjusted from other income.	Component used in calculating comparable operating profit and comparable EBITDA.	Income statement

22. Definitions of key figures

Business performance	Definition		Reason to use the measure	Reference to reconciliation
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, which is adjusted from materials and services. In addition adjustments are made for accounting effects from valuation according to IFRS.		Component used in calculating comparable operating profit and comparable EBITDA.	Income statement
Comparable return on net assets, %	Comparable operating profit + share of profit (loss) in associated companies and joint ventures + adjustment for share of profit of associated companies and joint ventures / Comparable net assets average	x 100	Comparable return on net assets is 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.	Note 4 Segment information
Adjustment for Share of profit of associated companies and joint ventures	Adjustment for material items affecting comparability.		Share of profit of associates and joint ventures is included in profit component in the comparable RONA calculation and the adjustments are done based on similar components as in Items affecting comparability.	Note 4 Segment information
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).		Comparable net assets is a component in Comparable return on net assets calculation where return on capital allocated directly to the businesses is measured.	Note 4 Segment information

22. Definitions of key figures

Capital structure	Definition		Reason to use the measure	Reconciliation
Comparable net debt / EBITDA	Interest-bearing net debt / Comparable EBITDA		Financial targets give guidance on Fortum's view of the company's long-term value creation potential, its growth strategy and business activities. Comparable net debt to EBITDA is one of the Fortum's long-term over-the-cycle financial targets measuring the capital structure of the Group.	Capital structure and key ratios after cash flow statement
Interest-bearing net debt	Interest-bearing liabilities - liquid funds		Interest-bearing net debt is used in the follow-up of the indebtedness of the group i.e. capital structure especially as a component in the long-term over-the-cycle financial target of Comparable net debt / EBITDA in the Group.	Note 13 Interest-bearing net debt

Capital structure	Definition		Reason to use the measure	Reconciliation
Return on capital employed (ROCE), %	Profit before taxes + interest and other financial expenses / Capital employed average	x 100	Return on capital employed (ROCE) is a long-term over the cycle financial ratio measuring the profitability and how efficiently invested capital is used. It gives guidance on company's long-term value creation potential, its growth strategy and business activities.	Capital structure and key ratios after cash flow statement
Capital employed	Total assets - total non-interest bearing liabilities		Capital employed is the book value of the invested capital and it is used as a component when calculating the Return of capital employed in the group.	Capital structure and key ratios after cash flow statement

Other key figures

Share based key figures

Earnings per share (EPS)	Profit for the period - non-controlling interests / Average number of shares during the period
Equity per share	Shareholder's equity / Number of shares at the end of the period

22. Definitions of key figures

Other key figures

FFO/Net debt, %

$$\frac{\text{Funds from operations (FFO)}}{\text{Interest-bearing net debt}} \times 100$$

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. Investments in subsidiary shares are net of cash and grossed with interest-bearing liabilities in the acquired company.

Return on shareholders' equity (ROE), %

$$\frac{\text{Profit for the year}}{\text{Total equity average}} \times 100$$

Gearing, %

$$\frac{\text{Interest-bearing net debt}}{\text{Total equity}} \times 100$$

Equity-to-assets ratio, %

$$\frac{\text{Total equity including non-controlling interest}}{\text{Total assets}} \times 100$$

Interest coverage

$$\frac{\text{Operating profit}}{\text{Net interest expenses}}$$

Interest coverage including capitalised borrowing costs

$$\frac{\text{Operating profit}}{\text{Net interest expenses - capitalised borrowing costs}}$$

Definitions for tax figures

Effective income tax rate,%

$$\frac{\text{Income tax expense}}{\text{Profit before income tax}} \times 100$$

Comparable effective income tax rate,%

$$\frac{\text{Income tax expense - effects from tax rate changes and major one time tax effects}}{\text{Profit before income tax decreased by profits from associated companies and joint ventures as well as tax exempt capital gains or losses}} \times 100$$

Last twelve months (LTM)

Twelve months preceding the reporting date

Market conditions and achieved power prices

Power consumption TWh	Q4 2018	Q4 2017	2018	2017
Nordic countries	108	108	399	392
Russia	285	281	1,055	1,035
Tyumen	25	24	92	95
Chelyabinsk	9	9	35	33
Russia Urals area	70	69	260	261

