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### Financial information in 2009

Fortum publishes three interim reports in 2009:

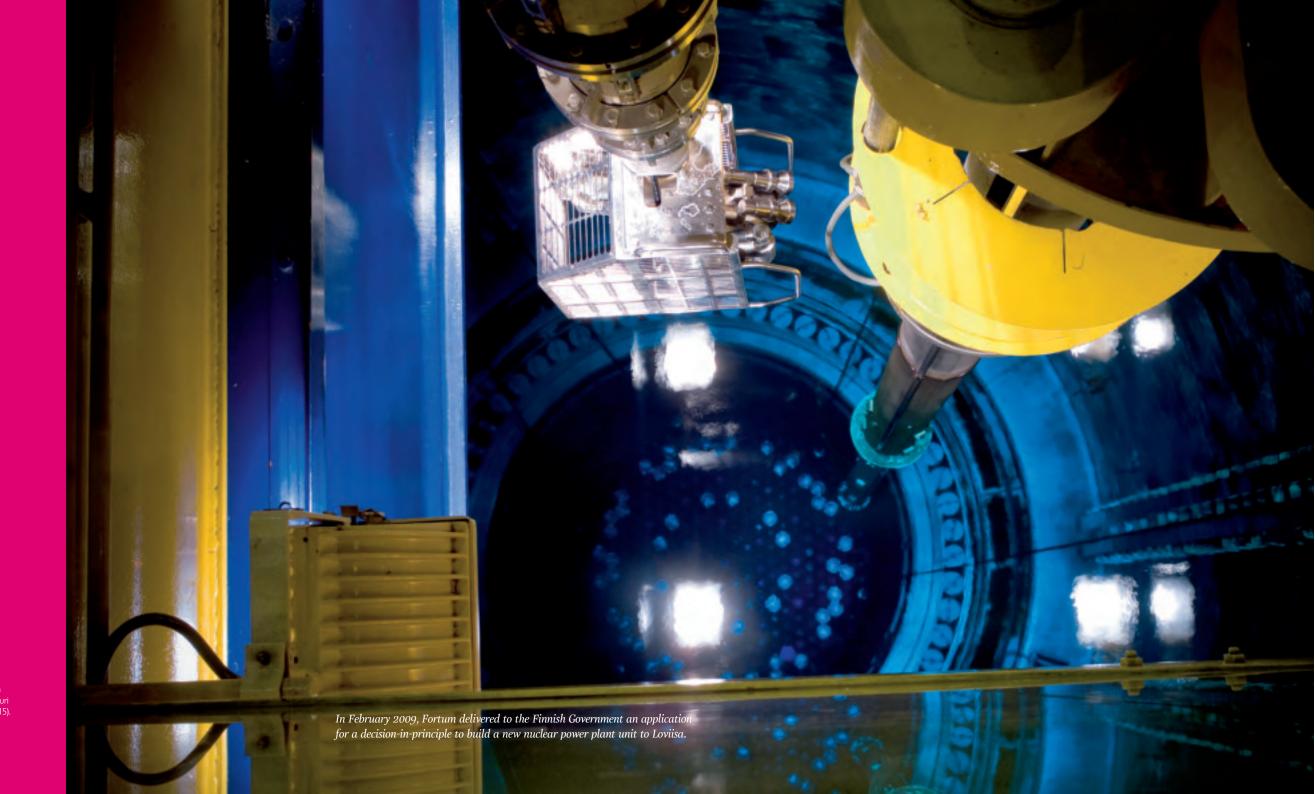
- Q1 on 28 April 2009
- Q2 on 17 July 2009
- Q3 on 22 October 2009

Reports are published at approximately 9.00 EET in Finnish and English, and are available on Fortum's website at www.fortum.com.

Fortum management serves analysts and the media with regular press conferences, which are webcasted to the company's internet pages. Management also gives interviews on a one-on-one and group basis. Fortum observes a silent period of 30 days prior to publishing its results.

