



## CEO's review

*In 2013, the economic recession in Europe and uncertainty over how long it would persist influenced energy prices and demand. The downturn also slowed economic growth in Russia.*

In the recent years, the inflow of heavily subsidised renewable energy with grid priority has changed the operating environment in Europe significantly. Market-driven energy production is struggling with weakened profitability, reducing the ability of companies to invest. Furthermore, the rapid growth in distributed production poses big challenges for market functionality and security of supply.

### Wholesale prices decreased as consumer prices rose

The rapid entry of shale gas into the US market has increased the use of gas, improved the country's energy self-sufficiency and reduced the consumption of coal. In the meanwhile, Europe has received a steady stream of more economically priced coal and its use has increased. This trend, coupled with the rock-bottom prices of emission allowances and more expensive gas has eroded the profitability of energy produced with natural gas in Europe. Brand-new gas-fired power plants have been shut down due to unprofitability. Despite the lower wholesale prices, subsidies to renewable

energy have significantly hiked the consumers' electricity bills.

Compared to coal-fired power generation, natural gas-based power has a much lower environmental impact. Power from natural gas is also necessary for balancing the fluctuation of renewable energy production in areas where hydropower is unavailable. In fact, discussions on the introduction of capacity payments to support traditional energy production have taken place in several European countries during the year. All the while, governments are already spending considerable sums on subsidising energy production.

### Making carbon dioxide emission reductions the energy policy's main goal

Debate on the direction of Europe's energy and climate policy remained lively throughout 2013. An increasingly topical issue was how to maintain Europe's competitiveness amidst rising consumer prices.

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At the beginning of 2014, the European Commission published its proposal on Europe's climate and energy policy for 2020 to 2030. The proposal placed a sharper focus on reducing greenhouse gas emissions, recommending a target of a 40 per cent reduction in line with the commonly agreed targets set by the EU for 2050.

The Commission also proposed getting rid of the binding, national renewable energy targets and setting a binding, EU-level target to increase the share of renewable energy to 27 per cent. While this is a step in the right direction, it still overlaps with the carbon

dioxide emissions reduction target. Overlapping targets and steering mechanisms increase the energy and climate policy price tag and, ultimately, the consumers' electricity bill.

A positive development in the Commission's proposal was a market stability reserve mechanism for emissions trading. The mechanism may be useful in addressing the central weakness of the emissions trading scheme, which is its inability to cope with strong fluctuations in demand or oversupply. Advance agreement on the arrangements controlling the scheme will reduce political risk and improve the predictability required for energy sector investments.

For Europe to remain competitive, it is essential that efforts to create an integrated electricity market continue. Shifting the energy policy's focus from national interests to common energy production solutions that leverage the region's strengths will eventually provide the most sustainable and cost-effective results for consumers, industry and the climate. In an integrated European electricity market the use of production capacity will be optimised and investment signals market-driven.

### Increased speed and flexibility in 2013

Despite a challenging operating environment, 2013 was a satisfactory year for Fortum. Although our comparable operating profit decreased, the operative cash flow was very strong, and we continued to implement our investment projects in Europe and Russia with determination.

In 2012, we set a goal for Fortum's efficiency programme, which was to improve the company's speed and flexibility by strengthening cash flow by at least one billion euros in total by the end of 2014. The programme has progressed as planned, lightening our cost structure throughout our operating areas. Furthermore, we have divested non-core assets and improved our working capital efficiency.

### Towards emissions-free energy production in line with the strategy

Regardless of the economic recession, steps must be taken to mitigate climate change. The latest report by the Intergovernmental

Panel on Climate Change (IPCC) sent a strong scientific message to decision-makers: Emissions must be clearly reduced before 2020 and must be cut in half by 2050. The transition to a Solar Economy where energy production is based on renewable energy sources may be gradual, but it is inevitable.

The cornerstones of Fortum's strategy are our strong expertise in CO<sub>2</sub>-free hydro and nuclear power production, our efficient combined heat and power (CHP) production, and know-how in operating in the energy markets. Alongside electricity production based on renewable energy sources, our strength, the energy-efficient CHP production, flexibly responds to fluctuating demand.

In 2013, we inaugurated five new production facilities in Europe. New waste-fired CHP plants were inaugurated in Klaipėda, Lithuania, and Brista, Sweden, and new biomass-fuelled CHP plants in Jelgava, Latvia, and Järvenpää, Finland. Additionally, bio-oil production using pyrolysis technology commenced at Fortum's Joensuu CHP plant. This unique technology may offer significant future business potential, for example, in the area of traffic fuels. In fact, the Joensuu project is the first of its kind in the world and was recognised for innovation at the Global District Energy Climate Awards in autumn 2013.

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In addition to increasing CHP capacity, we also continued our annual hydropower refurbishments and strengthened the prerequisites for nuclear power production particularly at our co-owned power plants in Sweden. Fortum's fully-owned Loviisa nuclear power plant in Finland had once again a good production year. The plant's load factor of 92.5% was excellent by international standards. We have also established our position in growth markets through our expert services business during the year.

### Fortum's Russian investment programme progressed to the final large units

In Russia, our investment programme is progressing, and in 2013 two new power plant units were commissioned in Nyagan, in Western Siberia. Out of the programme's eight production units, the three last, large ones are under construction. Our new gas-fired power plants in Russia are very energy-efficient.

The weakened industrial and economic growth indicators reported in Russia at the end of the year indicate that not even this market area is immune to the uncertainty in the global economy. The Russian government decided to postpone and reduce the previously planned annual gas price increases in its domestic markets. As a result, the new and efficient plants will not have as significant a competitive advantage as previously estimated. Due to this development and the weakened exchange rate for the rouble, it will be more challenging to achieve an operating profit level (EBIT) of EUR 500 million run rate in 2015. However, we will not abandon this target. Instead, we will strive to actively develop our operations and find ways to reach it.

Russia will be an important growth area for Fortum in the upcoming years. The reform of the Russian wholesale market has proceeded completely according to plan, and we expect the same consistent progress in the reform of the heating sector as it gets underway. Russia has the potential to significantly increase the efficiency of its heat production, a fact that offers interesting prospects for Fortum's heat business and CHP expertise.

### Next generation solutions

Along with emissions-free hydro and nuclear power and resource-efficient CHP production, we are developing the use of waste and biomass-based fuels as well as researching opportunities in solar and wave power. These are all building blocks of the future energy system based on the sun's energy.

In India, we invested in a 5-megawatt solar power plant in order to gain experience in solar energy technologies and to enhance our understanding of the country's electricity market. If the operating requisites develop positively, I believe that in regions that are favourable for production, unsubsidised solar

energy will be able to compete with other energy sources even within this decade.

We are also continuously developing new tools and services to help our business and private customers monitor and lower their energy consumption. A smart grid and products that complement it, such as Fortum Fiksu, play an increasingly important role in the interaction between the energy producer and the consumer. We are also developing open, two-way solutions that enable customers to sell the surplus electricity or heat they produce to Fortum.

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Our concerted efforts to cater to the evolving needs of our customer are also reflected in our annual stakeholder satisfaction survey results. For several consecutive years, customers have indicated their increasing satisfaction with Fortum and in 2013, the survey results improved again. At the same time, the number of customers we serve has increased. At the end of 2013, Fortum had more retail customers in the Nordic countries than ever before.

## Electricity distribution business in Finland to be divested

In December 2013, we completed the assessment of future alternatives for our electricity distribution business. After a thorough analysis, we concluded that divesting the electricity distribution business is the best alternative for Fortum's shareholders and for the business itself. The decision gives Fortum the opportunity to focus on efficient and low-carbon electricity and heat production as well as on its activities in the integrating energy markets. It also provides the company with strategic freedom and increases shareholder value. I firmly believe that it is also a good solution from the perspective of our distribution customers and society at large because it will enable the development of the network business purely from its own standpoint.

Accordingly, we signed an agreement to sell the electricity distribution business in Finland to Suomi Power Networks Oy in December. Its shareholders are a consortium of the Finnish pension funds Keva and LocalTapiola Pension and the international infrastructure investors First State Investments and Borealis Infrastructure. We expect to finalise the sale during the first quarter of 2014.

The decision has no effect on our electricity retail customers to whom will continue to offer smart products and services that improve the efficiency of their energy consumption and decrease their costs. Our new products, like solar panels and heating solutions that take advantage of the power market's lowest hourly prices, have been well received by customers. I am very pleased with the continuous improvement in customer satisfaction in all our divisions. Fortum's reputation among other key groups also continued to strengthen.

## Sustainability as an integral part of strategy

Sustainability is a key success factor for Fortum, and we are committed to the principles of the UN Global Compact. We adopted new sustainability indicators at the beginning of 2013 and have met the customer satisfaction and reputation targets we set for them. However, because of the heavy storms at the end of the year, we did not reach our target with regard to the security of supply for electricity. The average outage time per customer was 220 minutes during the entire year.

We will persist in our efforts to achieve our environmental targets. Fortum gained significant recognition for its work towards emissions-free energy production and climate change mitigation in autumn 2013 when the Carbon Disclosure Project (CDP), which represents institutional investors, ranked us as the best company in the Nordic Climate Leadership Index with a maximum score of one hundred points.

The occupational safety of Fortum's own personnel further improved in 2013 and the number of injuries resulting in absences reached an all-time low. On the other hand, there is room for improvement in the development of the occupational safety culture of our contractors. In 2013, an

accident resulted in the death of a contractor employee at our construction site in Russia and in February 2014, an accident took the life of a contractor employee working on our distribution network in Sweden. I would like to express my sincere condolences to the families and colleagues of the victims. Our goal is to avoid all serious accidents. For this reason, improving occupational safety must become integral to the daily routines of every Fortum employee.

## Ready to seize opportunities in the changing energy markets

In difficult times it is good to be at the helm of a company that can boldly shape its own future. We will continue our efficiency programme as planned, enhance our flexibility, and decisively and systematically build new business opportunities. Only a company on stable financial footing such as Fortum can leverage the opportunities presented by the rapidly changing sector. We will carefully manage our current business and build the future in line with our strategy.

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To conclude, I extend my sincerest gratitude to Fortum's personnel in all our operating countries for the work they have done towards achieving our shared goals in the past year. I also wish to acknowledge Sari Baldauf, our Chairman of the Board, who for a period of months assumed a greater responsibility in advancing Fortum's interests while I was on sick leave. I also thank our CFO Markus Rauramo, who successfully served as my deputy. And, finally, I would like to thank our customers and our broadening shareholder roster for your trust. We will continue to work to increase the company's value also in 2014.

*Tapio Kuula*



## Operations and market areas



### Finland

<b>4,528 MW</b>	Power generation, capacity
<b>1,915 MW</b>	Heat production, capacity
<b>642,000</b>	Distribution, customers
<b>16%</b>	Share of retail customers
<b>2,477</b>	Employees 31 Dec 2013
<b>100%</b>	ISO 14001 certified <sup>1)</sup>
<b>70%</b>	OHSAS 18001 certified <sup>2)</sup>
<b>43%</b>	ISO 9001 certified <sup>3)</sup>
<b>3.5 Mt</b>	CO <sub>2</sub> emissions

### Sweden

<b>5,856 MW</b>	Power generation, capacity
<b>3,626 MW</b>	Heat production, capacity
<b>903,000</b>	Distribution, customers
<b>12%</b>	Share of retail customers
<b>1,939</b>	Employees 31 Dec 2013
<b>100%</b>	ISO 14001 certified <sup>1)</sup>
<b>64%</b>	OHSAS 18001 certified <sup>2)</sup>
<b>36%</b>	ISO 9001 certified <sup>3)</sup>
<b>0.9 Mt</b>	CO <sub>2</sub> emissions

### Russia

<b>4,250 MW</b>	Power generation, capacity
<b>13,466 MW</b>	Heat production, capacity
-	Distribution, customers
-	Share of retail customers
<b>4,162</b>	Employees 31 Dec 2013
<b>100%</b>	ISO 14001 certified <sup>1)</sup>
<b>100%</b>	OHSAS 18001 certified <sup>2)</sup>
<b>2%</b>	ISO 9001 certified <sup>3)</sup>
<b>15.3 Mt</b>	CO <sub>2</sub> emissions

## Poland

<b>258 MW</b>	Power generation, capacity
<b>1,310 MW</b>	Heat production, capacity
-	Distribution, customers
-	Share of retail customers
<b>636</b>	Employees 31 Dec 2013
<b>100%</b>	ISO 14001 certified <sup>1)</sup>
<b>100%</b>	OHSAS 18001 certified <sup>2)</sup>
<b>100%</b>	ISO 9001 certified <sup>3)</sup>
<b>0.9 Mt</b>	CO <sub>2</sub> emissions

## Lithuania

<b>18 MW</b>	Power generation, capacity
<b>95 MW</b>	Heat production, capacity
-	Distribution, customers
-	Share of retail customers
<b>103</b>	Employees 31 Dec 2013
<b>100%</b>	ISO 14001 certified <sup>1)</sup>
<b>100%</b>	OHSAS 18001 certified <sup>2)</sup>
<b>100%</b>	ISO 9001 certified <sup>3)</sup>
<b>0.05 Mt</b>	CO <sub>2</sub> emissions

## Latvia

<b>26 MW</b>	Power generation, capacity
<b>236 MW</b>	Heat production, capacity
-	Distribution, customers
-	Share of retail customers
<b>86</b>	Employees 31 Dec 2013
<b>95%</b>	ISO 14001 certified <sup>1)</sup>
<b>95%</b>	OHSAS 18001 certified <sup>2)</sup>
<b>95%</b>	ISO 9001 certified <sup>3)</sup>
<b>0.05 Mt</b>	CO <sub>2</sub> emissions

## Norway

-	Power generation, capacity
<b>210 MW</b>	Heat production, capacity
<b>103,000</b>	Distribution, customers
<b>4%</b>	Share of retail customers
<b>141</b>	Employees 31 Dec 2013
<b>100%</b>	ISO 14001 certified <sup>1)</sup>
<b>0%</b>	OHSAS 18001 certified <sup>2)</sup>
<b>100%</b>	ISO 9001 certified <sup>3)</sup>
<b>0.005 Mt</b>	CO <sub>2</sub> emissions

## Great Britain

<b>140 MW</b>	Power generation, capacity
<b>250 MW</b>	Heat production, capacity
-	Distribution, customers
-	Share of retail customers
<b>50</b>	Employees 31 Dec 2013
<b>100%</b>	ISO 14001 certified <sup>1)</sup>
<b>100%</b>	OHSAS 18001 certified <sup>2)</sup>
<b>100%</b>	ISO 9001 certified <sup>3)</sup>
<b>0.6 Mt</b>	CO <sub>2</sub> emissions

## Estonia

<b>48 MW</b>	Power generation, capacity
<b>551 MW</b>	Heat production, capacity
-	Distribution, customers
-	Share of retail customers
<b>210</b>	Employees 31 Dec 2013
<b>100%</b>	ISO 14001 certified <sup>1)</sup>
<b>100%</b>	OHSAS 18001 certified <sup>2)</sup>
<b>100%</b>	ISO 9001 certified <sup>3)</sup>
<b>0.1 Mt</b>	CO <sub>2</sub> emissions

## India

<b>5 MW</b>	Power generation, capacity
-	Heat production, capacity
-	Distribution, customers
-	Share of retail customers
<b>22</b>	Employees 31 Dec 2013
<b>0%</b>	ISO 14001 certified <sup>1)</sup>
<b>0%</b>	OHSAS 18001 certified <sup>2)</sup>
<b>0%</b>	ISO 9001 certified <sup>3)</sup>
<b>0 Mt</b>	CO <sub>2</sub> emissions





<sup>1)</sup> ISO 14001 is a standard for environmental management systems

<sup>2)</sup> OHSAS 18001 is a standard for occupational health and safety management systems

<sup>3)</sup> ISO 9001 is a standard for quality management systems

# Group business structure

(on 31 December 2013)

Division	Power	Heat	Russia	Electricity Solutions and Distribution (ESD)	
					
<b>Business</b>	The Division consists of Fortum's power generation, power trading and power capacity development as well as expert services for power and heat producers.	The Division consists of combined heat and power (CHP) generation, district heating activities and business-to-business heating solutions in the Nordic countries and other parts of the Baltic Rim.	The Division consists of power and heat generation and sales in Russia. It includes OAO Fortum and Fortum's over 25% holding in TGC-1.	The Division is responsible for Fortum's electricity sales and distribution activities. The division consists of two business areas: Distribution and Electricity Sales.	
Reporting segment	Power	Heat	Russia	Distribution	Electricity Sales
<b>Geographic presence, production and distribution assets and/or customer base</b>	<p>Production in Finland, Sweden and Great Britain.</p> <p>Expert services worldwide.</p> <p>In Finland and Sweden full or co-ownership in 159 hydropower plants, one co-owned and two fully-owned condensing power plants and ownership in three wind power companies. Two fully-owned nuclear reactors and eight co-owned nuclear power plant units. One CHP plant in Great Britain.</p>	<p>Finland, Sweden, Norway, Poland, Lithuania, Latvia, Estonia, India</p> <p>18 CHP plants and hundreds of heat boilers. A solar power plant in India.</p> <p>Heat supply to one million homes in the Nordic and Baltic countries and Poland.</p>	<p>Russia</p> <p>Eight CHP plants, one condensing power plant and several heat boilers.</p> <p>~500 km trunk networks as well as heat supply to two million residents.</p> <p>Includes &gt;25% share (giving blocking minority) in TGC-1 in north-western Russia.</p>	<p>Finland, Sweden and Norway</p> <p>160,000 km of distribution lines, 53,500 substations, three operation centres, and 1.6 million customers and meters.</p>	<p>Finland, Sweden and Norway</p> <p>1.2 million customers.</p>
<b>Market position</b>	Third largest power producer in the Nordic countries, among the 15	Leading heat supplier in the Nordic and Baltic countries and Poland.	Sizable power and heat utility in Western Siberia and the Urals in Russia.	Largest electricity distribution operator in the Nordic countries.	Second largest electricity sales operator and a leading seller of eco-labelled and

Reporting segment	Power	Heat	Russia	Distribution	Electricity Sales
	largest in Europe and Russia.				CO <sub>2</sub> -free electricity in the Nordic countries.
<b>Production capacity</b>	Power 9,475 MW Heat 250 MW	Power 1,398 MW Heat 7,943 MW	Power 4,250 MW Heat 13,466 MW	-	-
<b>Volumes</b>	Total power generation 44.7 TWh/a  Nordic power generation 43.7 TWh/a	Power sales 4.8 TWh/a  Heat sales 19.0 TWh/a	Power sales 25.6 TWh/a  Heat sales 24.1 TWh/a	Distribution network 26.1 TWh/a  Regional network 16.3 TWh/a	Electricity sales 13.6 TWh/a
<b>Sales</b>	EUR 2,248 million	EUR 1,565 million	EUR 1,119 million	EUR 1,075 million	EUR 744 million
<b>Share of Fortum's sales</b>	33%	23%	16%	16%	11%
<b>Comparable operating profit</b>	EUR 858 million	EUR 273 million	EUR 156 million	EUR 331 million	EUR 48 million
<b>Comparable EBITDA</b>	EUR 1,003 million	EUR 489 million	EUR 258 million	EUR 550 million	EUR 50 million
<b>Net assets</b>	EUR 6,329 million	EUR 4,283 million	EUR 3,846 million	EUR 3,770 million	EUR 39 million
<b>Comparable return on net assets</b>	13.8%	6.8%	5.2%	8.8%	137.9%
<b>Capital expenditures</b>	EUR 178 million	EUR 397 million	EUR 435 million	EUR 260 million	EUR 1 million
<b>Employees</b>	1,709	2,102	4,162	852	496
<b>Business and result drivers</b>	<ul style="list-style-type: none"> <li>- Nordic power supply-demand balance, volatility and price; stability through hedging</li> <li>- About 90% of production is hydro and nuclear power: hydrological situation, nuclear power availability, and prices of fuels and emission allowances important</li> <li>- Maintenance and asset lifetime management practices and costs</li> <li>- Investments into</li> </ul>	<ul style="list-style-type: none"> <li>- Steady growth through investments; newly commissioned CHP plants bring earnings</li> <li>- Fuel and CO<sub>2</sub> emissions allowance prices and fuel availability, flexibility and efficiency play a key role</li> <li>- Production primarily in CHP plants with power as an important earnings source: power supply/demand balance, volatility and price affect profitability; stability through hedging</li> <li>- Heat and auxiliary</li> </ul>	<ul style="list-style-type: none"> <li>- Investment programme: earnings growth through new capacity and new volume</li> <li>- Power generation capacity prices, power supply-demand balance, price and volatility</li> <li>- Production mainly CHP with power as the primary earnings source: Power supply-demand balance as well as price level and volatility in the Urals/Western Siberia</li> </ul>	<ul style="list-style-type: none"> <li>- Growth through investments</li> <li>- Long-term optimised levels of investment and maintenance</li> <li>- Distribution volumes: weather conditions as well as macro and local economy have an impact</li> <li>- Stable earnings with regulated tariffs</li> <li>- Cost-efficiency and quality of service</li> </ul>	<ul style="list-style-type: none"> <li>- Growth in customer base through new offerings and innovative solutions</li> <li>- Margin between Nord Pool wholesale purchase and retail sales price levels; stability through efficient hedging</li> </ul>

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Reporting segment	Power	Heat	Russia	Distribution	Electricity Sales
	new or existing generation	<ul style="list-style-type: none"> <li>product prices</li> <li>- Heat demand: weather conditions as well as macro and local economy have an impact</li> <li>- Maintenance and asset lifetime management practices and costs</li> </ul>	<ul style="list-style-type: none"> <li>- Plant availability, production optimisation and efficiency upgrades</li> <li>- Fuel prices and availability as well as gas and electricity price ratio</li> <li>- Development of heat market in the long term as well as heat demand and tariffs in the short term</li> <li>- Maintenance and asset lifetime management practices and costs</li> </ul>	<ul style="list-style-type: none"> <li>- Grid availability and service level; liability to compensate for distribution interruptions</li> <li>- Maintenance and asset lifetime management practices and costs</li> </ul>	
<b>Strategy drivers</b>	<ul style="list-style-type: none"> <li>- Existing CO<sub>2</sub>-free, flexible and market-driven production portfolio</li> <li>- Solid position and competence in hydro and nuclear production in the Nordic power market</li> <li>- Liberalisation and integration of European power market</li> </ul>	<ul style="list-style-type: none"> <li>- Need for increased resource-efficiency will increase CHP's competitiveness</li> <li>- Potential for increased usage of local biofuels and waste</li> <li>- Solid position and competence in flexible multi-fuel CHP production</li> </ul>	<ul style="list-style-type: none"> <li>- Liberalised and privatised power and heat market</li> <li>- Economic and power demand growth</li> <li>- Boosting efficiency of existing operations and bringing the ongoing investment programme to completion</li> <li>- Development of heat market</li> <li>- Potential for improved operations on the basis of current assets modernisation</li> </ul>	<ul style="list-style-type: none"> <li>- Cost efficiency through economies of scale and lean processes</li> <li>- Technical development utilised for a more efficient, reliable and smarter network enabling sustainable and energy-efficient solutions for customers</li> <li>- Unbundling and harmonisation of Nordic/European electricity distribution sector</li> </ul>	<ul style="list-style-type: none"> <li>- Cost efficiency through economies of scale and lean processes</li> <li>- Potential for new businesses related to smart grid/ system development</li> <li>- Solid position and competence in the downstream part of the Nordic power value chain</li> <li>- Liberalisation, integration and harmonisation of Nordic/European retail electricity markets</li> </ul>



