

Fortum Corporation Domicile Espoo Business ID 1463611-4

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

Strong results improvement and agreement on majority stake in Uniper

July-September 2019

- Comparable EBITDA was EUR 295 (230) million, +28%
- Comparable operating profit was EUR 153 (96) million, +59%
- Operating profit was EUR 124 (91) million, +36%
- Share of profits of associated companies and joint ventures was EUR 106 (12) million, mainly related to Fortum's share of Uniper's profit
- Earnings per share were EUR 0.20 (0.05), of which EUR -0.02 (-0.01) related to items affecting comparability and EUR 0.10 (-) to Uniper
- Cash flow from operating activities totalled EUR 262 (133) million

January-September 2019

- Comparable EBITDA was EUR 1,213 (1,051) million, +15%
- Comparable operating profit was EUR 793 (654) million, +21%
- Operating profit was EUR 666 (829) million, -20%
- Share of profits of associated companies and joint ventures was EUR 678 (82) million, mainly related to Fortum's share of Uniper's profit
- Earnings per share were EUR 1.27 (0.73), of which EUR -0.11 (0.17) related to items affecting comparability and EUR 0.60 (-) to Uniper. In 2018, the capital gain from the sale of the 10% stake in Hafslund Produksjon was EUR 0.09.
- Cash flow from operating activities totalled EUR 1,753 (767) million, mainly due to the change in settlements for futures and dividends received

Events after the balance sheet date

• On 8 October 2019, Fortum announced it had entered into agreements with Elliott and Knight Vinke to acquire in excess of 20.5% in Uniper, increasing Fortum's ownership to more than 70.5%. The transaction is subject to regulatory clearances.

Summary of outlook

- The Generation segment's Nordic generation hedges: approximately 80% hedged at EUR 33 per MWh for the remainder of 2019, approximately 70% at EUR 33 per MWh for 2020, and approximately 35% at EUR 33 per MWh for 2021
- Capital expenditure, including maintenance but excluding acquisitions, is expected to be in the range of EUR 600-650 million in 2019. In 2020, capital expenditure is expected to decline

Key financial ratios

EUR million	2018	LTM
Return on capital employed, %	6.7	9.0
Comparable net debt/EBITDA	3.6	3.2

Key figures

EUR million	III/19	III/18	I-III/19	I-III/18	2018	LTM
Sales	1,060	971	3,894	3,643	5,242	5,493
Comparable EBITDA	295	230	1,213	1,051	1,523	1,685
Comparable operating profit	153	96	793	654	987	1,126
Operating profit	124	91	666	829	1,138	975
Share of profits of associates and joint ventures	106	12	678	82	38	634
Profit before income taxes	198	45	1,274	779	1,040	1,535
Earnings per share, EUR	0.20	0.05	1.27	0.73	0.95	1.48
Net cash from operating activities	262	133	1,753	767	804	1,790
Shareholders' equity per share, EUR			13.96	13.49	13.33	
Interest-bearing net debt (at the end of the period)			5,367	5,244	5,509	

Fortum's President and CEO Pekka Lundmark:

"The highlight of the third quarter was the doubling of the comparable operating profit of the Generation segment. Hydro volumes returned to normal from the historically low level a year ago. Nuclear volumes increased and were at a good level. In spite of the clearly lower spot prices we were able to increase our achieved power price with successful hedging, which further strengthened the results. The development of the Consumer Solutions and Russia segments continued to be positive, showing clear results improvements. Unfortunately, the results of the City Solutions segment was a disappointment. Several challenging external factors affected the results of the City Solutions segment, however, in order to improve the performance we are also reviewing internal corrective measures.

Based on the positive development, our return on capital employed has now increased to 9%, close to our long-term target of at least 10%. Our investment in Uniper is also contributing well to our results; our share of Uniper's profit for the last twelve months is already EUR 532 million. It is, however, good to remember the fairly volatile nature of Uniper's results, due to its large trading operations.

Soon after the third quarter we announced our agreement to acquire in excess of 20% of the shares in Uniper from Elliott and Knight Vinke. Once finalised, this will increase our ownership in Uniper to more than 70% and our total investment in the company to more than EUR 6 billion. The investment follows our prudent investment criteria to add value for Fortum shareholders. The transaction is still subject to regulatory approvals in the US and Russia. We expect to be able to close the transaction by the end of the first quarter next year.

Fortum and Uniper together have the sufficient size, expertise, and resources to succeed, to grow and to lead Europe's energy transition. The companies' competences are highly complementary, and we have an aggregate EBITDA of approximately EUR 3 billion. This puts us in a strong position to advance the transition and also to capture the growth opportunities it presents. This will be our key priority going forward.

Since the initial announcement of our investment in Uniper some two years ago, it has been our preference to agree with Uniper on a joint path forward. We are convinced that this change in Uniper's ownership structure as well as a resolution of the complex relationship between all parties will return stability and put the focus solely on the business and the opportunities available. Accordingly, we announced our expectation for increased cooperation and strategic alignment as well as our intention to increase our representation on the Supervisory Board of Uniper, including the chairmanship. As a responsible and committed owner in Uniper, we also offered certain commitments to Uniper and its employees in order to provide predictability and stability. We are currently in discussions with Uniper on how to arrange these matters.

During the fall we have seen several positive developments relating to climate policy. We warmly welcome the firm climate-orientation of the new EU Commission and their initiative for a European Green Deal. We strongly advocate for the EU carbon-neutrality target for 2050 and consider that it provides an excellent opportunity to push forward our strategy 'For a cleaner world'. We continue to promote carbon pricing for all sectors as a basis for the decarbonisation of European society. However, Europe alone cannot solve the climate challenge as it represents only 9% of the global greenhouse gas emissions. In this context, we welcomed the Russian ratification of the Paris Agreement in September. All parts of the world have to contribute; the ultimate goal should be for the most comprehensive global carbon pricing."

Financial results

Sales by segment

EUR million	III/19	III/18	I-III/19	I-III/18	2018	LTM
Generation	458	360	1,558	1,285	1,842	2,115
City Solutions	200	178	834	751	1,110	1,193
Consumer Solutions	311	332	1,326	1,204	1,759	1,881
Russia	229	200	765	764	1,069	1,070
Other Operations	29	25	83	72	103	114
Netting of Nord Pool transactions	-100	-105	-390	-358	-516	-548
Eliminations	-67	-17	-282	-75	-125	-332
Total	1,060	971	3,894	3,643	5,242	5,493

Comparable EBITDA by segment

EUR million	III/19	III/18	I-III/19	I-III/18	2018	LTM
Generation	176	103	660	538	763	885
City Solutions	11	47	179	201	310	288
Consumer Solutions	31	22	106	79	110	137
Russia	91	76	333	291	417	459
Other Operations	-14	-17	-64	-57	-78	-85
Total	295	230	1,213	1,051	1,523	1,685

Comparable operating profit by segment

EUR million	III/19	III/18	I-III/19	I-III/18	2018	LTM
Generation	140	69	555	440	628	743
City Solutions	-36	4	41	71	135	105
Consumer Solutions	16	7	60	36	53	77
Russia	53	40	222	182	271	311
Other Operations	-21	-24	-84	-73	-99	-110
Total	153	96	793	654	987	1,126

Operating profit by segment

EUR million	III/19	III/18	I-III/19	I-III/18	2018	LTM
Generation	111	45	463	552	736	647
City Solutions	-38	2	46	78	130	98
Consumer Solutions	20	26	24	64	75	35
Russia	54	41	223	183	273	313
Other Operations	-24	-24	-89	-48	-76	-117
Total	124	91	666	829	1,138	975

Share of profits of associated companies and joint ventures

EUR million	III/19	III/18	I-III/19	I-III/18	2018	LTM
Generation	6	1	45	-5	-72	-22
City Solutions	-1	6	41	49	74	66
Consumer Solutions	0	0	0	0	0	0
Russia	15	5	59	36	36	59
Other Operations	86	0	534	2	0	532
Total	106	12	678	82	38	634

July-September 2019

Fortum's sales increased by 9% and the comparable operating profit by 59%. The result improvement was mainly related to the higher hydro and nuclear volumes and higher achieved power price in the Generation segment. The Consumer Solutions and Russia segments also show improved results. The main reason for the lower results of the City Solutions segment was the profit of EUR 26 million recorded in the third quarter of 2018 from the sale of a 54% share of Fortum's Indian solar portfolio.

Operating profit for the period was impacted by EUR -29 (-5) million of items affecting comparability, mainly from the fair value change of non-hedge-accounted derivatives (Note 4).

The share of profit of associates and joint ventures was EUR 106 (12) million, including Fortum's share of Uniper's second-quarter 2019 results of EUR 78 (-) million and EUR 8 (-) million of fair value adjustments reversal according to the purchase price allocation of Uniper for the third quarter of 2019 (Note 6). The share of profit of Uniper is based on Uniper's reported 'Net income/loss attributable to shareholders' including the impact from 'Non-operating results', e.g. the fair value measurement of derivative financial instruments, which are subject to volatility. EUR 41 (-) million of non-operating results from Uniper are included in the share of profits in the third quarter of 2019. Co-owned nuclear companies accounted for EUR 8 (2) million and TGC-1 for EUR 14 (9) million. The share of profit of Uniper and TGC-1 are based on the companies' published second-quarter 2019 interim reports (Note 11).

Net finance costs amounted to EUR 32 (58) million.

January-September 2019

Fortum's sales increased by 7%. Comparable operating profit improved by 21%. The higher achieved power price and higher hydro and nuclear volumes in the Generation segment as well as the improved performance in the Russia segment were the main contributors to the result improvement.

Operating profit for the period was impacted by EUR -127 (175) million of items affecting comparability, mainly from the fair value change of non-hedge-accounted derivatives and from the nuclear fund adjustment related to the regular Finnish technical update (Notes 4 and 14). In the comparison period in 2018, Fortum recorded a capital gain of EUR 77 million from the sale of the 10% stake in Hafslund Produksjon.

The share of profit of associates and joint ventures was EUR 678 (82) million, including Fortum's share of Uniper's fourth-quarter 2018 and first- and second-quarter 2019 results of EUR 511 (-) million as well as EUR 23 (-) million of fair value adjustments reversal according to the purchase price allocation of Uniper for the three first quarters of 2019 (Note 6). EUR 293 (-) million of non-operating results from Uniper are included in the share of profits. Co-owned nuclear companies accounted for EUR 49 (1) million, Stockholm Exergi for EUR 30 (40) million, and TGC-1 for EUR 47 (38) million (Note 11).

Net finance costs amounted to EUR 70 (132) million, including a positive impact of EUR 40 million related to the regular nuclear technical update in Finland in the second quarter (Note 14). Net interest expenses were EUR 105 (84) million. EUR 13 million of the interest expenses represent the remaining amortised cost due to the prepayment of the bridge financing for the acquisition of Uniper shares.

Profit before income taxes was EUR 1,274 (779) million.

Taxes for the period totalled EUR 134 (118) million. The effective income tax rate, according to the income statement, was 10.5% (15.1%). The comparable effective income tax rate, excluding the impact of the share of profit of associated companies and joint ventures as well as non-taxable capital gains, tax rate changes, and other major one-time income tax effects, was 22.0% (21.2%) (Note 7).

The profit for the period was EUR 1,140 (661) million. Earnings per share were EUR 1.27 (0.73), of which EUR -0.11 (0.17) per share were related to items affecting comparability.

Financial position and cash flow

Cash flow

In January-September 2019, net cash from operating activities was strong and increased by EUR 986 million to EUR 1,753 (767) million, mainly impacted by the improved comparable EBITDA of EUR 1,213 (1,051) million, a EUR 342 (-298) million change in settlements for futures on Nasdaq Commodities, dividends of EUR 165 (-) million received from Uniper, and a EUR 201 (35) million change in working capital, however, offset by a change of realised foreign exchange gains and losses of EUR -194 million.

Net cash from investing activities was EUR -162 (-4,107) million. The comparison period in 2018 included the acquisition of Uniper shares. Capital expenditure increased by EUR 135 million to EUR 529 (394) million. Cash collaterals and restricted cash decreased by EUR 407 million, including the non-cash collateral arrangement in the first quarter to release pledged cash from the Nordic power exchange, which had a major positive impact of EUR 310 million. Consequently, cash flow before financing activities increased significantly to EUR 1,591 (-3,340) million.

Proceeds from long-term liabilities were EUR 2,805 (1,764) million, arising from the issuance of new bonds totalling EUR 2.5 billion under the Euro Medium Term Note (EMTN) programme and a bilateral loan of EUR 300 million. The proceeds from the issued bonds were used to repay the bridge financing of EUR 1,750 million related to the acquisition of Uniper shares and repayment of a bond of EUR 750 million. The total payments of long-term liabilities were EUR 2,549 (553) million. The net increase in liquid funds was EUR 808 (-3,138) million.

Dividends received totalled EUR 239 (53) million, mainly related to dividends received from Uniper EUR 165 (-) million, Stockholm Exergi EUR 40 (39) million, Turun Seudun Energiantuotanto EUR 20 (10) million, and TGC-1 EUR 10 (0) million.

Assets and capital employed

At the end of the reporting period, total assets amounted to EUR 22,858 (22,409 at the end of 2018) million. Liquid funds at the end of the period increased to EUR 1,430 (584 at the end of 2018) million. Capital employed was EUR 19,436 (18,170 at the end of 2018) million.

Equity

Equity attributable to owners of the parent company totalled EUR 12,401 (11,841 at the end of 2018) million. The 2018 dividend of EUR 1.10 per share, approved by the 2019 Annual General Meeting (AGM) on 26 March 2019, was paid on 4 April 2019. The increase in equity of EUR 560 million was mainly related to the net profit for the period of EUR 1,126 million, the positive impact from fair valuation of cash flow hedges of EUR 419 million, and the positive translation differences of EUR 131 million, partly offset by the dividend payment of EUR 977 million.

Financing

Net debt decreased by EUR 142 million to EUR 5,367 (5,509 at the end of 2018) million, including lease liabilities of EUR 96 million. Interest-bearing liabilities increased by EUR 704 million and liquid funds increased by EUR 846 million. The dividend, EUR 977 million, was paid on 4 April 2019.

At the end of the reporting period, the Group's liquid funds totalled EUR 1,430 (584 at the end of 2018) million. Liquid funds include cash and bank deposits held by PAO Fortum of EUR 202 (317 at the end of 2018) million. In the second quarter of 2019, PAO Fortum paid dividends of EUR 352 million to its parent company. At the end of the third quarter Fortum had undrawn committed credit facilities amounting to EUR 1,800 (1,800) million, of which EUR 1,750 million is maturing in June 2023 (Note 13).

On 19 February 2019, Fortum issued bonds with a total nominal value of EUR 2.5 billion under its EMTN programme. The bonds were issued in three tranches with the following maturities; EUR 1,000 million with a 0.875% fixed coupon maturing on 27 February 2023; EUR 750 million with a 1.625% fixed coupon maturing on 27 February 2026; and EUR 750 million with a 2.125% fixed coupon maturing on 27 February 2029. The proceeds from the issued bonds were used to repay the bridge financing of EUR 1,750 million related to the acquisition of Uniper shares and repayment of a bond of EUR 750 million, which resulted in a more balanced debt maturity profile. In April 2019, Fortum drew a five-year EUR 300 million bilateral financial loan.

Following Fortum's announcement to acquire an additional stake of more than 20.5% of Uniper's shares, Standard & Poor's and Fitch reviewed the credit rating of Fortum. In October 2019, Standard & Poor's placed Fortum's long-term credit rating of BBB on CreditWatch Negative. The short-term rating is at level A-2. In October 2019, Fitch Ratings placed Fortum's long-term credit rating of BBB and short-term credit rating of F2 on Rating Watch Negative. Fortum is committed to maintaining an investment-grade rating post transaction and to strengthening its financial profile longer term. Having a solid investment-grade rating is a key priority for Fortum.

Key figures

At the end of the reporting period, the comparable net debt to EBITDA ratio for the last 12 months was 3.2x (3.6x at the end of 2018). The target is to steer the leverage from the current net debt to EBITDA ratio towards the long-term over-the-cycle target of approximately 2.5x.

Gearing was 42% (46% at the end of 2018) and the equity-to-assets ratio was 55% (54% at the end of 2018). Equity per share was EUR 13.96 (13.33 at the end of 2018). Return on capital employed (ROCE) for the last 12 months was 9.0% (6.7% at the end of 2018). Fortum targets a long-term over-the-cycle return on capital employed of at least 10%.

Segment reviews

In 2018, the development units 'M&A and Solar & Wind Development' and 'Technology and New Ventures', reported within Other Operations, were reorganised and parts of the operations moved to the existing divisions. From the beginning of 2019, the management and segment reporting was changed accordingly. The wind business is reported as part of the Generation segment and the solar business as well as the bio-based solutions as part of the City Solutions segment. The Russian wind and solar operations continue as a part of the Russia segment. The restated figures in accordance with the new organisational structure were published on 19 March 2019.

Generation

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

EUR million	III/19	III/18	I-III/19	I-III/18	2018	LTM
Sales	458	360	1,558	1,285	1,842	2,115
- power sales	435	349	1,465	1,256	1,771	1,980
of which Nordic power sales*	325	254	1,124	1,014	1,415	1,525
- other sales	23	11	93	29	71	135
Comparable EBITDA	176	103	660	538	763	885
Comparable operating profit	140	69	555	440	628	743
Operating profit	111	45	463	552	736	647
Share of profits of associates and joint ventures**	6	1	45	-5	-72	-22
Comparable net assets (at period-end)			5,953	6,072	6,485	
Comparable return on net assets, %					10.8	13.0
Capital expenditure and gross investments in shares	81	72	184	170	262	276
Number of employees			1,143	1,139	1,091	

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

Power generation by source

TWh	III/19	III/18	I-III/19	I-III/18	2018	LTM
Hydropower, Nordic	4.3	2.9	14.5	14.3	19.1	19.3
Nuclear power, Nordic	5.0	4.7	17.2	16.6	22.8	23.4
Wind power, Nordic	0.1	0.1	0.3	0.2	0.3	0.4
Thermal power, Nordic	0.0	0.0	0.2	0.1	0.1	0.2
Total	9.4	7.6	32.1	31.2	42.3	43.2

Nordic sales volumes

TWh	III/19	III/18	I-III/19	I-III/18	2018	LTM
Nordic sales volume	11.1	9.2	37.4	35.8	48.7	50.3
of which Nordic power sales volume*	9.1	7.3	30.9	30.1	40.8	41.6

^{*} The Nordic power sales volume includes hydro, wind, 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 19 in the Consolidated Financial Statements 2018).