### **Annual Report 2008**

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# decisions 68

- 1. Leap to Siberia
- 2. Dedication to a sustainable production portfolio
- 3. Towards a low-carbon society with R&D
- 4. Continued strong focus on performance

# Fortum in brief

# Norway 2008 Heat sales 0.1 TWh Distribution, customers 99,300 Share of electricity customers 3%

### Sweden

	2008
Power generation capacity	5,761 MW
Heat sales	9.1 TWh
Distribution, customers	872,600
Share of electricity customers	14%

### Finland

	2008
Power generation capacity	4,882 MW
Heat sales	10.8 TWh
Distribution, customers	606,000
Share of electricity customers	16%

Polana	
	2008
Heat sales	3.6 TWh



Lithuania		Latvia	
	2008		2008
Heat sales	0.1 TWh	Heat sales	0.1 TWh

Estonia	
	200
Heat sales	1.1 TW

Distribution, customers

2008

2,785 MW

15.3 TWh

24,000

FORTUM CORPORATION ANNUAL REPORT 2008

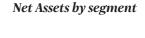
FORTUM IN BRIEF

Fortum is a leading energy company focusing on the Nordic countries, Russia and the Baltic Rim area. Activities cover the generation, distribution and sale of electricity and heat and the operation and maintenance of power plants. Our vision is to be the benchmark power and heat company excelling in sustainability.

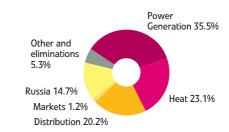
In 2008, Fortum's sales totalled EUR 5.6 billion and operating profit was EUR 2.0 billion. The company employs approximately 15,500 people. Fortum's shares are quoted on NASDAQ OMX Helsinki.

• Read more: www.fortum.com.

### Employees per country







# Group structure

Reporting segments	Power Generati	ion		Heat		Distribution	Markets	Russia
Sales	EUR 2,892 million			EUR 1,466 million		EUR 789 million	EUR 1,922 million	EUR 489 million
Comparable operating profit	EUR 1,528 million			EUR 250 million		EUR 248 million	EUR –33 million	EUR –92 million
Business units	Generation	Portfolio Management and Trading	Service	Heat	Värme	Distribution	Markets	Russia
	Generation is responsible for Fortum's Nordic nuclear, hydro, thermal and wind power generation and development in chosen market areas.	PMT is responsible for planning the use of Fortum's Nordic generation portfolio and for trading in the physical and financial markets of electricity, fuels and environmental values. PMT is also responsible for related market analysis.	Service offers operation and maintenance, productivity and energy efficiency services to power and heat asset owners and commercial energy users.	Heat focuses on combined heat and power production (CHP), on district heating and on energy outsourcing services to industries.	Värme delivers district heating and cooling, power and gas to industries and private custom- ers in Sweden.	Distribution is responsible for Fortum's network asset management and for the distribution and regional transmission of electricity to 1.6 million customers.	Markets is responsible for retail sales of electricity to 1.3 million private and business customers as well as to other electricity retailers. Markets buys its electricity through Nord Pool.	The business unit is responsible for power and heat generation and sales in Russia. It includes TGC-10 operations, Fortum's TGC-1 share and some other minority shares.
Market position	# 2 in power general in the Nordic market		ka.	# 1 heat provider in the Nordic market	ka.	# 1 in electricity distribution in the Nordic market	# 1 in electricity sales in the Nordic market	A leading power company in western Siberia and Urals

# Financial summary

Operating profit excluding non-recurring items, fair value changes of derivatives not getting hedge accounting and nuclear fund adjustment.

Comparable operating profit plus profit from associated companies divided by comparable net assets.

## Key financial figures

EUR million or as indicated	2008	2007	2006
Sales	5,636	4,479	4,491
EBITDA	2,478	2,298	1,884
Operating profit	1,963	1,847	1,455
Comparable operating profit	1,845	1,564	1,437
Profit for the period, equity holders	1,542	1,552	1,071
Capital employed	15,911	13,544	12,663
Interest-bearing net debt	6,179	4,466	4,345
Net debt / EBITDA 1)	2.5	2.2	2.3
Return on capital employed, % 1)	15.0	14.0	13.4
Return on shareholders' equity, %1)	18.7	15.8	14.4
Capital expenditure	1,108	655	485
Gross investments in shares	1,516	317	910
Net cash from operating activities	2,002	1,670	1,151