# Highlights of the year

*Most significant events of 2013:*

<p><b>JANUARY</b></p> <p><b>31st - Construction of a bio-CHP plant started in Sweden</b> We started the construction of the world's biggest bio-CHP plant in Stockholm's Värtan in Sweden.</p>	<p><b>31st - Assessment of electricity distribution business started</b> We started the assessment of the future alternatives of our electricity distribution business. The company's electricity retail business was excluded from the assessment.</p>
<p><b>FEBRUARY</b></p> <p><b>22nd - Customers' first choice in the Urals</b> Customers chose Fortum as the best energy company in the Urals and West Siberia in the annual Golden Kilowatt competition.</p>	
<p><b>MARCH</b></p>	<p><b>25th - CEO started sick leave</b> President and CEO Tapio Kuula started sick leave. CFO Markus Rauramo assumed responsibility for his duties. Kuula returned to work in November.</p>
<p><b>1st - Nyagan 1 into operation</b> We started commercial operation of Nyagan power plant's unit 1 in Russia.</p> <p><b>9th - Annual General Meeting</b> In conjunction with our Annual General Meeting, we updated our dividend policy. The objective of the new dividend policy is to increase transparency and provide better support for our long-term strategy and business operations.</p>	<p><b>17th - New air cooling towers to Loviisa power plant</b> We announced that Loviisa nuclear power plant's safety will be enhanced with new air cooling towers. We have been studying this new cooling system that is independent of seawater for several years.</p>
<p><b>MAY</b></p> 	<p><b>15th - New waste-to-energy plant in Lithuania</b> The Presidents of Lithuania and Finland inaugurated our new waste-to-energy combined heat and power (CHP) plant in the city of Klaipeda, Lithuania.</p>

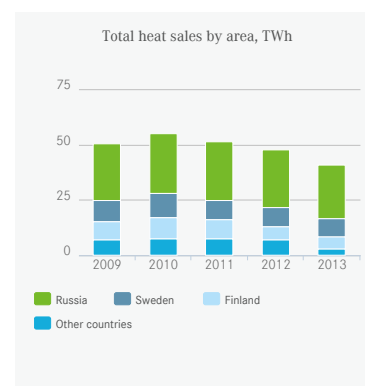
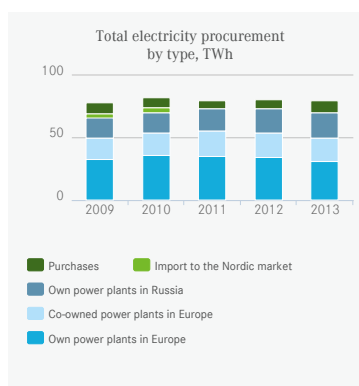
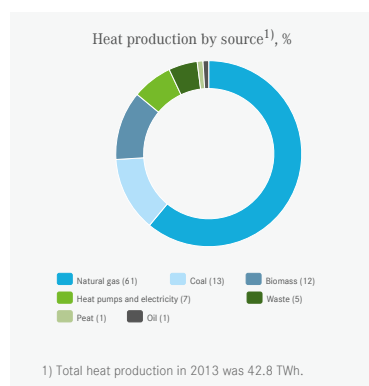
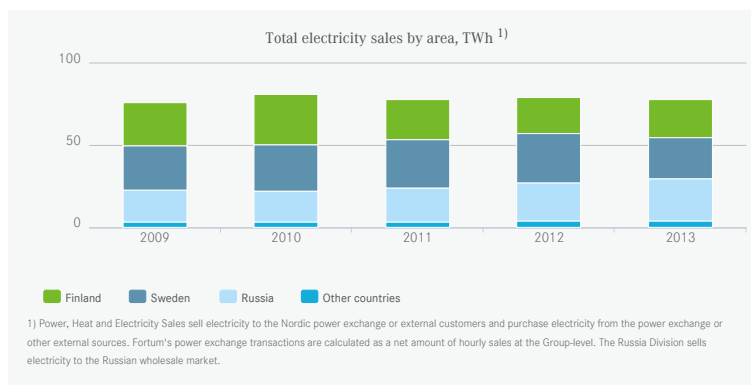
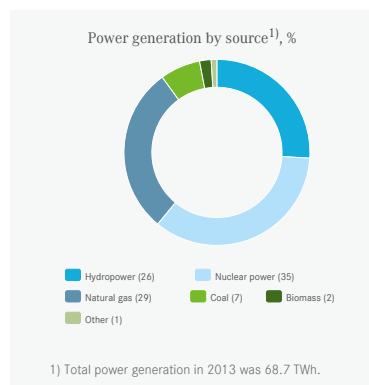
JUNE	<p><b>11th - Solar power from India</b> We launched solar power production in India by acquiring a 5-MW photovoltaic solar power plant in the state of Rajasthan, north-western India.</p> <p><b>14th - Järvenpää bio-fuelled plant in Finland inaugurated</b> We inaugurated a new biofuel-fired combined heat and power (CHP) plant in Järvenpää, Finland. The plant uses forest residues and forest industry by-products, like sawdust and bark.</p>	<p><b>26th - A broader heating network in Estonia</b> We acquired district heat operations in the city of Tartu in Estonia from the Estonian district heat company Eraküte. The acquired district heating network accounts for approximately 20% of the whole Tartu network.</p>
JULY		
AUGUST	<p><b>13th - Production at Inkoo power plant in Finland will end</b> We announced the decision to discontinue electricity production at the Inkoo coal-fired power plant in Finland. Production operations will end in February 2014, after which the three units will be mothballed.</p> <p><b>30th - Kaarina Ståhlberg to Fortum Management Team</b> Kaarina Ståhlberg was appointed General Counsel and new member of the Management Team.</p>	<p><b>11th - New bio-CHP-plant inaugurated in Latvia</b> The President of Latvia and Finland inaugurated our new combined heat and power (CHP) plant in the Latvian city of Jelgava. The plant is the first large-scale bio CHP plant in Latvia.</p>
SEPTEMBER	<p><b>5th - Expert services for nuclear power development projects</b> We signed a collaboration agreement with the Russian State Atomic Energy Corporation ROSATOM and Rolls-Royce in the area of nuclear power development. The collaboration will jointly investigate the feasibility of ROSATOM's VVER-type reactors for the UK.</p>	<p><b>19th - Wavepower development progressing</b> We signed a development agreement with DCNS and AW-Energy in wave power research and development. As part of the agreement, a joint 1.5-MW wave power demonstration project will be started in Bretagne, France.</p> <p><b>24th - Inauguration of Nyagan's power plant in Russia</b> Our new gas-fired thermal power plant Nyagan GRES was inaugurated in Western Siberia by the Presidents of Russia and Finland. The Nyagan power plant represents the most significant part of our investment programme in Russia.</p>
OCTOBER	<p><b>4th - Smart meters installed in Finland</b> We completed the installing of new smart meters in Finland. Altogether 610,000 meters were installed in our electricity distribution areas.</p> <p><b>8th - At the top of the Nordic climate index</b> CDP (Carbon Disclosure Project) ranked Fortum as the best company in the Nordic climate index. The index assesses companies' climate performance.</p>	<p><b>24th - Nitrogen oxides reduction systems to Poland</b> We announced the agreement to supply nitrogen oxides reduction systems to coal-fired power plants owned by EDF Group in Krakow and Wroclaw, Poland, where the combustion technology of power plant boilers will be upgraded.</p>
NOVEMBER	<p><b>29th - Waste-to-energy plant inaugurated in Sweden</b> We inaugurated a new combined heat and power (CHP) plant in Sigtuna, Stockholm. Brista 2 will produce energy from sorted municipal and industrial waste.</p>	<p><b>29th - Bio-oil production started in Joensuu, Finland</b> We started bio-oil production in the new pyrolysis plant integrated with our Joensuu combined heat and power (CHP) plant. The plant is the first of its kind in the world.</p>
DECEMBER	<p><b>12th - Assessment of electricity distribution business completed – distribution business in Finland to be sold</b> We concluded the assessment of the future alternatives of the electricity distribution business. We announced that we will sell our electricity distribution business in Finland to Suomi Power Networks.</p>	<p><b>2nd - Nyagan 2 into operation</b> Commercial production at Nyagan power plant's unit 2 started in Russia.</p> <p><b>Implementation of the efficiency programme continues</b> During the year, our efficiency programme activities included, e.g., divesting power plants and shares in energy companies as well as outsourcing operations.</p>

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# 2013 in figures

## Sales and production

*The operating year was characterised by low hydro production volumes and good nuclear availability.*



### Fortum's power production by energy source in 2011-2013

TWh	2013	2012	2011
Hydro power	18.0	25.2	21.0
Nuclear power	23.7	23.4	24.9
Natural gas	20.0	19.4	18.5
Coal	4.5	3.3	5.8
Biomass	1.6	1.3	1.7
Peat	0.1	0.1	0.2
Other	0.8	0.3	0.6
<b>Total</b>	<b>68.7</b>	<b>73.1</b>	<b>72.7</b>

**Fortum's power generation capacity, 31 Dec 2013**

MW	Finland	Sweden	Russia	Poland	Other	Total
Hydropower	1,500	3,090				<b>4,590</b>
Nuclear power	1,460	1,816				<b>3,276</b>
Combined heat and power	438	610	4,250	258	232	<b>5,788</b>
Condensing power	1,127	309				<b>1,436</b>
Other	3	30			5	<b>38</b>
<b>Total</b>	<b>4,528</b>	<b>5,855</b>	<b>4,250</b>	<b>258</b>	<b>237</b>	<b>15,128</b>

**Fortum's heat production capacity, 31 Dec 2013**

MW	Finland	Sweden	Russia	Poland	Other	Total
Heat	1,915	3,626	13,466	1,310	1,342	<b>21,659</b>

## Financial summary

The following table presents key figures of our operations. More data on Fortum's financial performance is available in the [Financials section](#) of the Annual Report.

**Key financial figures**

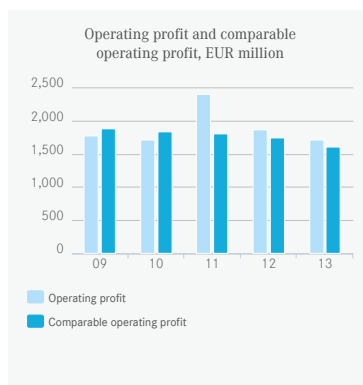
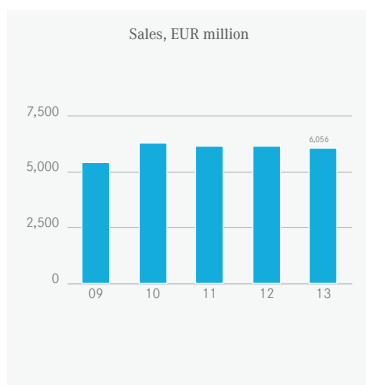
EUR million or as indicated	2013	2012	2011	2010
Sales	6,056	6,159	6,161	6,296
EBITDA	2,452	2,538	3,008	2,271
Comparable EBITDA	2,299	2,416	2,374	2,396
Operating profit	1,712	1,874	2,402	1,708
Comparable operating profit	1,607	1,752	1,802	1,833
Profit for the period, owners of the parent	1,204	1,416	1,769	1,300
Capital employed	19,780	19,420	17,931	16,124
Interest-bearing net debt	7,849	7,814	7,023	6,826
Net debt/EBITDA	3.2	3.1	2.3	3.0
Comparable net debt/EBITDA	3.4	3.2	3.0	2.8
Return on capital employed, %	9.2	10.2	14.8	11.6
Return on shareholders' equity, %	12.0	14.6	19.7	15.7
Capital expenditure	1,284	1,558	1,408	1,222
Gross investments in shares	15	16	74	27
Net cash from operating activities	1,836	1,382	1,613	1,437
Emissions subject to EU's ETS, million tonnes CO <sub>2</sub>	6.0	4.8	8.0	9.7
Free emission allocation, million tonnes CO <sub>2</sub>	3.0*	5.4	6.8	5.6

\* Pending approval of the European Commission

### Share key figures

EUR or as indicated	2013	2012	2011	2010
Earnings per share	1.36	1.59	1.99	1.46
Cash flow per share	2.07	1.56	1.82	1.62
Equity per share	11.28	11.30	10.84	9.24
Dividend per share <sup>1)</sup>	1.10	1.00	1.00	1.00
Payout ratio, %	80.9	62.9	50.3	68.5
Dividend yield, %	6.6	7.1	6.1	4.4

<sup>1)</sup> Board of Directors' proposal for the Annual General Meeting on 8 April 2014.



## Environmental summary

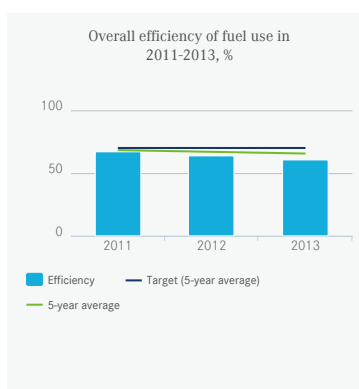
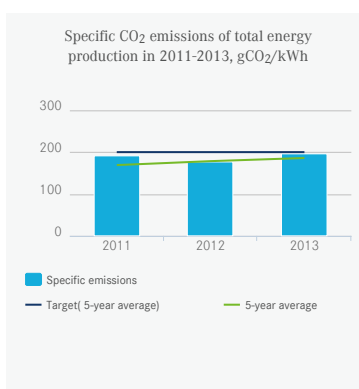
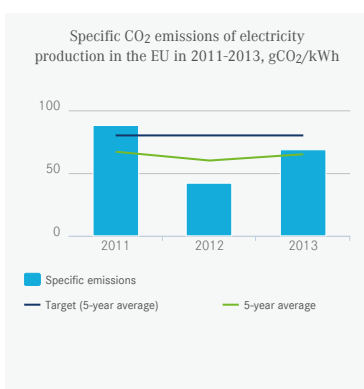
All indicators measuring Fortum's environmental responsibility will be available in the GRI section of Fortum's Sustainability Report 2013. It will be published the end of March 2014.

	2013*	2012	2011
Carbon dioxide emissions, million tonnes	21.4	20.7	23.5
Sulphur dioxide emissions, tonnes	22,200	19,800	24,900
Nitrogen oxide emissions, tonnes	32,200	29,400	36,000
Particle emissions, tonnes	20,800	16,000	16,600
ISO 14001 certified operations (% of sales)	100	95	95
Specific CO <sub>2</sub> emissions of power generation, g/kWh	202	171	192
5-year average in the EU, g/kWh	70	60	67
Specific CO <sub>2</sub> emissions of total energy production, g/kWh	196	177	192
5-year average, g/kWh	186	179	169
Overall efficiency of fuel use, %	61	64	67
5-year average, %	66	67	68
Share of CO <sub>2</sub> -free energy in power generation, %	63	68	65
Share of renewable energy in power generation, %	29	36	31
Share of renewable energy in heat production, %	21	20	16
Primary energy consumption, TWh	146	149	157
Utilisation rate of gypsum, %	99	42	89

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Utilisation rate of ash, %	48	51	52
Environmental non-compliances	14	12	20
Water withdrawal, million m <sup>3</sup>	2,541	3,679	3,853
of which cooling water, million m <sup>3</sup>	2,241	3,582	3,746
Thermal load on waterways, TWh	19	17	21

\* Figures pending assurance



## Social summary

All indicators measuring Fortum's social responsibility will be available in the GRI section of Fortum's Sustainability Report 2013. It will be published at the end of March 2014.

	2013*	2012	2011
Average number of employees	10,246	10,600	11,010
Number of employees, 31 December	9,886	10,371	10,780
of whom permanently employed	9,515	9,899	10,379
Departure turnover, %	9.7	12.0	13.7
Female employees, %	28	28	29
Females in management, %	31	35	34
Health care expenditure, EUR/person <sup>1)</sup>	580	580	560
Number of sickdays	56,316	74,188	69,654 <sup>2)</sup>
Sickness absence rate, %	2.5	3.1	-
Lost workday injury frequency (LWIF), Fortum personnel <sup>3)</sup>	1.1	1.5	1.6
Lost workday injury frequency (LWIF), contractors <sup>3)</sup>	4.8	3.8	3.2
Fatalities	1	1	1
OHSAS 18001 certified operations (% of sales)	73	70	60

\* Figures pending assurance

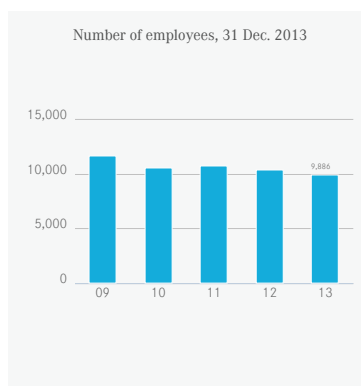
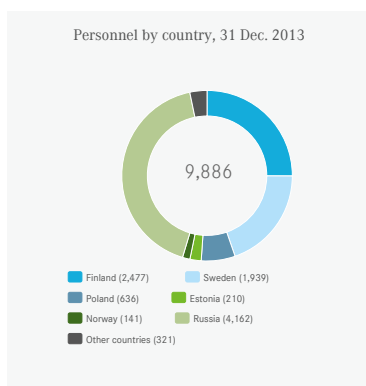
<sup>1)</sup> In Finland

<sup>2)</sup> Includes Finland, Sweden, Poland and Russia

<sup>3)</sup> Injuries resulting in an absence of at least one day per million working hours

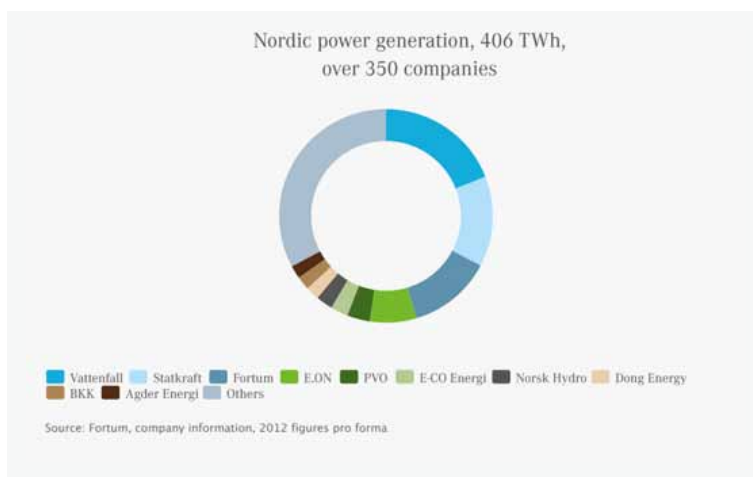
Fortum's personnel statistics from 2013, by country of operation

	Finland	Sweden	Russia	Poland	Other countries
Personnel at year-end	2,477	1,939	4,162	636	672
male	1,796	1,357	3,030	497	465
female	681	582	1,132	139	207
Personnel, average	2,616	1,993	4,245	660	732
Personnel expenses, 1,000 euros	207,427	177,085	87,905	14,881	41,702
Personnel expenses per person, 1,000 euros	79.3	88.9	20.7	22.5	57.0



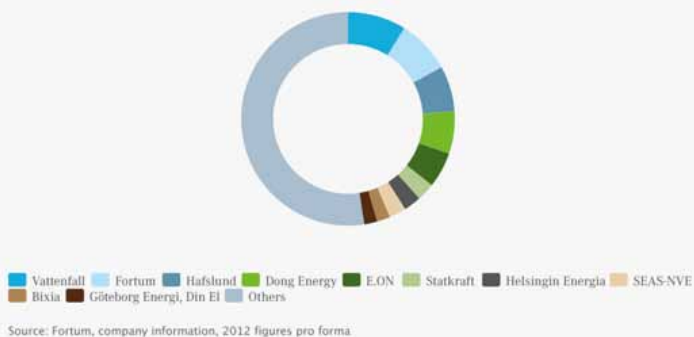
## Market position

*Fortum is the 3rd largest power generator in the Nordic countries, and among the leading heat producers globally. Fortum's carbon exposure is among the lowest in Europe.*

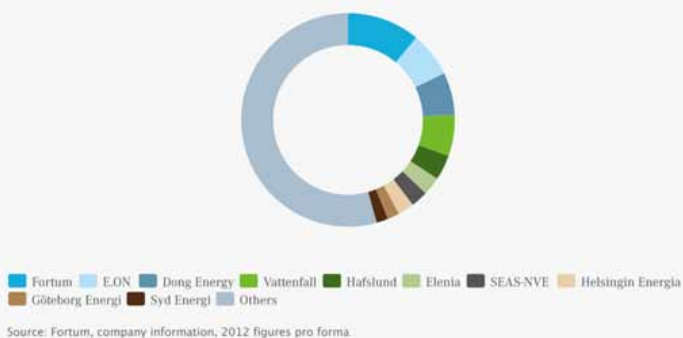




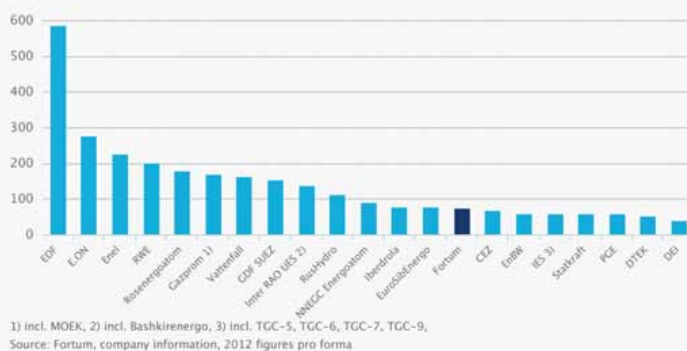
Nordic electricity retail, 15 million customers,  
~350 companies

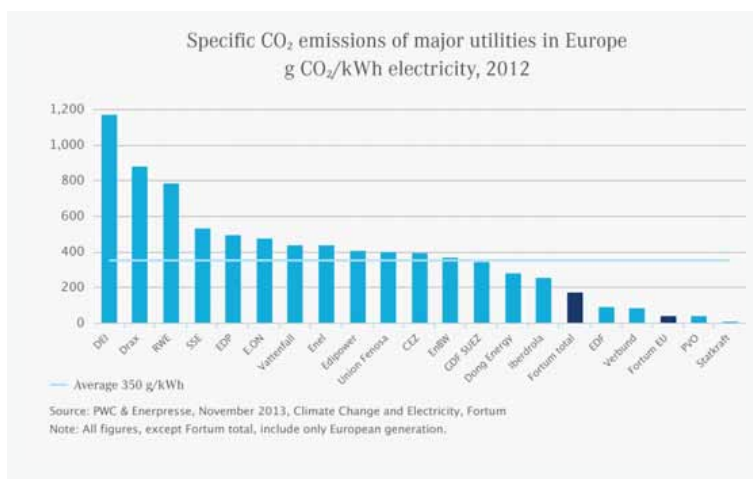
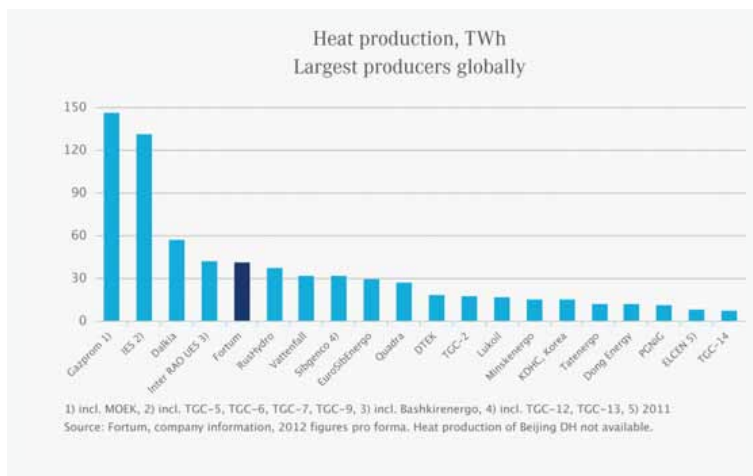


Nordic electricity distribution, 15 million customers,  
~500 companies



Power generation, TWh  
Largest generators in Europe and Russia







## Strategy overview

*Fortum's purpose is to create energy that improves life for present and future generations. We provide sustainable solutions for society and deliver excellent value to our shareholders.*

The core of our strategy is our strong expertise in CO<sub>2</sub>-free hydro and nuclear power and in efficient combined heat and power (CHP) production. Our strengths also include our solid experience in operating in the energy markets.

Sustainability is an integral part of Fortum's strategy. Business operations and

responsibility are tightly linked, underlining the role of sustainable solutions as a competitive advantage. In its operations, Fortum gives balanced consideration to economic, social and environmental responsibility.

Fortum's values – accountability, creativity, respect and honesty – form the foundation

for all our activities. Fortum wants to be a forerunner in developing the future energy system – the Solar Economy.

### Fortum's mission, strategy and values

#### Mission

Fortum's purpose is to create energy that improves life for present and future generations. We provide sustainable solutions for society and deliver excellent value to our shareholders.