Sales price

EUR/MWh	III/19	III/18	I-III/19	I-III/18	2018	LTM
Generation's Nordic power price*	35.7	34.6	36.4	33.7	34.6	36.6

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

July-September 2019

The Generation segment's total power generation in the Nordic countries increased clearly, mainly due to hydropower volumes increasing back to normal levels from the historically low levels in the third quarter of 2018. The operational performance and the load factor for nuclear generation continued to be at a good level. The CO₂-free production accounted for 100% (100%) of the total power generation.

Despite the lower spot prices, the achieved power price in the Generation segment increased by EUR 1.1 per MWh, +3%, due to the higher hedge price. The average spot market prices in Finland and in Sweden (SE3, Stockholm) declined by 9% and 32%, respectively.

Comparable operating profit increased by 103%. The higher hydro and nuclear volumes as well as the higher achieved power price were the main drivers of the improved results.

Operating profit was affected by EUR -29 (-25) million of items affecting comparability, mainly related to the fair value change of non-hedge accounted derivatives (Note 4).

The share of profits of associated companies and joint ventures totalled EUR 6 (1) million (Note 11).

The annual outages of the Loviisa nuclear power plant were managed well. The maintenance outage at Unit 2 lasted 26 days and at Unit 1 it lasted 20 days. Both units underwent a refuelling outage, during which about one quarter of the fuel was replaced.

In September 2019, the final disposal of spent nuclear fuel took a step forward, as the foundation stone for Posiva's encapsulation plant was laid in Onkalo, in Eurajoki, Finland. Posiva will dispose of the high-level nuclear waste of its owners, Fortum Power and Heat Oy (share of ownership 40%) and Teollisuuden Voima (TVO) (share of ownership 60%).

January-September 2019

The Generation segment's total power generation in the Nordic countries increased due to higher hydro and nuclear volumes. The overall operational performance and the load factor for nuclear generation were at a good level. The CO₂-free production accounted for 99% (100%) of the total power generation.

The achieved power price in the Generation segment increased by EUR 2.7 per MWh, +8%, driven by higher hedge prices and successful optimisation of hydropower production, as well as higher first-quarter spot power prices.

Comparable operating profit increased by 26%, due to the higher achieved power price and higher hydro and nuclear volumes.

Operating profit was affected by EUR -92 (112) million of items affecting comparability, mainly related to the fair value change of non-hedge-accounted derivatives and the regular Finnish nuclear technical update. In the comparison period in 2018, Fortum recorded a capital gain of EUR 77 million from the sale of the 10% stake in Hafslund Produksjon (Notes 4 and 14).

The share of profits of associated companies and joint ventures totalled EUR 45 (-5) million (Note 11).

City Solutions

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

EUR million	III/19	III/18	I-III/19	I-III/18	2018	LTM
Sales	200	178	834	751	1,110	1,193
- heat sales	63	60	414	410	604	608
- power sales	28	22	108	84	134	158
- waste treatment sales*	59	52	180	149	211	242
- other sales**	51	43	131	108	161	184
Comparable EBITDA	11	47	179	201	310	288
Comparable operating profit	-36	4	41	71	135	105
Operating profit	-38	2	46	78	130	98
Share of profits of associates and joint ventures	-1	6	41	49	74	66
Comparable net assets (at period-end)			3,790	3,726	3,794	
Comparable return on net assets, %					5.5	4.5
Capital expenditure and gross investments in shares	53	73	262	157	242	347
Number of employees			1,946	1,989	2,017	

^{*} Waste treatment sales comprise gate fees and environmental construction services.

Heat sales by country

TWh	III/19	III/18	I-III/19	I-III/18	2018	LTM
Finland	0.5	0.4	2.6	2.6	3.8	3.8
Poland	0.2	0.2	2.2	2.2	3.5	3.5
Norway	0.1	0.1	1.1	1.1	1.6	1.6
Other countries	0.3	0.2	1.3	1.2	1.9	2.0
Total	1.1	0.9	7.2	7.2	10.8	10.9

Power sales by country

TWh	III/19	III/18	I-III/19	I-III/18	2018	LTM
Finland	0.2	0.1	1.1	0.9	1.4	1.7
Poland	0.2	0.1	0.4	0.3	0.5	0.6
Other countries	0.3	0.3	0.7	0.8	1.0	0.9
Total	0.6	0.5	2.2	2.0	2.9	3.2

July-September 2019

Heat sales volumes increased as temperatures were somewhat colder than normal in most heating areas. The power sales volumes also increased in the third quarter of 2019.

Comparable operating profit decreased by EUR 40 million. The main reason for the decline was the profit of EUR 26 million recorded in the third quarter of 2018 from the sale of a 54% share of Fortum's Indian solar

^{**} Other sales mainly comprise operation and maintenance services, the sale of recycled products, and fuel sales.

portfolio. Longer maintenance breaks at some combined heat and power (CHP) plants, weaker performance in the recycling and waste business, higher costs for CO₂ emission allowances, and higher fuel costs also burdened the results.

Operating profit was affected by EUR -2 (-1) million of items affecting comparability, mainly related to the fair value change of non-hedge-accounted derivatives (Note 4).

The share of profits of associated companies and joint ventures totalled EUR -1 (6) million, the main part of which was related to the share of profit of Stockholm Exergi, EUR -4 (3) million and Turun Seudun Energiantuotanto EUR 3 (3) million (Note 11).

In September 2019, Fortum announced, in line with Fortum's strategy and the target for carbon-neutral district heating in Espoo during the 2020's, a target to discontinue the use of coal in the Espoo district heating network by the end of 2025.

January-September 2019

Heat sales volumes increased marginally. The power sales volume in Finland increased by 41% in the first quarter, due to higher load factors in the CHP plants. The power sales volume in 'other countries' was lower in the first and second quarters as a consequence of the sale of a majority share of the operational Indian solar portfolio in the third quarter of 2018.

Comparable operating profit decreased by 42%. The main reason for the decline was the profit of EUR 26 million recorded in the third quarter of 2018 from the sale of a 54% share of Fortum's Indian solar portfolio. The profit generated in the first half of 2019 was partly offset by the loss in the third quarter of 2019.

Operating profit was affected by EUR 5 (7) million of items affecting comparability, mainly related to capital gains and the fair value change of non-hedge-accounted derivatives (Note 4).

The share of profits of associated companies and joint ventures totalled EUR 41 (49) million, the main part of which was related to the share of profit of Stockholm Exergi, EUR 30 (40) million (Note 11).

Consumer Solutions

Consumer Solutions is responsible for the electricity and gas retail businesses in the Nordics and Poland, including the customer service, invoicing, and debt collection businesses. Fortum is the largest electricity retail business in the Nordics, with approximately 2.4 million customers across different brands in Finland, Sweden, Norway, and Poland. The business provides electricity as well as related value-added and digital services.

EUR million	III/19	III/18	I-III/19	I-III/18	2018	LTM
Sales	311	332	1,326	1,204	1,759	1,881
- power sales	272	285	1,175	1,045	1,547	1,677
- other sales	39	46	151	159	212	204
Comparable EBITDA	31	22	106	79	110	137
Comparable operating profit	16	7	60	36	53	77
Operating profit	20	26	24	64	75	35
Comparable net assets (at period-end)			564	631	648	
Capital expenditure and gross investments in shares	13	12	39	33	47	53
Number of employees			1,299	1,406	1,399	

Sales volumes

TWh	III/19	III/18	I-III/19	I-III/18	2018	LTM
Electricity	5.2	4.8	21.2	21.4	30.3	30.1
Gas*	0.7	0.7	2.8	2.9	4.1	4.1

^{*} Not including wholesale volumes.

Number of customers

Thousands*	III/19	III/18	2018
Electricity	2,360	2,450	2,440
Gas	40	20	30
Total	2,400	2,470	2,470

^{*} Rounded to the nearest 10,000.

July-September 2019

The electricity sales volume increased by 8%. The competition in the Nordics continued with high customer churn.

Comparable operating profit increased by 129%, driven by higher sales margins and improved performance in Poland. The higher sales margins are a result of the active development of the product and service portfolios following the Hafslund integration and subsequent development of the business.

Operating profit was affected by EUR 5 (19) million of items affecting comparability, due to the fair value change of non-hedge-accounted derivatives (Note 4).

In August 2019, the Polish Price Freeze Act came into force. The financial impact in the third quarter was EUR -1 million, and the impact for the fourth quarter is expected to be marginal.

January-September 2019

The electricity sales volume decreased by 7%, mainly due to the reduced number of customers and warmer weather in the first quarter. Higher market prices, especially in the first quarter, was the main driver for the 11% increase in sales.

Comparable operating profit increased by 67%, mainly supported by higher sales margins. The improvement was related to favourable market conditions in the first half of the year, temporarily increasing profitability in certain areas of the customer portfolio. The higher sales margins are a result of the active development of the product and service portfolios following the Hafslund integration and subsequent development of the business.

Operating profit was affected by EUR -36 (28) million of items affecting comparability, due to the 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	III/19	III/18	I-III/19	I-III/18	2018	LTM
Sales	229	200	765	764	1,069	1,070
- power sales	211	192	676	635	872	913
- heat sales	18	8	88	129	193	152
- other sales	1	0	2	1	4	5
Comparable EBITDA	91	76	333	291	417	459
Comparable operating profit	53	40	222	182	271	311
Operating profit	54	41	223	183	273	313
Share of profits of associates and joint ventures	15	5	59	36	36	59
Comparable net assets (at period-end)			3,098	2,853	2,789	
Comparable return on net assets, %					10.3	12.4
Capital expenditure and gross investments in shares	16	11	35	51	117	101
Number of employees			2,968	3,471	2,941	

Russian power generation and heat production

TWh	III/19	III/18	I-III/19	I-III/18	2018	LTM
Russian power generation	6.7	6.5	21.9	21.5	29.6	30.0
Russian heat production	1.7	1.5	11.3	13.9	20.4	17.8

Key electricity, capacity, and gas prices for Fortum Russia

	III/19	III/18	I-III/19	I-III/18	2018	LTM
Electricity spot price (market price), Urals hub, RUB/MWh	1,107	1,059	1,129	1,025	1,043	1,121
Average regulated gas price, Urals region, RUB/1000 m ³	3,937	3,812	3,883	3,774	3,801	3,896
Average capacity price for CCS and other, tRUB/MW/month* **	145	138	150	144	148	152
Average capacity price for CSA, tRUB/MW/month**	1,004	993	1,066	1,033	1,075	1,099
Average capacity price, tRUB/MW/month	571	556	604	585	609	624
Achieved power price for Fortum in Russia, RUB/MWh	1,974	1,884	1,985	1,854	1,888	1,984
Achieved power price for Fortum in Russia, EUR/MWh***	27.5	24.8	27.0	25.4	25.6	26.8

^{*} Including capacity receiving payments under "forced mode status", regulated tariffs, and bilateral agreements.

July-September 2019

Power generation volumes increased, due to tighter supply on the electricity market in the Tyumen area. Heat production volumes increased, due to colder weather in both the Chelyabinsk and Tyumen areas.

Sales increased by 15% due to the stronger Russian rouble, higher heat tariffs, as well as higher electricity prices and volumes.

^{**} Capacity prices paid for the capacity volumes, excluding unplanned outages, repairs, and own consumption.

^{***} Translated using the average exchange rate.

Comparable operating profit increased by 33%, supported by a result improvement in the heat business and higher electricity margins. The effect of the change in the Russian rouble exchange rate was EUR 5 million.

The share of profits of associated companies and joint ventures totalled EUR 15 (5) million, mainly related to the share of profit of TGC-1, EUR 14 (9) million (Note 11).

January-September 2019

Power generation volumes increased, due to the tighter supply on the electricity market in the Tyumen area. Heat production volumes decreased following the transfer of the heat distribution business in Chelyabinsk, including certain heat-only boilers, to the Yustek joint venture. The warmer weather in both the Chelyabinsk and Tyumen areas in the first months of the year also had a negative impact.

Sales remained stable. The negative effect of the weaker Russian rouble, the transfer of the heat distribution business in Chelyabinsk to the Yustek joint venture, and lower heat volumes due to the warmer weather in Chelyabinsk and Tyumen in the first months of the year were compensated by higher electricity prices and higher Capacity Supply Agreement (CSA) payments at Nyagan 2.

Comparable operating profit increased by 22%, supported by higher electricity margins, lower bad-debt provisions, and higher received CSA payments. The positive effect was, however, partly offset by the transfer of the heat distribution business in Chelyabinsk to the Yustek joint venture. In 2018, the businesses transferred to the Yustek joint venture had a marginal annual effect on the comparable operating profit in Russia. The increase in CSA payments was related to Nyagan 2 receiving higher payments for the last years of the CSA period starting from the third quarter of 2018. The effect of the change in the Russian rouble exchange rate was EUR -2 million.

The share of profits of associated companies and joint ventures totalled EUR 59 (36) million, mainly related to the share of profit of TGC-1, EUR 47 (38) million, and the Yustek joint ventures in Chelyabinsk and Tyumen, EUR 10 (3) million (Note 11).

Other Operations

Other Operations comprises corporate functions, technology and innovation, internal and external ventures, R&D, as well as Fortum's shareholding in Uniper, which is consolidated as an associated company from 30 June 2018 (Note 6).

EUR million	III/19	III/18	I-III/19	I-III/18	2018	LTM
Sales*	29	25	83	72	103	114
Comparable EBITDA	-14	-17	-64	-57	-78	-85
Comparable operating profit	-21	-24	-84	-73	-99	-110
Operating profit	-24	-24	-89	-48	-76	-117
Share of profits of associates and joint ventures	86	0	534	2	0	532
Comparable net assets (at period-end)			4,314	3,928	4,023	
Capital expenditure and gross investments in shares	20	148	34	3,894	4,003	143

^{*} Mainly internal sales.

Uniper investment and purchase price allocation

The total acquisition cost for Uniper of EUR 3,968 million, including direct costs relating to the acquisition, is reported in 'Participations in associated companies and joint ventures'. The purchase price allocation was finalised during the second quarter of 2019. Uniper's balance sheet as of 30 June 2018 has been used as the

starting point for the purchase price allocation; however, a fair value adjustment of EUR 613 million has been made for the acquired assets and liabilities. Fortum's share of the goodwill on Uniper's balance sheet, EUR 930 million, is derecognised, as it is not an identifiable asset according to IFRS. Potential future impairments of goodwill (existing as of 30 June 2018) booked by Uniper will therefore be reversed to Fortum's share of profits of associates and joint ventures. The fair value adjustments of EUR 613 million relates mainly to political and regulatory risks that are reflected in the fair value of certain generation and production assets. The fair value adjustment will be reversed to 'Share of profits of associates and joint ventures' over a period of 20 years, EUR 30 million annually. Fortum's January-September 2019 share of profits of Uniper includes a EUR 23 million reversal of the fair value adjustment. If Uniper reports negative impacts relating to these generation and production assets, Fortum will assess the potential need to use this fair value adjustment to reverse the negative impacts (Notes 6 and 11).

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 January-September 2019 Interim Report includes Fortum's share of Uniper's fourth-quarter 2018 and first- and second-quarter 2019 results (Note 6). Uniper will report its January-September 2019 results on 12 November 2019.

On 22 May 2019, Uniper hosted its AGM. The AGM approved the proposed dividend of EUR 0.90 per share, which, for Fortum, corresponds to a dividend received of EUR 165 million.

On 8 October 2019, Fortum announced it had entered into agreements with Elliott and Knight Vinke to acquire in excess of 20.5% in Uniper for approximately EUR 2.3 billion, increasing Fortum's share in Uniper to more than 70.5% (subject to regulatory clearances) and the total investment in Uniper to approximately EUR 6.2 billion (See 'Events after the balance sheet date' and Notes 6 and 11).

July-September 2019

Comparable operating profit increased.

The share of profits of associated companies and joint ventures totalled EUR 86 (0) million (Note 11), which comprises Fortum's share of Uniper's second-quarter 2019 results of EUR 78 (-) million and EUR 8 (-) million of fair value adjustments reversed to the share of profits of associates and joint ventures according to the purchase price allocation of Uniper for the third quarter of 2019 (Note 6). EUR 41 (-) million of non-operating results from Uniper are included in the share of profits in the third quarter of 2019 (Note 11).

January-September 2019

Comparable operating profit declined, mainly as a result of the increased spend on Business Technology, including internal and external ventures.

The share of profits of associated companies and joint ventures totalled EUR 534 (2) million (Note 11), which comprises Fortum's share of Uniper's fourth-quarter 2018 as well as first- and second-quarter 2019 results of EUR 511 (-) million and EUR 23 (-) million of fair value adjustments reversed to the share of profits of associates and joint ventures according to the purchase price allocation of Uniper for the first three quarters of 2019 (Note 6). EUR 293 (-) million of non-operating results from Uniper are included in the share of profits (Note 11).

Capital expenditures, divestments, and investments in shares

In the third quarter of 2019, capital expenditures and investments in shares totalled EUR 183 (316) million, of which the Solberg acquisition from the Solberg-Blaiken asset swap amounted to EUR 36 million (Note 6). Capital expenditures were EUR 162 (160) million (Note 4).

In January-September 2019, capital expenditures and investments in shares totalled EUR 552 (4,305) million. Capital expenditures were EUR 516 (385) million (Note 4). Investments in shares in 2018 were mainly attributable to the purchase of Uniper shares.