# Key figures by segment

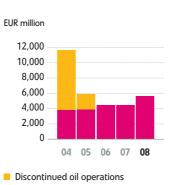
			Sales	Comparable operating profit		ng profit	Comparable RONA%		
EUR million or as indicated	2008	2007	2006	2008	2007	2006	2008	2007	2006
Power Generation	2,892	2,350	2,439	1,528	1,095	985	28.0	18.9	17.4
Heat	1,466	1,356	1,268	250	290	253	7.3	9.2	9.2
Distribution	789	769	753	248	231	250	8.2	7.6	8.3
Markets	1,922	1,683	1,912	-33	-1	-4	-15.3	-0.6	-0.8
Russia	489	-	-	-92	-	-	-3.8	0.0	0.0
Other	83	81	78	-56	-51	-47			
Eliminations	-2,005	-1,760	-1,959	-	-	-		•	
Total	5,636	4,479	4,491	1,845	1,564	1,437			

## Share key figures

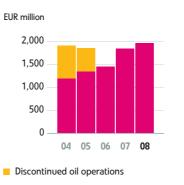
EUR or as indicated	2008	2007	2006
Earnings per share	1.74	1.74	1.22
Cash flow per share	2.26	1.88	1.31
Equity per share	8.96	9.43	8.91
Dividend per share	1.001)	1.35	1.26
Payout ratio, %	57.5 <sup>1)</sup>	77.6	103.3
Dividend yield, %	6.6 <sup>1)</sup>	4.4	5.8

<sup>&</sup>lt;sup>1)</sup>Board of Directors' proposal for the Annual General Meeting in April 2009.

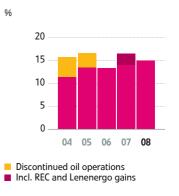
# Sales



# Operating profit



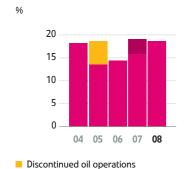
# Return on capital employed



<sup>&</sup>lt;sup>1)</sup>Adjusted for REC and Lenenergo gains in 2007.

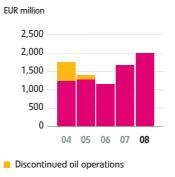
<sup>•</sup> Read the full set of key figures including definitions on pages 169–175.

# Return on shareholders' equity

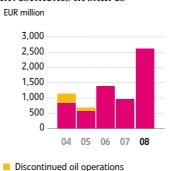


■ Incl. REC and Lenenergo gains

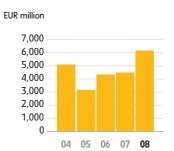
### Net cash from operating activities



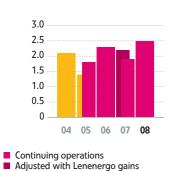
### Capital expenditure and gross investments in shares



## Interest-bearing net debt

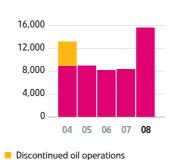


# Net debt / EBITDA



Total, incl. discontinued oil operations

# Number of employees



Share quotations 2004-2008



- Fortum (Neste Oil spin-off adjusted)
  DJ European Utilities
  OMX Helsinki Cap