#### Strategy

Build on the strong Nordic core

Create solid earnings growth in Russia

Build a platform for future growth

Strong competence in CO<sub>2</sub>-free hydro and nuclear, efficient CHP production and energy markets

#### Values



Accountability



Creativity



Respect



Honesty

# Future energy system – Solar Economy

*Fortum believes that the future energy system will be based on emissions-free and inexhaustible energy sources and on overall efficiency of the energy system.*

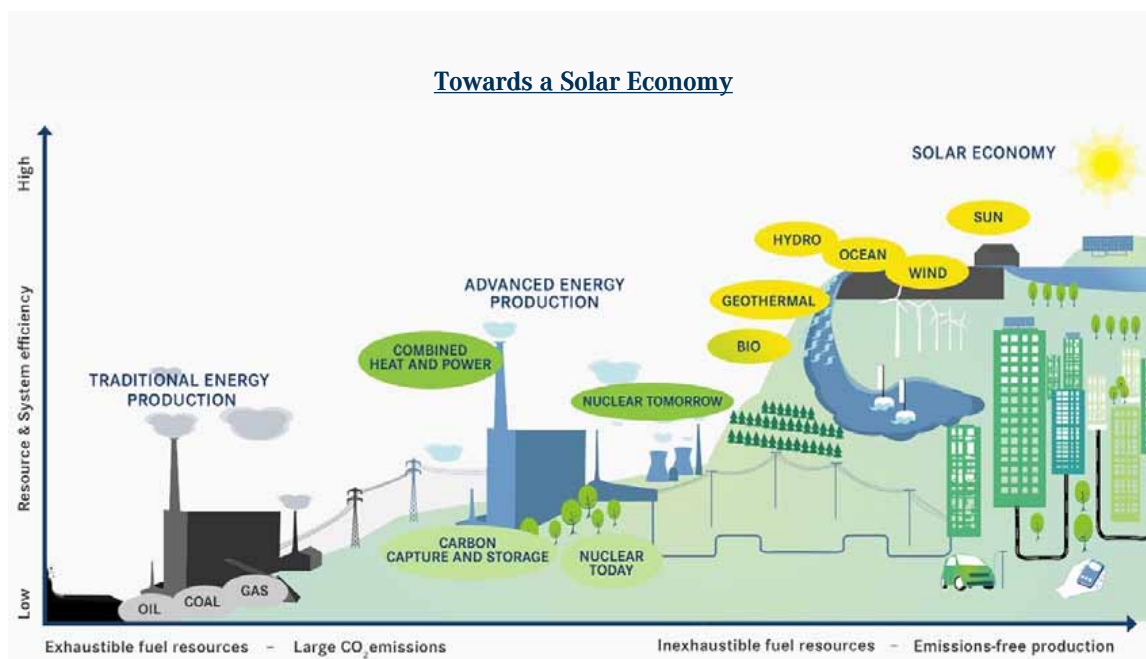
The transition towards Solar Economy brings changes to the way energy is produced and consumed.

In conventional energy production, the combustion of fuels, like coal and gas, provides the main source of energy. Coal, in particular, burdens the environment and has poor total efficiency. With the rapid growth in the global demand for energy and in the consumption of electricity, mitigating climate change is becoming an increasingly important issue. Energy systems and the use

of limited natural resources must be made more efficient.

Solar Economy provides solutions to the challenges of climate change and resource scarcity. In Solar Economy, energy from the sun is used either directly as solar electricity and heat or indirectly as hydro, ocean, wind and bioenergy. On the journey towards Solar Economy, traditional production forms will be further developed and used alongside solar-based production.

In Solar Economy, the energy system is more dynamic and smarter, enabling both centralised and distributed electricity production. Active participation by electricity users brings elasticity to demand, which improves the efficiency of the system.



## A gradual transition to Solar Economy

Changes in the energy system are slow to implement. Transitioning from the current energy system to a Solar Economy requires technology advancements as well as changes in the energy markets, the political environment, and society's infrastructure and

consumption habits – changes that happen over the course of several decades. Development of the operating environment is necessary for the investments required for a change in the energy system, while the length of the transition period and the cost are dependent on political decisions, society's priorities and technology advancements in production forms.

Fortum wants to promote both short- and long-term development of the energy system simultaneously. However, the current emission-free energy sources are not yet able to fulfil the energy demand of today's rapidly developing society. That is why in the short term we are continuing to widely utilise also traditional energy forms, albeit with the goal to do so even more efficiently.

## Core areas of the strategy

*The core of our strategy is our strong expertise in CO<sub>2</sub>-free hydro and nuclear power and in efficient combined heat and power production. Our strengths also include solid experience operating in the energy markets. Our business focus areas will continue to be developed through these competencies.*

### Build on the strong Nordic core

Hydro and nuclear power have a significant role in Fortum's production portfolio. Both are CO<sub>2</sub>-free production forms and competitive with regard to variable costs. In 2013, about 85% of Fortum's European electricity production was based on hydro and nuclear power located in the Nordic countries.

Hydro power is particularly valuable in the integrating European energy market, where it can be used to balance out consumption peaks and the production fluctuations of growing wind and solar power.

Combined heat and power (CHP) production has a central role in our business throughout the Baltic region. Electricity produced in conjunction with district heat enables the use of bio- and waste fuels, and it is a more energy-efficient way to use traditional fossil fuels.

In 2013, Fortum assessed the future alternatives of its electricity distribution business. After thorough consideration, the company has concluded that divesting the electricity distribution business is the best solution for the business and its customers,

Fortum's shareholders and the company's other businesses. Focusing on electricity and heat production and sales, is estimated to improve Fortum's long-term value creation. Fortum has electricity distribution business in Finland, Sweden and Norway. The assessment has no impact on Fortum's electricity retail customers. Fortum will continue to develop its electricity sales business as an integral part of the company's strategy and will continue offering innovative products and services to its approximately 1.2 million electricity retail customers in the Nordic countries also in the future.

### Create solid earnings growth in Russia

Russia is the fourth biggest consumer of electricity globally and the growth of its electricity demand is outpacing that of the EU's. Fortum's investment programme is bringing new energy-efficient production units on stream; these are expected to significantly increase the share of sales and profits that Fortum earns from its Russian operations and will diversify Fortum's production portfolio geographically. Completing the investment programme is a key priority for us.

Fortum's production in Russia consists mainly of combined heat and power production. For the time being, the heating market in Russia is completely regulated and does not work effectively nor encourage the necessary investments in the sector. However, heating reform is being drafted in Russia. If realised, it would offer significant possibilities of value creation for Fortum.

### Build a platform for future growth

Alongside our current business operations, we are pursuing precisely targeted new growth and developing future energy solutions. We are developing the solar power business through centralised large-scale production, commercial applications and distributed household applications.

Additionally, our research and development activities support the advancement towards a carbon dioxide-free future by promoting the adoption of new technologies, which could offer significant business opportunities in the future. Examples include wave power, new CHP concepts, and new solutions for customers.

## Strategy realisation in 2013

Build on the strong Nordic core	<ul style="list-style-type: none"> <li>Assessing the future alternatives of the electricity distribution business and decision to sell the distribution business in Finland</li> <li>Securing profitability and cash flow through optimised electricity trading and production with high availability</li> <li>Continuing ongoing hydropower refurbishments in Finland and Sweden</li> <li>Outsourcing hydro power operation and maintenance in Finland</li> <li>Renewing the co-ownership agreement on Fortum Värme with the City of Stockholm</li> <li>Starting construction of a new bio-CHP plant in Stockholm, Sweden</li> <li>Inaugurating new waste-to-energy CHP plants in Brista, Sweden, and Klaipeda, Lithuania</li> <li>Inaugurating new bio-CHP plants in Jelgava, Latvia, and Järvenpää, Finland</li> <li>Extending the district heating network in Tartu, Estonia, through an acquisition</li> <li>Enhancing the safety of Fortum's Loviisa nuclear power plant with new air-cooling towers</li> <li>Deciding to discontinue electricity production at the Inkoo coal-fired power plant in Finland in 2014</li> <li>Continuing good progress with the efficiency programme and divesting several minority shareholdings and small units throughout the Nordic countries</li> </ul>
Create solid earnings growth in Russia	<ul style="list-style-type: none"> <li>Focus on completing the investment programme</li> <li>Commissioning the Nyagan 1 and Nyagan 2 power plant units in Russia</li> </ul>
Build a platform for future growth	<ul style="list-style-type: none"> <li>Launching solar power production in India through an acquisition of a solar power plant</li> <li>Taking into use an integrated bio-oil plant at Joensuu CHP, Finland, and signing a supply contract for bio-oil with a local energy company</li> <li>Signing a collaboration agreement to provide nuclear expertise in the UK</li> <li>Preparing for the hydro power concessions tender process in France</li> <li>Participating in an industry-wide 1.5 MW wave power development initiative in Bretagne, France</li> </ul>

## R&D supporting business

*The purpose of our Research and Development (R&D) is to improve Fortum's competitiveness and to create a basis for new profitable business.*

R&D activities help Fortum to enable a sustainable, carbon dioxide-free future.

The main areas of R&D activities are:

- The advanced technologies included in Fortum's existing energy system. In this

field, nuclear power is our most important research area. In addition, we are developing integrated combined heat and power systems, i.e. CHP+ plants.

- New technologies and solutions supporting development of the energy system towards the future Solar

Economy. Targets of development in this area include solar and wave power as well as innovative customer solutions.

Fortum's total R&D expenditure in 2013 was EUR 49 million (2012: 41), which corresponded to 0.8% of sales (2012: 0.7%).



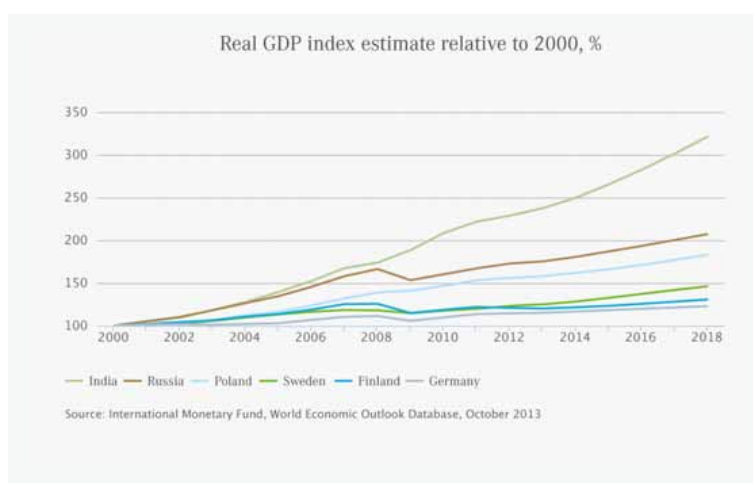
*Market development in recent years has pushed Europe's electricity sector into turmoil. Since 2010, the players in the sector have lost an average of about one fifth of their market value, and the companies focusing solely on power generation have lost even more.*

Driving the change has been the weakened industrial demand for electricity caused by the economic downturn, the strong increase in subsidised renewable energy that has replaced market-driven production, and the increased uncertainty and inconsistency in energy policy regulation both at the national and EU level. The market price of electricity has decreased, and energy companies are struggling to manage the debt burdens stemming from capital-intensive investments. And the influx of shale gas into the market has weakened the competitive position of European industry, particularly compared to that of the United States.

The turmoil continued in the energy sector in 2013, and the state of the European economy did not ease the situation for companies in the sector. Economic growth estimates were further lowered, which in turn has reflected on electricity demand estimates in Europe and in Russia. The growth outlook in the sector is generally flat and, for example, Fortum's estimate on annual growth of electricity consumption in the Nordic countries has hovered around the 0.5% level for a long time.

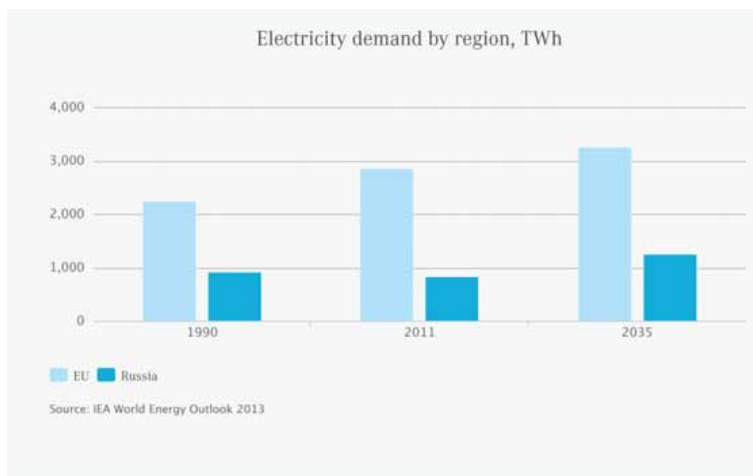
“ The turmoil continued in the energy sector in 2013, and the state of the European economy didn't ease the situation for companies in the sector.

At the same time, the increase of electricity production from subsidised renewable energy



sources was strong in Europe in 2013, in line with policy targets set for renewable energy. Overall, energy market development moved towards national and more regulated solutions rather than European and market-driven solutions. Against this background, it was not a surprise that the structural reform of the emissions trading scheme and renewable energy support schemes were actively debated. The Commission gave its proposal on reforming the emissions trading scheme in January 2014, but the related decisions will be deferred to the term of the new Commission and Parliament. At the same time, the Commission is in a process to revise the State aid guidelines for energy and the environment advocating more market-oriented and harmonised subsidies for renewable energy sources in order to improve their efficiency and save cost.





## European market development

Electricity production from renewable energy sources increased strongly in 2013. The development is in line with EU climate and energy policy targets. Most of these production forms, however, rely on subsidies and require regulating power capacity to balance production fluctuations and to secure energy supply in situations when e.g. wind or solar energy is not available.

Subsidy mechanisms that were designed on a national basis and, in some cases, are oversized, have proved to be counterproductive to the functioning of European electricity market and emissions trading. In addition to a growing tax burden, they have led to an increase in the end-users' energy bill – even though the wholesale market price of electricity has decreased. Meanwhile, the competitiveness of market-driven, unsubsidised production has weakened, and very few, if any, investments decisions based on the wholesale market price are being made.

The situation has sparked a discussion on the need to reassess renewable energy support schemes and to develop the EU electricity market model so that it better rewards flexible power and reserve power through capacity mechanisms. Renewable generation energy costs for member states are expected to rise to a total of 330 billion euros by 2020; this is an economic burden for member states and the entire EU, and it weakens competitiveness.

In November 2013, the European Commission published the first extensive guidance that aims to help member states to choose support mechanisms that are least detrimental to the functioning and development of the EU energy market. The guidelines focus on renewable energy support schemes and capacity mechanisms and on the possibilities to utilise elasticity of demand. Building on these non-binding guidelines, the European Commission will adopt legally binding EU's guidelines for State aid for the energy sector in 2014.

production would also be better rewarded than it is today.

“Balanced development of the EU energy market requires renewable energy support schemes and capacity mechanisms to be megawatt-neutral.”

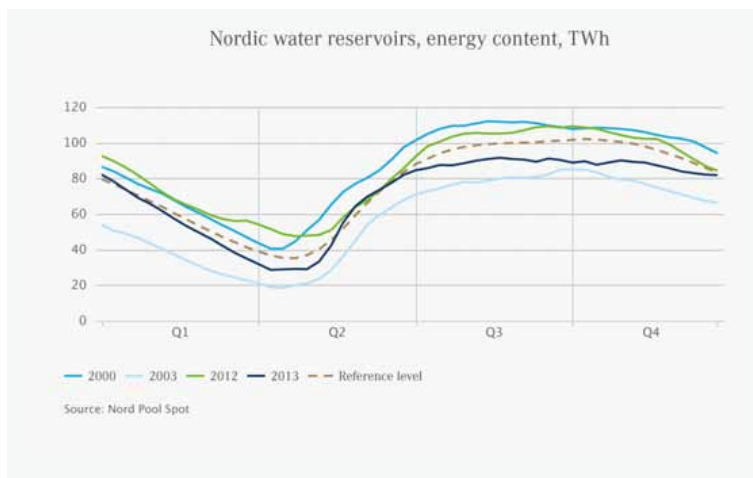
“The situation has sparked a discussion on the need to reassess renewable energy support schemes and to develop the EU electricity market model.”

Balanced development of the EU energy market requires renewable energy support schemes and capacity mechanisms to be megawatt-neutral, i.e. they must give equal treatment to the different production forms and to production capacities of varying ages. As the need for flexible energy production grows, it is essential to change the current market model so that flexibility of energy

### Price development of electricity and emission allowances

While market development has not been totally satisfactory at the EU level, the situation in the Nordic countries is better. The Nordic wholesale market has developed further, and in June 2013 Latvia became the last Baltic country to join the Nord Pool power exchange. Because of the exceptionally good hydrological situation in 2012, area price differences between Finland and Sweden were big. In 2013 the prices became more aligned.

The average system spot price of electricity in 2013 was 38.1 (31.2) euros per megawatt-hour. The average area price in Finland was 41.2 (36.6) euros per megawatt-hour and in



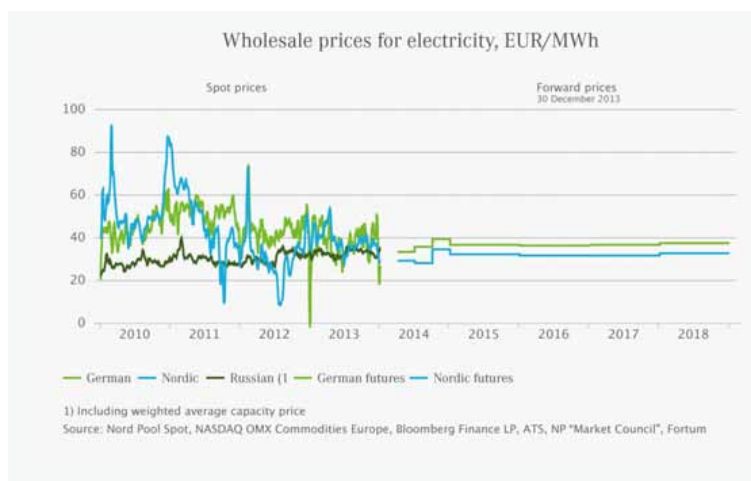
Sweden (SE3) 39.4 (32.3) euros per megawatt-hour. In Germany, the average spot price was 37.8 (42.6) euros per megawatt-hour.

In January-December 2013, CO<sub>2</sub> emission allowances traded at a price of 2.8-6.7 euros per tonne.

## Heat market development

The implementation of the Energy Efficiency Directive (EED) continued in 2013. According to the directive, district heating and combined heat and power production can offer solutions to reach the energy-efficiency targets set for EU member states.

District heating has been included in the national energy strategies in the Nordic and Baltic countries and in Poland. Heat-related legislation is currently (end of January 2014)



under governmental consideration in Poland (proposal on renewable energy act) and in Estonia (amendments to heat legislation). In

Latvia and Lithuania, similar legislative amendments are expected to be introduced in the near future.

## Renewable energy forms

Renewable energy refers to energy produced from renewable energy sources from ongoing natural processes. With the exception of geothermal and tidal energy, renewable energy sources get their energy from the sun. Renewable energy, excluding bioenergy, generates zero carbon dioxide emissions, and that is why it plays a key role in mitigating climate change. Under today's rules, the use of bioenergy is considered climate neutral.

The European Union defines wind and solar power, aerothermal and geother-

mal energy, hydro power, biomass, and gas and biogas generated at landfills and wastewater treatment plants as renewable energy.

The Renewable Energy Sources (RES) Directive of the European Parliament and of the Council on promoting the use of energy from renewable sources defines the sustainability criteria for biofuels and other bioliquids. The Commission has for several years considered the need of having similar sustainability criteria also for solid biomass with an aim to ensure the sustainability

of all biomasses used for energy in the EU as well as promote the development of a functioning biomass market. It has nevertheless decided not to make such a proposal so far.

## Renewable energy must be promoted in a market-driven manner

The target of current EU legislation is to increase the share of renewable energy to 20% of energy consumption by 2020. The EU's binding target has been divided into member state-specific targets.

In January 2014, the Commission presented EU climate and energy targets for 2030. The Commission is proposing a binding CO<sub>2</sub> reduction target of 40% accompanied by a binding EU-level target of 27% for renewable energy instead of national targets. Achieving the current nationally binding renewable energy targets has required significant financial

support for renewable energy forms in most countries. Member states have been able to decide on their own subsidy schemes, and therefore the national subsidies differ significantly from one another. This has led to a subsidy race and investments that are not cost effective.

The tax burden is also increasing, both on production and consumption of energy. Several countries put the tax burden on non-emitting technologies like hydro and nuclear. Such taxes are in direct conflict with the generally accepted energy and climate policy targets and increase the

uncertainty in the energy sector.

The European energy industry believes there should be a shift from the different types of national renewable energy subsidies, which are not cost-effective for society, to a market-driven scheme where the use of renewable energy is promoted through climate targets and an efficiently functioning carbon market. For sectors remaining outside the emissions trading, targets for renewable energy might be needed also in the future.

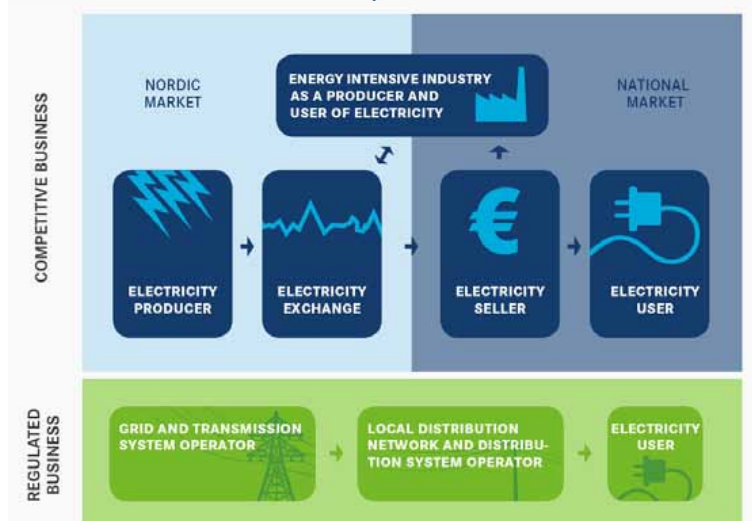
## Europe needs major investments in production plants and transmission infrastructure

European energy production plants are aging. Despite regional overproduction of renewable energy, significant investments must be made in low-carbon production over the next decade in Europe in order to achieve the tightened legislative requirements and the EU emissions targets for 2050. It is estimated that investments of about 5-7 trillion, i.e. 5,000-7,000 billion euros, in electricity generation capacity are needed in Europe by 2050. Implementing the investments requires a supporting market model and reasonable return potential from wholesale markets.

Europe's energy infrastructure development has not kept pace with increasing renewable

energy production. The permit processes required to build transnational power lines have become the most significant bottleneck. In 2013, the EU adopted a new energy infrastructure regulation that was linked to a special financing instrument. This is expected to advance the construction of priority transmission networks by accelerating permit processes and offering additional funding.

### Nordic electricity market structure



## Nordic electricity markets

In the electricity markets, electricity production and sales are competitive businesses, while transmission and distribution are regulated.

The Nordic countries were the first in the world to establish a regional, multinational electricity wholesale market. About three quarters of the electricity produced in the Nordic countries is traded on the Nordic electricity exchange (Nord Pool Spot) and on the financial derivatives market (NASDAQ OMX Commodities Europe). The producers use the rest of the electricity themselves or sell it directly to

big industrial customers.

There are about 350 players in the Nordic electricity market. The balance of supply and demand, the price of fuel and emission allowances, and the hydrological situation affect the wholesale price. Buyers and sellers alike can hedge their electricity wholesale and purchase prices with derivative contracts. Electricity transmission and distribution companies operate as regional monopolies because it is not cost-efficient to build multiple electricity networks in one area. Authorities monitor electricity transmis-

sion and distribution, its costs and the operations of the companies engaged in this business. The transmission and distribution companies must treat all electricity producers and buyers equally, regardless of the producer or buyer of the electricity they are transmitting.