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

	Туре	Electricity capacity, MW	Heat capacity, MW	Supply starts/started
Generation				
Hydro plants in Sweden and Finland	Hydro	~15		2019
Sørfjord, Norway	Wind	97		IV/19-III/20
Kalax, Finland	Wind	90		1/2021
City Solutions				
Zabrze, Poland	CHP	75	145	1 Apr 2019
Kivenlahti, Finland	Bio HOB*		58	2020
Suomenoja, Finland	Heat pump		20	2021
Pavagada 2, India	Solar	250		5 Aug 2019
Rajasthan, India	Solar	250		IV/2020
Russia				
Solar**	Solar	116		2021-2022

^{*} Biofuel-fired heat-only boiler (HOB).

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 the reporting period, Fortum's outstanding loan receivables regarding OL3 were EUR 170 million and the outstanding commitment was EUR 63 million. In March 2019, the Finnish Government granted an operating licence for OL3. According to the time schedule updated by plant supplier Areva-Siemens consortium in July 2019, the plant will start regular electricity generation in July 2020 (Note 18).

In May 2019, Fortum announced the restructuring of Fortum's and Skellefteå Kraft's ownership in the two jointly owned Swedish wind parks Solberg and Blaiken. Through an asset swap arrangement, Fortum became the sole owner of the 76-MW Solberg wind park and Skellefteå Kraft the sole owner of the 248-MW Blaiken wind park. The Solberg-acquisition related to the Solberg-Blaiken asset swap amounted to EUR 36 million. The asset swap arrangement was finalised in August 2019 and had only a minor impact on Fortum's cash flow and results.

In May 2019, Fortum made the investment decision to start construction of the 90-MW Kalax wind park in Närpes, Finland. The project consists of 21 wind turbines with a total capacity of 90.3 MW and an annual production of more than 0.3 TWh. The Kalax wind park was chosen to the Finnish national renewables scheme in March 2019 and will receive a subsidy of EUR 2.87 per MWh if the market price for power is below EUR 30

^{**} Subject to separate investment decision.

per MWh. The capital expenditure of the wind park is approximately EUR 90 million. The wind park is expected to be fully operational in the first quarter of 2021 at the latest. In October 2019, Fortum signed a 12-year power purchase agreement selling 70% of the power production of the Kalax wind park to Neste Corporation.

On 1 January 2019, Fortum acquired all remaining C-shares of TVO, entitling it to 100% of the power production of the Meri-Pori coal condensing power 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 Norway, Fortum is constructing the 97-MW Sørfjord wind farm. Part of the capacities are expected to be commissioned in the fourth quarter of 2019 and the remaining part after the winter season by the end of the third quarter of 2020.

City Solutions

In June 2019, Fortum decided to assess the strategic options, including possible divestment, of its district heating and cooling businesses in Joensuu, Finland, as well as in Pärnu (100% ownership) and Tartu (60% ownership), Estonia. In line with its strategy, Fortum continuously reviews its businesses to optimise its portfolio for value creation.

In May 2019, Fortum announced its plan to construct a new 20-MW heat pump unit at the Suomenoja power plant in Espoo to produce carbon-neutral district heating and to replace fossil fuel-based heat production. The unit is planned for commissioning in spring 2021 and will, together with the Kivenlahti bio-HOB, increase the share of Espoo's carbon-neutral district heating production in 2022 to over 50%. The final investment decision to build the unit will be made during 2019.

In March 2019, Fortum announced that it had won the right from Solar Energy Corporation of India to build a 250-MW solar power plant in Rajasthan, India. Commissioning of the plant is expected in the fourth quarter of 2020.

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 was approximately EUR 160 million. The plant was fully commissioned by 5 August 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%). In April 2019, Elite Alfred Berg used their option to buy an additional 2% from Fortum.

In 2015, Fortum decided to build a new multi-fuel CHP plant in Zabrze, Poland. The new plant is primarily fuelled by refuse-derived fuel (RDF) and coal, but it can also use a mixture of fuels. The new plant replaces the existing purely coal-fired units in Zabrze and Bytom. It has a production capacity of 145 MW of heat and 75 MW of electricity. Commissioning was somewhat delayed from the original plan and commercial operations started on 1 April 2019.

Russia

In April 2019, the Ministry of Energy of the Russian Federation selected Fortum and Energy Sales Company Vostok's 50/50 joint venture to become the guaranteed electricity retail supplier to 1.5 million customers in the Chelyabinsk region as of 1 July 2019. The decision was made based on an auctioning process held in March 2019. In the auction, the joint venture committed to a 100% reimbursement of the RUB 4.8 billion debt of Chelyabenergosbyt, corresponding to approximately EUR 66 million. The transaction required a limited equity investment from Fortum, as the joint venture financed the major part of the reimbursement with external debt. For Fortum, the net impact of the reimbursement was substantially lower due to the fact that Fortum was the single largest creditor, with EUR 11 million of the debt.

In June 2019, Fortum won the right to build 5.6 MW of solar capacity in Russian CSA auctions, in addition to the 110 MW won in June 2018. The power plants are to be commissioned during the years 2021-2022.

In June 2018, the Fortum-Rusnano wind investment fund (50/50 joint venture) 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, 2018, and 2019 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.

Operating and regulatory environment

Nordic countries

According to preliminary statistics, electricity consumption in the Nordic countries was 82 (82) TWh during the third quarter of 2019. Temperatures were close to the long-term average and industrial demand was almost unchanged. During January-September 2019, electricity consumption in the Nordic countries was 285 (291) TWh, as milder weather during the winter months caused a decrease in the power demand.

At the beginning of 2019, the Nordic water reservoirs were at 74 TWh, which is 10 TWh lower than the long-term average and 8 TWh lower than one year earlier. At the end of the third quarter of 2019, the reservoirs were at 102 TWh, which is 1 TWh above the long-term average and 13 TWh higher than one year earlier. In April 2019, the Norwegian energy regulator (NVE) revised the Norwegian reservoir statistics. The reported reference levels and historical deviations have been updated accordingly.

In the third quarter of 2019, the average system spot price in Nord Pool was EUR 34.7 (50.5) per MWh. The average area price in Finland was EUR 47.8 (53.5) per MWh and in Sweden (SE3, Stockholm) EUR 35.6 (52.2) per MWh. Low gas prices kept the Continental European spot prices at a low level during the third quarter. This, in combination with the increasing Nordic water reservoirs, caused the Nordic spot prices to decline, compared to the previous year. During January-September 2019, the average system spot price in Nord Pool was EUR 39.0 (42.8) per MWh. The average area price in Finland was EUR 44.2 (45.9) per MWh and in Sweden (SE3, Stockholm) EUR 38.3 (43.3) per MWh.

In Germany, the average spot price decreased significantly to EUR 37.4 (53.5) per MWh in the third quarter of 2019. In January-September 2019, the average German spot price was EUR 38.0 (41.7) per MWh.

The market price of CO₂ emission allowances (EUA) decreased from EUR 26 per tonne at the beginning of the third quarter to EUR 25 per tonne at the end of the third quarter of 2019.

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 240 (238) TWh during the third quarter of 2019. The corresponding figure for the First Price Zone was 185 (184) TWh. In January-September 2019, Russian electricity consumption was 773 (770) TWh and 590 (591) TWh in the First Price Zone.

In the third quarter of 2019, the average electricity spot price, excluding capacity prices, decreased by 2% to RUB 1,280 (1,302) per MWh in the First Price Zone. The spot price in the Urals hub increased by 5% and was RUB 1,107 (1,059) per MWh. In January-September 2019, the average electricity spot price, excluding capacity prices, was RUB 1,307 (1,227) per MWh in the First Price Zone and RUB 1,129 (1,025) 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 66-68).

Regulatory environment

The new EU Commission to launch the European Green Deal

The new EU Commission chaired by President Ursula von der Leyen is set to start officially from 1 December 2019. The climate and energy portfolio has been split into two, with climate placed under the responsibility of executive Vice-President Timmermans and energy under Commissioner Simson. The Commission will have a major task to set the EU on an economy-wide decarbonisation path. Timmermans has been appointed to issue a new European Green Deal, including the European Climate Act, within the first 100 days in office and to be complemented by further related EU climate legislation, e.g. revision of the 2030 target to 50-55% and a proposal to extend the EU Emission Trading Scheme (ETS) to new sectors.

The new Commission's high climate ambition fits well with Fortum's strategy, providing a good opportunity for Fortum to push forward our clean energy strategy and promote carbon pricing as a basis for the European decarbonisation roadmap.

Taxonomy of sustainable finance progressing

The EU Council's position on taxonomy of sustainable finance was approved on 25 September 2019. The taxonomy creates a unified classification system for investments that can be called sustainable and covers a large range of technologies critical to Fortum: nuclear, hydro, wind, solar, storage, carbon capture and storage, Power-to-X, treatment of hazardous waste, and waste-to-energy. In the European Parliament's view, adopted in March, non-renewable energy, gas pipelines, and waste incineration are not considered sustainable. The taxonomy file is now subject to the trilogue negotiations where the Commission, Parliament, and the Council are expected to reach a compromise by the end of the year.

Work on the technology-specific criteria has progressed in parallel with the taxonomy. The Commission's technical expert group has preliminarily recommended limiting taxonomy-eligible energy generation to renewables. The final recommendations are expected by the end of this year.

The financing costs are likely to increase for investments not being classified as sustainable. Technologies not classified as sustainable could also be excluded from public financing.

As such, the objective of the sustainable finance initiative is in line with Fortum's strategy, but Fortum has advocated for an approach based on CO_2 emissions and technology-neutrality taking into account compliance with the Paris Agreement.

German climate strategy proposal

In September, the German Government released an extensive climate and energy package in order to meet the 2030 emission reduction target of 55% and carbon-neutrality by 2050. The main focus of the new measures lies in the building and transport sectors with an aim to introduce a national CO₂-trading scheme for

those sectors. In the energy sector, the 65% target for renewable electricity by 2030 remains. The Government adopted a legislative proposal at the beginning of October, where it introduces legally binding climate targets for the energy, industry, building, transport, agriculture, and waste sectors in order to ensure the achievement of the targets.

In addition, the Government confirmed its ambition to propose legislation by the end of 2019 on the coal phase-out plan in line with the recommendations of the Coal Commission, and to publish a gas strategy including hydrogen.

In Fortum's opinion, it would be necessary to have the respective legislation in force as soon as possible, because the first auctions for hard coal plants are planned already for the summer 2020 and the first plants are to be closed in 2022.

The Nordic countries' budget proposals 2020 – key topics for Fortum

The Finnish Government presented its budget proposal on 17 September. All key energy tax decisions are postponed until 2020. The Government will start a broader energy tax reform in early 2020, taking effect in 2021. The reform will include an electricity tax reduction for industrial consumers (including datacentres and heat pumps that are connected to a district heating network and provide waste heat to the network), the tax treatment of peat and a CO₂ emission-based tax for waste incineration.

In line with a broad political agreement of January 2019, containing new green taxes of EUR 1.5 billion, the Swedish budget proposal for 2020 contains a tax on waste incineration: starting at SEK 75/tonne in 2020 and increasing up to SEK 125/tonne by 2022. Based on Stockholm Exergi's annual waste volume and a tax of SEK 100/tonne, the impact on Exergi's cost level would be SEK 100 million annually. The result impact will depend on the final legal framework of the tax and the waste supply contract structure. The increased tax on fossil-fuelled CHPs entered into force on 1 August. Consequently, the board of Stockholm Exergi has for the time being decided to decommission one of two units in CHP6 in Stockholm and to keep another unit only as a reserve to support security of supply.

The Norwegian Government submitted its budget proposal for 2020 on 7 October. It includes a proposal for a carbon capture and storage grant for Fortum Oslo Varme amounting to NOK 38.5 million until the end of 2020. The final investment decision could be made by the Parliament in late 2020 or early 2021. Fortum considers the financing by the Norwegian State or the EU Innovation Fund to be a prerequisite for the full-scale carbon capture and storage project development and investment.

Swedish electrification commission

The Government will form an electrification commission in order to speed up the electrification of the transport sector. The objective is to speed up investments in electrified roads, charging stations, and other possible solutions. It will also cover financing issues, how quickly grids can be built, and the effects on the electricity system as a whole when the transport sector electrifies.

Key drivers and risks

Fortum's financial results are exposed to a number of financial, operational, strategic, and sustainability-related risks. Fortum is exposed to these risks both directly and indirectly through its associated companies and joint ventures. The principal associated companies and joint ventures are Uniper SE, TVO, OKG AB, Forsmarks Kraftgrupp AB, Kemijoki Oy, TGC-1, and Stockholm Exergi AB. For more information about the risk exposures, please see each respective company's annual report.

One of the key factors influencing Fortum's business performance is the Nordic electricity wholesale price. The key short-term drivers behind the electricity wholesale price development in the Nordic region are commodity prices, such as coal and gas, European electricity wholesale prices, prices for CO₂ emission allowances, the hydrological situation, temperature, and the electricity import-export balance. In the longer term, global

economic growth and changes to energy policy and regulations impact commodity and CO₂ emission allowance prices, which, in turn, impact the Nordic wholesale price of electricity. 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.

Operational risks resulting from failed internal processes or systems or from external events can have a negative impact on Fortum's results. In all regions, fuel prices and power plant availability also impact profitability.

Changes in the regulatory and fiscal environment create risks and opportunities for the energy and environmental management business. 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 analyses and assesses a number of future market and regulation scenarios, including the impact of these on different generation forms and technologies. As a result, Fortum's 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 September 2019, approximately 80% of the Generation segment's estimated Nordic power sales volume was hedged at EUR 33 per MWh for the remainder of 2019, approximately 70% at EUR 33 per MWh for 2020 (at the end of the second quarter 2019: 60% at EUR 31 per MWh), and approximately 35% at EUR 33 per MWh for 2021.

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 during the next few years is expected to grow annually by approximately 0.5% on average. The growth rate will largely be determined by the macroeconomic development in Europe and especially in the Nordic countries and, in the longer term, also by the rate of electrification of industry, transportation, and heating.

During the third quarter of 2019 the gas price was at a low level, and also the front-year gas price decreased. Oil and EUA prices decreased, while coal prices increased.

In mid-October 2019, the forward quotation for coal (ICE Rotterdam) for the remainder of 2019 was around USD 61 per tonne and the market price for EUAs for 2019 at the level of EUR 26 per tonne. The Nordic system electricity forward price on Nasdaq Commodities for the remainder of 2019 was around EUR 41 per MWh and for 2020 around EUR 36 per MWh. In Germany, the electricity forward price for the remainder of 2019 was around EUR 44 per MWh and for 2020 around EUR 49 per MWh. The Nordic water reservoirs were about 2 TWh below the long-term average and 2 TWh higher 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.

On 19 June 2018, the Swedish Parliament adopted new hydro legislation that came into force on 1 January 2019. 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 23% of the fund's total financing. In addition to the new legislation, the Government issued an ordinance that came into force on 11 January 2019 to establish a national prioritisation plan for the revision of hydropower permits.

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 has now been transferred back to the Administrative Court. The disputed amount, excluding interest for the time period, totals approximately SEK 510 million (approximately EUR 48 million). Moreover, Fortum's Swedish companies have appeals for 2011-2016 pending before the Administrative Court relating to the real-estate tax rate for their hydropower plants and 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 real-estate tax for hydropower plants for 2017 and prior years. Fortum has asked the Commission to investigate whether the Swedish legislation regarding the real-estate tax for hydropower plants and the Swedish court decisions are in line with EU state aid rules.

According to the Swedish Government's budget proposal for the coming years, presented in September 2016, 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 was EUR 65 million. In addition to the decrease in the tax rate, the hydropower real-estate tax values, which are linked to electricity prices, were updated in 2019. The real-estate tax values are updated every six years. In 2019, the hydropower real-estate tax for Fortum is estimated to decrease by approximately EUR 20 million from 2018.

City Solutions

In City Solutions, growth in cash flow and earnings is mainly achieved through investments in new plants and through acquisitions. Heat prices, fuel cost, availability, flexibility and efficiency of the plants, as well as gate fees for receiving waste are key drivers for profitability, but power prices and weather conditions also affect profitability. Fortum aims to create new businesses with potential for sizeable profit contribution, e.g. within the areas of waste and recycling and the bio-economy.

The development of Fortum Oslo Varme's business operations is estimated to require one-time integration-related costs and 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.

On 10 April 2019, the Swedish Government proposed new taxes on fossil fuels used for heat production in CHP plants. Consequently, the board of Stockholm Exergi has for the time being decided to decommission one of two units in CHP6 in Stockholm and to keep another unit only as a reserve to support security of supply. Stockholm Exergi expects to be able to limit the costs to SEK 150 million annually with these actions and optimisation of the district heat system. There is also a proposal for tax on waste incineration which, if realised, would increase the annual costs for Stockholm Exergi by SEK 100 million. The result impact will depend on the final legal framework of the tax and the waste supply contract structure. The final tax proposal is expected as a part of the national budget proposal to be presented in late October 2019.

In March 2019, Fortum announced that it had won the right from Solar Energy Corporation of India to build a 250-MW solar power plant in Rajasthan, India. The solar park will be entitled to a fixed tariff of 2.48 INR/kWh for 25 years. Commissioning of the plant is expected in the fourth quarter of 2020.

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 160 million, and the solar park will be entitled to a fixed tariff of 2.85 INR/kWh for 25 years. The plant was fully commissioned by 5 August 2019.

Consumer Solutions

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 capacity payments through CSA contracts are considerably higher than through the CCS auctions. Currently, Fortum's CSA capacity amounts to 2,368 MW. In February 2019, the System Administrator of the wholesale market published data on the WACC and the CPI for 2018, which were used to calculate the 2019 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. In addition, thermal power plants are entitled to clearly higher CSA payments starting approximately six years after commissioning. In 2019, no such increase in CSA payments is expected.