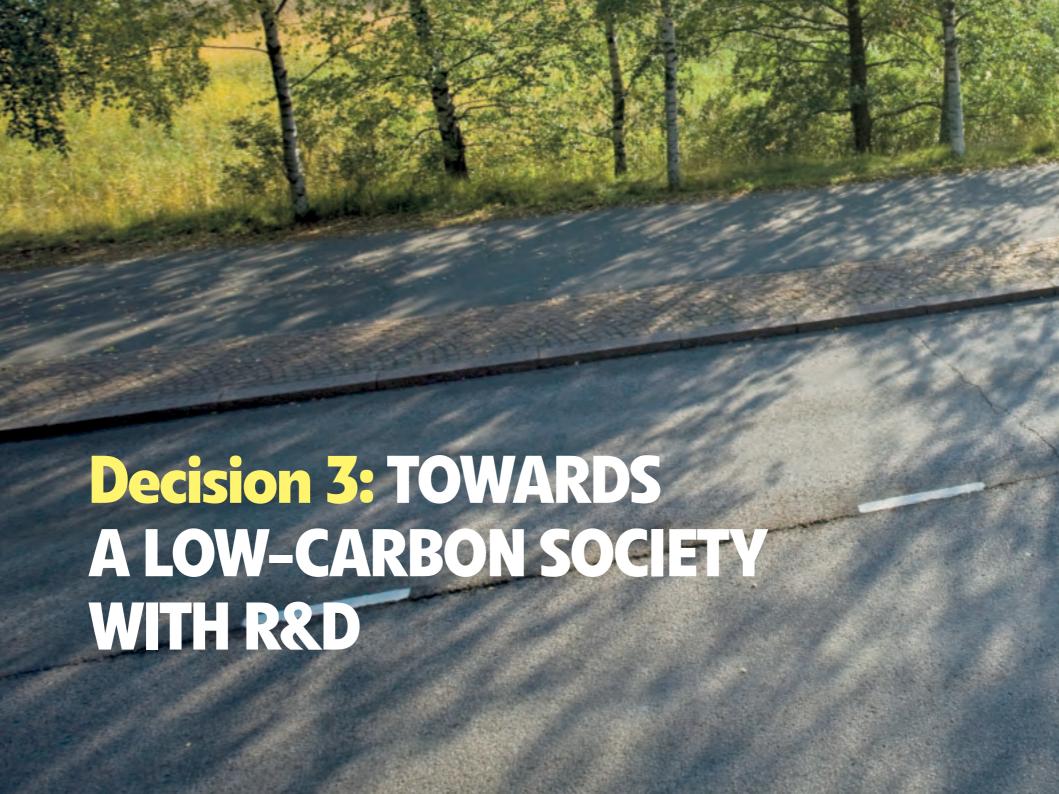






# Decision 2: DEDICATION TO A SUSTAINABLE PRODUCTION PORTFOLIO









# Chapter 1

# Fortum in 2008

Feb

Jan



18/1 Fortum joins Swedish wave power development project

22/1 Fortum and TVO launch a joint project to develop a CO2 capture system for Meri-Pori power plant in Finland

30/1 Fortum selected on 'The Global 100 Most Sustainable Corporations' list

> 11/2 Fortum acquires Jelgavas Kogeneracija heat company in Latvia

20/2 Fortum and TGC-1 agree on the largest-ever trade of CO<sub>2</sub> emission reduction units in Russia



29/2 Fortum acquires Russian TGC-10

Mar

May Apr

14/3 The Market Court of Finland: Fortum not in a dominant market position

> 3/4 Environmental Impact Assessment report for the third nuclear power plant unit in Loviisa to the Finnish Ministry of Employment and the Economy

14/4 Groundbreaking at Suomenoja power plant in Finland

14/4 Groundbreaking at Czestochowa power plant in Poland



15/4 Fortum and Stockholm partner to enable large-scale adoption of electric cars

Jul Jun Aug



11/6 Groundbreaking at TGC-10's new Nyagan power plant in Russia

17/6 Fortum investigates large-scale wind power generation in Bay of Bothnia, Finland

18/6 Fortum and Hafslund Infratek to combine infrastructure operations

18/6 Excellent results in CO<sub>2</sub> capture demonstration in Stockholm

27/6 Fortum decides to build a new power plant in Pärnu, Estonia

> 16/7 Fortum decides to invest in research and development through cleantech funds

Sep Oct Nov

3/9 Fortum decides to build a new biomass-fuelled heat plant in Hanko, Finland

22/9 Fortum's climate strategy ranked among the best in the world



30/9 Joint Implementation in TGC-10 vields Fortum 1.5 million tonnes of CO<sub>2</sub> emission reduction units

Dec





18/12 Fortum offsets air travel by supporting wind power projects in China

**1/10** Fortum supports Clean Baltic Sea project with a considerable contribution



21/10 Fortum and Espoo partner to enable large-scale adoption of electric cars

22/10 Fortum divests its share in Jyväskylän Energiantuotanto Oy, Finland

# Interview with the President and CEO

In 2008, Fortum took a big step into the Russian market with the acquisition of TGC-10. Fortum consistently implements its strategy also as the global economy declines, President and CEO Mikael Lilius describes the past year.

BACKBONE OF OPERATIONS: SUSTAINABILITY In 2008, four key decisions underscored Fortum's activities: expand operations in Russia, advance sustainability in the production portfolio, pursue a low-carbon society through research and development, and focus on strong performance and earnings. Why specifically these decisions?

"The common denominator in all these decisions is that they support our goal of profitable growth."