Electricity retailers buy their electricity mainly from the wholesale market and sell it to households and companies. The retail price consists of three components: the wholesale price of electricity; transmission and distribution; and taxes and other fees.

## Distributed heat business

Heating and cooling are local business operations and subject to local legislation and regulation. The heating markets differ significantly from electricity markets because they are decentralised. Heat cannot be transported over long distances, and thus, by its nature, it is a local commodity.

Well-managed and effective district heating and district cooling systems with efficient combined heat and power production provide sustainable solutions for future heating and cooling in urban areas. District heating and cooling can significantly improve the resource efficiency of energy production and

mitigate the effects of climate change. Fortum is the world's fifth biggest heat producer.



## Market reform approaching in Russia

Enforcement of heat production legislation, which took effect at the beginning of 2011, is continuing in Russia. Meanwhile, the elimination of cross-subsidies has been advanced between electricity and heat production as well as between residential and big industrial customers. The country has also taken into use long-term heat tariffs, but, as with the legislation on heat production, their implementation is still unfinished.

Modernisation of the heat sector in Russia is vitally important, as it would be very difficult to achieve the national targets for energy efficiency without it. As the first step, a change from cost plus-pricing of heat to pricing based on alternative forms of heating is under consideration. This would encourage investments in improved efficiency and especially in combined heat and power (CHP) production.

“Modernisation of the heat sector in Russia is vitally important.”

In 2013, the Ministry of Energy stated that a heat reform should be developed before changing the current electricity and capacity market model. Therefore, at the end of the year, the Ministry of Energy proposed a new heat market model (for public discussion), which is supposed to ensure the transition to economically justified heat tariffs by 2020 and to attract investments into the heat sector. The new regulation concept is at an early stage and is expected to be further developed during 2014.

### Quarterly reviews for gas prices

Since the beginning of 2013, wholesale gas prices (except for private household and industrial consumers) have been reviewed quarterly. In February 2013, the Board of Russia's Federal Tariff Service (FTS) adopted a decision according to which the wholesale gas price for industrial consumers decreased by 3% as of the second quarter 2013, compared to first quarter.

As of 1 July 2013, the Russian Government increased gas prices by 15% compared to

June 2013. Further increases were done in August and October in order to reach the planned total increase of approximately 15% in 2013 compared to 2012. According to a forecast made by the Russian Ministry of Economic Development, Russian gas price indexation will not take place as of July 2014. However, year-on-year gas price growth is estimated to be 7.6% in 2014.

In 2013, 1,026 (1,037) terawatt-hours of electricity was used in Russia. The corresponding figure in Fortum's operating area, in the First price zone, was 767 (769) terawatt-hours.

In January-December 2013, the average electricity spot price, excluding capacity price, increased by 10% to 1,104 roubles (2012: 1,001) per megawatt-hour in the First price zone.

### Russia's electricity markets

Liberalisation of the Russian wholesale electricity market was completed by the beginning of 2011. However, all generating companies continue to sell a part of their electricity and capacity – an amount equalling the consumption of households and a special group of consumers – under regulated prices. Their share of the wholesale market varies between 15-25%.

In addition to the wholesale electricity market, Russia also has an electricity capacity market, in which an electricity

producer receives earnings for the production capacity it offers for market use. The purpose of the electricity capacity market is mainly to encourage new investments in electricity production.

The long-term capacity market rules were approved by the Russian Government in 2010 and have been applied from the beginning of 2011. The so-called old capacity, built before 2008, annually competes in competitive capacity selection. The generation capacity, built after

2007 under government Capacity Supply Agreements (CSA), will receive guaranteed payments for a period of 10 years. Prices for capacity under CSA are defined to ensure a sufficient return on investments.

# Carbon market development

*Substantial oversupply and low price levels characterised the EU market for emission allowances in 2013. The scheme is in urgent need of reform in order to give the market the right price signal that encourages investments in low-carbon production.*

## New knowledge about climate change

The Intergovernmental Panel on Climate Change (IPCC) published its latest assessment report on climate change in September 2013. The report takes a more serious tone than before in describing the advancement of climate change – limiting the increase in the global average temperature to two degrees is extremely challenging and, at worst, the increase can be as high as five degrees. As a new issue, the IPCC addresses the significance of oceans on climate change; the bulk of the heat increase is stored specifically in oceans.

In 2013, the carbon dioxide concentration in the atmosphere surpassed 400 parts per million (ppm) for the first time in human history. The IPCC also determined the carbon emissions limit that, if exceeded, would lead to atmospheric warming of more than two degrees. The IPCC noted that at the current pace the global carbon emissions quota will be reached in 30 years, and called for quick actions to curb emissions.

“ To improve the functionality of the emissions trading scheme, the EU must set an ambitious reduction target for greenhouse gas emissions only.

The UN's international climate negotiations advanced with weak results in 2013. The goal is for a universal climate agreement by 2015. Development of an international carbon market advanced only in some respects. Several emissions trading pilot projects were launched in China, and regional schemes were expanded in North America. Australia decided to repeal the previously agreed

emissions trading legislation, and thus its earlier agreed link with the EU's emissions trading scheme remains unrealised for now. Japan also announced that it will significantly lower its own emissions reduction target.

## Climate targets must be clarified quickly

The EU has committed to an 80-95% reduction in carbon dioxide emissions by 2050. The European energy industry has committed to the challenging emissions target, but the regulatory uncertainty significantly hampers the investments and emissions reduction measures required to achieve the target. Climate policy must be long-term and predictable for energy sector investments. By committing to one target – the ambitious reduction of greenhouse gas emissions by 2030 – overlapping regulations and controls could be dismantled and uncertainty could be significantly reduced.

Market-driven solutions, like emissions trading, must be prioritised to minimise the costs incurred by reducing emissions. Emissions trading improves the competitiveness of low-carbon production methods and enables climate targets to be achieved at the lowest possible cost.

The EU is currently defining the energy and climate policy framework and targets for 2030. The Commission's proposal for 2030 target-setting was received in January 2014, and the aim is to decide on the targets during spring 2014. The Commission proposes a 40% reduction in greenhouse gas emissions by 2030 compared to 1990 levels. The proposal also includes a binding EU-level target to increase the share of renewable energy sources to 27% by 2030.

## Emissions trading scheme must be reformed

The economic recession and overlapping climate policy steering mechanisms in the EU have led to reduced demand for emission

allowances and lower prices, which hovered around 4-5 euros for most of 2013, although the price did fluctuate considerably from 2.5 euros to nearly 7 euros. A very low emission allowance price does not encourage low-carbon investments, and thus creates a risk that new production capacity to be built will generate emissions far into the future.

After long negotiations in the EU and the resulting decision to postpone the auctioning of 900 million allowances (backloading), the end of the year saw a slight recovery in the carbon market from the low in spring 2013. The backloading to be implemented during 2014 is the first measure to reform the emissions trading scheme. The goal is to restore confidence in the emissions trading scheme and to give the market a price signal that encourages investments in low-carbon production methods.

Structural reform of the emissions trading scheme was actively debated. The Commission gave its proposal on reforming the scheme in January 2014, but the related decisions will be deferred to the term of the new Commission and Parliament. The Commission is proposing the adoption of a market stability reserve starting in 2021; the mechanism sparked wide interest already in 2013. Fortum proposed an allowance supply adjustment mechanism in July 2013 and actively lobbied for the method with various stakeholders.

During the year, real concern emerged about the impact of climate change mitigation on the competitiveness of Europe and energy-intensive industries in particular. Emissions must be reduced cost-efficiently, e.g. with a functioning carbon market; consequently, climate change mitigation costs and the impact on energy prices will remain lower than with other climate policy control mechanisms.





# Financials 2013

*In a challenging market environment, our result remained at a satisfactory level. The cash flow from operating activities was very strong with all divisions contributing.*



## Operating and financial review

# Financial performance and position

*The strategic assessment of the electricity distribution business and inaugurations of power plants were in focus.*

## Key financial figures

EUR million	2013	2012	2011	Change 13/12
Sales	6,056	6,159	6,161	-2%
Operating profit	1,712	1,874	2,402	-9%
Operating profit, % of sales	28.3	30.4	39.0	-7%
Comparable operating profit	1,607	1,752	1,802	-8%
Profit before taxes	1,499	1,586	2,228	-5%
Profit for the period attributable to owners of the parent	1,204	1,416	1,769	-15%
Earnings per share, EUR	1.36	1.59	1.99	-14%
Net cash from operating activities	1,836	1,382	1,613	33%
Shareholders' equity per share, EUR	11.28	11.30	10.84	0%
Capital employed	19,780	19,420	17,931	2%
Interest-bearing net debt	7,849	7,814	7,023	0%
Equity-to-assets ratio, %	44	43	44	2%
Average number of shares, 1,000s	888,367	888,367	888,367	0%

## Group financial targets

	Target	2013	2012	2011	Change 13/12
ROCE, %	12	9.2	10.2	14.8	-10%
ROE, %	14	12.0	14.6	19.7	-18%
<b>Capital structure:</b>					
Comparable net debt/EBITDA	Around 3	3.4	3.2	3.0	6%
Net debt/EBITDA		3.2	3.1	2.3	3%

In 2013, electricity consumption in the Nordic countries was slightly lower than last year at 386 terawatt-hours (TWh), even though non-industrial consumption partly offset the decrease in industrial demand especially during the first half of the year. In Russia, in the areas where Fortum operates, consumption was flat at 767 TWh.

The Nordic hydro reservoirs were below the long-term average and although the levels normalised towards the end of the year, they were still clearly lower than last year's record-high levels. Precipitation was weak in Fortum's operating areas during the first three quarters of the year; this put pressure

on hydro volumes and thus impacted Fortum's results negatively.

The comparable profit declined compared to the previous year and totalled approximately EUR 1.6 billion, and earnings per share were EUR 1.36. The cash flow from operating activities, however, was strong with all divisions contributing. We made good progress in sustainability and safety in 2013. Fortum received a special award for innovation from the Global District Energy Climate Awards organisation and was ranked as the best company in the Nordic climate index. We had our lowest-ever total recordable incidents (TRIF) among our own personnel.

In December 2013, Fortum completed the strategic assessment of its electricity distribution business. The conclusion was that divesting the electricity distribution business is the best solution in order to further develop our company according to its strategy. We also consider it to be the best solution for the distribution business itself and for its customers. Focusing on electricity and heat production and sales, is estimated to give Fortum more strategic flexibility and to improve the company's long-term value creation.

In line with the conclusions of the completed assessment, Fortum agreed to sell its electricity distribution business in Finland to

Suomi Power Networks Oy. The business is in very good shape and deserves to be developed further as a core business from its own standpoint. The buyer has a deep understanding of the social importance of infrastructure assets and is committed to developing reliable networks and services for the customers. We expect to close the deal during the first quarter of 2014; until then, work continues as usual in all business areas. Fortum is also evaluating the possible future divestment opportunities within the electricity distribution business country by country.

In 2014, we will continue our everyday work in serving our customers in all areas of our business. The year-end storms in Finland, Sweden and Norway tested once again our ability to serve customers in challenging conditions. We have continuously improved the reliability of our networks. The same trend can be seen also in the results of the recent customer satisfaction survey: Fortum improved its ranking in electricity sales, distribution and as a supplier of district heat.

2013 was a year of inaugurations at Fortum. In Jelgava, Latvia, and in Järvenpää, Finland, we commissioned new biomass-fired CHP plants. In Klaipeda, Lithuania, we took into production a waste-to-energy CHP plant, while in Brista, Sweden, test-runs were started. Fortum also commissioned the world's first bio-oil production facility that is integrated with a combined heat and power (CHP) plant in Joensuu, Finland. In Russia, the gas-fired thermal power plant Nyagan GRES was inaugurated by President of Russia Vladimir Putin and President of Finland Sauli Niinistö. Units 1 and 2 are now commissioned, and both are receiving capacity payments. We will continue the determined implementation of our investment programme with three large units still under construction. Both with existing and with new power plants, we continue to build Fortum's future growth.

The on-going company-wide efficiency programme continued to proceed according to plan, and we are approximately half way through. The work will continue; we are continuously working on reducing fixed costs and capital expenditures, divesting non-core business and focusing on working capital efficiency.

Looking at the operating environment for Fortum overall, it's clear that the markets will remain challenging also in 2014. Only through our own actions can we ensure that the premises for success are in place.

Changes to the EU energy and climate policy are likely to be seen in 2014. It is crucial that determined measures to mitigate climate change are continued. However, in order to safeguard the competitiveness of European industries and get the much needed investments into low-carbon energy production and infrastructure, the EU climate policy should be steered by a single CO<sub>2</sub> reduction target post-2020, and the existing overlapping steering mechanisms should be removed. In January, the European Commission published a new proposal for the EU's climate policy and energy policy - the proposal is a step in the right direction, but overlapping targets remain.

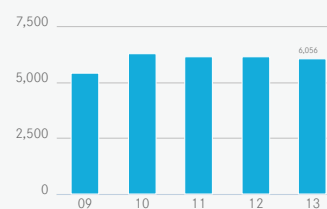
Regarding the tax climate, the governments in Finland and Sweden have made positive and material decisions on lowering the corporate tax rates to stimulate businesses; beyond that, the overall tax climate has tightened considerably. Fortum has appealed several cases raised by the tax authorities that have been addressed retroactively and also some cases that have already been scrutinised.

In Finland, the power plant tax (previously called the windfall tax) has been adopted as of 2014. It will be applied provided that the European Commission finds that it is in line with the general tax principles and regime in Finland and that it does not include forbidden state aid. The Swedish hydro real-estate tax is also being challenged.

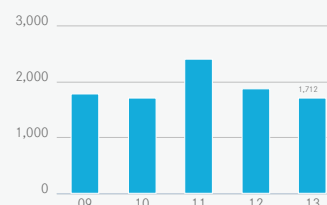
We are pursuing growth, carefully considering and prioritising alternatives in line with our strategy. We consider Fortum to be well positioned among its peers and ready to grab emerging opportunities that are a good fit with our strategy focus on low-carbon power generation, energy-efficient combined heat and power (CHP) production and sales, and innovative customer offerings. Concentrating on electricity and heat production and sales is estimated to improve Fortum's long-term value creation.

To summarise, 2013 was a year full of activity as well as challenges; nevertheless, the result was satisfactory. The dividend proposal reflects Fortum's dividend policy to pay a stable, sustainable and over time increasing dividend that supports shareholder value and the company's strategy.

Sales, EUR million



Operating profit, EUR million



Return on capital employed, %





## Efficiency programme 2013-2014

Fortum started an efficiency programme in 2012 in order to maintain and strengthen its strategic flexibility and competitiveness and to enable the company to reach its financial targets in the future.

The aim is to improve the company's cash flow by more than approximately EUR 1 billion during 2013-2014 by reducing capital expenditures (capex) by EUR 250-350 million, divesting approximately EUR 500 million of non-core assets, reducing fixed

costs and focusing on working capital efficiency.

Capex in 2014 is expected to be EUR 0.9-1.1 billion excluding Värme. At the end of 2014, the cost run-rate is targeted to be approximately EUR 150 million lower compared to 2012, including growth projects.

If headcount reductions are needed, Fortum seeks to limit redundancies whenever

possible. The assessments will therefore be done at a unit level.

At the end of December 2013, Fortum had divested approximately EUR 300 million in non-core assets since the start of the efficiency programme. The company has been able to decrease its cost run-rate by approximately half of the targeted EUR 150 million and working capital efficiency has been improved.

## Assessment of the electricity distribution business

In December, Fortum completed the assessment of the future alternatives of its electricity distribution business; the assessment was launched in January 2013. After thorough consideration, the company concluded that divesting the electricity distribution business is the best solution for the business and its customers, Fortum's shareholders and the company's other businesses. During the assessment process all alternatives were carefully studied in order to find the best solution. Fortum is evaluating the remaining possible future divestment opportunities country by country. The outcome is dependent on market development and on development of national regulation in the countries of operation.

Also in December, as the first phase, Fortum agreed to sell its electricity distribution business in Finland to Suomi Power Networks Oy, which is owned by a consortium of Finnish pension funds Keva (12.5%) and LocalTapiola Pension (7.5%) together with international infrastructure investors First State Investments (40%) and Borealis Infrastructure (40%). The total consideration is EUR 2.55 billion on a debt- and cash-free basis. Fortum expects to complete the divestment process during the first quarter of 2014, subject to the necessary regulatory approvals as well as customary closing conditions. Fortum expects to book a one-time sales gain of EUR 1.8-1.9 billion, corresponding to approximately EUR 2.0 per share, in its Electricity Solutions and

Distribution Division's first-quarter 2014 results.

A total of 340 employees will transfer with the business at closing with existing terms of employment. The sale has no effect as such on Fortum's approximately 640,000 distribution customers. Upon closing, those customers will transfer with the business with existing terms.

For further information, see [Note 9 Assets held for sale](#).

# Market conditions

## Nordic countries

In 2013, according to preliminary statistics, electricity consumption in the Nordic countries was 386 TWh (2012: 391).

At the beginning of the year, the Nordic water reservoirs were at 85 TWh, i.e. 2 TWh above the long-term average. At the end of the year, the reservoirs were at 82 TWh, which is 1 TWh below the long-term average and 3 TWh below the corresponding level in 2012. Heavy precipitation, mild weather and moderate consumption led to rapid normalisation of reservoirs.

In 2013, the average system spot price was EUR 38.1 per MWh (2012: 31.2). In Finland, the average area price was EUR 41.2 per

MWh (2012: 36.6) and in Sweden (SE3) EUR 39.4 per MWh (2012: 32.3).

In Germany, the average spot price during 2013 was EUR 37.8 per MWh (2012: 42.6).

The market price of CO<sub>2</sub> emission allowances (EUA) dropped from approximately EUR 6.6 per tonne at the beginning of the year to approximately EUR 5.0 per tonne at the beginning of the fourth quarter, to which it also returned by the year-end. During 2013, EUA traded between EUR 2.8 and EUR 6.7 per tonne.

## Russia

Fortum operates in the Urals and Western Siberia. Both in the Tyumen and Khanty-

Mansiysk area, where industrial production is dominated by the oil and gas industries, and in the Chelyabinsk area, which is dominated by the metal industry, electricity demand declined somewhat for the full year 2013 compared to previous year.

In 2013, Russia consumed 1,026 TWh (2012: 1,037) of electricity. The corresponding figure in Fortum's operating area in the First price zone (European and Urals part of Russia) was 767 TWh (2012: 769).

In 2013, the average electricity spot price, excluding capacity price, increased by 10% to RUB 1,104 per MWh (2012: 1,001) in the First price zone.

## Power consumption

TWh	2013	2012	2011
Nordic countries	386	391	384
Russia	1,026	1,037	1,020
Tyumen	87	83	83
Chelyabinsk	36	36	36
Russia Urals area	253	252	250

## Average prices

	2013	2012	2011
Spot price for power in Nord Pool power exchange, EUR/MWh	38.1	31.2	47.1
Spot price for power in Finland, EUR/MWh	41.2	36.6	49.3
Spot price for power in Sweden, SE3, Stockholm, EUR/MWh <sup>1)</sup>	39.4	32.3	47.9
Spot price for power in Sweden, SE2, Sundsvall, EUR/MWh <sup>1)</sup>	39.2	31.8	N/A
Spot price for power in European and Urals part of Russia, RUB/MWh <sup>2)</sup>	1,104	1,001	990
Average capacity price, tRUB/MW/month	276	227	209
Spot price for power in Germany, EUR/MWh	37.8	42.6	51.1
Average regulated gas price in Urals region, RUB/1,000 m <sup>3</sup>	3,131	2,736	2,548
Average capacity price for old capacity, tRUB/MW/month <sup>3)</sup>	163	152	160
Average capacity price for new capacity, tRUB/MW/month <sup>3)</sup>	576	539	560
Spot price for power (market price), Urals hub, RUB/MWh <sup>2)</sup>	1,021	956	925
CO <sub>2</sub> , (ETS EUA), EUR/tonne CO <sub>2</sub>	5	7	13
Coal (ICE Rotterdam), USD/tonne	82	93	122
Oil (Brent Crude), USD/bbl	109	112	111

<sup>1)</sup> Until 1st November 2011 there was only one price area in Sweden.

<sup>2)</sup> Excluding capacity tariff.

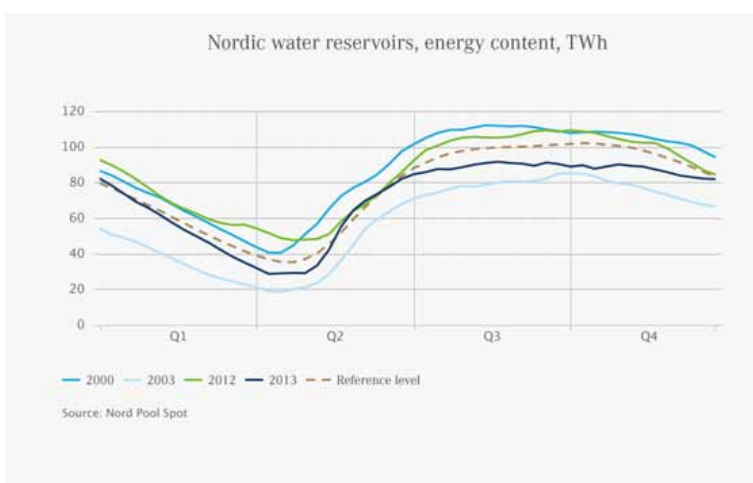
3) Capacity prices paid only for the capacity available at the time.

#### Water reservoirs

TWh	31 Dec 2013	31 Dec 2012	31 Dec 2011
Nordic water reservoirs level	82	85	95
Nordic water reservoirs level, long-term average	83	83	83

#### Export/import between Nordic Area and Continental Europe+Baltics

TWh (+ = import to, - = export from Nordic area)	2013	2012	2011
Export/import between Nordic area and Continental Europe+Baltics	-3	-19	-6
Export/import between Nordic area and Russia	5	5	11
Export/import Nordic area, total	-2	-14	5



### European business environment and carbon market

In January, the European Commission published its proposal for the EU's climate and energy policy for 2020-2030. As a part of the proposal the Commission put forward an emissions reduction target of 40% by 2030, which is in line with the political target to reduce emissions by 80.95% by 2050. It is positive that in the 2030 framework the main focus is now more clearly on reducing greenhouse gases. In addition, a new stability mechanism for emissions trading was proposed.

Contrary to the current policy, only an EU-level target is proposed for renewable energy. This is a step in the right direction, although this EU-level target is binding and therefore creates some overlapping with the greenhouse gas emissions reduction target.

Fortum's view is that an energy and climate framework based on one single binding target for CO<sub>2</sub> and a non-binding target for renewables in 2030 would be a more cost-efficient solution to tackle climate change without compromising Europe's industrial competitiveness.

Fortum supports a technology-neutral approach both regarding climate policy and renewable energy, and the target for renewable energy (RES) should concentrate on promotion of research & development,

innovations and demonstration, not on production. It is also important to integrate renewable electricity fully into the electricity market, as its amount and share will grow in the future. Increasing the share of renewable energy in the EU energy mix is a positive and desired development.

The EU carbon market was characterised by a significant surplus of allowances and therefore a low market price in 2013. The revision of the European emissions trading scheme (EU ETS) was actively debated throughout the year. After a lengthy process, in late 2013 and early 2014, the amendment of the emissions trading directive and changes to the auctioning regulation enabling the backloading of allowances from 2014-2016 to 2019-2020 were approved. The backloading concerns a total of 900 million allowances and is not expected to substantially increase the price. Backloading is expected to be implemented during the first half of 2014 and is the first step in the revision of the ETS. This revision aims at restoring confidence in the system and giving a price signal that encourages investments in low-carbon production methods.

The Commission released a proposal on the structural reform of the European Trading system (ETS) in January 2014. The proposal includes a market stability reserve, where the supply-demand balance is automatically managed by pre-defined rules from 2021 onwards. The proposal will be processed further by the new Commission and the Parliament.

## Restatements related to IFRS changes in accounting

Fortum is applying an amended IFRS standard for pensions as of 1 January 2013. Adoption of the new standard is done retrospectively and comparative information for 2012 is therefore restated to reflect the change. The change had only a minor impact on Fortum's financial results and financial position; however, it reduced the equity by EUR 124 million as of 1 January 2012. The

restated comparative figures for the year 2012 are presented in the attachment to the first-quarter 2013 interim report.