Fortum's other Russian generation capacity, totalling 2,560 MW, is allowed to participate in the CCS auctions. The long-term CCS auctions for the years 2018-2021 were held in 2015, 2016, and 2017. All Fortum plants offered in the auctions were selected. The nominal CCS price was 111 tRUB/MW/month for 2018, 110 tRUB/MW/month for 2019, 115 tRUB/MW/month for 2020, and 134 tRUB/MW/month for 2021. The CCS auctions for 2022-2024 were held in August 2019. The nominal CCS price was 168 tRUB/MW/month for 2022, 171 tRUB/MW/month for 2023, and 182 tRUB/MW/month for 2024. The CCS auction for 2025 is expected to be held in November 2019. Fortum has 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 2018-2019, "forced mode status" was obtained for 195 MW; for the year 2020 for 175 MW; and for the year 2021 for 105 MW.

In June 2019, Fortum won the right to build 5.6 MW of solar capacity in Russian CSA auctions, in addition to the 110 MW won in June 2018. The power plants will receive a guaranteed CSA price for a period of 15 years, corresponding to approximately RUB 14,000 per MWh and RUB 15,000 per MWh, respectively. The plants are to be commissioned during 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 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.

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 Government increased the gas price by 1.4% in July 2019. Fortum estimates the gas price to be increased by 3% in July 2020.

Other Operations

For information on the financial impact of the Uniper shareholding, please see Notes 6 and 11.

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.

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

Fortum has received income tax assessments in Belgium for the years 2008-2012. The tax authorities disagree with the tax treatment of Fortum EIF NV, which was later merged into Fortum Project Finance 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 Antwerp 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 Antwerp 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 the Supreme Court (Hof van Cassatie) in March 2016. In April 2019, the Advocate General at the Supreme Court issued his opinion, which was in favour of Fortum Project Finance. In May 2019, the Supreme Court, however, annulled the decision of the Court of Appeal of Antwerp and referred the case back to the Court of Appeal of Ghent for full retrial. Fortum's appeals concerning 2009-2012 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 EUR 36 million for the year 2008, EUR 27 million for 2009, EUR 15 million for 2010, EUR 21 million for 2011, and EUR 15 million for 2012. The tax has already been paid.

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 18).

Sustainability

Fortum gives balanced consideration in its operations to climate and resource issues, as well as its impacts on personnel and society, emphasising the following focus areas:

Personnel a	Personnel and society			
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. A new target in 2019 is the Contractor safety improvement index.

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 2019*

				Five-year			
	Target	III/19	III/18	III/19	I-III/18	2018	average
Climate and resources							
Specific CO ₂ emissions from total energy production as a five-year	. 200	200	222	404	400	400	407
average, g/kWh	< 200	206	222	194	192	186	187
Major EHS incidents, no.	≤ 18	3	5	9	17	18	-
Personnel and society							
Energy availability of CHP plants, %	> 95.0	95.5	95.3	96.7	96.0	96.4	-
Lost Workday Injury Frequency, own personnel and contractors	≤ 1.7	1.6	2.3	1.8	1.9	1.8	-
Severe occupational accidents, no.	0	0	0	0	1	4	-
Quality of investigation process of occupational accidents, major EHS incidents and near misses	Level 3.0	Level 4.0	Level 2.0	Level 3.0	Level 3.0	Level 3.0	-
GAP index, implementation of EHS minimum requirements	Level 3.0	Level 3.0	-	Level 3.0	-	Level 2.0	-
Contractor safety improvement index	Level 2.0	Level 2.0**	-	Level 2.0**	-	-	-
Sickness-related absences, %	≤ 2.5	2.5***	2.4***	3.1***	2.7***	2.8	-

^{*} Group targets for energy efficiency, Reputation index, and Customer Satisfaction index are monitored annually.

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).

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. In June 2019, Fortum became a constituent of the FTSE4Good Index Series.

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

Climate and resources

Fortum's environmental targets are related to CO₂ 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 CO₂-free energy production and by improving energy and resource efficiency.

^{**} The reporting of the Contactor safety improvement index started in the second quarter of 2019. The figure is still excluding City Solutions' Environmental Construction and solar power sites.

^{***} Sickness-related absences in July-August and January-August, respectively.

In January-September 2019, Fortum's direct CO_2 emissions were 13.9 (14.5) Mt. Of the total CO_2 emissions, 1.5 (1.8) Mt were within the EU ETS. The estimate for Fortum's free emission allowances in 2019 is 0.7 (0.8) Mt.

Fortum's total CO ₂ emissions (million tonnes, Mt)	III/19	III/18	I-III/19	I-III/18	2018	LTM
Total emissions	3.9	3.8	13.9	14.5	20.1	19.6
Emissions subject to ETS	0.3	0.4	1.5	1.8	2.5	2.2
Free emission allowances	-	-	-	-	0.8	-
Emissions in Russia	3.4	3.3	11.9	12.2	16.9	16.6

In January-September 2019, Fortum's specific carbon dioxide emissions from total energy production were 194 (192) g/kWh. The specific CO₂ emissions from total energy production as a five-year average were 187 (186) g/kWh, which is better than Fortum's Group target of 200 g/kWh.

Fortum's target regarding major EHS incidents is to have no more than 18 major EHS incidents annually. Major EHS incidents are monitored, reported and investigated, and corrective actions are implemented. In January-September 2019, there were 9 (17) major EHS incidents in Fortum's operations. The major EHS incidents included three fires, one environmental non-compliance, four leaks, and one explosion. The major EHS incidents did not have significant environmental impacts.

Personnel and society

Fortum's key 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 January-September 2019, the combined Lost Workday Injury Frequency (LWIF) for own personnel and contractors was 1.8 (1.9), which was worse than the set target level (≤1.7). In January-September 2019, there were zero (1) severe occupational accidents in the company's operations. The Group target for 2019 is zero severe occupational accidents.

In January-September 2019, the quality of the investigation process of occupational accidents, major EHS incidents, and serious near misses was at the level of 3.0 (3.0), achieving the set target level (3.0).

In January-September 2019, the GAP index was at the level of 3.0, achieving the set target level (3.0). The GAP index measures how well the Group's EHS minimum requirements are realised at the power plant level. The most significant deviations were detected in companies that Fortum had acquired in recent years and at the sites operated by contractors.

In April-September 2019, the Contractor safety improvement index was at the level of 2.0, achieving the set target level (2.0). However, the assessment had not yet covered all Fortum operations. The Contractor safety improvement index measures how well Fortum has managed to implement measures targeting improvements in contractor safety.

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 January-August 2019, the percentage of sickness-related absences was 3.1 (2.7), which did not meet the target level of ≤2.5.

An uninterrupted and reliable energy supply is critical for society to function. The energy availability of the company's CHP plants in January-September 2019 was, on average, 96.7% (96.0%), outperforming the target of >95.0%.

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 January-September 2019, Fortum conducted a total of 11 (8) supplier audits in Poland, Russia, India, China, and Indonesia. In addition, one of Fortum's Kazakh coal suppliers was assessed against the Bettercoal Code by a third party.

Shares and share capital

Fortum shares on Nasdaq Helsinki

Jan-Sep 2019	No. of shares traded	Total value EUR	High EUR	Low EUR	Average EUR*	Last EUR
FORTUM	291,052,184	5,722,565,589	21.70	18.09	19.76	21.69

^{*} Volume weighted average.

	30 Sep 2019	30 Sep 2018
Market capitalisation, EUR million	19,267	19,180
Number of shareholders	127,921	122,715
Finnish State holding, %	50.8	50.8
Nominee registrations and direct foreign shareholders, %	29.8	30.6
Households, %	9.5	9.5
Financial and insurance corporations, %	1.7	1.7
Other Finnish investors, %	8.3	7.5

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. During the first three quarters of 2019, approximately 73% of Fortum's shares were traded on markets other than Nasdaq Helsinki (source Bloomberg).

On 30 September 2019, 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.

Authorisations of the Board

On 26 March 2019, the AGM 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 AGM and, in any event, for a period no longer than 18 months. The authorisation has not been used as of 24 October 2019.

The AGM authorised the Board of Directors to decide on contributions in the total maximum amount of EUR 500,000 for charitable or similar purposes, and to decide on the recipients, purposes and other terms of the contributions. The authorisation will be effective until the next AGM. The authorisation has not been used as of 24 October 2019.

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 September 2019 was 8,191 (8,286 at the end of 2018).

At the end of September 2019, the Generation segment had 1,143 (1,091 at the end of 2018) employees, City Solutions 1,946 (2,017 at the end of 2018), Consumer Solutions 1,299 (1,399 at the end of 2018), Russia 2,968 (2,941 at the end of 2018), and Other Operations 835 (838 at the end of 2018).

Changes in the Group management

In August 2019, Fortum announced that Marco Ryan, a member of Fortum's Board of Directors, had decided to resign from the Board following his appointment at the energy company BP. Fortum's Shareholders' Nomination Board evaluated the Board of Directors' ability to function and concluded that the Board has full capacity to continue in its remaining composition until the 2020 Annual General Meeting.

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.

Events after the balance sheet date

On 11 October 2019, the Board of Directors of Fortum decided to establish an Employee Share Savings (ESS) programme and to launch the savings period for the year 2020 under that programme. The shares for the ESS programmes will be purchased from the market quarterly after Fortum's interim reports have been published. Dividends paid for the shares will be reinvested in additional shares to be purchased from the market after the dividend payment. The Board of Directors will annually decide on the potential launch of each individual savings period. The ESS programme participants will, as a gross reward, be granted one matching share for each two purchased savings shares after approximately three years from the beginning of the savings period. The total amount of all savings for the 2020 savings period may not exceed EUR 6 million.

On 8 October 2019, Fortum announced it had entered into agreements to acquire all the shares held by funds managed by Elliott Management Corporation and its affiliates and Knight Vinke Energy Advisors Limited and its affiliates, a total in excess of 20.5%. Fortum will pay approximately EUR 2.3 billion for the combined shareholding, corresponding to EUR 29.93 per share. Upon closing of the transactions, Fortum's share in Uniper will increase to more than 70.5% and the total investment in Uniper to approximately EUR 6.2 billion, representing an average acquisition price of EUR 23.97 per share.

Closing of the transaction is subject to customary regulatory clearances in Russia and the United States, and is expected by the end of the first quarter of 2020. Fortum is in discussions with the Russian state authorities and has made a preparatory filing to the Russian Federal Antimonopoly Service. No further European

Commission clearance is required. In 2018, Fortum already received unconditional merger clearance from the Commission.

Fortum will fully consolidate Uniper as a subsidiary in its financial statements from closing of the transaction. The transaction will be financed with existing cash resources and committed credit facilities underwritten by Barclays Bank PLC. Fortum is committed to maintaining an investment-grade rating post transaction and to strengthening its financial profile longer term. This will provide the appropriate financial stability and support for the enlarged group.

Fortum intends to be represented on Uniper's Supervisory Board commensurate with its ownership without delay. Fortum is in discussions with Uniper with the objective of arranging the matter.

In the interest of strengthening the basis for a trustful engagement with Uniper and its employees, Fortum rules out any domination and/or profit and loss transfer agreement with Uniper or squeeze-out for at least two years.

As a responsible and committed parent company, Fortum looks forward to working with Uniper's management team and employees on the creation and implementation of a joint vision. In the rapidly changing and decarbonising European energy sector, the vision must be centred around the three cornerstones of sustainability, affordability and security of supply. Together, Fortum and Uniper will be a European leader that has the scale, competences, and resources to prosper, grow, and lead the energy transition.

Fortum recognises that the dedication of Uniper employees is the foundation for the current and future success of the company, and wishes to provide them certainty and stability. Fortum will honour existing shop and collective bargaining agreements and similar agreements as well as the employers' collective bargaining jurisdiction and the existing level of co-determination in the Supervisory Board. Additionally, Fortum will not cause Uniper to implement compulsory redundancies as a result of the transaction nor to relocate its corporate seat away from Düsseldorf. Fortum intends to discuss the detailed content and the duration of these commitments with Uniper and its employee representatives as soon as possible.

On 3 October 2019, Mr. Kimmo Viertola, Director General, Prime Minister's Office, Ownership steering department (Chairman), Mr. Jouko Pölönen, President and CEO, Ilmarinen Mutual Pension Insurance Company, and Mr. Risto Murto, President and CEO, Varma 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.

Espoo, 23 October 2019

Fortum Corporation Board of Directors

Further information:

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The condensed Interim Report has been prepared in accordance with International Accounting Standard (IAS) 34, Interim Financial Reporting, as adopted by the EU. The interim financials have not been audited.

Financial calendar in 2020:

Financial Statements Bulletin for the year 2019 on 6 February 2020 at approximately 9:00 EET

Financial Statements and Operating and Financial Review for 2019 in week 8 at the latest

Fortum will publish three interim reports in 2020:

- January-March Interim Report on 29 April 2020 at approximately 9:00 EEST
- January-June Half-year Financial Report on 17 July 2020 at approximately 9:00 EEST
- January-September Interim Report on 29 October 2020 at approximately 9:00 EET

Fortum's Annual General Meeting 2020 is planned to take place on 17 March 2020. The possible dividend-related dates for 2020 are:

- The ex-dividend date 18 March 2020
- The record date for dividend payment 19 March 2020
- The dividend payment date 26 March 2020

Fortum's Capital Markets Day 2020 is planned for 3 December 2020.

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	Q3 2019	Q3 2018	Q1-Q3 2019	Q1-Q3 2018	2018	Last twelve months
Sales	1,060	971	3,894	3,643	5,242	5,493
Other income	20	47	65	89	130	106
Materials and services	-533	-545	-1,976	-1,925	-2,795	-2,846
Employee benefits	-110	-105	-355	-340	-459	-474
Depreciation and amortisation 4,9,10	-143	-134	-421	-397	-536	-560
Other expenses	-142	-138	-415	-417	-594	-592
Comparable operating profit	153	96	793	654	987	1,126
Items affecting comparability	-29	-5	-127	175	151	-151
Operating profit	124	91	666	829	1,138	975
Share of profit/loss of associates and joint ventures 4, 11	106	12	678	82	38	634
Interest expense	-40	-35	-128	-112	-148	-164
Interest income	6	10	23	28	34	29
Fair value gains and losses on financial instruments	6	-1	5	-3	-8	0
Other financial expenses - net	-4	-32	29	-45	-15	59
Finance costs - net	-32	-58	-70	-132	-136	-74
Profit before income tax	198	45	1,274	779	1,040	1,535
Income tax expense	-25	1	-134	-118	-181	-197
Profit for the period	173	46	1,140	661	858	1,337
Attributable to:						
Owners of the parent	178	51	1,126	651	843	1,318
Non-controlling interests	-5	-5	14	10	15	19
	173	46	1,140	661	858	1,337
Earnings per share for profit attributable to the equity owners of the company (EUR per share)						
Basic	0.20	0.05	1.27	0.73	0.95	1.48

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

EUR million	Note	Q3 2019	Q3 2018	Q1-Q3 2019	Q1-Q3 2018	2018	Last twelve months
Comparable operating profit		153	96	793	654	987	1,126
Impairment charges	4	-6	0	-8	0	-4	-12
Capital gains and other	4, 6	3	1	9	103	102	8
Changes in fair values of derivatives hedging future cash flow	4	-27	-8	-77	96	98	-75
Nuclear fund adjustment	4, 14	0	2	-51	-24	-45	-72
Items affecting comparability		-29	-5	-127	175	151	-151
Operating profit		124	91	666	829	1,138	975

See Definitions for key ratios

Condensed consolidated statement of comprehensive income

	Q3 2019	Q3 2018	Q1-Q3 2019	Q1-Q3 2018	2018	Last twelve months
EUR million	Q3 2013	Q3 2010	2013	2010	2010	IIIOIIIIIS
Profit for the period	173	46	1,140	661	858	1,337
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)	-152	164	22	-478	-778	-278
Transfers to income statement	121	-11	497	4	15	508
Transfers to inventory/fixed assets	-2	0	-3	-2	-2	-3
Deferred taxes	6	-32	-112	98	162	-48
Net investment hedges						0
Fair value gains/losses in the period	-1	4	-16	22	32	-6
Deferred taxes	0	-1	3	-4	-6	1
Exchange differences on translating foreign operations ²⁾	-42	-32	135	-387	-525	-3
Share of other comprehensive income of associates and joint ventures	42	3	57	4	-37	16
Other changes	0	0	4	0	0	4
	-29	95	587	-744	-1,141	190
Items that will not be reclassified to profit or loss in subsequent periods:						
Actuarial gains/losses on defined benefit plans	-34	-2	-33	-1	3	-29
Actuarial gains/losses on defined benefit plans in associates and joint ventures	-91	-2	-130	-2	43	-85
ventures	-91 -125	-4	-163	-2	45	-03 -114
	-123	-4	-103	-3	40	-114
Other comprehensive income for the period, net of deferred taxes	-154	91	424	-747	-1,094	77
Total comprehensive income for the period	19	137	1,564	-86	-236	1,414
Total comprehensive income attributable to						
Owners of the parent	28	136	1,541	-94	-239	1,396
Non-controlling interests	-8	1	23	8	3	18
	19	137	1,564	-86	-236	1,414