Average prices	Q4 2018	Q4 2017	2018	2017
Spot price for power in Nord Pool power exchange, EUR/MWh	47.6	30.6	44.0	29.4
Spot price for power in Finland, EUR/MWh	49.6	33.0	46.8	33.2
Spot price for power in Sweden, SE3, Stockholm EUR/MWh	48.2	31.1	44.5	31.2
Spot price for power in Sweden, SE2, Sundsvall EUR/MWh	47.4	30.2	44.2	30.8
Spot price for power in the First Price Zone of Russia, RUB/MWh 1)	1,309	1,221	1,247	1,204
Average capacity price, tRUB/MW/month	682	577	609	535
Spot price for power in Germany, EUR/MWh	52.6	33.0	44.5	34.2
Average regulated gas price in Urals region, RUB/1000 m^3	3,883	3,755	3,801	3,685
Average capacity price for CCS, tRUB/MW/month 2)	158	157	148	148
Average capacity price for CSA, tRUB/MW/month 2)	1,196	983	1,075	899
Spot price for power (market price), Urals hub, RUB/MWh 1)	1,099	1,038	1,043	1,041
CO_2, (ETS EUA), EUR/tonne CO_2	20	7	16	6
Coal (ICE Rotterdam), USD/tonne	93	93	92	84
Oil (Brent Crude), USD/bbl	69	61	72	55

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

Water reservoirs TWh	Dec 31 2018	Dec 31 2017
Nordic water reservoirs level	74	86
Nordic water reservoirs level, long-term average	83	83

Export/import TWh (+ = import to, - = export from Nordic area)	Q4 2018	Q4 2017	2018	2017
Export / import between Nordic area and Continental Europe + Baltics	-4	-4	-10	-15
Export / import between Nordic area and Russia	2	2	8	6
Export / import Nordic area, Total	-2	-2	-2	-9

Power market liberalisation in Russia %	Q4 2018	Q4 2017	2018	2017
Share of power sold at the liberalised price	80%	82%	80%	81%

Achieved power prices	Q4 2018	Q4 2017	2018	2017
Generation segment's Nordic power price, EUR/MWh	34.6	32.5	33.7	31.8
Russia segment's power price, RUB/MWh	1,982	1,845	1,888	1,813
Russia segment's power price, EUR/MWh 1)	26.0	27.0	25.6	27.5

1) Translated using average exchange rate.

Fortum's production and sales volumes

Power generation TWh	Q4 2018	Q4 2017	2018	2017
Power generation in Europe	11.5	12.0	44.4	46.6
Power generation in Russia	8.0	7.2	29.6	26.3
Power generation in other countries	0.1	0.1	0.4	0.3
Total	**19.9**	**19.3**	**74.6**	**73.2**

Heat production TWh	Q4 2018	Q4 2017	2018	2017
Heat production in Europe	3.1	3.0	9.4	8.6
Heat production in Russia	6.4	7.0	20.4	20.0
Total	**9.6**	**10.1**	**29.8**	**28.6**

Power generation capacity by segment MW	Dec 31 2018	Dec 31 2017
Generation [1)]	7,867	7,862
City Solutions	788	775
Russia	4,912	4,794
Other	157	292
Total	**13,724**	**13,722**

1) Including 308 MW of Meri-Pori power plant, which will be under reserve capacity agreement during period July 2017 - June 2020. Capacity decreases due to closure of unit 1 (205 MW) in Oskarshamn in end of June 2017.

Heat production capacity by segment MW	Dec 31 2018	Dec 31 2017
City Solutions	4,780	4,671
Russia	10,229	10,094
Total	**15,009**	**14,765**

Power generation by source in the Nordic area TWh	Q4 2018	Q4 2017	2018	2017
Hydro and wind power	4.9	5.7	19.4	20.9
Nuclear power	6.1	5.6	22.8	23.0
Thermal power	0.3	0.3	1.3	1.6
Total	**11.4**	**11.7**	**43.5**	**45.4**

Power generation by source in the Nordic area %	Q4 2018	Q4 2017	2018	2017
Hydro and wind power	43	49	45	46
Nuclear power	54	48	52	51
Thermal power	2	3	3	3
Total	**100**	**100**	**100**	**100**

Power sales EUR million	Q4 2018	Q4 2017	2018	2017
Power sales in Europe	914	731	2,922	2,244
Power sales in Russia	237	226	872	837
Power sales in other countries	0	3	15	9
Total	**1,151**	**960**	**3,810**	**3,089**

Fortum's production and sales volumes

Heat sales EUR million	Q4 2018	Q4 2017	2018	2017
Heat sales in Europe	205	194	615	524
Heat sales in Russia	65	87	193	258
Total	**270**	**281**	**808**	**782**

Power sales by area TWh	Q4 2018	Q4 2017	2018	2017
Finland	6.2	6.0	23.1	22.5
Sweden	8.1	8.5	29.7	30.8
Russia	9.1	8.4	34.1	30.5
Norway	4.7	4.6	15.3	7.2
Other countries	0.4	0.8	1.8	2.9
Total	**28.5**	**28.4**	**104.0**	**93.9**

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

Heat sales by area TWh	Q4 2018	Q4 2017	2018	2017
Russia	7.7	6.8	20.7	19.8
Finland	1.2	1.2	3.8	3.9
Poland	1.2	1.2	3.5	3.7
Other countries	1.2	1.1	3.5	2.5
Total	**11.3**	**10.4**	**31.5**	**29.9**