As of 1 January 2014, Fortum will apply the new IFRS 10 Consolidated Financial Statements and 11 Joint Arrangements standards. The major effect of this reassessment relates to Fortum Värme,

operating in the capital area in Sweden, which will be treated as a joint venture and thus consolidated with the equity method. The company is currently consolidated as a subsidiary with a 50% minority interest.

For further information see [Note 1 Accounting principles](#).

## Financial results

### Sales by division

EUR million	2013	2012	2011	Change 13/12
Power	2,248	2,415	2,481	-7%
Heat	1,565	1,628	1,737	-4%
Russia	1,119	1,030	920	9%
Distribution <sup>1)</sup>	1,075	1,070	973	0%
Electricity sales <sup>1)</sup>	744	722	900	3%
Other	69	137	108	-50%
Netting of Nord Pool transactions <sup>2)</sup>	-510	-503	-749	-1%
Eliminations	-254	-340	-209	25%
<b>Total</b>	<b>6,056</b>	<b>6,159</b>	<b>6,161</b>	<b>-2%</b>

### Comparable operating profit by division

EUR million	2013	2012	2011	Change 13/12
Power	858	1,146	1,201	-25%
Heat	273	271	278	1%
Russia	156	68	74	129%
Distribution <sup>1)</sup>	331	320	295	3%
Electricity sales <sup>1)</sup>	48	39	27	23%
Other	-59	-92	-73	36%
<b>Total</b>	<b>1,607</b>	<b>1,752</b>	<b>1,802</b>	<b>-8%</b>



### Operating profit by division

EUR million	2013	2012	2011	Change 13/12
Power	921	1,175	1,476	-22%
Heat	288	344	380	-16%
Russia	156	79	74	97%
Distribution <sup>1)</sup>	348	331	478	5%
Electricity sales <sup>1)</sup>	56	39	3	44%
Other	-57	-94	-9	39%
<b>Total</b>	<b>1,712</b>	<b>1,874</b>	<b>2,402</b>	<b>-9%</b>

<sup>1)</sup> Part of the Electricity Solutions and Distribution division.

<sup>2)</sup> Sales and purchases with Nord Pool Spot are netted at the Group level on an hourly basis and posted either as revenue or cost depending on whether Fortum is a net seller or net buyer during any particular hour.

[For further information, see Note 5 Segment reporting.](#)

In 2013, Group sales were EUR 6,056 million (2012: 6,159). Comparable operating profit totalled EUR 1,607 million (2012: 1,752) and the reported operating profit totalled EUR 1,712 million (2012: 1,874). Fortum's operating profit for the period was affected by non-recurring items, an IFRS accounting treatment (IAS 39) of derivatives mainly used for hedging Fortum's power production, and nuclear fund adjustments amounting to EUR 105 million (2012: 122).

The share of profits of associates and joint ventures was EUR 105 million (2012: 23). The increase comes mainly from Hafslund and TGC-1. The share of profits from Hafslund and TGC-1 are based on the companies' published fourth-quarter 2012 as well as first-, second- and third-quarter 2013 interim reports.

The Group's net financial expenses were EUR 318 million (2012: 311). Net financial expenses included changes in the fair value of financial instruments of EUR 16 million (2012: 23).

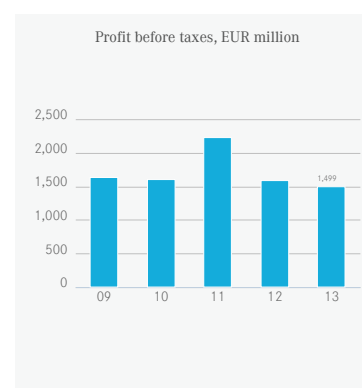
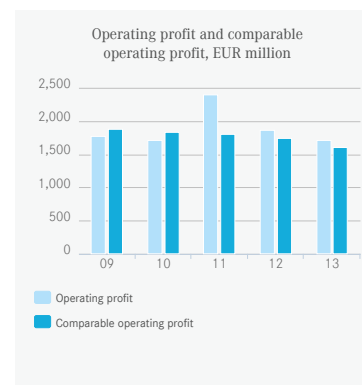
Profit before taxes was EUR 1,499 million (2012: 1,586).

Taxes for the period totalled EUR 220 million (2012: 74). The tax rate according to the income statement was 14.7% (2012: 4.7%). In

Finland, the corporate tax rate was decreased to 20.0% from 24.5% starting 1 January 2014. The tax rate change caused a one-time effect in 2013 of approximately EUR 0.09 per share. In Sweden, the corporate tax rate was decreased to 22.0% from 26.3% starting 1 January 2013. In 2012, the one-time positive effect from the tax rate change was approximately EUR 230 million, of which EUR 34 million is attributable to non-controlling interests. The tax rate, excluding the changes in the tax rates, the impact of the share of profits of associated companies and joint ventures as well as non-taxable capital gains was 22.3% (2012: 21.2%).

The profit for the period was EUR 1,279 million (2012: 1,512). Fortum's earnings per share were EUR 1.36 (2012: 1.59), of which EUR 0.10 per share (2012: 0.14) relates to items affecting comparability and EUR 0.09 per share to the change in Finnish corporate tax rate. In 2012, the impact of the lowered Swedish corporate tax rate was approximately EUR 0.22 per share.

Non-controlling (minority) interests amounted to EUR 75 million (2012: 96). These are mainly attributable to AB Fortum Värme Holding, in which the city of Stockholm has a 50% economic interest.

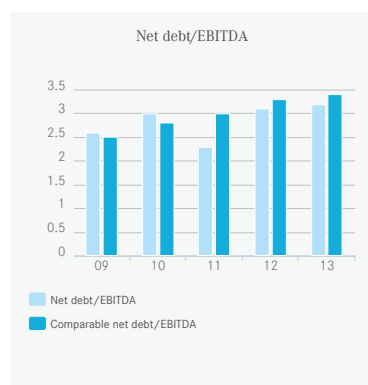
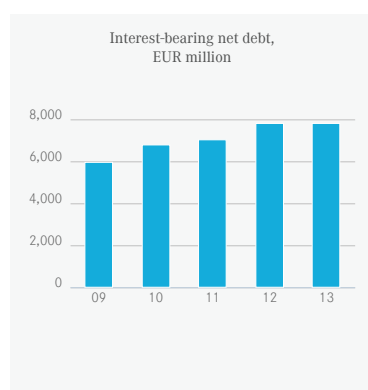


## Financial position and cash flow

EUR million	2013	2012	2011	Change 13/12
Interest expense	-295	-300	-284	-2%
Interest income	42	54	56	-22%
Fair value gains and losses	-16	-23	5	-30%
Other financial expenses	-49	-42	-42	17%
<b>Finance costs - net</b>	<b>-318</b>	<b>-311</b>	<b>-265</b>	<b>2%</b>
Interest-bearing liabilities <sup>1)</sup>	9,118	8,777	7,770	4%
Less: Cash and cash equivalents <sup>2)</sup>	1,269	963	747	32%
<b>Interest-bearing net debt</b>	<b>7,849</b>	<b>7,814</b>	<b>7,023</b>	<b>0%</b>

<sup>1)</sup> 2013 includes EUR 20 million presented as asset held for sale.

<sup>2)</sup> 2013 includes EUR 15 million and 2011 EUR 16 million presented as asset held for sale.



### Cash flow

In 2013, total net cash from operating activities increased by EUR 454 million to EUR 1,836 million (2012: 1,382), mainly due to a decrease in working capital of EUR 296 million and realised foreign exchange differences turning to positive EUR 320 million which were offset with a lower EBITDA. Capital expenditures decreased by EUR 151 million to EUR 1,271 million (2012: 1,422). Proceeds from divestments totalled EUR 210 million (2012: 433). Total net cash used in investing activities was EUR -1,210 million (2012: -1,128). Cash flow before financing activities, i.e. dividend distributions and financing, increased by EUR 372 million to EUR 626 million (2012: 254). Realised foreign exchange gains and losses of EUR 52 million (2012: -268) were related to the rollover of foreign exchange contract hedging loans to Fortum's Swedish and Russian subsidiaries.

Dividends totalling EUR 888 million were paid on 19 April 2013 using cash and cash equivalents.

### Assets and capital employed

Total assets decreased by EUR 141 million to EUR 24,420 million (24,561 at year-end 2012). The net change in total assets was negative, even though capital expenditures

and gross investments in shares (EUR 1,299 million) were higher than depreciation during the year (EUR 740 million). The total impact of translation differences on intangible assets, property plant and equipment as well as participations in associates and joint ventures was negative EUR 861 million. Cash and cash equivalents increased by EUR 291 million.

Presenting the Finnish distribution business as assets held for sale impacted the structure of the balance sheet, because all assets and liabilities belonging to those operations were presented separately on one line both in assets and liabilities.

For further information, see [Note 9 Assets held for sale](#).

Capital employed was EUR 19,780 (19,420 at year-end 2012) million, an increase of EUR 360 million. The increase was due to the lower amount of total assets, EUR 141 million, and a EUR 501 million decrease in interest-free liabilities.

### Equity

Total equity was EUR 10,662 (10,643 at year-end 2012) million, of which equity attributable to owners of the parent company totalled EUR 10,024 million (2012: 10,040) and non-controlling interests EUR 638 million (2012: 603).

The decrease in equity attributable to owners of the parent company totalled EUR 16 million and is mainly arising from the payment of dividends totalling EUR -888 million, net profit of EUR 1,204 million for the period and translation differences of EUR -471 million.

## Financing

Net debt increased during 2013 by EUR 35 million to EUR 7,849 (7,814 at year-end 2012) million.

During 2013 Fortum Corporation issued new long term debt in SEK and EUR amounting to approximately EUR 760 million.

At the end of December 2013, the Group's liquid funds totalled EUR 1,269 million (963 at year-end 2012). Liquid funds include cash and bank deposits held by OAO Fortum

amounting to EUR 113 million (128 at year-end 2012). In addition to the liquid funds, Fortum had access to approximately EUR 2.2 billion of undrawn committed credit facilities.

The Group's net financial expenses during 2013 were EUR 318 million (2012: 311). Net financial expenses include changes in the fair value of financial instruments of EUR -16 million (2012: -23).

Fortum Corporation's long-term credit rating with S&P was reaffirmed at A- (negative outlook) in December 2013. As of April 2013, Fitch Ratings provides a rating of Fortum Corporation and any subsequently issued securities issued under Fortum's EMTN programme. Fitch's current long-term issuer default rating of Fortum Corporation is A- (negative outlook), which was also reaffirmed in December 2013. Fortum decided to terminate the rating relationship with

Moody's Investors Service in February. At that time, Moody's had assigned an A2 rating with a negative outlook.

## Key figures

At year-end 2013, net debt to EBITDA was 3.2 (3.1 at year-end 2012) and comparable net debt to EBITDA 3.4 (2012: 3.2), impacted by EUR 888 million in dividend payments. Gearing was 74% (2012: 73%) and the equity-to-assets ratio 44% (2012: 43%). Equity per share was EUR 11.28 (2012: 11.30). Return on capital employed totalled 9.2% (2012: 10.2%) and return on shareholders' equity 12.0% (2012: 14.6%).

# Division reviews

## Power

*The Power Division consists of Fortum's power generation, power trading and power capacity development as well as expert services for power producers.*

EUR million	2013	2012	2011	Change 13/12
Sales	2,248	2,415	2,481	-7%
- power sales	2,117	2,282	2,353	-7%
- other sales	131	133	128	-2%
Operating profit	921	1,175	1,476	-22%
Comparable operating profit	858	1,146	1,201	-25%
Comparable EBITDA	1,003	1,260	1,310	-20%
Net assets (at period-end)	6,329	6,389	6,247	-1%
Return on net assets, %	14.6	18.7	24.6	-22%
Comparable return on net assets, %	13.8	18.5	19.9	-25%
Capital expenditure and gross investments in shares	180	190	148	-5%
Number of employees	1,709	1,846	1,847	-7%

In 2013, the Power Division's comparable operating profit was EUR 858 million (2012: 1,146), i.e. EUR 288 million lower than in 2012. Significantly lower hydro volumes, the increased real-estate tax for hydropower in Sweden and the write-down of the Inkoo power plant were the main reasons for the decreased profit. The Nordic annual inflow was approximately 10% lower in 2013

compared to 2012. The annual inflow in Fortum's hydropower production areas was approximately 30% lower than in 2012.

Operating profit was EUR 921 million (2012: 1,175). The operating profit was affected by sales gains totalling EUR 25 million (2012: 57) and by the IFRS accounting treatment (IAS 39) of derivatives used mainly for

hedging Fortum's power production and nuclear fund adjustments amounting to EUR 38 million (2012: -28).

### Power generation by source

TWh	2013	2012	2011	Change 13/12
Hydropower	18.1	25.2	21.0	-28%
Nuclear power	23.7	23.4	24.9	1%
Thermal power	1.9	0.6	2.2	217%
<b>Total in the Nordic countries</b>	<b>43.7</b>	<b>49.2</b>	<b>48.1</b>	<b>-11%</b>
Thermal in other countries	1.0	1.1	1.2	-9%
<b>Total</b>	<b>44.7</b>	<b>50.3</b>	<b>49.3</b>	<b>-11%</b>

### Nordic sales volume

TWh	2013	2012	2011	Change 13/12
Nordic sales volume	45.3	50.7	50.0	-11%
of which Nordic Power sales volume <sup>1)</sup>	40.2	46.8	44.3	-14%

<sup>1)</sup> The Nordic power sales income and volume does not include thermal generation, market price-related purchases or minorities (i.e. Meri-Pori, Inkoo and imports from Russia).

### Sales price

EUR/MWh	2013	2012	2011	Change 13/12
Power's Nordic power price <sup>2)</sup>	46.4	44.6	46.1	4%

<sup>2)</sup> Power's Nordic power price does not include sales income from thermal generation, market price-related purchases or minorities (i.e. Meri-Pori, Inkoo and imports from Russia).

The achieved Nordic power price was EUR 46.4 per MWh, or EUR 1.8 per MWh higher than in 2012. The average system spot price was EUR 38.1 per MWh (2012: 31.2), and the average area price in Finland EUR 41.2 per MWh (2012: 36.6) and in Stockholm, Sweden, (SE3) 39.4 per MWh (2012: 32.3).

Significantly lower water reservoir levels and lower inflow decreased hydro generation significantly compared to 2012. Olkiluoto and Forsmark had record-high production in 2013, nuclear outages were also shorter in 2013 resulting in higher volumes than during the corresponding period in 2012. Nuclear availability was at a good level in all reactors except Oskarshamn 1 and 2. The total nuclear volume was thus lower than during the corresponding period in 2012. In 2013, the Power Division had 1.9 TWh (2012: 0.6) of thermal production in the Nordic countries. Hence, the CO<sub>2</sub>-free production amounted to 94% (2012: 97%).

The combined effect of volumes and the achieved Nordic power price had a negative impact of approximately EUR 235 million during January-December 2013 compared to the corresponding period in 2012. Operating costs decreased as a result of savings

achieved through the efficiency programme, even with higher depreciation (EUR 9 million). In addition, the Swedish hydro power property taxes increased by EUR 45 million due to higher taxation values. The discontinuation of the Inkoo power plant caused an impairment loss of approximately EUR 20 million.

In 2013, the division's total power generation in the Nordic countries was 43.7 TWh (2012: 49.2), which corresponds to an approximately 11% decrease compared to 2012.

Fortum has two fully-owned reactors in Loviisa, Finland, and the company is also a co-owner in eight reactors at the Olkiluoto, Oskarshamn and Forsmark nuclear power plants in Finland and Sweden. Nuclear availability was at a good level in all of the reactors except Oskarshamn 1 and 2, and all the annual outages were executed with good results.

2013 was a good production year for Fortum's Loviisa nuclear power plant. The plant produced a total of 8.04 terawatt hours, which is approximately 9% of Finland's total electricity production. The load factor, which depicts the power plant's availability, was

92.5%; Loviisa 1's load factor was 92.1% and Loviisa 2's 93%. On an international scale this was good compared to the worldwide load factor for pressurised water power plants of approximately 83% last year.

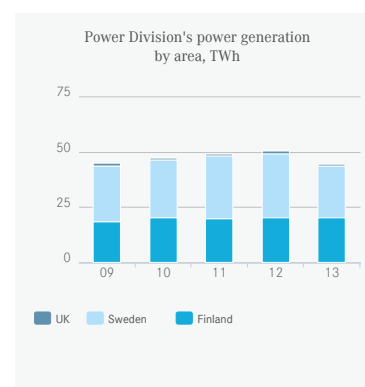
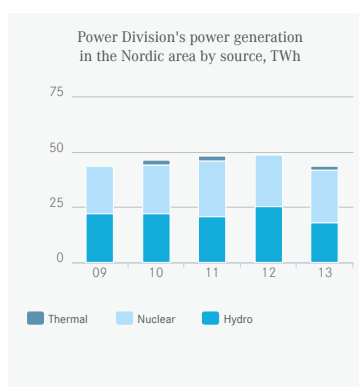
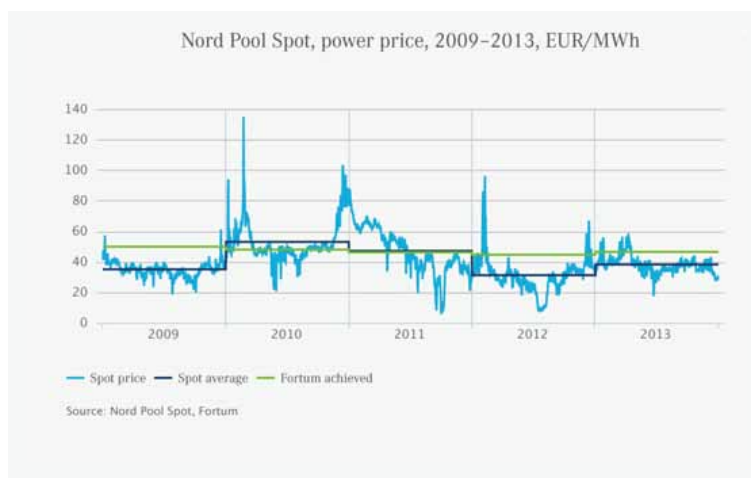
The process to update the real estate taxation values in Sweden for 2013 was finalised in the third quarter of 2013. The update is done on a six-year cycle and Fortum's costs increased by approximately EUR 45 million in 2013 compared to 2012. At the end of April 2013, Fortum filed a complaint with the EU Commission on the Swedish hydro tax to find out whether the structure of the tax is in line with the EU tax and State Aid regulations. The EU Commission informed Fortum in June that it will investigate the case in more detail, and the investigation was still on-going at the end of 2013.

In autumn 2013, Fortum announced that it had decided to discontinue electricity production at its Inkoo coal-fired power plant in Finland. Production operations will end in February 2014, after which the company will mothball three units. As a consequence of the decision to cease production, Fortum booked an impairment loss of approximately EUR 20 million in the Power Division's

results. The decision is based on the weak profitability of the Inkoo power plant.

In October, Fortum announced that it will supply nitrogen oxides reduction systems to coal-fired power plants owned by EDF Group in Krakow and Wroclaw, Poland. The deliveries are part of a project to be implemented in 2014-2015. The systems delivered by Fortum will bring the nitrogen emissions of the power plants to clearly below the European Union's new, strict emissions norms that take effect in 2016. The value of the delivery is EUR 90 million, and the project is being implemented in co-operation with Instal Kraków S.A.

At year-end, the Power Division's total power generating capacity was 9,475 megawatts (MW) (2012: 9,702), of which 9,335 MW (2012: 9,562) was in the Nordic countries. Hydropower capacity in the Nordic countries totalled 4,624 MW (2012: 4,627), nuclear power capacity 3,276 MW (2012: 3,247) and condensing capacity 1,435 MW (2012: 1,688).



## Heat

*The Heat Division consists of combined heat and power (CHP) generation, district heating activities and business-to-business heating solutions in the Nordic countries and other parts of the Baltic Rim.*

EUR million	2013	2012	2011	Change 13/12
Sales	1,565	1,628	1,737	-4%
- heat sales	1,164	1,158	1,238	1%
- power sales	234	232	342	1%
- other sales	167	238	157	-30%
Operating profit	288	344	380	-16%
Comparable operating profit	273	271	278	1%
Comparable EBITDA	489	481	471	2%
Net assets (at period-end)	4,283	4,286	4,191	0%
Return on net assets, %	7.2	8.8	9.9	-18%
Comparable return on net assets, %	6.8	7.0	7.4	-3%
Capital expenditure and gross investments in shares	397	474	329	-16%
Number of employees	2,102	2,212	2,504	-5%

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Heat sales volumes during 2013 amounted to 19.0 TWh (2012: 19.7) and power sales volumes from CHP production totalled 4.8 TWh (2012: 4.2). The warm weather in the last quarter reduced heat volumes.

The Heat Division's comparable operating profit in 2013 was EUR 273 million (2012: 271). The profit increase was mainly due to lower fuel costs. New CHP capacity and better availability, especially in Finland, increased power volumes. In 2013, fixed costs were lower due to the efficiency

programme. Income from sales of CO<sub>2</sub> allowances decreased.

Operating profit in 2013 totalled EUR 288 million (2012: 344). Sales gains related to divestments totalled EUR 18 million (2012: 80).

In September, Fortum disclosed that Fortum and the City of Stockholm have renewed their co-ownership agreement of Fortum Värme, the jointly-owned power and heat company operating in the capital area in Sweden. The agreement will come into force as of 2016,

when the existing ownership agreement expires.

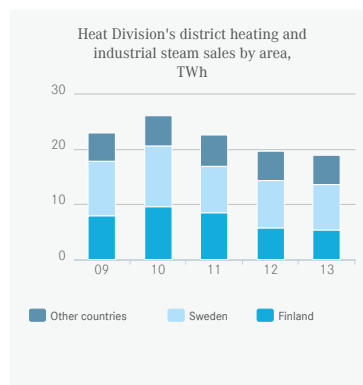
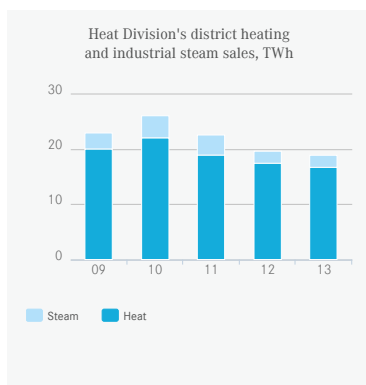
At year-end, the Heat Division's power generating capacity totalled 1,398 MW (2012: 1,569), of which 1,048 MW (2012: 1,315) was in the Nordic countries. The Heat Division's total heat production capacity was 7,943 MW (2012: 8,785), of which 5,751 MW (2012: 6,785) was in the Nordic countries.

### Heat sales by area

TWh	2013	2012	2011	Change 13/12
Finland	5.4	5.8	8.5	-7%
Sweden	8.3	8.5	8.5	-2%
Poland	4.1	4.3	4.3	-5%
Other countries	1.2	1.1	1.3	9%
<b>Total</b>	<b>19.0</b>	<b>19.7</b>	<b>22.6</b>	<b>-4%</b>

### Power sales

TWh	2013	2012	2011	Change 13/12
Total	4.8	4.2	6.2	14%





## Russia

*The Russia Division consists of power and heat generation and sales in Russia. It also includes Fortum's over 25% holding in TGC-1, which is an associated company and is accounted for using the equity method.*

EUR million	2013	2012	2011	Change 13/12
Sales	1,119	1,030	920	9%
- power sales	822	713	590	15%
- heat sales	290	300	324	-3%
- other sales	7	17	6	-59%
Operating profit	156	79	74	97%
Comparable operating profit	156	68	74	129%
Comparable EBITDA	258	189	148	37%
Net assets (at period-end)	3,846	3,848	3,273	0%
Return on net assets, %	5.2	3.0	3.5	73%
Comparable return on net assets, %	5.2	2.7	3.5	93%
Capital expenditure and gross investments in shares	435	568	694	-23%
Number of employees	4,162	4,253	4,379	-2%

Fortum operates in the well-developed industrial regions of the Urals and in the oil-producing Western Siberia.