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	Sept 30 2019	Sept 30 2018	Dec 31 2018
ASSETS				
Non-current assets				
Intangible assets	9	1,102	1,097	1,087
Property, plant and equipment and right-of-use assets	10	10,233	9,969	9,981
Participations in associates and joint ventures	4, 11	6,328	5,862	5,978
Share in State Nuclear Waste Management Fund	14	807	854	899
Other non-current assets		154	137	139
Deferred tax assets		75	64	70
Derivative financial instruments	5	231	233	229
Long-term interest-bearing receivables	12	682	778	683
Total non-current assets		19,612	18,994	19,065
Current assets				
Inventories		245	252	233
Derivative financial instruments	5	186	417	326
Short-term interest-bearing receivables	12	407	461	409
Income tax receivables		136	168	172
Trade and other receivables		844	1,060	1,620
Deposits and securities (maturity over three months)		136	31	29
Cash and cash equivalents		1,294	699	556
Liquid funds	13	1,430	731	584
Total current assets		3,247	3,088	3,344
Total assets		22,858	22,082	22,409
EQUITY				
Equity attributable to owners of the parent				
Share capital		3,046	3,046	3,046
Share premium		73	73	73
Retained earnings		9,493	9,168	9,232
Other equity components		-210	-302	-510
Total		12,401	11,986	11,841
Non-controlling interests		238	241	236
Total equity		12,639	12,227	12,077
LIABILITIES				
Non-current liabilities				
Interest-bearing liabilities	13	6,201	5,027	5,007
Derivative financial instruments	5	194	302	362
Deferred tax liabilities		809	741	720
Nuclear provisions	14	807	854	899
Other provisions	15	88	85	91
Pension obligations		141	104	98
Other non-current liabilities		186	172	182
Total non-current liabilities		8,425	7,285	7,358
Current liabilities				
Interest-bearing liabilities	13	596	948	1,086
Derivative financial instruments	5	415	705	829
Trade and other payables		783	917	1,058
Total current liabilities		1,794	2,571	2,973
Total liabilities		10,219	9,856	10,332
Total equity and liabilities		22,858	22,082	22,409

Condensed consolidated statement of changes in total equity

			Retained	d earnings	Other	equity comp	onents			
EUR million	Share capital	Share premium	Retained earnings	Translation of foreign operations	Cash flow hedges	Other OCI items	OCI items associated companies and joint ventures	Owners of the parent	Non- controlling interests	Total equity
Total equity 31 December 2018	3,046	73	11,937	-2,705	-638	99	30	11,841	236	12,077
Net profit for the period			1,126					1,126	14	1,140
Translation differences				116	15	2	-2	131	5	135
Other comprehensive income					404	-46	-73	285	4	289
Total comprehensive income for the period			1,126	116	419	-44	-75	1,541	23	1,564
Cash dividend			-977					-977	-23	-1,000
Other			-4					-4	2	-2
Total equity 30 September 2019	3,046	73	12,082	-2,589	-219	55	-46	12,401	238	12,639
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			651					651	10	661
Translation differences				-390	0	1	-1	-389	2	-387
Other comprehensive income			0		-374	16	2	-356	-4	-360
Total comprehensive income for the period			651	-390	-374	18	1	-94	8	-86
Cash dividend			-977					-977	-6	-983
Other			2					2	-1	1
Total equity 30 September 2018	3,046	73	11,745	-2,577	-413	87	25	11,986	241	12,227
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

Translation differences

Translation differences impacted equity attributable to owners of the parent company with EUR 131 million during Q1-Q3 2019 (Q1-Q3 2018: -389). 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 -10 million during Q1-Q3 2019 (Q1-Q3 2018: 19), 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 419 million during Q1-Q3 2019 (Q1-Q3 2018: -374), 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 2018 was decided in the Annual General Meeting on 26 March 2019 and paid on 4 April 2019. See Note 8 Dividend per share.

Condensed consolidated cash flow statement

			24.00	04.00		Last
EUR million No	e Q3 2019	Q3 2018	Q1-Q3 2019	Q1-Q3 2018	2018	twelve months
Cash flow from operating activities	Q0 2010	Q0 20.0	20.0	20.0	2010	months
Profit for the period	173	46	1,140	661	858	1,337
Adjustments:			1,110		000	1,001
•	7 25	-1	134	118	181	197
Finance costs - net	32	58	70	132	136	74
Share of profit of associates and joint ventures 1		-12	-678	-82	-38	-634
Depreciation and amortisation 9, 1		134	421	397	536	560
Operating profit before depreciations (EBITDA)	267	225	1,087	1,225	1,674	1,536
	4 29	5	127	-175	-151	151
Comparable EBITDA	295	230	1,213	1,051	1,523	1,685
Non-cash flow items	-5	-42	-11	-68	-90	-33
Interest received	5	8	23	18	23	28
Interest paid	-39	-21	-153	-155	-171	-169
Dividends received	10	0	239	53	61	247
Realised foreign exchange gains and losses	1	72	11	205	231	37
Income taxes paid	-46	-23	-114	-69	-94	-139
Other items	0	-3	0	-6	-9	-3
Funds from operations	221	222	1,210	1,030	1,474	1,654
Change in settlements for futures	26	-8	342	-298	-524	116
Change in working capital	15	-81	201	35	-146	20
Net cash from operating activities	262	133	1,753	767	804	1,790
Cash flow from investing activities						
Capital expenditures 9, 1	-160	-142	-529	-394	-579	-714
Acquisitions of shares	6 -21	-163	-37	-3,913	-4,088	-212
Proceeds from sales of fixed assets 9, 1	29	2	34	37	38	35
Divestments of shares and capital returns	5 20	88	51	258	259	52
Shareholder loans to associated companies and joint ventures 1	2 12	-25	-22	-29	-24	-17
Change in cash collaterals and restricted cash	2 -2	89	320	-87	-36	371
Change in other interest-bearing receivables 1	2 6	4	21	23	31	29
Net cash from investing activities	-116	-147	-162	-4,107	-4,398	-453
	110					4.00=
Cash flow before financing activities	146	-14	1,591	-3,340	-3,594	1,337
Cash flow from financing activities						
Proceeds from long-term liabilities 1	3 -4	0	2,805	1,764	1,764	2,805
Payments of long-term liabilities 1			-2,549	-553	-586	-2,582
Change in short-term liabilities 1			-42	-22	135	115
•	3 0	0	-977	-977	-977	-977
Dividends paid to non-controlling interests 1)	0		-23	-5	-5	-23
Other financing items	2		2	-4	-4	2
Net cash used in financing activities	-8		-783	202	326	-659
not such accuminationly activated					020	000
Net increase(+)/decrease(-) in liquid funds	138	-31	808	-3,138	-3,268	678
Liquid funds at the beginning of the period 1	3 1,297	770	584	3,896	3,896	731
Foreign exchange differences in liquid funds	-5		37	-27	-43	21
Liquid funds at the end of the period 1			1,430	731	584	1,430
A Position of the end of the period	1,430	731	1,430	731	JU4	1,430

¹⁾ Dividends paid to non-controlling interests have in previous interim reports been presented in 'Other financing items'.

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.

Change in settlements for futures

In Fortum's cash flow statement the daily cash settlements for futures are shown in cash flow from operating activities 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 Interest-bearing receivables for additional information.

Additional cash flow information

Change in working capital

EUR million	Q3 2019	Q3 2018	Q1-Q3 2019	Q1-Q3 2018	2018	Last twelve months
Change in interest-free receivables, decrease(+)/increase(-)	42	-67	396	194	-186	16
Change in inventories, decrease(+)/increase(-)	2	-9	-9	-25	-3	13
Change in interest-free liabilities, decrease(-)/increase(+)	-28	-6	-186	-134	43	-9
Total	15	-81	201	35	-146	20

Capital expenditure in cash flow

EUR million	Q3 2019	Q3 2018	Q1-Q3 2019	Q1-Q3 2018	2018	twelve months
Capital expenditure	162	160	516	385	584	715
Change in not yet paid investments, decrease(+)/increase(-)	0	-13	19	17	5	7
Capitalised borrowing costs	-2	-4	-7	-7	-10	-10
Total	160	142	529	394	579	714

Capital expenditures for intangible assets and property, plant and equipment were in Q1-Q3 2019 EUR 516 million (Q1-Q3 2018: 385). Capital expenditure in cash flow in Q1-Q3 2019 EUR 529 million (Q1-Q3 2018: 394) is including payments related to capital expenditure made in previous year i.e. change in trade payables related to investments EUR 19 million (Q1-Q3 2018: 17) and excluding capitalised borrowing costs EUR -7 million (Q1-Q3 2018: -7), which are presented in interest paid.

Acquisition of shares in cash flow

Acquisition of shares, net of cash acquired, amounted to EUR 37 million during Q1-Q3 2019 (Q1-Q3 2018: 3,913). For additional information, see note 6 Acquisitions and disposals.

Divestment of shares in cash flow

EUR million	Q3 2019	Q3 2018	Q1-Q3 2019	Q1-Q3 2018	2018	Last twelve months
Proceeds from sales of subsidiaries, net of cash disposed	12	88	15	88	88	15
Proceeds from sales and capital returns of associates and joint ventures	8	0	32	169	171	34
Proceeds from sales of other investments	0	0	4	0	0	4
Total	20	88	51	258	259	52

During Q1-Q3 2019 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 overthe-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	Q3 2019	Q3 2018	Q1-Q3 2019	Q1-Q3 2018	2018	Last twelve months
Net debt, beginning of the period	5,422	5,271	5,509	988	988	5,244
Impact from change in accounting principle (IFRS 16 and IFRS 9)	-	-	99	1	1	99
Foreign exchange rate differences	4	13	-40	10	15	-35
Comparable EBITDA	295	230	1,213	1,051	1,523	1,685
Non-cash flow items	-5	-41	-11	-68	-90	-33
Paid net financial costs	-22	57	123	117	138	144
Income taxes paid	-46	-23	-114	-69	-94	-139
Change in settlements for futures and working capital	41	-89	544	-263	-670	137
Capital expenditures	-160	-142	-529	-394	-579	-714
Acquisitions	-21	-163	-37	-3,913	-4,088	-212
Divestments and proceeds from sale of fixed asset	48	90	85	294	298	89
Shareholder loans to associated companies	12	-25	-22	-29	-24	-17
Change in other interest-bearing receivables	5	93	341	-64	-5	400
Dividends to the owners of the parent	0	0	-977	-977	-977	-977
Dividends to non-controlling interests	0	-2	-23	-5	-5	-23
Other financing activities	-1	-9	0	-9	-7	2
Net cash flow (- increase in net debt)	146	-23	593	-4,326	-4,580	339
Fair value change of bonds, amortised cost valuation, debt from non-cash						
collateral arrangement, acquired debt and other changes 1)	88	-62	392	-80	-75	397
Net debt, end of the period	5,367	5,244	5,367	5,244	5,509	5,367

¹⁾ Q1-Q3 2019 includes impact from a non-cash collateral arrangement amounting to EUR 308 million, see Note 13 Interest-bearing net debt.

Comparable Net debt/EBITDA ratio

	Last twelve	
EUR million	months	2018
Interest-bearing liabilities	6,797	6,093
- Liquid funds 1)	1,430	584
Net debt	5,367	5,509
Operating profit	975	1,138
+ Depreciation and amortisation	560	536
EBITDA	1,535	1,674
- Items affecting comparability	-151	151
Comparable EBITDA	1,686	1,523
Comparable net debt/EBITDA	3.2	3.6

¹⁾ Net debt is calculated as interest-bearing liabilities minus liquid funds without deducting interest-bearing receivables amounting to EUR 1,089 million (Dec 31 2018: 1,092).

Fortum Corporation January-September 2019

Return on capital employed, %

	Last twelve		
EUR million	months	2018	
Profit before income tax	1,535	1,040	
Interest expenses	164	148	
Other financial expenses 1)	4	26	
+Interest and other financial expenses	167	174	
Profit before taxes + interest and other financial expenses	1,702	1,214	
1) Other financial expenses as disclosed in Note 12 Finance costs-net in Financial statements 2018			
Capital employed			
Total assets	22,858	22,409	
Total liabilities	10,219	10,332	
- Interest-bearing liabilities	6,797	6,093	
- Total interest-free liabilities	3,422	4,239	
Capital employed	19,436	18,170	
Capital employd at the end of previous period	18,201	18,172	
Average capital employed	18,819	18,171	
Return on capital employed, %	9.0 %	6.7 %	

Key ratios

Definition of key figures are presented in Note 21.

Dominion of itoy figures are proceeded in those 2 in	Sept 30	Sept 30	Dec 31	Last twelve
	2019	2018	2018	months
Comparable EBITDA, EUR million	1,213	1,051	1,523	1,686
Earnings per share (basic), EUR	1.27	0.73	0.95	1.48
Capital employed, EUR million	19,436	18,201	18,170	
Interest-bearing net debt, EUR million	5,367	5,244	5,509	
Capital expenditure and gross investments in shares, EUR million	552	4,305	4,672	919
Capital expenditure, EUR million	516	385	584	715
Return on capital employed, %			6.7	9.0
Return on shareholders' equity, %			6.8	10.8
Comparable net debt / EBITDA			3.6	3.2
Interest coverage			10.0	7.2
Interest coverage including capitalised borrowing costs			9.2	6.7
Funds from operations/interest-bearing net debt, %			26.8	30.8
Gearing, %	42	43	46	
Equity per share, EUR	13.96	13.49	13.33	
Equity-to-assets ratio, %	55	55	54	
Number of employees	8,191	8,829	8,286	
Average number of employees	8,265	8,843	8,767	
Average number of shares, 1,000 shares	888,294	888,312	888,312	
Diluted adjusted average number of shares, 1,000 shares	888,294	888,312	888,312	
Number of registered shares, 1,000 shares 1)	888,294	888,367	888,294	
Number of registered shares excluding treasury shares, 1,000 shares	888,294	888,294	888,294	

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 unaudited 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 2018.

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.

Due to the seasonal nature of Fortum's operations, Comparable operating profit is usually higher for the first and fourth quarter of the year. Columns labelled as "LTM" or "last twelve months" present figures for twelve months preceding the reporting date.

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 section 'Capital structure and key figures' after the cash flow statement and in Note 21.

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 2018 except for the new IFRS 16 Leases standard that was adopted on 1 January 2019. Other amendments and interpretations effective from 1 January 2019 do not have a material impact on Fortum's financial statements.

2.1 New standards effective from 1 January 2019

Adoption of IFRS 16 standard

IFRS 16 Leases standard has been adopted as of 1 January 2019. IFRS 16 requires lessees to recognise all leases, except for short-term leases (lease term less than 12 months), leases of low value assets, and leases for which consideration is based on lessee's performance, on the balance sheet as right-of-use assets and lease liabilities. The assets and liabilities are recognised based on the present value of future lease payments. The right-of-use asset is depreciated on a straight-line basis during the lease term. In addition, the assets' carrying values are reviewed continuously to determine whether there is any indication of impairment. However, at transition, Fortum has applied the relief in IFRS 16 that permits reliance on assessment of onerous contracts.

Interest expense from lease liabilities is recognised using the effective interest method, presented in Finance costs – net. In the cash flow statement, the principal portion of the lease payment is presented under Payments of long-term liabilities, and the interest portion as Interest paid under Funds from operations. For leases not capitalised due to exemptions in the standard, the lease payments are recognised on a straight-line basis and presented in Other expenses.

For lessors, there are no significant changes.

Fortum has applied the standard using the modified retrospective method, which means the comparative figures are not restated. Right-of-use assets have been 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 has applied the exemption of not recognising short-term leases and leases of low value assets in the balance sheet.

IFRS 16 - Transition impacts

The application of IFRS 16 had the following impact to the 1 January 2019 opening balance:

- Increase of EUR 96 million in Property, plant and equipment and right-of-use assets
- Increase of EUR 99 million in Interest-bearing liabilities
- · Decrease of EUR 1 million in Other non-current assets
- · Decrease of EUR 3 million in Other provisions
- Decrease of EUR 1 million in Trade and other payables

Reconciliation of lease liabilities and operating lease commitments on transition is presented below:

EUR million

Operating lease commitments 31 December 2018	216
Leases not yet commenced but to which Fortum is committed	-41
Leases with variable payments not included in the measurement of lease liabilities	-16
Exempted from recognition	-12
Discounting effect	-28
Other changes	-20
Lease liabilities 1 January 2019	99

The majority of right-of-use assets are office buildings and land areas. No new leases were identified as leases according to IFRS 16.

The weighted average incremental borrowing rate applied to lease liabilities on 1 January 2019 was 1.9%.

Accounting policies according to IFRS 16

A contract is or contains a lease if Fortum has a right to control the use of an identified asset for a non-cancellable period of time in exchange for consideration. When determining the non-cancellable period, Fortum assesses the probability of exercising extension and termination options by considering all relevant facts and circumstances.

When the future lease payments are revised due to changes in index-linked considerations or due to changes in lease terms, the right-of-use asset and the corresponding lease liability is remeasured to reflect these changes. Any differences that may arise from these reassessments, are recognised in the income statement.

2.2 Other new standards and interpretations

Physical settlement of contracts to buy or sell a non-financial item (IFRS 9)

In March 2019, IFRIC published an agenda decision on Physical settlement of contracts to buy or sell a non-financial item (IFRS 9). The decision clarifies how an entity applies IFRS 9 to fixed price contracts to buy or sell a non-financial item that are fair valued through profit or loss even though the contract is physically settled. The published agenda decision discusses the presentation of these contracts in the income statement and will not have an impact to net profit. Fortum is currently assessing the impacts to its accounting principles and presentation.

2.3 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-Sept 2019	Jan-June 2019	Jan-Mar 2019	Jan-Dec 2018	Jan-Sept 2018	Jan-June 2018	Jan-Mar 2018
Sweden (SEK)	10.5547	10.4782	10.3776	10.2591	10.2392	10.1722	9.9962
Norway (NOK)	9.7861	9.7356	9.7491	9.6432	9.6121	9.6294	9.6737
Poland (PLN)	4.3056	4.2865	4.2961	4.2614	4.2467	4.2316	4.1790
Russia (RUB)	73.4459	74.2121	75.6930	73.8035	72.9249	71.5430	69.7770

Balance sheet date rate	Sept 30 2019	June 30 2019	Mar 31 2019	Dec 31 2018	Sept 30 2018	June 30 2018	Mar 31 2018
Sweden (SEK)	10.6958	10.5633	10.3980	10.2548	10.3090	10.4530	10.2843
Norway (NOK)	9.8953	9.6938	9.6590	9.9483	9.4665	9.5115	9.6770
Poland (PLN)	4.3782	4.2496	4.3006	4.3014	4.2774	4.3732	4.2106
Russia (RUB)	70.7557	71.5975	72.8564	79.7153	76.1422	73.1582	70.8897

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 2018 except for the judgement made when finalising the purchase price allocation for the acquisition of Uniper shares (see Note 6 Acquisitions and disposals).