"Acquiring TGC-10 was definitely our most significant decision. Russia is a very interesting market area for us and one in which we have also decades of experience. The Russian electricity market is in the midst of sweeping reforms that will unlock the world's fourthlargest electricity market to new players. We felt that there are good growth opportunities and demand for Fortum's expertise and know-how in Russia. At the same time, TGC-10 has shifted our focus: It is now at the centre of our attention. We are demonstrating that TGC-10 can be integrated successfully, and that it will be an essential part of our success story in the years to come."

"Our decision to emphasise sustainability in our production portfolio and our work towards a low-carbon society reflect our acknowledgement that climate change is one of the biggest challenges in the decades ahead. As a responsible energy company, Fortum wants to be part of the solution,

and, in fact, already 92% of our power generation in the EU is CO<sub>2</sub>-free. At the same time, this challenge contains huge opportunities for a company that is investing in the use, research and development of renewable and emissions-free energy sources and in energy efficiency."

"Strong focus on performance wasn't exactly a new idea for 2008, but in these times of global economic crisis it is even more topical. A company must succeed and stay in good shape at all times so that it can invest in future opportunities once the time for new investments re-emerges."

# How would you characterise Fortum's financial performance in 2008?

"Our overall results were good and, operationally, it was the best year ever, even though the operating environment was very challenging. It must be noted, however, that there is also room for further development under the good overall results. Many units have areas of improvement that must be addressed specifically with internal measures."

# How did the global financial crisis affect Fortum in 2008 and what are its impacts on Fortum's strategy?

"Towards the end of the year, the recession affected also Fortum as commodities prices and electricity consumption decreased. However, the hedg-

ing of Power Generation's electricity sales smooths the fluctuations, and we have also increased the hedge ratios for 2009–2010. Fortum is in good financial shape to face difficult times – our success in previous years helps us a lot."

"The financial crisis doesn't affect Fortum's strategy. Our view of where we want to go and what kind of company we want to be has not changed. However, the situation can affect the pace at which the strategy is executed. Instead of pursuing growth, we are now ensuring that Fortum will remain in a financially sound shape through the crisis."

# How did the Nordic and European energy markets develop in 2008?

"The development continued towards a pan-European electricity market. The advancement of the EU's internal market package and the EU member countries' approval of the climate package in December were milestones on this path. Fortum has supported the development of the Nordic electricity market for years, and we believe that ultimately there will be a single, open European market. Fortum advocates and supports this development, and we are also preparing to operate in such an environment. The shared climate targets reduce carbon dioxide emissions by 20%, improve energy efficiency by 20% and increase the share of renewables in final energy consumption to 20% by

CEO'S REVIEW



2020 – are something that the EU, the Finnish government and Fortum are committed to realising."

How will the energy markets develop in upcoming years? Are there any significant changes or challenges ahead? "We believe that the Russian electricity market and power market reform will continue to develop, and wholesale power prices consequently will be deregulated in 2011. So far, everything has progressed according to plans."

"We also trust that development of a common European electricity market will continue. Construction of transmission connections within the Nordic countries and between the Nordic countries and Central European countries seems to have gained new momentum. The EU Commission elevated the integration of the Baltic countries to the rest of the European electricity markets as one of the most important goals. At the same time, the Commission has encouraged investments in transmission grids as a way to stimulate the economy and proposes that EUR 100 million from the EU stimulus package is allocated to Estlink 2, the planned second undersea power cable between Finland and Estonia."

"As the markets integrate, also national regulations should be in line with each other. This is the only way to avoid distortions in competition. In integrated markets, national support mechanisms for renewable energy, for example, lead to a downright support scheme competition. In this kind of situation, investments are made where the most support is given, not where it would be most feasible to make the investments in terms of, say, wind conditions. Particularly in the Nordic countries, it would be natural to adopt a common support system, thanks to the common electricity market. It doesn't matter in which country new capacity is generated, the electricity is available to all Nordic consumers."

### Sustainability is a central component in all Fortum's operations. How was it visible during the year in review?

"We want to be a forerunner in sustainability, but we also see it as a business opportunity. Sustainability is the backbone of Fortum's strategy, and it must be reflected in all our activities. Operating in Russia creates a new challenge to this, because fossil fuels are an integral part of Russia's energy system. However, Fortum has only one operating model under which it operates everywhere, including in Russia. We are going to be a forerunner in sustainability also there."