The liberalisation of the Russian wholesale power market has been completed since the beginning of 2011. However, all generating companies continue to sell a part of their electricity and capacity – an amount equalling the consumption of households and a few special groups of consumers – under regulated prices. During the fourth quarter of 2013, Fortum sold approximately 83% of its power production in Russia at a liberalised electricity price.

The capacity selection for generation built prior to 2008 (CCS – “old capacity”) for 2013 was held at the end of 2012. In the selection auction, the majority of Fortum's power plants were selected, with a price level close to the level received in 2012. Approximately 10% (265 megawatts, MW) of the old capacity was not allowed to participate in the selection for 2013, due to tightened technical requirements. It did, however, receive capacity payments at the capacity market price during 2013.

The generation capacity built after 2007 under the government capacity supply agreements (CSA – “new capacity”) receives guaranteed payments for a period of 10

years. The period and the prices for capacity under CSA are defined to ensure a sufficient return on investments. At the time of the acquisition in 2008, Fortum made a provision, as penalty clauses are included in the CSA agreement in case of possible delays. If the new capacity is delayed or if the agreed major terms of the capacity supply agreement are not otherwise fulfilled, possible penalties can be claimed. The effect of changes in the timing of commissioning of new units is assessed at each balance sheet date and the provision is changed accordingly.

The new capacity will bring income from new volumes sold and will receive considerably higher capacity payments than the old capacity. However, received capacity payments will differ depending on the age, location, type and size of the plant as well as seasonality and availability. The regulator will review the guaranteed CSA payments by re-examining earnings from the electricity-only market three years and six years after the commissioning of a unit and could revise the CSA payments accordingly. In addition, CSA payments can vary somewhat annually because they are linked to the Russian Government long-term bonds with 8 to 10 years maturity.

The company's extensive investment programme is a key driver of growth in Russia. The last units have been slightly delayed by some months and the programme is now due to be completed during the first half of 2015. After the completion of the investment programme, the power generation capacity of the Russia Division will have nearly doubled and will exceed 5,100 MW. Fortum's goal is to achieve an operating profit level (EBIT) of about EUR 500 million run-rate in its Russia Division during 2015 and to create positive economic value added in Russia.

The Russia Division's power sales volumes amounted to 25.6 TWh (2012: 23.3) during 2013. Heat sales totalled 24.1 TWh (2012: 26.4) during the same period.

The Russia Division's comparable operating profit was EUR 156 million (2012: 68) in January–December 2013. The positive effect from the commissioning of the new units amounted to approximately EUR 163 million (2012: 87), including a reversal of the CSA provision totalling EUR 48 million. In addition, the EUR 40 million in compensation for CSA penalties received from E4 (the general contractor of the Nyagan power plant) was booked and recognised in the fourth quarter. The result was burdened by EUR 16 million in bad debt losses for Energostream group and

EUR 23 million due to unplanned outages. In addition, volumes were impacted negatively by the lower heat volumes due to exceptionally warm weather at both the beginning and end of 2013 as well as by the divestment of the heating network assets in Surgut in 2012.

Operating profit was EUR 156 million (2012: 79) in 2013. In 2012, the operating profit included a gain of EUR 11 million relating to

the divestment of heating network assets in Surgut.

In late March, Fortum finished the final stages in the construction of its Nyagan power plant unit 1. Accordingly, the company started receiving capacity payments for the unit from 1 April 2013 onwards. As of 1 December also Nyagan power plant unit 2 was commissioned and started receiving capacity payments. Nyagan 3 will be finalised at the

end of 2014. The capacity payments for the Nyagan unit 3 will start as of 1 January 2015.

At year-end, the Russia Division's total power generating capacity was 4,250 MW (2012: 3,404) and the division's total heat production capacity was 13,466 MW (2012: 13,396).

#### Key electricity, capacity and gas prices for OAO Fortum

	2013	2012	2011	Change 13/12
Electricity spot price (market price), Urals hub, RUB/MWh	1,021	956	925	7%
Average regulated gas price, Urals region, RUB/1,000 m <sup>3</sup>	3,131	2,736	2,548	14%
Average capacity price for CCS "old capacity", tRUB/MW/month <sup>1)</sup>	163	152	160	7%
Average capacity price for CSA "new capacity", tRUB/MW/month <sup>1)</sup>	576	539	560	7%
Average capacity price, tRUB/MW/month	276	227	209	22%
Achieved power price for OAO Fortum, EUR/MWh	32.1	30.6	29.2	5%

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

## Electricity Solutions and Distribution

*The division is responsible for Fortum's electricity sales and distribution activities and consists of two business areas: Distribution and Electricity Sales.*

### Distribution

*Fortum owns and operates distribution and regional networks and distributes electricity to a total of 1.6 million customers in Sweden, Finland and Norway.*

EUR million	2013	2012	2011	Change 13/12
Sales	1,075	1,070	973	0%
- distribution network transmission	896	877	809	2%
- regional network transmission	129	125	96	3%
- other sales	50	68	68	-26%
Operating profit	348	331	478	5%
Comparable operating profit	331	320	295	3%
Comparable EBITDA	550	529	482	4%
Net assets (at period-end)	3,770	3,889	3,589	-3%
Return on net assets, %	9.2	9.1	13.7	1%
Comparable return on net assets, %	8.8	8.8	8.6	0%
Capital expenditure and gross investments in shares	260	324	289	-20%
Number of employees	852	870	898	-2%

In 2013, the volume of distribution and regional network transmissions totalled 26.1 TWh (2012: 26.6) and 16.3 TWh (2012: 17.3), respectively.

The Distribution business area's comparable operating profit was EUR 331 million (2012: 320). The increased profits are mainly attributable to an increased amount of relocation of cables and parts of the network.

Operating profit in 2013 totalled EUR 348 million (2012: 331) and was affected by sales gains totalling EUR 17 million (2012: 5).

In January 2013, Fortum announced that it had decided to assess the strategic position of its electricity distribution business; the assessment was concluded in December. The assessment has no impact on Fortum's electricity distribution customers and excludes the company's electricity retail business.

The Finnish government submitted a Government Bill for the renewal of electricity market legislation in the spring of 2013, and the new Electricity Market act came into force on 1 September 2013. The new legislation includes implementation of the 3rd electricity market directive and functional demands on electricity grids. This includes that the maximum length of outages should be limited to six hours for urban areas and 36 hours for rural areas after a 15-year transition period. Also, gradual increases in customer compensation for long outages have been included; 150% of the annual grid fee after 8 days of outage and 200% of the annual grid fee for outages longer than 12 days. The maximum amount would be increased from 700 euros to 2,000 euros by 2015.

Both in Finland and Sweden, legal processes are under way concerning the appeals filed regarding the network income regulatory period 2012-2015, which came into force as of 1 January 2012. In Finland, the appeal of

the national grid company Fingrid is being processed in the Supreme Administrative Court; in Sweden the Administrative Court ruled in favour of the network companies, in December. The Energy Market Inspectorate decided, however, to appeal the decision, and the process continues.

At the end of 2013, a total of almost 620,000 smart meters with hourly measurement capabilities had been installed for network customers in Finland over the course of three years in Fortum's electricity distribution areas (434,000 at year-end 2012). The new meters are part of the smart electricity network of the future, enabling more efficient energy use through, for example, hourly measurement of electricity consumption and real-time billing, and supporting the transition towards a more sustainable energy system. The new legislation on hourly meter reading in Finland became effective as of 1 January 2014.

#### Volume of distributed electricity in distribution network

TWh	2013	2012	2011	Change 13/12
Sweden	14.1	14.4	14.2	-2%
Finland	9.5	9.8	9.5	-3%
Norway	2.5	2.4	2.3	4%
Estonia	-	-	0.1	N/A
<b>Total</b>	<b>26.1</b>	<b>26.6</b>	<b>26.1</b>	<b>-2%</b>

#### Number of electricity distribution customers by area

Thousands	2013	2012	2011	Change 13/12
Sweden	903	898	893	1%
Finland	642	633	627	1%
Norway	103	102	101	1%
Estonia	-	-	24	N/A
<b>Total</b>	<b>1,648</b>	<b>1,633</b>	<b>1,645</b>	<b>1%</b>

## Electricity sales

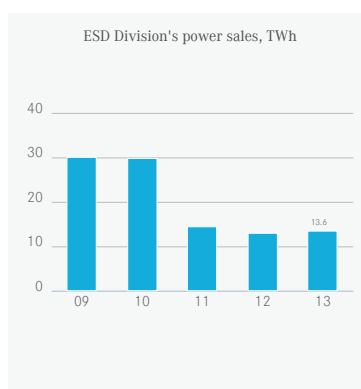
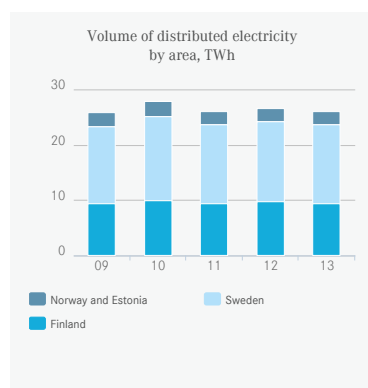
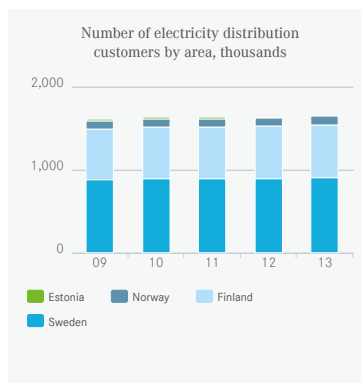
The Electricity Sales business area is responsible for retail sales of electricity as well as smart electricity solutions and services to a total of 1.2 million private customers. In addition, standardised products are offered for large corporate customers (Sales Trading). Electricity Sales buys its electricity from the Nordic power exchange.

EUR million	2013	2012	2011	Change 13/12
Sales	744	722	900	3%
- power sales	723	697	879	4%
- other sales	21	25	21	-16%
Operating profit	56	39	3	44%
Comparable operating profit	48	39	27	23%
Comparable EBITDA	50	40	29	25%
Net assets (at period-end)	39	51	11	-24%
Return on net assets, %	148.9	152.3	4.2	-2%
Comparable return on net assets, %	137.9	203.1	33.5	-32%
Capital expenditure and gross investments in shares	1	1	5	0%
Number of employees	496	509	519	-3%

In 2013, the business area's electricity sales volume to retail customers totalled 12.1 TWh (2012: 12.1) and Sales Trading 1.5 TWh (2012: 2.1) (reported until 2012 in the Other segment).

Electricity Sales' comparable operating profit in 2013 totalled EUR 48 million (2012: 39). The increase was mainly due to favourable wholesale market conditions, an increased customer base and Sales Trading.

The operating profit totalled EUR 56 million (2012: 39) and was affected by an IFRS accounting treatment (IAS 39) of derivatives.

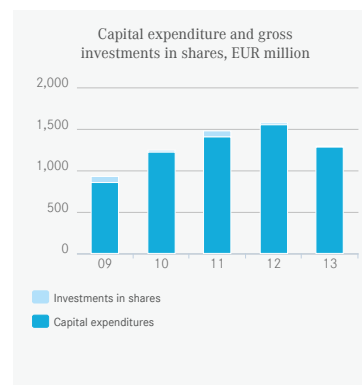
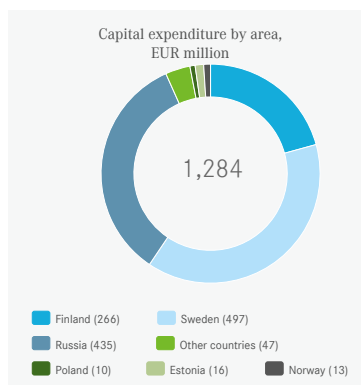


# Capital expenditure, investments & divestments of shares

EUR million	2013	2012	2011
<b>Capital expenditure</b>			
Intangible assets	49	35	27
Property, plant and equipment	1,235	1,523	1,381
<b>Total</b>	<b>1,284</b>	<b>1,558</b>	<b>1,408</b>
<b>Gross investments in shares</b>			
Subsidiaries	11	5	47
Associated companies	0	10	25
Available for sale financial assets	4	1	2
<b>Total</b>	<b>15</b>	<b>16</b>	<b>74</b>

In 2013, capital expenditures and investments in shares totalled EUR 1,299 million (2012: 1,574). Investments, excluding acquisitions, were EUR 1,284 million (2012: 1,558).

See also [Note 19.2 Capital expenditure](#).



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

	Type	Electricity capacity MW	Heat capacity MW	Supply starts <sup>1)</sup>
<b>Power</b>				
Hydro refurbishment	Hydropower	10		2014
<b>Heat</b>				
Värtan, Sweden	Biofuel (CHP)	130	280	Q2 2016
<b>Russia <sup>1)</sup></b>				
Nyagan 3	Gas (CCGT)	418		2H 2014
Chelyabinsk 1	Gas (CCGT)	248	175	1H 2015
Chelyabinsk 2	Gas (CCGT)	248	175	1H 2015

<sup>1)</sup> Start of commercial operation, preceded by test runs, licensing, etc.

## Power

Through its interest in Teollisuuden Voima Oyj (TVO), Fortum is participating in the building of Olkiluoto 3 (OL3), a 1,600-MW nuclear power plant unit in Finland. Based on the

progress reports received from the plant supplier, AREVA-Siemens Consortium, TVO is preparing for the possibility that the start of regular electricity production at OL3 may be postponed until 2016.

The Board of Directors of TVO proposed in February a new EUR 300 million shareholder loan commitment to the company's B-series shareholders. By means of the shareholder loan, TVO will prepare to maintain a sufficient level of equity in the OL3 project and cope with possible additional delays and costs in

finalising the project. In June, all the B-series shareholders signed the loan agreement in accordance with the proposal made by the Board of Directors. Fortum's share of the new shareholder loan is 25% (EUR 75 million). In addition, Fortum has earlier committed to another EUR 300 million shareholder loan in the OL3 project; Fortum's share of that shareholder loan is 25% as well.

In June, TVO withdrew EUR 100 million from the first EUR 300 million shareholder loan commitment for the OL3 project; Fortum's share was EUR 25 million.

Wind power production was started at the Blaiken wind power park (75 MW) in the first quarter of the year. The first 30 windmills underwent test runs in February and commercial production was started in the second quarter. The Blaiken wind power park is co-owned by Skellefteå Kraft (60%) and Fortum (40%).

In July, Fortum completed the divestment of its 33% holding in Infratek ASA to a fund managed by Triton, following the approval of the Swedish and Norwegian competition authorities. The sales price was approximately EUR 38 million. A sales gain of EUR 11 million was booked in the Power Division's third-quarter 2013 results.

In September, Fortum and Metsähallitus agreed to sell their Kuolavaara-Keulakkopää (50 MW) and Joukhaisselkä (25 MW) pre-construction stage wind power projects in Lapland to the Impax New Energy Investors II Fund ("NEF II") managed by Impax Asset Management. Fortum's share of the projects is 51% and Metsähallitus' 49%. The transaction will be implemented in phases and the sale is expected to be completed during the first quarter of 2014. The transaction will have a minor impact on Fortum's Power Division's financial results and it will be booked over several quarters. The sale price and other terms are not disclosed.

## Heat

In January, the cornerstone for the new, EUR 500 million biofuel-fired CHP plant was laid in Stockholm (Värtan), Sweden; the plant is scheduled to be ready in 2016. This project is the largest ongoing investment in the Heat Division.

In May, Fortum's new waste-fuelled CHP plant was inaugurated in Klaipėda, Lithuania. Commercial operation started at the end of

the first quarter. The Klaipėda CHP plant has a capacity of 60 MW heat and 20 MW electricity. With an efficiency of almost 90%, it is able to incinerate 230,000 tonnes of waste and biomass annually, and by replacing gas-fired capacity it reduces CO<sub>2</sub> emissions by approximately 100,000 tonnes annually.

In June, a new bio-fuelled CHP plant was inaugurated in Järvenpää, Finland. Commercial operation started in April. The plant has a capacity of 63 MW heat and 23 MW electricity. Also in June, Fortum announced that it is acquiring district heating operations from the Estonian company Eraküte in the city of Tartu. Eventually, Fortum plans to connect the acquired network area to Fortum's current network supplied by the company's biomass and peat-fired Tartu CHP plant. This will enable a larger use of biomass, reduce CO<sub>2</sub> emissions and increase efficiency of heat production. After the acquisition, Fortum owns the whole district heating network of Tartu.

In September, Fortum inaugurated the first large-scale biomass CHP plant in Latvian city of Jelgava. The new plant covers approximately 85% of the city's district heating demand. Fortum's new power plant uses wood chips as fuel and replaces old natural gas-fired heat production in Jelgava. The production capacity of the Jelgava power plant is 23 MW electricity and 45 MW heat. The plant will produce approximately 110 GWh of electricity and 230 GWh of heat per year.

In October, Fortum disclosed that it had sold its Kuusamo combined heat and power plant to the Finnish energy company Adven Oy. The sale had a minor impact on Fortum's financial result.

In November, Fortum sold its 50% stake in the Finnish district heating company Riihimäen Kaukolämpö Oy to the City of Riihimäki and to Riihimäen Kaukolämpö Oy. The divestment had a minor impact on Fortum's financial result. The total sales price was EUR 11 million.

In November, Fortum inaugurated the second unit at the Brista CHP plant in Sigtuna, Stockholm. Brista 2 produces heat and power from 240,000 tonnes of sorted municipal and industrial waste annually and has a capacity of 57 MW heat and 20 MW electricity. The annual heat production is about 500 GWh, and the estimated annual electricity production is 140 GWh. Fortum co-owns the plant (85%) together with the municipal

energy company Sollentuna Energi (15%). Final testing was started late 2013.

In 2013, Heat launched a new commercial concept for bio-oil. In the future, besides heat and electricity, CHP+ plants will produce bio-oil; in these plants, pyrolysis is integrated into the production process. The commercial scale CHP+ plant is the first of its kind in the world and is being integrated with Fortum's Joensuu CHP plant in Finland. The Joensuu bio-oil plant's annual production of 50,000 tonnes corresponds to the heating needs of more than 10,000 households. Fortum Otso® bio-oil can be used at heat plants or in industrial steam production as a replacement for heavy and light fuel oil, and in the future, bio-oil can be used as a raw material for various biochemicals or traffic fuels.

In December, Fortum announced that it sold its combined heat and power (CHP) plant as well as its natural gas and district heating network in the town of Nokia to the Finnish energy company Leppäkosken Sähkö. Fortum also announced the sale of the Kauttua combined heat and power plant in Eura, in south-western Finland, to the Finnish energy company Adven Oy. The sales had a minor impact on Fortum's financial performance and the parties have agreed not to disclose the sales price. In addition, in December, Fortum's Uimaharju combined heat and power plant ownership was transferred to Stora Enso as part of an arrangement signed in 1990. According to the agreement, the transfer price paid by Stora Enso is approximately EUR 15 million. The impact on Fortum's financial result was marginal.

## Russia

In late March, Fortum finished the final stages in the construction of its Nyagan power plant unit 1. Accordingly, the company started receiving capacity payments for the unit as of 1 July 2013. The unit's capacity was certified to exceed 420 MW.

As of 1 December, Nyagan unit 2 was commissioned and started receiving capacity payments. The second unit's certified capacity is 424 MW.

## Distribution

In June, Fortum agreed to sell its 47.9% ownership in the Swedish energy company Härjeåns Kraft AB to the Finnish energy company Oy Herrfors Ab, a subsidiary of Katternö Group. The sales price was SEK 445



million (approximately EUR 51 million). The transaction was completed in July and Fortum booked a sales gain of EUR 17 million to Distribution's third-quarter 2013 financial result.

In December, Fortum disclosed that it had completed the assessment of the future alternatives of its electricity distribution business; the assessment was launched in January 2013. After thorough consideration, the company concluded that divesting the electricity distribution business is the best solution for the business and its customers, Fortum's shareholders and the company's other businesses. Fortum is evaluating the possible further divestment opportunities country by country.

In December 2013, Fortum disclosed that it has agreed to sell its electricity distribution business in Finland to Suomi Power Networks Oy. The total consideration is EUR 2.55 billion on a debt- and cash-free basis. Fortum expects to complete the divestment process during the first quarter of 2014, subject to the necessary regulatory approvals as well as customary closing conditions. Fortum expects to book a one-time sales gain of EUR 1.8-1.9 billion corresponding to approximately EUR 2.00 per share.

## Other

In June, Fortum acquired a solar power plant in the state of Rajasthan, in north-western India. The company's short-term ambition is

to build a small photo-voltaic (PV) solar portfolio in order to gain experience in different solar technologies and in operating in the Indian power market. The power plant's nominal peak capacity is 5.4 MW and its annual production is approximately 9 gigawatt-hours. The plant will receive a higher, guaranteed electricity price for 25 years. The period and the prices for power generation under the government's power purchase agreement are defined to ensure a sufficient return on investment. In the short term, Fortum is looking to invest some tens of millions of euros – including this acquisition – in developing its PV solar competence and operations in India.

# Employees

	2013	2012	2011
Number of employees, 31 Dec	9,886	10,371	10,780
Average number of employees	10,246	10,600	11,010
Total amount of employee costs, EUR million	529	543	529

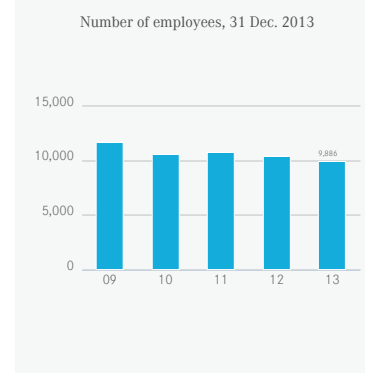
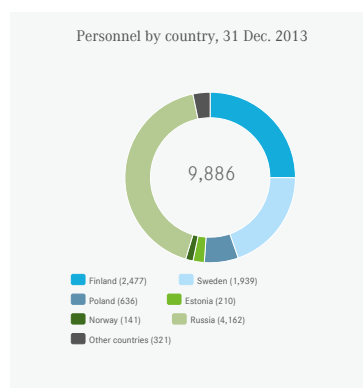
Fortum's operations are mainly based in the Nordic countries, Russia and Baltic Rim area. The total number of employees at the end of December was 9,886 (10,371 at the end of 2012).

The Power Division had 1,709 employees (2012: 1,846), the Heat Division 2,102 (2012: 2,212), the Russia Division 4,162 (2012: 4,253), the Distribution business area 852 (2012: 870), the Electricity Sales business area 496 (2012: 509) and Other 565 (2012: 681) at the end of December 2013.

Possible headcount reductions due to Fortum's efficiency program have been implemented on a unit level by using natural rotation, rearranging of vacant jobs and by retirement. During 2013, the efficiency programme proceeded according to plan and vacant jobs have primarily been filled internally. The possibilities for internal rotation were improved during the year. By

rotating staff between different countries and divisions, we improve know-how and develop the exchange of competencies throughout the organisation.

For further details of Group personnel see [Note 12 Employee benefits](#).



# Changes in Fortum's Management

In March, Fortum Corporation's President and CEO Tapio Kuula was diagnosed with a condition requiring medical treatment. He started his sick leave immediately. During

Tapio Kuula's leave of absence, Fortum's CFO Markus Rauramo assumed responsibility for the duties of President and CEO. President

and CEO Kuula returned to work during the second half of November 2013.

Kaarina Ståhlberg, LL.M. (Helsinki University), LL.M. (Columbia University, New York), 46,

was appointed General Counsel and member of Fortum Corporation's Management Team

as of 1 September 2013. She reports to the President and CEO.

## Events after the balance sheet date

In February, Fortum announced that it will renew its business structure as of 1 March 2014. The target of the reorganisation is to strengthen Fortum's capability to execute the company's strategy in the fast developing operating environment. Fortum will report its 2014 first quarter financial results according to the new structure.

The new structure will consist of four reporting segments and staff functions. The four segments are Heat, Electricity Sales and Solutions, Power and Technology, Russia and

Distribution. The staff functions are Finance, Strategy, Mergers and Acquisitions, Legal, Human Resources and IT, Communications and Corporate Relations.