Fortum's reportable segments under IFRS are Generation, City Solutions, Consumer Solutions and Russia. Other Operations includes corporate functions, R&D and technology development projects, as well as Fortum's shareholding in Uniper SE.

In November 2018, Fortum announced that the solar and wind businesses were reorganised and the wind operations became a business area within the Generation segment and the solar operations within the City Solutions segment. Previously these were included in Other Operations. The Russian wind and solar operations continue as a part of the Russia segment.

Fortum has restated its 2018 comparative segment reporting figures in accordance with the new organisation structure. The restated and previously communicated quarterly information for 2018 were published on 19 March 2019 and can be found in the Interim reports section in Fortum's webpage.

Quarter		Genera	tion ¹⁾	City Solu	tions ¹⁾	Consu Soluti		Russ	sia	Oth Operat		Tot	:al
	-	Q3	Q3	Q3	Q3	Q3	Q3	Q3	Q3	Q3	Q3	Q3	Q3
EUR million	Note	2019	2018	2019	2018	2019	2018	2019	2018	2019	2018	2019	2018
Income statement data by segment													
Power sales ²⁾		435	349	28	22	272	285	211	192	0	0	945	848
Heat sales		0	0	63	60	0	0	18	8	0	0	81	67
Waste treatment sales		0	0	59	52	0	0	0	0	0	0	59	52
Other sales		23	11	51	43	39	46	1	0	29	25	142	126
Sales		458	360	200	178	311	332	229	200	29	25	1,227	1,094
Internal eliminations		-35	12	-9	-8	-2	-1	0	0	-21	-20	-67	-17
Netting of Nord Pool transactions 3)												-100	-105
External sales		423	371	192	171	309	330	229	200	8	5	1,060	971
Comparable EBITDA		176	103	11	47	31	22	91	76	-14	-17	295	230
Depreciation and amortisation		-36	-33	-47	-44	-15	-15	-38	-36	-7	-7	-143	-134
Comparable operating profit		140	69	-36	4	16	7	53	40	-21	-24	153	96
Impairment charges		0	0	0	0	0	0	0	0	-6	0	-6	0
Capital gains and other	6	0	0	0	0	0	0	1	1	2	0	3	1
Changes in fair values of													
derivatives hedging future cash flow		-29	-27	-2	-1	5	19	0	0	0	0	-27	-8
Nuclear fund adjustment	14	0	2	0	0	0	0	0	0	0	0	0	2
Items affecting comparability		-29	-25	-2	-1	5	19	1	1	-3	0	-29	-5
Operating profit		111	45	-38	2	20	26	54	41	-24	-24	124	91
Share of profit/loss of associates and joint													
ventures	11	6	1	-1	6	0	0	15	5	86	0	106	12
Finance costs - net												-32	-58
Income taxes	7											-25	1
Profit for the period												173	46
Gross investments / divestments by segment													
Gross investments in shares	6	7	4	1	8	0	0	3	1	10	143	21	156
Capital expenditure	9, 10	74	68	52	65	13	12	13	10	10	5	162	160
of which capitalised borrowing costs		2	3	1	1	0	0	0	0	0	0	2	4
Gross divestments of shares	6	8	0	0	147	0	0	0	0	12	0	20	146

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⁾ 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.

³⁾ 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.

Year-to-date		Genera	ation ¹⁾	City Solu	utions ¹⁾	Consi Solut		Rus	sia	Oth Opera		Tot	al
		Q1-Q3	Q1-Q3	Q1-Q3	Q1-Q3	Q1-Q3	Q1-Q3	Q1-Q3	Q1-Q3	Q1-Q3	Q1-Q3	Q1-Q3	Q1-Q3
EUR million	Note	2019	2018	2019	2018	2019	2018	2019	2018	2019	2018	2019	2018
Income statement data by segment													
Power sales 2)		1,465	1,256	108	84	1,175	1,045	676	635	0	0	3,425	3,020
Heat sales		0	0	414	410	0	0	88	129	0	0	502	539
Waste treatment sales		0	0	180	149	0	0	0	0	0	0	180	149
Other sales		93	29	131	108	151	159	2	1	83	72	460	368
Sales		1,558	1,285	834	751	1,326	1,204	765	764	83	72	4,567	4,077
Internal eliminations		-198	11	-30	-25	9	-3	0	0	-63	-57	-282	-75
Netting of Nord Pool transactions 3)												-390	-358
External sales		1,360	1,296	804	726	1,335	1,201	765	764	20	15	3,894	3,643
Comparable EBITDA		660	538	179	201	106	79	333	291	-64	-57	1,213	1,051
Depreciation and amortisation		-105	-99	-138	-130	-46	-43	-111	-109	-20	-16	-421	-397
Comparable operating profit		555	440	41	71	60	36	222	182	-84	-73	793	654
Impairment charges		-3	0	0	0	0	0	0	0	-6	0	-8	0
Capital gains and other	6	3	77	4	-1	0	0	1	1	1	25	9	103
Changes in fair values of													
derivatives hedging future cash flow		-41	59	1	8	-36	28	0	0	0	0	-77	96
Nuclear fund adjustment	14	-51	-24	0	0	0	0	0	0	0	0	-51	-24
Items affecting comparability		-92	112	5	7	-36	28	1	1	-5	25	-127	175
Operating profit		463	552	46	78	24	64	223	183	-89	-48	666	829
Share of profit/loss of associates and joint													
ventures	11	45	-5	41	49	0	0	59	36	534	2	678	82
Finance costs - net												-70	-132
Income taxes	7											-134	-118
Profit for the period												1,140	661
Gross investments / divestments by segmen													
Gross investments in shares	6	13	10	6	16	0	0	4	21	14	3,873	36	3,920
Capital expenditure	9, 10	171	160	256	141	39	33	31	30	20	21	516	385
of which capitalised borrowing costs		5	4	2	3	0	0	0	0	0	0	7	7
Gross divestments of shares	6	12	160	2	147	0	0	0	0	16	0	30	306

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) Power sales contains realised result from commodity derivatives, which have not had hedge accounting status under IFRS 9, but have been considered operatively as

³⁾ 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.

Last twelve months		Genera	ation ¹⁾	City Solu	utions ¹⁾	Consi Solut		Rus	sia	Oth Opera		Tot	tal
EUR million	Note	LTM	2018	LTM	2018	LTM	2018	LTM	2018	LTM	2018	LTM	2018
Income statement data by segment													
Power sales 2)		1,980	1,771	158	134	1,677	1,547	913	872	0	0	4,729	4,324
Heat sales		0	0	608	604	0	0	152	193	0	0	760	797
Waste treatment sales		0	0	242	211	0	0	0	0	0	0	242	211
Other sales		135	71	184	161	204	212	5	4	114	103	642	550
Sales		2,115	1,842	1,193	1,110	1,881	1,759	1,070	1,069	114	103	6,373	5,883
Internal eliminations		-207	2	-42	-37	1	-11	0	0	-85	-79	-332	-125
Netting of Nord Pool transactions 3)												-548	-516
External sales		1,908	1,844	1,151	1,073	1,882	1,748	1,070	1,069	29	24	5,493	5,242
Comparable EBITDA		885	763	288	310	137	110	459	417	-85	-78	1,685	1,523
Depreciation and amortisation		-141	-135	-183	-175	-60	-57	-149	-147	-26	-22	-560	-536
Comparable operating profit		743	628	105	135	77	53	311	271	-110	-99	1,126	987
Impairment charges		-7	-4	0	0	0	0	0	0	-6	0	-12	-4
Capital gains and other	6	3	77	4	-1	0	0	2	2	-1	23	8	102
Changes in fair values of													
derivatives hedging future cash flow		-21	79	-11	-4	-42	22	0	0	0	0	-75	98
Nuclear fund adjustment	14	-72	-45	0	0	0	0	0	0	0	0	-72	-45
Items affecting comparability		-96	108	-7	-5	-42	22	2	2	-7	23	-151	151
Operating profit		647	736	98	130	35	75	313	273	-117	-76	975	1,138
Share of profit/loss of associates and joint													
ventures	11	-22	-72	66	74	0	0	59	36	532	0	634	38
Finance costs - net												-74	-136
Income taxes	7											-197	-181
Profit for the period												1,337	858
Gross investments / divestments by segmen													
Gross investments in shares	6	17	14	23	33	0	0	46	63	118	3,977	204	4,088
Capital expenditure	9, 10	259	248	324	209	53	47	55	54	25	26	715	584
of which capitalised borrowing costs	_	7	6	3	4	0	0	0	0	0	0	10	10
Gross divestments of shares	6	12	160	2	147	0	0	0	0	16	0	30	306

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.

Segment assets and liabilities

		Generation City Solutions		Consumer Solutions Russ		sia	Other sia Operations		Total				
EUR million	Note	Sept 30 2019	Dec 31 2018	Sept 30 2019	Dec 31 2018	Sept 30 2019	Dec 31 2018	Sept 30 2019	Dec 31 2018	Sept 30 2019	Dec 31 2018	Sept 30 2019	Dec 31 2018
Non-interest bearing assets		6,202	6,861	3,588	3,582	793	1,044	2,583	2,408	167	173	13,332	14,069
Participations in associates and joint ventures	11	852	854	583	641	0	0	610	495	4,284	3,988	6,328	5,978
Eliminations												-55	-114
Total segment assets		7,054	7,715	4,170	4,223	793	1,044	3,192	2,903	4,451	4,161	19,605	19,933
Interest-bearing receivables	12											1,089	1,092
Deferred tax assets												75	70
Other assets												659	731
Liquid funds												1,430	584
Total assets												22,858	22,409
Segment liabilities		1,102	1,230	381	429	229	396	95	114	138	138	1,944	2,308
Eliminations												-55	-114
Total segment liabilities												1,888	2,194
Deferred tax liabilities												809	720
Other liabilities												726	1,325
Total liabilities included in capital employed												3,422	4,239
Interest-bearing liabilities	13											6,797	6,093
Total equity												12,639	12,077
Total equity and liabilities												22,858	22,409
												•	
Number of employees		1,143	1,091	1,946	2,017	1,299	1,399	2,968	2,941	835	838	8,191	8,286
Average number of employees 1)		1,126	1,107	1,982	1,994	1,396	1,473	2,936	3,378	824	814	8,265	8,767

¹⁾ Average number of employees is based on a monthly average for the reporting period.

²⁾ Power sales contains realised result from commodity derivatives, which have not had hedge accounting status under IFRS 9, but have been considered operatively as

³⁾ 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.

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

		Gener	ation	City So	lutions	Consi Solut		Rus	ssia	Oth Opera	
	-		Dec 31		Dec 31		Dec 31		Dec 31		Dec 31
EUR million	Note	LTM	2018	LTM	2018	LTM	2018	LTM	2018	LTM	2018
Comparable operating profit		743	628	105	135	77	53	311	271	-110	-99
Share of profit/loss of associates and joint ventures	11	-22	-72	66	74	0	0	59	36	532	0
Adjustment to share of profit/loss of associates and joint											
ventures		82	94	0	0	0	0	0	0	-400	-38
Comparable operating profit including share of profit of											
associates and joint ventures		803	650	170	209	77	53	369	307	22	-137
Segment assets at the end of the period		7,054	7,715	4,170	4,223	793	1,044	3,192	2,903	4,451	4,161
Segment liabilities at the end of the period		1,102	1,230	381	429	229	396	95	114	138	138
Comparable net assets		5,953	6,485	3,790	3,794	564	648	3,098	2,789	4,314	4,023
Comparable net assets average 1)		6,175	6,019	3,789	3,808	600	671	2,971	2,976	4,106	2,361
Comparable return on net assets, %		13.0	10.8	4.5	5.5	12.7	7.8	12.4	10.3	0.5	-5.8

¹⁾ Average net assets are calculated using using the opening balance of the financial year and each quarter's closing value.

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 2018.

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 2018, in Note 16 Financial assets and liabilities by fair value hierarchy.

Financial assets

	Level 1			Level 2 Level 3					Netting 1)		Total				
			Dec	Sept		Dec	Sept		Dec	Sept		Dec	Sept		Dec
EUR million	Sept 30 2019	Sept 30 2018	31 2018	30 2019	Sept 30 2018	31 2018	30 2019	Sept 30 2018	31 2018	30 2019	Sept 30 2018	31 2018	30 2019	Sept 30 2018	31 2018
In non-current assets															
Other investments 2)	0	0	0				71	52	49				71	52	49
Derivative financial															
instruments															
Electricity derivatives															
Hedge accounting				15	23	23				-14	-23	-22	1	0	1
Non-hedge															
accounting				55	182	146				-35	-142	-94	20	40	52
Interest rate and															
currency derivatives															
Hedge accounting				195	144	149							195	144	149
Non-hedge															
accounting				4	4	4							4	4	4
Other commodity future and forward contracts															
Non-hedge															
accounting	29	120	29	1	0					-19	-76	-5	11	45	24
Interest-bearing receivables							23	55	41				23	55	41
Total in non-current															
assets	29	120	29	270	353	322	94	107	90	-68	-241	-121	325	340	319
In current assets															
Derivative financial instruments															
Electricity derivatives															
Hedge accounting				43	76	93				-42	-67	-83	1	9	10
Non-hedge															
accounting	0	47	2	171	480	585				-125	-427	-502	46	100	84
Interest rate and currency derivatives															
Hedge accounting				35	32	19							35	32	19
Non-hedge				12	82	97							12	82	97
Other commedity future				12	02	91							12	02	97
Other commodity future and forward contracts															
Non-hedge accounting	220	484	203	2	1					-130	-293	-87	92	192	116
Interest-bearing receivables	308						36	30	30				344	30	30
Total in current assets	528	531	205	263	671	794	36	30	30	-297	-787	-672	530	445	356
Total	557	651	234	533	1,024	1,116	130	137	120	-365	-1,028	-793	854	786	675

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

²⁾ Other investments i.e. shares which are not classified as associated companies or joint ventures, consist mainly of shares in unlisted companies of EUR 71 million (Dec 31 2018: 49). This includes Fortum's indirect shareholding in Fennovoima of EUR 33 million (Dec 31 2018: 33). Fair value gains and losses of other investments are booked through profit and loss.

Financial liabilities

	Level 1			Level 2		Level 3			Netting 1)			Total			
EUR million	Sept 30 2019	Sept 30 2018	Dec 31 2018	Sept 30 2019	Sept 30 2018	Dec 31 2018									
In non-current liabilities															
Interest-bearing															
liabilities 2)				2,411	934	930							2,411	934	930
Derivative financial instruments															
Electricity derivatives															
Hedge accounting				79	232	257				-14	-23	-22	65	209	235
Non-hedge accounting				74	181	163				-35	-142	-94	38	39	70
Interest rate and currency derivatives															
Hedge accounting				72	30	42							72	30	42
Non-hedge accounting				2	2	2							2	2	2
Other commodity future and forward contracts															
Non-hedge															
accounting	36	96	18	0	0	0				-19	-74	-5	17	22	13
Total in non-current															
liabilities	36	96	18	2,638	1,379	1,394	0	0	0	-68	-239	-121	2,605	1,236	1,292
In current liabilities															
Interest-bearing liabilities				308									308		
Derivative financial instruments															
Electricity derivatives															
Hedge accounting				250	468	724				-42	-67	-83	208	401	641
Non-hedge accounting	1	57	1	195	465	566				-125	-427	-502	71	95	65
Interest rate and currency derivatives															
Hedge accounting				1	3	1							1	3	1
Non-hedge accounting				39	65	45							39	65	45
Other commodity future and forward contracts															
Non-hedge accounting	226	423	158	0	3	7				-130	-284	-87	97	142	77
Total in current liabilities	227	480	159	793	1,004	1,343	0	0	0	-297	-778	-672	724	706	829

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

Net fair value amount of interest rate and currency derivatives is EUR 132 million, including assets EUR 246 million and liabilities EUR 114 million. Fortum has cash collaterals based on Credit Support Annex agreements with some counterparties. At the end of September 2019 Fortum had received EUR 97 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 17 Pledged assets and contingent liabilities.

²⁾ Fair valued part of bonds when hedge accounting is applied (fair value hedge).

6. Acquisitions and disposals

6.1 Acquisitions

EUR million	Q3 2019	Q3 2018	Q1-Q3 2019	Q1-Q3 2018	2018	Last twelve months
Gross investments in shares in subsidiary companies	6	7	13	19	36	30
Gross investments in shares in associated companies and joint ventures	3	145	8	3,895	4,041	154
Gross investments in other shares	11	4	16	6	11	21
Gross investments in shares	21	156	36	3,920	4,088	204

Acquisitions during 2019

In May 2019, Fortum announced the restructuring of Fortum's and Skellefteå Kraft's ownership in the two jointly owned Swedish wind parks Solberg and Blaiken. Through an asset swap arrangement Fortum became the sole owner of the 76-MW Solberg wind park and Skellefteå Kraft the sole owner of the 248-MW Blaiken wind park. Both the investments in Solberg and divestment of Blaiken includes shares and assets. The asset swap arrangement was finalised in August 2019 and had only a minor impact on Fortum's cash flow and results.

There were no other material acquisitions during Q1-Q3 2019.

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 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 2018. 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 acquired additional shares in Uniper and held 49.99% of the shares as of 31 December 2018. There has been no change in the ownership during 2019. See Note 20 Events after the balance sheet date for Fortum's agreement to acquire further shares in Uniper.

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 2018, Uniper's sales totaled EUR 78.2 billion and adjusted EBITDA was EUR 1.5 billion. Uniper employs around 12,000 people and had total assets of EUR 51 billion at the end of 2018. Uniper is listed on the Frankfurt stock exchange.

Fortum consolidates Uniper as an associated company from 30 June 2018 with three months time lag (Note 11).

Uniper purchase price allocation	EUR million
· · ·	IIIIIIOII
Total acquisition cost	3,968
Acquired net assets as of 30 June 2018	5,512
Fortum's share of goodwill in the balance sheet of Uniper as of 30 June 2018	-930
Fair value adjustment as of 30 June 2018	-613
Fair value of the acquired net assets as of 30 June 2018	3,968

The purchase price allocation was finalised during Q2/2019. Uniper's balance sheet as of 30 June 2018 has been used as the starting point for the purchase price allocation, however a fair value adjustment of EUR 613 million has been made for the acquired assets and liabilities. The total acquisition cost including direct costs relating to the acquisition, EUR 3,968 million, is reported in the 'Participations in associates and joint ventures'.

Fortum's share of the goodwill on Uniper's balance sheet, EUR 930 million, is derecognised as it is not an identifiable asset according to IFRS. Potential future impairments of goodwill (existing as of 30 June 2018) booked by Uniper will thereby be reversed to Fortum's share of profits of associates and joint ventures.

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Fair value adjustment, EUR 613 million, relates mainly to political and regulatory risks that are reflected in the fair value of certain generation and production assets. The fair value adjustment will be reversed to Share of profits of associates and joint ventures over a period of 20 years, EUR 30 million on annual basis. If Uniper reports negative impacts relating to these generation and production assets, Fortum will assess potential need to use this fair value adjustment to reverse these negative impacts.

Preparing purchase price allocation requires management to make judgements when determining the fair value of the assets and liabilities acquired. In Uniper transaction the purchase price allocation has been based on publicly available information since Uniper is a listed company and a competitor of Fortum. Due to the unique circumstances, preparing the purchase price allocation has required management judgement.

For information about Fortum's share of profit from Uniper, see note 11 Changes in participations in associates and joint ventures.

In August 2018 Fortum acquired all shares of three independent Latvian heat producers SIA BK Energija, 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.

6.2 Disposals

EUR million	Q3 2019	Q3 2018	Q1-Q3 2019	Q1-Q3 2018	2018	Last twelve months
Gross divestments of shares in subsidiary companies	12	147	15	146	147	16
Gross divestments of shares in associated companies and joint ventures	8	0	10	160	160	10
Gross divestments of other investments	0	0	4	0	0	4
Gross divestments of shares	20	147	30	306	306	30

Disposals during 2019

In August 2019 the restructuring of Fortum's and Skellefteå Kraft's ownership in the two jointly owned Swedish wind parks Solberg and Blaiken was finalised. See note 6.1 Aquisitions for additional information.

There were no other material disposals during Q1-Q3 2019.

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, was 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, was EUR 147 million. In addition, Elite Alfred Berg has an option to buy up to an additional 16% from Fortum. In April 2019, Elite Alfred Berg used their option to buy an additional 2% from Fortum.

7. Income taxes

Taxes for the period totalled EUR 134 million (Q1-Q3 2018: 118). The effective income tax rate according to the income statement was 10.5% (Q1-Q3 2018: 15.1%). The comparable effective income tax rate, excluding the impact of the share of profit from associated companies, joint ventures as well as non-taxable capital gains, tax rate changes and other major one time income tax effects, was 22.0% (Q1-Q3 2018: 21.2%).

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 million (Dec 31 2018: 114), included in Income tax receivables. For additional information see Note 18 Legal actions and official proceedings.

8. Dividend per share

A dividend for 2018 of EUR 1.10 per share, amounting to a total of EUR 977 million, was decided in the Annual General Meeting on 26 March 2019 and the dividend was paid on 4 April 2019.

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.

9. Changes in intangible assets

EUR million	Sept 30 2019	Sept 30 2018	Dec 31 2018
Closing balance 31 Dec	1,087	1,064	1,064
Impact from change in accounting principle (IFRS 15) 1)		20	20
Opening balance 1 Jan	1,087	1,083	1,083
Acquisitions	12	16	22
Capital expenditures	41	36	53
Changes in emission rights	-10	-3	16
Depreciation and amortisation	-62	-60	-81
Divestments	0	-6	-6
Reclassifications	16	32	37
Translation differences and other adjustments	18	0	-37
Closing balance	1,102	1,097	1,087

¹⁾ See additional information in 2018 Consolidated Financial Statements, Note 1 Accounting policies.

Goodwill included in intangible assets

EUR million	Sept 30 2019	Sept 30 2018	Dec 31 2018
Goodwill included in opening balance	588	613	613
Translation differences and other adjustments	20	-4	-25
Goodwill included in closing balance	608	609	588

10. Changes in property, plant and equipment, and right-of-use assets

EUR million	Sept 30 2019	Sept 30 2018	Dec 31 2018
Closing balance 31 Dec	9,981	10,510	10,510
Impact from change in accounting principle (IFRS 16) 1)	107	-	-
Opening balance 1 Jan	10,088	10,510	10,510
Acquisitions	12	10	14
Capital expenditures	476	348	532
Additions and decreases in right-of-use assets	10	-	-
Changes of nuclear asset retirement cost	-14	-16	16
Disposals	-33	-2	-2
Depreciation and amortisation	-359	-336	-455
Divestments	-9	-136	-136
Reclassifications	-16	-32	-37
Translation differences and other adjustments	78	-378	-459
Closing balance	10,233	9,969	9,981

¹⁾ See additional information in Note 2 Accounting policies.

11. Changes in participations in associates and joint ventures

EUR million	Sept 30 2019	Sept 30 2018	Dec 31 2018
Closing balance 31 Dec	5,978	1,900	1,900
Impact from change in accounting principle (IFRS 9) ¹⁾	-	165	165
Opening balance 1 Jan	5,978	2,066	2,066
Investments	8	3,920	4,066
Share of profit of associates and joint ventures	678	82	38
Dividend income received	-239	-53	-61
Divestments and capital returns	-26	-93	-95
Reclassifications	-29	20	58
OCI items associated companies	-75	1	6
Translation differences and other adjustments	34	-80	-99
Closing balance	6,328	5,862	5,978

¹⁾ See additional information in 2018 Consolidated Financial Statements, Note 1 Accounting policies.

There were no material acquisitions or divestments during Q1-Q3 2019. In August 2019 the restructuring of Fortum's and Skellefteå Kraft's ownership in the two jointly owned Swedish wind parks Solberg and Blaiken was finalised.

During 2018 Fortum acquired 49.99% of the shares in Uniper. 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. For more information, see Note 6 Acquisitions and disposals.

Share of profit of associates and joint ventures

EUR million	Q3 2019	Q3 2018	Q1-Q3 2019	Q1-Q3 2018	2018	Last twelve months
Principal associates						
Uniper	86	0	534	0	-2	532
OKG AB	6	3	26	4	-58	-36
Forsmarks Kraftgrupp AB	2	0	13	-1	-7	7
Kemijoki Oy	-2	-2	-4	-7	-9	-6
TGC-1	14	9	47	38	40	49
Principal associates, total	106	11	617	34	-35	548
Principal joint ventures						
Stockholm Exergi AB	-4	3	30	40	61	51
TVO Oyj	0	-1	10	-2	1	13
Principal joint ventures, total	-4	3	40	38	62	64
Other associates	-1	0	0	2	3	1
Other joint ventures	4	-1	22	7	9	24
Total	106	12	678	82	38	634

The share of profit from associates and joint ventures during Q3 2019 increased to EUR 106 million (Q3 2018: 12) and during Q1-Q3 2019 to 678 million (Q1-Q3 2018: 82), mainly due to share of profit from Uniper.

Uniper's share of profit is based on reported Net income/loss attributable to shareholders of Uniper SE including impact from Non-operating results e.g. fair value measurement of derivative financial instruments which are subject to volatility. Non-operating results impacted the share of profits in Q3 2019 with EUR 41 million and EUR 293 million in Q1-Q3 2019. Fortum's Q3 2019 share of profits from Uniper include EUR 8 million reversal of the fair value adjustment and EUR 23 million in Q1-Q3 2019. See more information in Note 6 Acquisitions and disposals.

The share of profit from associates and joint ventures in 2018 of EUR 38 million included nuclear-related adjustments of EUR -37 million and other items relating to nuclear decommissioning of EUR -33 million, mainly from OKG. For more information, see Note 19 Participations in associated companies and joint ventures of 2018 Consolidated Financial Statements.

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 is accounted for with a time-lag of one quarter with potential adjustments. This means that the third quarter 2019 interim report includes Fortum's share of Uniper's fourth quarter 2018 and first and second quarter 2019 results. The share of profit of TGC-1 is also accounted for based on previous quarter information since updated interim information is normally not available.

Dividends received

During Q1-Q3 2019 Fortum received EUR 239 million (Q1-Q3 2018: 53) in dividends from associates and joint ventures of which EUR 165 million (Q1-Q3 2018: 0) was received from Uniper and EUR 40 million (Q1-Q3 2018: 39) from Stockholm Exergi.

12. Interest-bearing receivables

	Carrying amount	Fair value	Carrying amount	Fair value
EUR million	Sept 30 2019	Sept 30 2019	Dec 31 2018	Dec 31 2018
Long-term loan receivables from associates	599	613	581	601
Long-term loan receivables from joint ventures	57	63	60	68
Other long-term interest-bearing receivables	27	27	43	43
Total long-term interest-bearing receivables	682	703	683	712
Collateral arrangement securities	308	308	-	-
Other short-term interest-bearing receivables	99	99	409	409
Total short-term interest-bearing receivables	407	407	409	409
Total	1,089	1,109	1,092	1,121

Long-term interest-bearing receivables include receivables from associated companies and joint ventures of EUR 656 million (Dec 31 2018: 641). These receivables include EUR 593 million (Dec 31 2018: 575) from Swedish nuclear companies, OKG AB and Forsmarks Kraftgrupp AB, which are mainly funded with shareholder loans, pro rata each shareholder's ownership.

Interest-bearing receivables include also EUR 59 million (Dec 31 2018: 70) receivable from SIBUR, a Russian gas processing and petrochemicals company regarding divested shares of OOO Tobolsk CHP.

Other short-term interest-bearing receivables include EUR 57 million (Dec 31 2018: 379) restricted cash.

During Q1 2019 Fortum entered into a non-cash collateral arrangement to release pledged cash from Nordic power exchange. Fortum has borrowed securities which have replaced pledged cash. At the end of September 2019 Fortum booked a short-term interest-bearing receivable of EUR 308 million and a corresponding short-term liability. See Note 13 Interest-bearing net debt and Note 17 Pledged assets and contingent liabilities.

13. Interest-bearing net debt

Net debt

EUR million	Sept 30 2019	Sept 30 2018	Dec 31 2018
Interest-bearing liabilities	6,797	5,975	6,093
Liquid funds	1,430	731	584
Net debt	5,367	5,244	5,509

Net debt is calculated as interest-bearing liabilities less liquid funds without deducting interest-bearing receivables amounting to EUR 1,089 million (Dec 31 2018: 1,092). 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.

Loans and borrowings	Carrying amount	Fair value	Carrying amount	Fair value
EUR million	Sept 30 2019	Sept 30 2019	Dec 31 2018	Dec 31 2018
Bonds	4,291	4,524	2,496	2,629
Loans from financial institutions	375	393	1,847	1,901
Reborrowing from the Finnish State Nuclear Waste Management Fund 1)	1,185	1,249	1,158	1,218
Other long-term interest-bearing debt ²⁾	304	346	309	351
Total long-term interest-bearing debt 3)	6,156	6,511	5,810	6,099
Collateral arrangement liability	308	308	-	-
Other short-term interest-bearing debt	238	238	283	284
Total short-term interest-bearing debt	546	546	283	284
Total	6,700	7,057	6,093	6,383

¹⁾ 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

²⁾ Includes loans from Finnish pension institutions of EUR 33 million (Dec 31 2018: 38), loans from the City of Oslo of EUR 202 million (Dec 31 2018: 201) and other loans of EUR 69 million (Dec 31 2018: 70).

³⁾ Includes current portion of long-term debt of EUR 32 million (Dec 31 2018: 803).

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Interest-bearing liabilities

EUR million	Sept 30 2019	Sept 30 2018	Dec 31 2018
Loans and borrowings	6,700	5,975	6,093
Lease liabilities 1)	96	-	=
Total	6,797	5,975	6,093

¹⁾ See additional information in Note 2 Accounting policies.

During the first quarter of 2019 Fortum issued new bonds under its Euro Medium Term Note (EMTN) programme with a total nominal amount of EUR 2.5 billion: EUR 1.0 billion, four-year bond with 0.875% fixed coupon and two EUR 750 million bonds for seven- and ten-years with 1.625%/ 2.125% fixed coupons respectively.

In March 2019 Fortum repaid maturing bond of EUR 750 million and prepaid the bridge loan of EUR 1.75 billion drawn in June 2018 for the financing of the shares in Uniper.

The amount of reborrowing from the Finnish State Nuclear Waste Management Fund and TVO was also increased by EUR 27 million to EUR 1,185 million. Further Fortum signed a five-year EUR 300 million bilateral financial loan agreement which was drawn at the beginning of April 2019.

During the first quarter of 2019 Fortum entered into a non-cash collateral arrangement to release pledged cash from Nordic power exchange. At end of September Fortum booked a short-term interest-bearing debt of EUR 308 million to the lender of the securities, which are included in interest-bearing receivables. See Note 12 Interest-bearing receivables and Note 17 Pledged assets and contingent liabilities.

At the end of September 2019, the amount of short-term financing included EUR 97 million (Dec 31 2018: 75) from Credit Support Annex agreements. The interest-bearing debt increased during the third quarter by EUR 78 million from EUR 6,719 million to EUR 6,797 million.

The average interest rate for the portfolio consisting mainly of EUR and SEK loans was 1.4% at the balance sheet date (Dec 31 2018: 1.7%). Part of the external loans, EUR 779 million (Dec 31 2018: 686), have been swapped to RUB and the average interest cost for these loans including cost for hedging the RUB was 8.4% at the balance sheet date (Dec 31 2018: 8.3%). The average interest rate on total loans and derivatives at the balance sheet date was 2.2% (Dec 31 2018: 2.4%).

Maturity of loans and borrowings

EUR million	Sept 30 2019
2019 ¹⁾	529
2020	63
2021	528
2022	1,052
2023	1,096
2024 and later	3,432
Total	6,700

¹⁾ The cash received as collateral based on Credit Support Annex agreements, amounting to EUR 97 million, has been booked as short-term liability.

Maturity of undiscounted lease liabilities

EUR million	Sept 30 2019
Due within a year	18
Due after one year and within five years	44
Due after five years	63
Total	126

In addition, Fortum has a EUR 39 million commitment to leases that have not yet commenced.

Liquid funds

EUR million	Sept 30 2019	Sept 30 2018	Dec 31 2018
Deposits and securities with maturity more than 3 months	136	31	29
Cash and cash equivalents	1,294	699	556
Total	1,430	731	584

Total liquid funds increased by EUR 133 million from EUR 1,297 million to EUR 1,430 million during Q3 2019.

Fortum Corporation January-September 2019

Liquid funds consist of deposits and cash in bank accounts amounting to EUR 972 million and commercial papers EUR 458 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 30 September 2019 was -0.17% (Dec 31 2018: -0.11%). Liquid funds held by PAO Fortum amounted to EUR 202 million (Dec 31 2018: 317), of which EUR 115 million (Dec 31 2018: 316) was held as bank deposits. The average interest rate for this portfolio was 4.0% at the balance sheet date.

Liquid funds totaling EUR 866 million (Dec 31 2018: 168) are placed with counterparties that have an investment grade credit rating. In addition, EUR 564 million (Dec 31 2018: 416) have been placed with counterparties separately reviewed and approved by the Group's credit control department.

At the end of September 2019, the committed and undrawn credit facilities amounted to EUR 1.8 billion (Dec 31 2018: 1.8).

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.

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

EUR million	Sept 30 2019	Sept 30 2018	Dec 31 2018
Carrying values in the balance sheet			
Nuclear provisions	807	854	899
Fortum's share of the State Nuclear Waste Management Fund	807	854	899
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	1,180
Funding obligation target	1,180	1,153	1,180
Fortum's share of the State Nuclear Waste Management Fund	1,180	1,153	1,153
Share of the fund not recognised in the balance sheet	373	299	254

Legal liability for Loviisa nuclear power plant

The legal liability on 30 September 2019, 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 updated every year, and a technical plan, which is updated every third year. The legal liability is determined by assuming that the decommissioning would start at the beginning of the year following the assessment year.

Finnish nuclear operators have submitted updated technical plan and cost estimates to the Ministry of Economic Affairs and Employment in June 2019. The new technical plan and the legal liability will be decided by the end of the year 2019. Based on the updated technical plan, costs for nuclear waste management are expected to decrease.

Fortum's share in the State Nuclear Waste Management Fund

According to the 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 provision on 30 September 2019 reflects the updated technical plan and cost estimates that have been sent to the Ministry of Economic Affairs and Employment while the legal liability will be decided at the end of the year 2019.

The updated cost estimates decreased the nuclear provision for the Loviisa power plant by EUR 100 million, of which the part relating to spent fuel was recognized immediately to income statement and the part relating to decommissioning was capitalised as property plant and equipment. The reduced provision led to negative nuclear fund adjustment of EUR 54 million and positive effect to other financial expenses - net of EUR 40 million during second quarter in 2019.

The carrying value of the nuclear provisions, calculated according to IAS 37, decreased by EUR 92 million compared to 31 December 2018, totaling EUR 807 million on 30 September 2019.

Fortum's share of the Finnish Nuclear Waste Management Fund is from an IFRS perspective overfunded by EUR 373 million, since Fortum's share of the Fund on 30 September 2019 was EUR 1,180 million and the carrying value in the balance sheet was EUR 807 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 the provision decreases below the actual value of the fund. This accounting effect is not included in Comparable operating profit but as Nuclear fund adjustment in Items affecting comparability, 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 17 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 and interest costs. 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	2019	2018	2018
Carrying values in TVO with Fortum assumptions			
Nuclear provisions	1,039	975	1,016
Share of the State Nuclear Waste Management Fund	1,039	975	1,016
of which Fortum's net share consolidated with equity method	0	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	1,506
Share of the State Nuclear Waste Management Fund	1,506	1,471	1,471
Share of the fund not recognised in the balance sheet	467	496	455

TVO's legal liability, provision and share of the fund are based on same principles as described above for Loviisa nuclear power plant. The updated technical plan and cost estimates had a small impact on Fortum's share in TVO's nuclear related assets and liabilities on 30 June 2019.