Matti Ruotsala is appointed Chief Operating Officer (COO) and will act as deputy to the CEO. Fortum's new CFO will be Timo Karttinen, who also will head the Distribution Division. Markus Rauramo will continue in a new role as Executive Vice President, Heat, Electricity Sales and Solutions, Per Langer as Executive Vice President, Hydro Power and

Technology and Alexander Chuvaev as Executive Vice President, Russia.

New Executive Management members are Tiina Tuomela, Executive Vice President, Nuclear and Thermal Power; Kari Kautinen, Senior Vice President, Strategy, Mergers and Acquisitions and Esa Hyvärinen, Senior Vice President, Corporate Relations.

## Outlook

### Key drivers and risks

Fortum's financial results are exposed to a number of strategic, political, financial and operational risks. The key factor influencing Fortum's business performance is the wholesale price of electricity in the Nordic region. The key drivers behind the wholesale price development in the Nordic region are the supply-demand balance, fuel and CO<sub>2</sub> emissions allowance prices as well as the hydrological situation. The completion of Fortum's investment programme in Russia is also one key driver to the company's result growth, due to the increase in production volumes.

The continued global economic uncertainty and Europe's sovereign-debt crisis has kept the outlook for economic growth unpredictable. The overall economic uncertainty impacts commodity and CO<sub>2</sub> emissions allowance prices, and this could maintain downward pressure on the Nordic wholesale price for electricity in the short term. In the Russian business, the key factors are the regulation around the heat business and further development of electricity and capacity markets. Operational risks related to the investment projects in the current investment programme are still valid. In all regions, fuel prices and power plant availability also impact profitability. In addition, increased volatility in exchange rates due to financial turbulence could have both translation and transaction effects on Fortum's financials, especially through the

SEK and RUB. In the Nordic countries, also the regulatory and fiscal environment for the energy sector has added risks for utility companies.

For further details on Fortum's risks and risk management, see the [Risk management](#) section of the Operating and financial review and [Note 3 Financial risk management](#).

### Nordic market

Despite macroeconomic uncertainty, electricity will continue to gain a higher share of the total energy consumption. Fortum currently expects the average annual growth rate in electricity consumption to be 0.5%, while the growth rate for the nearest years will largely be determined by macroeconomic development in Europe and especially in the Nordic countries. The new 650-MW Estlink-2 interconnector between Finland and Estonia increases market coupling between the Nordic and Baltic countries.

During the fourth quarter of 2013, the price of oil improved, whereas coal and EUA ended close to their opening levels. The price of electricity for the upcoming twelve months clearly decreased in the Nordic area, whereas in Germany it was largely unchanged.

In late January 2014, the future quotation for coal (ICE Rotterdam) for the rest of 2014 was around USD 81 per tonne, and the price for CO<sub>2</sub> for 2014 was about EUR 6 per tonne.

In late January 2014, the electricity forward price in Nord Pool for the rest of 2014 was around EUR 32 per MWh. For 2015 the price was around EUR 33 per MWh, and for 2016 around EUR 33 per MWh. In Germany, the electricity forward price for the rest of 2014 was around EUR 36 per MWh and for 2015 EUR 37 per MWh.

In late January 2014, Nordic water reservoirs were about 1 TWh above the long-term average and 1 TWh above the corresponding level of 2013.

### Power

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

The on-going multi-year Swedish nuclear investment programmes are expected to enhance safety, improve availability and increase the capacity of the current nuclear fleet. The implementation of the investment

programmes could, however, affect availability. Fortum's power procurement costs from co-owned nuclear companies are affected by these investment programmes through increased depreciation and finance costs of associated companies.

## Russia

The generation capacity built after 2007 under the Russian Government's Capacity Supply Agreements (CSA – "new capacity") receives guaranteed capacity payments for a period of 10 years. Prices for capacity under CSA are defined in order to ensure a sufficient return on investments.

Capacity not under CSA competes in the competitive capacity selection (CCS – "old capacity"). The capacity selection for 2014 was held in September 2013. In the selection auction, the majority of Fortum's power plants were selected. The volume of Fortum's installed capacity not selected in the auction totalled 132 MW, which is approximately 4.6% of Fortum's total installed capacity. All of Fortum's capacity was allowed to participate in the selection for 2014.

The Russia Division's new capacity will be a key driver for earnings growth in Russia as it will bring income from new volumes sold and also receive considerably higher capacity payments than the old capacity. However, the received capacity payment will differ depending on the age, location, size and type of the plants as well as seasonality and availability. The return on the new capacity is guaranteed, as regulated in the CSA. The regulator will review the earnings from the electricity-only market three years and six years after the commissioning of a unit and could revise the CSA payments accordingly. CSA payments can vary somewhat annually because they are linked to Russian Government long-term bonds with 8 to 10 years maturity.

Fortum estimates that the commissioning of the Nyagan unit 3 will be finalised by the end of 2014. The capacity payments for Nyagan unit 3 will start as of 1 January 2015, one year earlier than originally planned in 2008. In accordance with the CSA terms, no penalties for unit 3 can start to run before 1 January 2016.

The last two units of Fortum's Russian investment programme are being built in Chelyabinsk instead of Tyumen, as originally planned. The units constructed at the Chelyabinsk GRES power plant, originally

planned to be commissioned by the end of 2014, have been slightly delayed and are scheduled to be finalised during the first half of 2015 mainly due to extensive groundwork at the brownfield site. The delay will not cause any penalties. In addition, Fortum plans to modernise and upgrade the existing equipment of the power plant.

The value of the remaining part of the investment programme, calculated at the exchange rates prevailing at the end of December 2013, is estimated to be approximately EUR 0.5 billion, as of January 2014.

After completing the on-going investment programme by mid-2015, Fortum's goal is to achieve an operating profit level (EBIT) of about EUR 500 million run-rate in its Russia Division during 2015 and to create positive economic added value in Russia. The Russian Government's earlier target to increase gas prices by 15% annually to reach netback price parity with European prices by 2018 has recently been changed. The forecast by the Russian Ministry of Economic Development now suggests much lower annual increases. The Russia Division's profits are impacted by possible changes in gas prices, currency exchange rates and other regulations. The suggested gas price development and the weaker Russian rouble make the approximately EUR 500 million operating profit level (EBIT) goal more challenging for the Division, but the company is making every effort to mitigate the negative impacts.

In 2013, the Ministry of Energy stated that a Heat reform should be developed before changing the current Electricity and Capacity Market model. Therefore, at the end of the year, the Ministry of Energy proposed a new heat market model (for public discussion), which is supposed to ensure transition to economically justified heat tariffs by 2020 and to attract investments into the heat sector. The new regulation concept is at an early stage and expected to be further developed during 2014.

Since the beginning of 2013, wholesale gas prices (except for private household and industrial consumers) have been reviewed quarterly. In February 2013, the Board of Russia's Federal Tariff Service (FTS) adopted a decision according to which the wholesale gas price for industrial consumers decreased by 3% as of the second quarter 2013, compared to first quarter. As of 1 July 2013, the Russian Government increased gas prices by 15% compared to June 2013, and in October 2013 they were further increased by

1.9% in order to reach the planned total increase of approximately 15% in 2013 compared to 2012. According to a forecast made by the Russian Ministry of Economic Development, Russian gas price indexation will not take place as of July 2014. However, year-on-year gas price growth is estimated to be 7.6% in 2014.

## Distribution

Fortum has disclosed that it has completed the assessment of the future alternatives of its electricity distribution business; the assessment was launched in January 2013. As a result, Fortum is evaluating the possible divestment opportunities country by country.

Fortum's electricity distribution business in Finland is to be sold to Suomi Power Networks Oy. The divestment process is expected to be finalised during the first quarter of 2014 subject to the necessary regulatory approvals as well as customary closing conditions. The total consideration is EUR 2.55 billion on a debt- and cash-free basis. Fortum expects to book a one-time sales gain of EUR 1.8-1.9 billion, corresponding to approximately EUR 2.00 per share in its Electricity Distribution and Sales Division's first quarter 2014 results. A total of 340 employees will transfer with the business at closing.

The work to define the Swedish network income regulation model for the next regulatory period 2016-2019 has been ongoing and a first proposal from the Energy Market Inspectorate is expected to come during the first quarter of 2014.

## Capital expenditure and divestments

Fortum currently expects its capital expenditure, excluding Värme in 2014, to be approximately EUR 0.9-1.1 billion, excluding potential acquisitions (including the Finnish distribution business until the end of first quarter 2014). The annual maintenance capital expenditure is estimated to be about EUR 400-500 million in 2014, below the level of depreciation. Capex for electricity distribution in Finland has been approximately EUR 150 million annually.

Fortum will gradually decrease its financing to Värme during 2014-2015. At the end of 2013, Värme's share of debt totalled approximately EUR 1 billion.

## Taxation

The effective corporate tax rate for Fortum in 2014 is estimated to be 19–21%, excluding the impact of the share of profits of associated companies and joint ventures, non-taxable capital gains and non-recurring items. In Finland, the corporate tax rate was reduced from 24.5% to 20% as of 1 January 2014. In Sweden, the corporate tax rate was decreased from 26.3% to 22% as of 1 January 2013.

The Finnish Parliament approved the power plant tax (previously called windfall tax) in December 2013. It will be enacted later and will be applied from the beginning of 2014, provided that the EU Commission approves it.

Fortum has filed a complaint on the tax to the Commission, arguing that it is not in line with general tax principles in Finland and that it constitutes illegal state aid for those plants that are not subject to the tax. If implemented, the estimated impact on Fortum would be approximately EUR 25 million annually.

## Hedging

At the end of December 2013, approximately 60% of the Power Division's estimated Nordic power sales volume was hedged at approximately EUR 43 per MWh for the calendar year 2014. The corresponding figures for the calendar year 2015 were about 20% at approximately EUR 41 per MWh.

The hedge price for the Power Division's Nordic generation excludes hedging of the condensing power margin. In addition, the hedge ratio excludes the financial hedges and physical volume of Fortum's coal-condensing generation as well as the division's imports from Russia.

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 Nord Pool forwards.

# Research and development

Sustainability is at the core of Fortum's strategy, and Fortum's research and development activities promote environmentally-benign energy solutions. Investments in the development of renewable energy production, like wave and solar power, are an important part of Fortum's strategy implementation.

In 2013, Fortum decided to participate in the Sustainable Bioenergy Solutions for Tomorrow (BEST) research programme established by two Strategic Centres for Science, Technology and Innovation (SHOK), CLEEN Oy and FIBIC Oy, in Finland and India. The programme's goal is to encompass a completely new kind of collaboration between forestry and energy know-how.

Fortum is also a co-signer along with DCNS and AW-Energy of a development agreement

in wave power research and development with the support of La Région Bretagne. As part of the agreement, the companies will develop a joint 1.5-MW wave power demonstration project. Fortum will be responsible for project development and will be the owner of the demonstration park. The agreement is an extension to the wave power research and development collaboration initiated in 2011 by DCNS and Fortum.

In addition, Fortum received a special award for innovation from the Global District Energy Climate Awards organisation. The prize was awarded to Fortum for its investment project using fast pyrolysis technology to produce bio-oil in connection with existing district heating production and a combined heat and power plant. Commissioned at the end of the year, the commercial plant is the first of its kind in the world and integrated with

Fortum's Joensuu CHP plant. The use of bio-oil has significant positive environmental impacts because energy produced with bio-oil reduces greenhouse gas emissions by as much as 90% or more compared to fossil fuels.

Fortum acquired a solar power plant in the state of Rajasthan, in north-western India. The company's short-term ambition is to build a small photo-voltaic (PV) solar portfolio in order to gain further experience in different solar technologies.

The Group reports its R&D expenditure on a yearly basis. In 2013, Fortum's R&D expenditure was EUR 49 million (2012: 41) or 0.8% (2012: 0.7%) of sales.

	2013	2012	2011
R&D expenditure, EUR million	49	41	38
R&D expenditure, % of sales	0.8	0.7	0.6

# Sustainability

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

The Group-level sustainability targets emphasise Fortum's role in society and measure not only environmental and safety targets, but also Fortum's reputation, customer satisfaction, and the security of supply of power and heat.

The achievement of the sustainability targets is monitored through monthly, quarterly and annual reporting. As of the beginning of 2013, results of the sustainability indicators have been regularly reported to Fortum's Board of Directors. In June 2013, the Board of Directors decided on

a more systematic handling of sustainability issues and supplemented their working order with the approval of Fortum Corporation's Sustainability Policy, sustainability target setting as well as follow-up and the review of Fortum's Sustainability Report.

The company is listed on the STOXX Global ESG Leaders, the NASDAQ OMX and OMX GES Sustainability Finland indices. In October 2013, Fortum was awarded as the best Nordic company in the Nordic Climate Disclosure Leadership Index focusing on management and reporting of climate issues.

Fortum received its all-time high score – a full 100/100. In December Fortum was listed in ECPI® Indices.

#### Sustainability indicators at the Group level

	Target	2013	Five-year average
Specific CO <sub>2</sub> emission from power generation in the EU (g/kWh), 5-year average	< 80	70	66
Specific CO <sub>2</sub> emission from total energy production (g/kWh), 5-year average	< 200	196	186
Overall efficiency of fuel use as a five-year average, %	> 70	61	66
Environmental incidents	< 40	51	
Energy availability of CHP plants in the EU, %	> 92	94	
SAIDI*, minutes in 2013	< 110	220	
Lost workday injury frequency (LWIF) for own personnel	< 1.0	1.1	

\* System Average Interruption Duration Index

Targets for reputation and customer satisfaction are monitored annually. In the One Fortum Survey for 2013 the result was 69.8 (target for 2013 was 69.6) and the company's reputation among the key stakeholders was good. Customer satisfaction improved in all divisions.

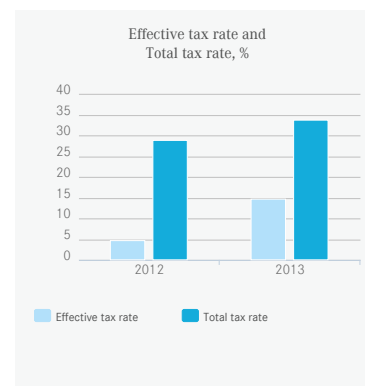
#### Economic responsibility

In the area of economic responsibility, the focus is on competitiveness, performance excellence and market-driven production. The aim is to create long-term economic value and enable profitable growth and added value for shareholders, customers, employees, suppliers, and other key stakeholders in the company's operating areas. Fortum's goal is to achieve excellent financial performance in strategically selected core areas through strong competence and responsible ways of operating. The key figures by which Fortum measures its financial success include return on capital employed (target: 12%), return on shareholders' equity (target: 14%) and capital structure (target: comparable net debt/EBITDA around 3). In addition, Fortum also uses the applicable Global Reporting Initiative (GRI) G3.1 indicators for reporting economic responsibility.

corporate income taxes EUR 220 million (2012: 74) but also several other taxes. In 2013, Fortum's taxes borne were EUR 644 million (2012: 565). Taxes borne include corporate income taxes, production taxes, employment taxes, taxes on property and cost of indirect taxes. Production taxes include also production taxes and taxes on property paid through electricity purchased from associated companies.

Fortum's effective tax rate (ETR) was 14.7% (4.7% in 2012) and total tax rate (TTR) 33.8% (2012: 29.0%). See also [note 14 Income tax expense](#).

In addition, Fortum administers and collects different taxes on behalf of governments and authorities. Such taxes include e.g. VAT, excise taxes on power consumed by customers, payroll taxes and withholding taxes. The amount of taxes collected by Fortum was EUR 834 million (2012: 749). In 2012 Fortum reported VAT as a gross amount for input and output VAT. The gross amount of taxes collected was EUR 3,918 million in 2012.

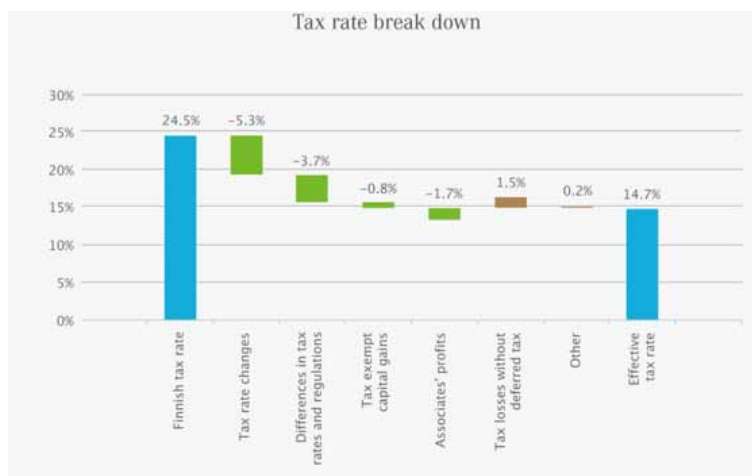


#### Fortum as a tax payer

Fortum supports social development and well-being of the areas of operations by e.g. paying taxes. The tax benefits Fortum produces to society include not only

#### Environmental responsibility

Fortum's environmental responsibility emphasises mitigation of climate change, efficient use of resources as well as



management of the impacts of our energy production, distribution and supply chain. Our know-how in CO<sub>2</sub>-free hydro and nuclear power production and in energy-efficient CHP production is highlighted in environmental responsibility. Fortum's Group-level environmental targets are related to CO<sub>2</sub> emissions, energy efficiency as well as environmental incidents and non-compliances. At the end of September 2013, ISO 14001 certification covered 96% of Fortum's power and heat production and distribution operations worldwide.

Fortum's climate targets over the next five years are: specific CO<sub>2</sub> emissions from power generation in the EU below 80 grams per kilowatt-hour (g/kWh) and total specific CO<sub>2</sub> emissions from both electricity and heat production in all countries below 200 g/kWh. Both targets are calculated as a five-year average. At the end of December 2013, the five-year average for specific CO<sub>2</sub> emissions from power generation in the EU was at 66 g/kWh (2012: 60) and the total specific CO<sub>2</sub> emissions from energy production were at 186 g/kWh (2012: 179), both better than the target level.

Fortum's total CO<sub>2</sub> emissions in 2013 amounted to 21.3 million tonnes (Mt) (2012: 20.7), of which 6.0 Mt (2012: 4.8) were within the EU's emissions trading scheme (EU ETS). Since 2013, electricity production does not receive free allowances in the EU ETS. The amount of free allowances for heat will gradually decrease during 2013-2020 as well. Plant-specific free allowances have not yet been confirmed for 2013. The preliminary estimate for Fortum is about 3.0 Mt, which is clearly less than the 5.4 Mt in 2012.

Fortum's energy efficiency target is to raise the overall efficiency of fuel use to 70% as a five-year average. In 2013, the overall efficiency of fuel use was 61% (2012: 64%) and the five-year average after September was 66% (2012: 67%), meaning the target level was not met.

Fortum's target is for fewer than 40 environmental incidents annually. In 2013, a total of 51 (2012: 36) environmental incidents took place in Fortum's operations. This includes 19 leaks or spills of oil into the environment, 12 fires, 14 environmental non-compliances, four explosions and two International Nuclear Event Scale 1 incidents (INES). None of these incidents had significant environmental or financial impacts.

Fortum's total CO <sub>2</sub> emissions (million tonnes, Mt)	2013	2012	2011	Change 13/12
Total emissions	21.3	20.7	23.5	3%
Emissions subject to ETS	6.0	4.8	8.0	25%
Free emission allocation	3.0 <sup>1)</sup>	5.4	6.8	-44%
Emissions in Russia	15.3	15.6	14.7	-2%

<sup>1)</sup> Pending approval of the European Commission

## Social responsibility

In the area of social responsibility, Fortum's innovations and the secure supply of low-carbon power and heat support the development of society and increase well-being. Good corporate citizenship, reliable energy supply and ensuring a safe working environment for all employees and contractors at Fortum sites are emphasised. At the end of 2013, OHSAS 18001 certification covered 75% of Fortum's power and heat production and distribution operations worldwide.

In 2013, the average energy availability of Fortum's European CHP plants was 93.9 (2012: 90.9), which is above the annual target level of 92%. In electricity distribution, the cumulative SAIDI (System Average Interruption Duration Index) was 220 minutes (2012: 103) in 2013, while the annual target is less than 110 minutes. The high SAIDI was caused by severe storms in Finland and Sweden in December 2013.

In 2013, the Group-level lost workday injury frequency (LWIF) was 1.1 (2012: 1.5), which is close to the target level of less than one per million working hours for Fortum's own personnel. In contrast to the LWIF for

Fortum's own employees, contractor safety has not developed as desired. The injury frequency is higher than in 2012. Safety improvements were implemented in 2013 and include more precise instructions and requirements and increased supervision of high-risk jobs. Fortum's categorical target is to avoid serious injuries.

Fortum wants to conduct business with viable companies that act responsibly and comply with the Fortum Code of Conduct and the Fortum Supplier Code of Conduct. In 2013, Fortum audited 13 suppliers, focusing on biomass suppliers and contractors.



# Risk management

*Risk management is an integrated part of business planning and performance management. The objective of risk management within Fortum is to support the creation of the corporate strategy, enable the strategy execution, support the achievement of agreed financial targets, and avoid unwanted operational events.*

## Risk management framework and objectives

Involvement in the power and heat business exposes Fortum to several types of risks. The main sources of risk in the Nordic business are electricity prices and volumes, which in turn are affected by the weather in the Nordic region, the development of the global commodity markets and availability of power production. The Russian business is exposed to risks related to fuel, electricity and capacity prices and volumes, which are to a large extent subject to regulation, although the market is developing.

Fortum is continuously developing its risk management capabilities to cope with prevailing market conditions, developing operations and an ever changing business environment. In the operational risk management area, the focus has been on further enhancing the framework for internal controls, compliance risk management and business continuity management. At the same time, market and credit risk modelling has been developed in order to cope with an increasingly global and volatile market. Also

the new market entries like India add complexity and risk in operations.

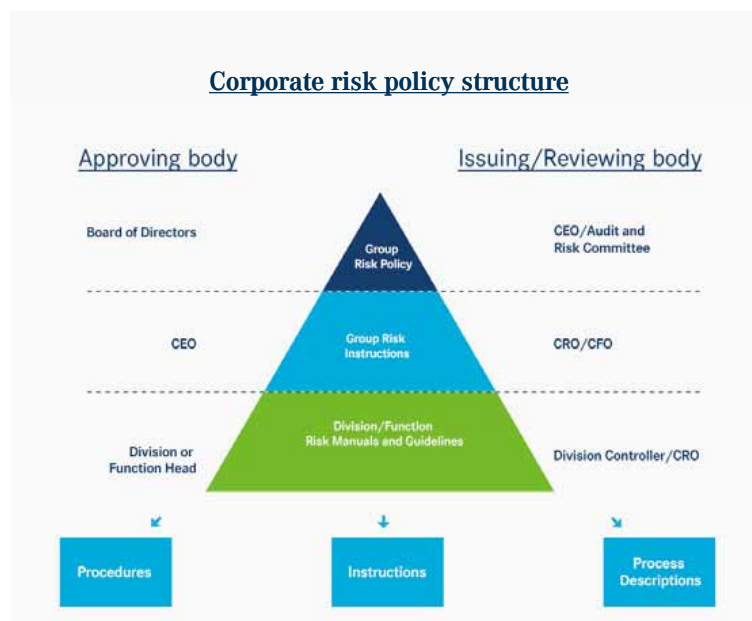
### Risk management objective

The objective of risk management within Fortum is to support the creation of the corporate strategy, enable the execution of the corporate strategy, support the achievement of agreed financial targets and avoid unwanted operational events.

## Group risk policy

Fortum's Board of Directors annually approves the Group Risk Policy, which sets the objective, principles and division of responsibilities for risk management activities within the Group as well as defines the overall risk management process.