TVO's share of the Finnish State Nuclear Waste Management Fund is from an IFRS perspective overfunded by EUR 467 million (of which Fortum's share is EUR 124 million), since TVO's share of the Fund on 30 September 2019 was EUR 1,506 million and the carrying value in the balance sheet was EUR 1,039 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	2019	2018	2018
OKG's and Forsmark's nuclear related assets and liabilities 1)			
Nuclear provisions	3,826	3,253	3,930
Share in the State Nuclear Waste Management Fund	3,327	3,037	3,230
Net amount	-499	-216	-701
of which Fortum's net share consolidated with equity method	-177	-89	-242

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). From September 2018 onwards the proposal is prepared by the National Debt Office. The proposal is based on cost estimates done by SKB and the license holders. The latest technical plan for nuclear waste management was decided by SKB during 2016 and an updated technical plan was handed in to SSM in the end of Q3 2019. 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 17 Pledged assets and contingent liabilities.

15. Other provisions

	Environm	ental provision	ons	Other provisions			
EUR million	Sept 30 2019	Sept 30 2018	Dec 31 2018	Sept 30 2019	Sept 30 2018	Dec 31 2018	
Opening balance	41	43	43	65	79	79	
Increase in the provisions	2	0	0	13	6	25	
Provisions used	-1	0	0	-11	-21	-33	
Unused provisions reversed	0	0	0	-3	-2	-4	
Unwinding of discount	0	0	0	0	0	0	
Exchange rate differences and other changes	-2	-1	-1	-2	-3	-3	
Closing balance	41	42	41	61	60	65	
Current provisions 1)	0	0	0	14	17	14	
Non-current provisions	41	42	41	47	43	50	

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. Capital commitments

EUR million	Sept 30	Sept 30	Dec 31
	2019	2018	2018
Property, plant and equipment	262	361	322

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 committed to provide a maximum of EUR 8 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. At end of September 2019 Fortum had EUR 170 million (Dec 31 2018: 170) outstanding receivables regarding Olkiluoto 3 and is additionally committed to provide at maximum EUR 63 million. TVO shareholder loan is classified as participation in joint ventures.

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 23% of the funds' total financing.

17. Pledged assets and contingent liabilities

	Sept 30	Sept 30	Dec 31 2018
EUR million	2019	2018	
Pledged assets on own behalf			
For debt			
Pledges	288	288	288
Real estate mortgages	137	137	137
For other commitments			
Pledges	331	393	346
Real estate mortgages	2	21	21
Pledged assets on behalf of others			
Pledges	32	34	31
Contingent liabilities on own behalf			
Other contingent liabilities	48	161	167
Contingent liabilities on behalf of associated companies and joint ventures			
Guarantees	950	562	622

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 30 September 2019 the value of the pledged shares amounted to EUR 269 million (Dec 31 2018: 269).

Fortum Tartu in Estonia (60% owned by Fortum) has given real estate mortgages for a value of EUR 96 million (Dec 31 2018: 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 2018: 41).

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

Pledged assets for other commitments

Pledges also include restricted cash of EUR 19 million (Dec 31 2018: 346) and securities of EUR 308 million (Dec 31 2018: 0) for trading of electricity, gas and CO₂ 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 2 million as of 30 September 2019 (Dec 31 2018: 21), 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 additional 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 of EUR 30 million (Dec 31 2018: 31) 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. 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 had to give a guarantee to TVO against breach in contract. 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. The amount of the guarantee amounted to EUR 125 million in December 2018 until the guarantee was released on 1 January 2019. The Meri-Pori power plant is mainly used in Fingrid's capacity reserve and as back-up capacity.

Contingent liabilities on behalf of associated companies and joint ventures

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 8,239 million (EUR 770 million) at 30 September 2019 (Dec 31 2018: EUR 526 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 5,695 million (EUR 532 million) and the Supplementary Amount was SEK 2,544 million (EUR 238 million) at 30 September 2019.

The guarantee given on behalf of Teollisuuden Voima Oyj to the Finnish State Nuclear Waste Management Fund amounted to EUR 21 million at 30 September 2019 (Dec 31 2018: 36). 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 the wind farms' development and amount to RUB 6,772 million (EUR 96 million) at 30 September 2019 (Dec 31 2018: EUR 48 million).

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.

18. 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.

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 has now been transferred back to the Administrative Court concerning the other legal arguments. The disputed amount, excluding interest for the time period, totals approximately SEK 510 million (approximately EUR 48 million).

Moreover, Swedish Fortum companies have appeals for 2011-2016 pending before 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 unfavourable 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.

Fortum Corporation January-September 2019

Tax cases in Belgium

Fortum has received income tax assessments in Belgium for the years 2008, 2009, 2010, 2011 and 2012. The tax authorities disagree with the tax treatment of Fortum EIF NV which was later merged into Fortum Project Finance 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 Antwerp 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 Antwerp 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 the Supreme Court (Hof van Cassatie) in March 2016. In April 2019, the Advocate General at the Supreme Court issued his opinion which was in favour of Fortum Project Finance. He dismissed the arguments made by the Belgian State and confirmed the judgment of the Court of Appeal of Antwerp.

In May 2019 the Supreme Court, however, annulled the decision of the Court of Appeal of Antwerp and referred the case back to the Court of Appeal of Ghent for full retrial. Fortum's appeals concerning 2009-2012 are still pending and Fortum expects the remaining years to follow the final decision for 2008. Fortum has made an assessment supported by legal opinions not to book a provision. 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. The tax has already been paid.

Other legal actions and official proceedings

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.

Status of TVO's Olkiluoto 3 project

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.

A comprehensive settlement agreement between TVO and the Supplier was signed and it came into force in March 2018. The settlement agreement concerns the completion of the OL3 EPR project and related disputes.

The settlement agreement stipulated that in the event that the Supplier fails to complete the OL3 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 project and may not exceed EUR 400 million.

In July TVO received an updated schedule for the commissioning of the OL3 EPR plant unit from the Plant Supplier. According to the received information, the regular electricity generation at the OL3 plant unit will start in July 2020. According to the plant supplier, nuclear fuel will be loaded into the reactor in January 2020, the first connection to the grid will take place in April 2020 and the start of regular electricity production of the OL3 EPR nuclear power plant unit will take place in July 2020.

More information on the settlement agreement, see Note 37 Legal actions and official proceedings of the consolidated financial statements 2018.

19. Related party transactions

Related parties are described in the consolidated financial statements for the year ended 31 December 2018. There have been no material changes during 2019.

At year-end 2018 the Finnish State owned 50.76% of the shares in Fortum. There has been no change in the number of shares the Finnish State owns in Fortum during 2019.

Transactions with associated companies and joint ventures

	Q1-Q3	Q1-Q3	
EUR million	2019	2018	2018
Sales	30	42	39
Purchases	275	286	379
Interest income on loan receivables	9	10	13

Balances with associated companies and joint ventures

	Sept 30	Sept 30	Dec 31
EUR million	2019	2018	2018
Long-term interest-bearing loan receivables	661	692	641
Finance lease receivable from joint ventures	0	37	0
Trade receivables	28	14	54
Other receivables	18	19	18
Long-term loan payables	300	293	294
Trade payables	10	7	33
Other payables	3	5	14

20. Events after the balance sheet date

On 8 October 2019, Fortum announced it had entered into agreements to acquire all the shares held by funds managed by Elliott Management Corporation and its affiliates and Knight Vinke Energy Advisors Limited and its affiliates in Uniper, a total in excess of 20.5%. Fortum will pay approximately EUR 2.3 billion for the combined shareholding, corresponding to EUR 29.93 per share. Upon closing of the transactions, Fortum's share in Uniper will increase to more than 70.5% and the total investment in Uniper to approximately EUR 6.2 billion, representing an average acquisition price of EUR 23.97 per share.

Closing of the transaction is subject to customary regulatory clearances in Russia and the United States, and is expected by the end of the first quarter of 2020. Fortum will fully consolidate Uniper as a subsidiary in its financial statements from closing of the transaction.

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

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 + x 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	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 return on net assets 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

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 overthe-cycle financial target of Comparable net debt / EBITDA in the Group.	Note 13 Interest-bearing net debt
Return on capital employed (ROCE), %	Profit before taxes + interest x 10 and other financial expenses Capital employed average	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 in Average number of shares during the		
Equity per share	Shareholder's equity Number of shares at the end of the pe	riod	

Other key figures

FFO/Net debt, %	Funds from operations (FFO)	x 100
	Interest-bearing net debt	
Funds from operations (FFO)	Net cash from operating activities before change in working capital and change in settlements for fut	tures
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 dur construction period. Maintenance investments expand the lifetime of an existing asset, maintain useage/availability and/or maintains reliability. Productivity investments improve productivity in an exasset. Growth investments' purpose is to build new assets and/or to increase customer base within equipments.	ring the
Gross investments in shares	Investments in subsidiary shares, shares in associated companies and joint ventures and other investments in subsidiary shares are net of cash and grossed with interest-bearing liabilities in the accompany.	
Return on shareholders'		
equity (ROE), %	Profit for the year	x 100
	Total equity average	
Gearing, %	Interest-bearing net debt	x 100
	Total equity	
Equity-to-assets ratio, %	Total equity including non-controlling interest Total assets	x 100
Interest coverage	Operating profit Net interest expenses	
	Not interest expenses	
Interest coverage including		
capitalised borrowing costs	Operating profit Net interest expenses - capitalised borrowing costs	
	Net interest expenses - capitainsed borrowing costs	
Definitions for tax figures		
Effective income tax rate,%	Income tax expense	x 100
Encouve moonie tax rate, 70	Profit before income tax	X 100
Commonable offertive income		
Comparable effective income tax rate,%	Income tax expense - effects from tax rate changes and major one time tax effects	x 100
	Profit before income tax decreased by profits from associated companies and joint ventures as well as tax exempt capital gains or losses	X 100
Look twolve mostly // TMA	Tuelve months preceding the reporting date	
Last twelve months (LTM)	Twelve months preceding the reporting date	

Market conditions and achieved power prices

Power consumption						Last
TWh	Q3 2019	Q3 2018	Q1-Q3 2019	Q1-Q3 2018	2018	twelve months
Nordic countries	82	82	285	291	399	393
Russia	240	238	773	767	1,055	1,061
Tyumen	22	22	69	68	92	93
Chelyabinsk	8	8	26	26	35	35
Russia Urals area	60	60	191	190	260	261

Average prices						Last
	Q3 2019	Q3 2018	Q1-Q3 2019	Q1-Q3 2018	2018	twelve months
Spot price for power in Nord Pool power exchange, EUR/MWh	34.7	50.5	39.0	42.8	44.0	41.2
Spot price for power in Finland, EUR/MWh	47.8	53.5	44.2	45.9	46.8	45.6
Spot price for power in Sweden, SE3, Stockholm EUR/MWh	35.6	52.2	38.3	43.3	44.5	40.8
Spot price for power in Sweden, SE2, Sundsvall EUR/MWh	35.3	51.9	38.1	43.1	44.2	40.4
Spot price for power in the First Price Zone of Russia, RUB/MWh 1)	1,280	1,302	1,307	1,227	1,247	1,308
Average capacity price, tRUB/MW/month	571	556	604	585	609	624
Spot price for power in Germany, EUR/MWh	37.4	53.5	38.0	41.7	44.5	41.7
Average regulated gas price in Urals region, RUB/1000 m ³	3,937	3,812	3,883	3,774	3,801	3,896
Average capacity price for CCS, tRUB/MW/month 2)	145	138	150	144	148	152
Average capacity price for CSA, tRUB/MW/month 2)	1,004	993	1,066	1,033	1,075	1,099
Spot price for power (market price), Urals hub, RUB/MWh 1)	1,107	1,059	1,129	1,025	1,043	1,121
CO ₂ , (ETS EUA), EUR/tonne CO ₂	27	19	25	14	16	24
Coal (ICE Rotterdam), USD/tonne	57	99	63	92	92	71
Oil (Brent Crude), USD/bbl	62	76	65	73	72	66

¹⁾ Excluding capacity tariff.

Water reservoirs

TWh	Sept 30 2019	Sept 30 2018	Dec 31 2018
Nordic water reservoirs level	102	89	74
Nordic water reservoirs level, long-term average	101	101	83

Export/import						Last
TWh (+ = import to, - = export from Nordic area)	Q3 2019	Q3 2018	Q1-Q3 2019	Q1-Q3 2018	2018	twelve months
Export / import between Nordic area and Continental Europe + Baltics	-3	-1	-7	-6	-10	-11
Export / import between Nordic area and Russia	1	2	6	6	8	8
Export / import Nordic area, Total	-2	1	-1	0	-2	-3

Power market liberalisation in Russia						Last
			Q1-Q3	Q1-Q3		twelve
%	Q3 2019	Q3 2018	2019	2018	2018	months
Share of power sold at the liberalised price	81%	80%	81%	80%	80%	80%

Achieved power prices	Q3 2019	Q3 2018	Q1-Q3 2019	Q1-Q3 2018	2018	Last twelve months
Generation segment's Nordic power price, EUR/MWh	35.7	34.6	36.4	33.7	34.6	36.6
Russia segment's power price, RUB/MWh	1,974	1,884	1,985	1,854	1,888	1,984
Russia segment's power price, EUR/MWh 1)	27.5	24.8	27.0	25.4	25.6	26.8

¹⁾ Translated using average exchange rate.

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

Fortum's production and sales volumes

Power generation

			Q1-Q3	Q1-Q3	L	ast twelve.
TWh	Q3 2019	Q3 2018	2019	2018	2018	months
Power generation in Europe	9.8	7.9	33.8	32.8	44.4	45.4
Power generation in Russia	6.7	6.5	21.9	21.5	29.6	30.0
Power generation in other countries	0.0	0.1	0.0	0.3	0.4	0.1
Total	16.6	14.6	55.8	54.7	74.6	75.7

Heat production

			Q1-Q3	Q1-Q3	L	_ast twelve
TWh	Q3 2019	Q3 2018	2019	2018	2018	months
Heat production in Europe	0.7	0.9	5.3	6.2	9.4	8.5
Heat production in Russia	1.7	1.5	11.3	13.9	20.4	17.8
Total	2.4	2.4	16.6	20.1	29.8	26.3

Power generation capacity by segment

	Sept 30	Sept 30	Dec 31
MW	2019	2018	2018
Generation 1)	8,218	7,861	8,024
City Solutions ²⁾	1,062	778	788
Russia	4,928	4,913	4,912
Other	0	107	0
Total	14,208	13,658	13,724

¹⁾ Including 308 MW of Meri-Pori power plant, which will be under reserve capacity agreement during period July 2017 - June 2020.

Heat production capacity by segment

MW	2019	2018	2018
City Solutions	4,784	4,739	4,780
Russia 1)	8,437	10,229	10,229
Total	13,221	14,968	15,009

¹⁾ Decrease is mainly due to transfer of heat networks in Chelyabinsk and certain heat-only boilers to Yustek JV under a lease agreement in Q1 2019.

Power generation by source in the Nordic area

			Q1-Q3	Q1-Q3	L	ast twelve
TWh	Q3 2019	Q3 2018	2019	2018	2018	months
Hydro and wind power	4.4	2.9	14.8	14.5	19.4	19.7
Nuclear power	5.0	4.7	17.2	16.6	22.8	23.4
Thermal power	0.1	0.2	0.9	1.0	1.3	1.2
Total	9.5	7.8	32.8	32.1	43.5	44.2

Power generation by source in the Nordic area

· ·			Q1-Q3	Q1-Q3	L	ast twelve
%	Q3 2019	Q3 2018	2019	2018	2018	months
Hydro and wind power	45	38	45	45	45	45
Nuclear power	52	60	52	52	52	53
Thermal power	3	2	3	3	3	3
Total	100	100	100	100	100	100

Power sales

			Q1-Q3	Q1-Q3	L	ast twelve
EUR million	Q3 2019	Q3 2018	2019	2018	2018	months
Power sales in Europe	602	556	2,215	2,009	2,922	3,128
Power sales in Russia	211	192	676	635	872	913
Power sales in other countries	3	3	3	15	15	3
Total	816	751	2,893	2,659	3,810	4,044

²⁾ Additional 250 MW solar in India was commissioned in July 2019.

Fortum's production and sales volumes

Heat sales

			Q1-Q3	Q1-Q3	L	ast twelve.
EUR million	Q3 2019	Q3 2018	2019	2018	2018	months
Heat sales in Europe	64	60	416	410	615	621
Heat sales in Russia	18	8	88	129	193	152
Total	82	67	504	539	808	773

Power sales by area

			Q1-Q3	Q1-Q3	ı	_ast twelve
TWh	Q3 2019	Q3 2018	2019	2018	2018	months
Finland	3.1	4.6	17.2	16.9	23.1	23.4
Sweden	6.6	5.1	22.5	21.7	29.7	30.5
Russia	7.7	7.8	25.0	25.0	34.1	34.1
Norway	2.5	2.3	10.5	10.6	15.3	15.2
Other countries	0.6	0.4	1.8	1.3	1.8	2.3
Total	20.4	20.2	77.0	75.5	104.0	105.5

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

Heat sales by area

•			Q1-Q3	Q1-Q3	Last twelve	
TWh	Q3 2019	Q3 2018	2019	2018	2018	months
Russia	1.7	1.1	10.9	13.0	20.7	18.6
Finland	0.5	0.4	2.6	2.6	3.8	3.8
Poland	0.2	0.2	2.2	2.2	3.5	3.5
Other countries	0.4	0.3	2.4	2.3	3.5	3.6
Total	2.8	2.0	18.1	20.1	31.5	29.5