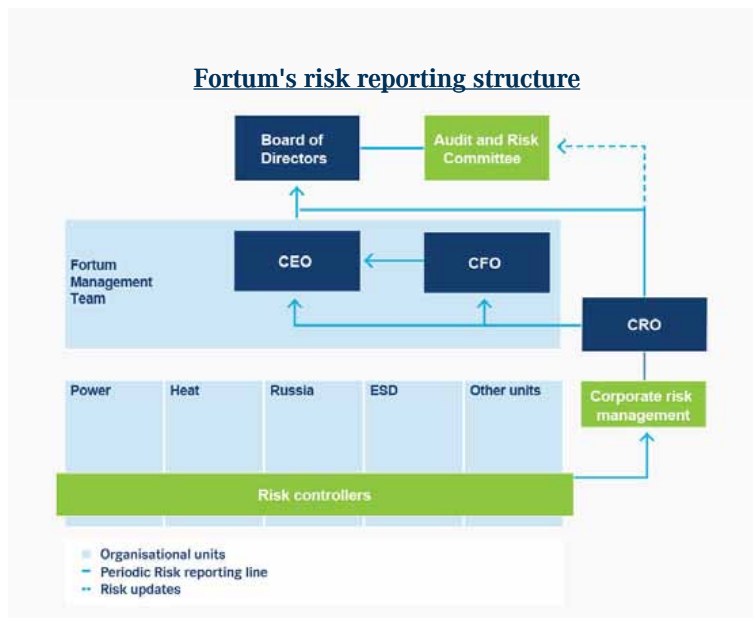
The CEO approves Group Risk Policy appendices, which include instructions for managing commodity market risks, counterparty risks, operational risks, financial risks and insurances. Corporate Treasury is responsible for managing the Group's currency, interest rate, liquidity and refinancing risks as well as for insurance management. Credit Control in Corporate Risk Management is responsible for assessing and consolidating the Group's exposure to counterparty risks, monitoring the creditworthiness of counterparties and approving counterparty credit limits. Corporate IT is responsible for managing IT information and security risks. There are also corporate units dealing with risks related to human resources, laws and regulation, and sustainability.





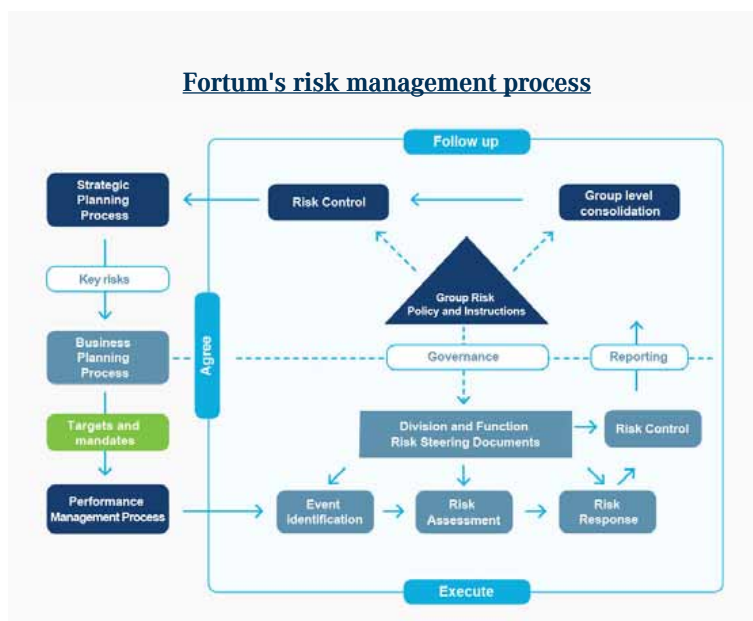
## Risk management organisation

The Audit and Risk Committee is responsible for risk oversight within the Group. Corporate Risk Management is an independent function headed by the Chief Risk Officer (CRO), who reports to the CFO, and is responsible for assessing and reporting the Group's consolidated risk exposure to the Board of Directors and Group Management. Corporate Risk Management also monitors and reports risk in relation to mandates approved by the CEO. The main principle is that risks are managed at the source, unless otherwise agreed. In order to maintain a strict segregation of duties, risk control functions in the divisions and corporate units, like Treasury, are responsible for reporting risks to Corporate Risk Management.



## Risk management process

The risk management process consists of identification of risks, risk assessment, risk response and risk control. Risks are primarily identified and assessed by divisions and corporate units in accordance with Group instructions and models that are approved by Corporate Risk Management. Every function is also responsible for responding to risks by taking appropriate actions. Risk responses can be one of, or a combination of, mitigating, transferring or absorbing the risk.



## Risk factors

Risk control, monitoring and reporting is carried out by the divisional and corporate unit risk control functions. The frequency of reporting is dependent upon the scope of the business. For example, trading activities and limit breaches are reported daily whereas strategic and operational risks are reported as part of the annual business planning process and followed up at least quarterly in management reviews. Corporate Risk Management assesses and reports the Group's consolidated exposure to financial and market risks to Group Management and the Board of Directors on a monthly basis.



## Strategic risks

Fortum's strategy is based on three areas of focus:

- Leverage the strong Nordic core
- Create solid earnings growth in Russia
- Build a platform for future growth

### Investment, integration and project risks

Fortum's growth strategy includes expansion of operations. As a result of ongoing integrations or any future acquisitions, there is a risk to existing operations, including:

- additional demands placed on senior management, who are also responsible for managing existing operations;
- increased overall operating complexity and requirements for personnel and other resources in other cultures;
- the need to attract and retain sufficient numbers of qualified management and other personnel.

Within the projects that are part of the Russian investment programme, as with all large projects, there is a risk of delays, for example in establishing new capacity and grid connections. The project risks are closely monitored by the management and risks are followed up in monthly management reporting.

### Political and regulatory risks

The political and regulatory environment has a clear impact on energy businesses. This applies both to existing and potential new businesses and market areas. Fortum is thus exposed to regulatory risks in various countries.

#### Nordic/EU

Nordic/EU Policy harmonisation, infrastructure development and integration of the Nordic electricity market towards continental Europe depend to large extent on the actions of authorities. The current trend of national policies could even

endanger market-driven development of the energy sector and the uncertainty with regard to future policy targets and framework is currently considerable. Fortum favours market-driven development, which would mean e.g. more interconnections and competition in addition to policy harmonisation, by maintaining an active dialogue with all stakeholders.

Currently the biggest potential risks within the policy framework relate to the electricity market model, targets with regard to future climate change mitigation and renewable energy and taxation. In particular, the interlinkages of these issues create uncertainty, as they are overlapping and undermine the effects of each other. The EU is currently discussing capacity remuneration mechanisms that would change the market model. The specific details of targets for CO<sub>2</sub> emissions and renewables for 2030 are also under discussion. At the end of 2013 in Finland, a Government Bill for a windfall tax on some non-emitting and old power plants was approved. Furthermore, the nuclear safety directive is under revision, and

a discussion on broadening nuclear liability in the EU is starting.

All these would pose risks, but also opportunities, for energy companies. To manage these risks and proactively participate in the development of the political and regulatory framework, Fortum maintains an active dialogue with the bodies involved in the development of laws and regulations at national and EU-levels.

## Russia

Russia is exposed to political, economic and social uncertainties and risks resulting from changes in policies, legislation, economic and social upheaval and other similar factors, as other similar countries.

Fortum owns and operates heat and power generation assets in Russia under the operations of OAO Fortum. The wholesale power market deregulation in Russia has proceeded well and to a large extent according to original plans. The main policy-related risks in Russia are linked to the development of the whole energy sector, part of which, namely wholesale electricity, is liberated while other parts, like gas, heat, and retail electricity, are not. Currently, there is the risk that the Government will freeze tariffs of certain regulated products including gas, which creates a risk for Fortum's

efficient operations. Cross-subsidies, which are supposed to be eliminated but still exist, compromise the competitiveness of energy-efficient combined heat and power (CHP) production. Artificially low energy prices do not benefit anyone in the long run, as they promote inefficiency by limiting investments in efficiency.

## Political risk concerning taxes

The current economic situation in Fortum's key operating territories has created an unstable tax environment leading to new or increased taxes and new interpretations of existing tax laws. This in turn has led to unexpected challenges for Fortum in the way the Group is organised and how its operations are taxed. The certainty and visibility around taxes has decreased. Where there is uncertainty, Fortum seeks to maintain its position in line with its tax policy.

## Legal and compliance risks

Fortum's operations are subject to rules and regulations set forth by the relevant authorities, exchanges, and other regulatory bodies in all markets in which it operates.

Inadequacies in the legal systems and law enforcement mechanisms in Russia and

certain other emerging markets expose Fortum to a risk of loss resulting from criminal or abusive practices by competitors, suppliers, or contracting parties. Fortum's ability to operate in Russia may also be adversely affected by difficulties in protecting and enforcing its rights in disputes with its contractual partners or other parties concerning, for example, regulatory influence on business and unfair market conditions, and also by future changes to local laws and regulations.

Fortum maintains strict internal market conduct rules and has procedures in place to prevent, for example, the use of confidential information before it is published. Segregation of duties and internal controls are enforced to minimise the possibilities of unauthorised activities.

Compliance with competition legislation is an important area for Fortum. Fortum has also enhanced its compliance risk management by establishing a process to systematically and separately identify and mitigate compliance risks linked to the operational risk framework. This process aims to capture also potential bribery risks. Fortum has also rolled-out the Code of Conduct, including the bribery risk assessment process, to enhance the compliance to business ethics.

# Commodity market risks

Commodity market risk refers to the potential negative effects of market price movements or volume changes in electricity, fuels and environmental values. A number of different methods, such as Profit-at-Risk and Value-at-Risk, are used throughout the Group to quantify these risks and to take into account their interdependencies. Stress-testing is carried out in order to assess the effects of extreme price movements on Fortum's earnings.

Fortum hedges its exposure to commodity market risks in accordance with the Hedging Guidelines. Risk taking is limited by risk mandates, including volumetric limits, Profit-at-Risk limits and stop-loss limits. The Profit-at-Risk measure in the form of Group minimum EBITDA is monitored by management to ensure that Fortum can deliver on its financial commitments without weakening its financial position. The development of minimum EBITDA is

monitored in quarterly meetings and in monthly reporting.

All products and marketplaces used for hedging and trading are approved by the CRO.

For further information on hedge ratios, exposures, sensitivities and outstanding derivatives contracts, see [Note 3 Financial risk management](#).

## Electricity price and volume risks

Fortum is exposed to electricity market price movements and volume changes mainly through its power generation and customer sales businesses. In competitive markets, such as in the Nordic region, the price is determined as the balance between supply and demand. The short-term factors affecting electricity prices on the Nordic market

include hydrological conditions, temperature, CO<sub>2</sub> allowance prices, fuel prices, and the import/export situation.

In the Nordic business, power and heat generation, customer sales and electricity distribution volumes are subject to changes in, for example, hydrological conditions and temperature. Uncertainty in nuclear production due to prolonged maintenance or delays in upgrades, especially in co-owned plants in Sweden, has also increased in recent years.

Electricity price and volume risks are hedged by entering into electricity derivatives contracts, primarily on the Nordic power exchange, Nasdaq OMX (Nord Pool). The objective of hedging is to reduce the effect of electricity price volatility on earnings and cash flows, and to secure a minimum level of earnings and cash flow, which ensures that financial commitments can be met. Hedging strategies cover several years in the short to

### Risk Management in Fortum's Performance Management



medium term and are executed by the trading unit within set mandates. These hedging strategies are continuously evaluated as electricity and other commodity market prices, the hydrological balance and other relevant parameters change.

In Russia, electricity prices and capacity sales are the main sources of market risk. Market deregulation has developed as planned and the electricity price is highly correlated with the gas price. Hedges are mainly done through regulated bilateral agreements, but the financial market is developing and Fortum is utilising the possibilities in these markets to further mitigate electricity price risks.

### **Emission and environmental value risks**

The European Union has established an emissions trading scheme to reduce the

amount of CO<sub>2</sub> emissions. The CO<sub>2</sub> emissions trading scheme enhances the integration of the Nordic market with the rest of Europe. In addition to the emissions trading scheme, there are other trading schemes in environmental values in place in Sweden, Norway and Poland. There is currently no trading scheme in Russia for emissions or other environmental values. The main factor influencing the prices of CO<sub>2</sub> allowances and other environmental values is the supply and demand balance.

Part of Fortum's power and heat generation is subject to requirements of these schemes. Fortum manages its exposure to these prices and volumes through the use of derivatives, such as CO<sub>2</sub> forwards, and by ensuring that the costs of allowances are taken into account during production planning.

### **Fuel price and volume risks**

Heat and power generation requires the use of fuels that are purchased on global or local markets. The main fuels used by Fortum are uranium, coal, natural gas, peat, oil, and various biomass-based fuels such as wood pellets.

For fuels that are traded on global markets such as coal and oil, the uncertainty in price is the main factor. Prices are largely affected by demand and supply imbalances that can be caused by, for example, increased demand growth in developing countries, natural disasters or supply constraints in countries experiencing political or social unrest. The main fuel source for heat and power generation in Russia is natural gas. Natural gas prices are partially regulated, so the exposure is limited. For fuels traded on local markets, such as bio-fuels, the volume risk in terms of access to the raw material of appropriate quality is more significant as there may be a limited number of suppliers.

Exposure to fuel prices is limited to some extent because of Fortum's flexible generation possibilities that allow for switching between different fuels according to prevailing market conditions and, in some cases, the fuel price risk can be transferred to the customer. The remaining exposure to fuel price risk is mitigated through fixed-price purchases that cover forecasted consumption levels. Fixed-price purchases can be either for physical deliveries or in the form of financial hedges.

## **Financial Risks**

### **Liquidity and refinancing risks**

The power and heat business is capital intensive. Consequently, Fortum has a regular need to raise financing.

In order to manage these risks, Fortum maintains a diversified financing structure in

terms of debt maturity profile, debt instruments and geographical markets. Fortum manages liquidity and refinancing risks through a combination of cash positions and committed credit facility agreements with its core banks. Fortum shall at all times have access to cash, bank deposits and unused committed credit facilities, including

overdrafts, to cover all loans maturing within the next twelve-month period.

### **Interest rate risks**

Fortum's debt portfolio consists of interest-bearing assets and liabilities on a fixed- and

floating-rate basis with differing maturity profiles. Fortum manages the duration of the debt portfolio by entering into different types of financing contracts and interest rate derivative contracts, such as interest rate swaps and forward rate agreements (FRAs).

### Currency risks

Fortum has cash flows, assets and liabilities in currencies other than the euro. Changes in

exchange rates can therefore have an effect on Fortum's earnings and balance sheet. The main currency exposures are EUR/SEK, arising from Fortum's extensive operations in Sweden and EUR/RUB from translation exposure of OAO Fortum in Russia.

Fortum's currency exposures are divided into transaction exposures (foreign exchange exposures relating to contracted cash flows and balance sheet items where changes in exchange rates will have an impact on

earnings and cash flows) and translation exposure (foreign exchange exposure that arises when profits and balance sheets in foreign entities are consolidated at the Group level). For transaction risks, the main principle is that all material exposures are hedged while translation exposures are not hedged or are hedged selectively.

## Counterparty risks

Fortum is exposed to counterparty risk whenever there is a contractual arrangement with a customer, supplier, financing partner or trading counterparty. During 2013 Fortum enhanced the country entry and partner risk assessment processes when entering new markets and/or partnerships.

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

Due to the financing needs and management of liquidity, Fortum has counterparty exposure to a number of banks and financial institutions. This includes exposure to the Russian financial sector in terms of deposits

with financial institutions as well as to banks that provide guarantees for suppliers and contracting parties. Limits with banks and financial institutions are followed closely so that exposures can be adjusted as ratings or the financial situation changes.

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

In order to minimise counterparty risk, Fortum has well established routines and processes to identify, assess and control counterparty exposure. No contractual

obligations are entered into without proper, reasonable and viable credit checks, and creditworthiness is continuously monitored through the use of internal and external sources to ensure that actions can be taken immediately if changes occur.

Corporate Credit Control is responsible for assuring stringent controls for all larger individual counterparty exposures. Annual credit reviews are performed manually for all larger approved limits. Each division or corporate unit is responsible for ensuring that exposures remain within approved limits. Mitigation of counterparty risk includes the use of collateral, such as guarantees, managing payment terms and contract length, and netting agreements. Corporate Credit Control continuously monitors and reports counterparty exposures against the approved limits.

## Operational risks

Operational risks are defined as the negative effects resulting from inadequate or failed internal processes, people and systems or equipment, or from external events. The main objective of operational risk management is to reduce the risk of unwanted operational events by clearly documenting and automating processes and by ensuring a strict segregation of duties between decision-making and controlling functions. Quality and environmental management systems are a tool for achieving this objective, and Fortum has several certifications including ISO 9001 and ISO 14001. Equipment and system risks are primarily managed within maintenance investment planning, and there are contingency plans in place to ensure business continuity. Operational risks in

production facilities (nuclear, hydro and heat plants) are mitigated by continuous maintenance, condition monitoring, and other operational improvements.

The Corporate Insurance Steering Document defines the management of insurable operational risks. The objective of insurance management is to optimise loss prevention activities, self retentions and insurance coverage in a long-term cost-efficient manner. Fortum has established Group-wide insurance programmes for risks related to property damages, business interruption and liability exposures.

### Hydro power

Operational events at hydro power generation facilities can lead to physical damages, business interruptions, and third-party liabilities. A long-term programme is in place for improving the surveillance of the condition of dams and for securing the discharge capacity in extreme flood situations.

In Sweden, third-party liabilities from dam failures are strictly the plant owner's responsibility. Together with other hydro power producers, Fortum has a shared dam liability insurance programme in place that covers Swedish dam failure liabilities up to SEK 9,000 million.



## Nuclear power

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

In Finland and Sweden, third-party liability relating to nuclear accidents is strictly the plant operator's responsibility and must be covered by insurance.

As the operator of the Loviisa power plant, Fortum has a statutory liability insurance policy of 600M SDR (Special Drawing Right). The same type of insurance policies are in place for the operators where Fortum has a minority interest. In Sweden, the limits are compliant with the national legislation.

Decisions have been made in both Finland and Sweden to renew the current nuclear liability legislation to align more with the Paris and Brussels convention. The new legislation is not likely to come into force during 2014 in Finland and Sweden. The changes in the new national legislation consist of a liability on plant operators covering damages up to EUR 700 million in Finland and up to EUR 1,200 million per nuclear incident in Sweden. The liability should be covered by insurance or other form of financial guarantee, as well as a strict and unlimited liability for the plant operators in each respective country.

Under Finnish law, Fortum bears full legal and financial responsibility for the management and disposal of nuclear waste produced by the Loviisa power plant. In both Finland and Sweden, Fortum bears partial responsibility, proportionate to the output share, for the costs of the management and disposal of nuclear waste produced by co-owned nuclear power plants.

In both Finland and Sweden, the future costs of the final disposal of spent fuel, the management of low and intermediate-level radioactive waste and nuclear power plant decommissioning are provided for by a state-established fund to which nuclear power plant operators make annual contributions.

Multi-layered containment systems and sophisticated safety protocols effectively isolate radioactive materials from the surrounding environment during the process of interim storage, packaging, transport, relocation and encasement of nuclear waste in the final storage repositories.

## Distribution facilities

Operational events at distribution facilities can lead to physical damages, business interruptions, and third-party liabilities. Storms and other unexpected events can result in electricity outages that create costs in the form of repairs and customer compensations. Although outages are typically short, it is not possible to completely prevent long outages. There are extensive procedures in place to minimise the length and consequences of outages.

## Sustainability risks

The assessment of sustainability risks is also included in the assessment of business risks. The Corporate Sustainability function assesses the risks related to Group operations as part of the annual planning. The divisions assess the risks identified by the Corporate Sustainability function in their own annual planning and prepare for their control. Business divisions with ISO 14001 certification manage their environmental risks and their preparedness to operate in exceptional and emergency situations in compliance with the requirements of the standard.

Operating power and heat generation and distribution facilities involves the use, storage and transportation of fuels and materials that can have adverse effects on the environment. Operation and maintenance of the facilities expose the personnel to potential safety risks. The risks involved with these activities and their supply chain are receiving increased attention. There is also a growing public awareness of sustainable development and the expectations on companies' responsible conduct.

Environmental, health and safety (EHS) risks are regularly evaluated through internal and

external audits and risk assessments, and corrective and preventive actions are launched when necessary. EHS related risks arising in investments are systematically evaluated in accordance with Fortum's Investment Evaluation and Approval Procedure. Environmental risks and liabilities in relation to past actions have been assessed and necessary provisions made for future remedial costs.

## Technology risks

Fortum actively explores opportunities in new technologies in a solar economy. Fortum is participating in technologies and projects in solar and wave energy, and in 2013 invested in the first solar plant in India. New technologies, like bio-oil and solar, expose Fortum to new types of risks, such as IPR risks and viability of technologies. These, in combination with operating in new markets, add complexity.

## IT and information security risks

Information security risks are managed centrally by the Corporate Security and IT functions. Business-specific IT risks are managed within the divisions and corporate units. Group IT instructions set procedures for reducing risks and managing IT and other information security incidents. The main objective is to ensure high availability and fast recovery of IT systems. Fortum's IT community identifies the IT-related operational risks that might threaten business continuity, and the mitigating actions are planned accordingly. Fortum IT is exposed to hardware and software risks including cyber attacks, as is any other corporate function, however, taking into account the size and complexity of the business. The management of these risks is coordinated by Corporate IT, headed by the CIO, who also manages the IT architecture and strategy.

# Shareholders

At the end of 2013, the Finnish State owned 50.8% of the company's shares. The Finnish Parliament has authorised the Government to reduce the Finnish State's holding in Fortum

Corporation to no less than 50.1% of the share capital and voting rights.

The proportion of nominee registrations and direct foreign shareholders increased to 26.2% (2012: 25.4%).

## Shareholders, 31 December 2013

Shareholders	No. of shares	Holding %
Prime Minister's Office	450,932,988	50.76
Ilmarinen Mutual Pension Insurance Company	7,351,961	0.83
The Finnish Social Insurance Institution	7,195,896	0.81
The State Pension Fund	6,560,000	0.74
The city of Kurikka	6,203,500	0.70
Varma Mutual Pension Insurance Company	4,964,300	0.56
Mandatum Life Insurance Company Ltd.	4,954,834	0.56
Mutual Insurance Company Pension Fennia	3,476,000	0.39
The Local Government Pensions Institution	2,951,403	0.33
Schweizerische Nationalbank	2,787,984	0.31
Tapiola Mutual Pension Insurance Company	2,300,000	0.26
Society of Swedish Literature in Finland	2,202,700	0.25
Etera Mutual Pension Insurance Company	1,710,006	0.19
OP-Delta Mutual Fund	1,625,000	0.18
Nominee registrations and direct foreign ownership*	229,790,979	25.87
Other shareholders in total	153,359,494	17.26
<b>Total number of shares</b>	<b>888,367,045</b>	<b>100.00</b>

\*Excluding Schweizerische Nationalbank

By shareholder category	% of total amount of shares
Finnish shareholders	
Corporations	2.13
Financial and insurance institutions	2.74
General government	56.10
Non-profit organisations	2.02
Households	10.83
Non-Finnish shareholders	26.18
<b>Total</b>	<b>100.00</b>



#### Breakdown of share ownership, 31 December 2013

Number of shares owned	No. of shareholders	% of shareholders	No. of shares	% of total amount of shares
1-100	33,180	25.12	1,980,533	0.22
101-500	53,752	40.70	14,426,381	1.63
501-1,000	22,363	16.93	16,413,674	1.85
1,001-10,000	21,390	16.20	55,195,035	6.21
10,001-100,000	1,262	0.96	29,132,710	3.28
100,001-1,000,000	103	0.08	30,136,102	3.39
1,000,001-10,000,000	21	0.01	64,257,134	7.23
over 10,000,000	1	0.00	450,932,988	50.76
	<b>132,072</b>	<b>100.00</b>	<b>662,474,557</b>	<b>74.57</b>
Unregistered/uncleared transactions on 31 December			75,696	0.01
Nominee registrations			225,816,792	25.42
<b>Total</b>			<b>888,367,045</b>	<b>100</b>

## Management interests, 31 December 2013

At the end of 2013, the President and CEO and other members of the Fortum Management Team owned 346,106 shares (2012: 268,992) representing approximately 0.04% of the total shares in the company.

A full description of the shareholdings and interests in long-term incentive schemes of the President and CEO and of other members of the Fortum Management Team is shown in [Note 12 Employee benefits](#).

## Authorisations from the Annual General Meeting 2013

Currently the Board of Directors has no unused authorisations from the Annual General Meeting of Shareholders to issue convertible loans or bonds with warrants or

to issue new shares or to buy Fortum Corporation's own shares.