"For us, research and development, too, is an essential part of sustainability. In practice, this means for example, developing a recharging network for electric cars, testing carbon capture at our power plants and investing in tomorrow's climate-benign energy technologies such as wave power. We did all this in 2008."

"Sustainability also means offering our customers the kinds of products and services that take climate issues into consideration. It is also important that all Fortum work sites are safe environments for our employees. For example, TGC-10's employees were included in Fortum's safety management programme already last year."

# What are Fortum's goals, success factors and outlook for 2009?

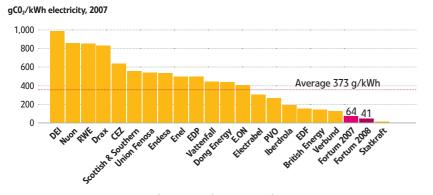
"It is important to complete the projects that have already been started and to focus on doing a good job with the current operations. At this moment, we aren't really pursuing anything new because there is already plenty of work on the agenda. We want the Russian acquisition to be a successful part of Fortum."

"One of our goals over the next couple of years is to get a permit for the construction of a third nuclear power unit in Loviisa, Finland. We submitted our application for a decision-inprinciple regarding this with the Government on 5 February 2009. The new power plant unit would strongly support our own and Finland's emissions reduction targets. We have everything in place – from the zoning to the final disposal for spent fuel. We own the area where the new unit would be located, and our project has strong local sup-

port. Fortum is an experienced and strong player in nuclear power. We can implement the Loviisa 3 project without public financial support – only the permit is missing!"

"The first eight years of this decade have been favourable for us. Fortum has a good organisation and, consequently, we are in a good position to weather also the downturn in the economy. I want to thank our employees for the excellent work they do, our partners, whose co-operation we can count on, and our customers, who give us the opportunity to do this work – thank you all."

# Fortum's carbon exposure in the EU among the lowest of European power generators



Source: PWC & Enerpresse, 2008, Changement climatique et Electricité, Fortum.

# Group financial targets

	Target	2008	2007 Adjusted <sup>1)</sup>
ROCE, %	12	15.0	14.0
ROE, %	14	18.7	15.8
Capital structure: Net debt / EBITDA	3.0–3.5	2.5	2.2

<sup>&</sup>lt;sup>1)</sup>Adjusted for REC and Lenenergo gains.

# STRATEGY 1

# Strategy

Mitigating climate change is one of the energy sector's biggest challenges globally. As a responsible power and heat company, we take the challenge seriously, but we also believe that strong commitment to sustainability is a success factor for forerunners.



Fortum's vision is to be the benchmark power and heat company excelling in sustainability. The vision acts as a shared, long-term goal guiding our strategic choices and business development. The vision is also directly linked to Fortum's core purpose: "Our energy improves life for present and future generations." Our core purpose and our shared values form the foundation of our daily activities.

Fortum focuses on the Nordic, Russian and Baltic Rim markets. Fortum is currently the leading company in the Nordic market in electricity sales and distribution and in district heat, and also the second-largest power genera-

tor. In the Baltic Rim countries, we have developed a good platform for future growth, especially in the heat business, and in Russia, our ownership in TGC-10 and the liberalisation of the Russian power market represent a unique opportunity in the coming years. At Fortum, we believe that our profitable growth will continue to be based on a leading position in the power and heat markets, on excellent customer service and on benchmark results.

# Responsibility for the future

Fortum operates responsibly and is mindful of the global and local chal-

# The strategy has been implemented consistently

### Divestment of

- Oil assets
- Non-focus power and heat assets
- Non-core engineering
- Russian distribution (Lenenergo shares)



### Acquisition of

- CO<sub>2</sub>-free generation
- 4,470 MW of Nordic power generation capacity
- Birka Energi
- Growth platforms in Norway, Poland and the Baltic countries
- TGC-10 and shares in TGC-1 in Russia

18 TWh increase in CO<sub>2</sub>-free generation 70% increase in CO<sub>2</sub>-free capacity

+ Read more on page 104.

lenges in energy production and consumption. Fortum offers its customers comprehensive services, is a good corporate citizen and works actively to mitigate climate change.

Sustainability is factored into all our operations. We believe that mitigating climate change is a success factor for forerunners and have worked systematically for years to increase Fortum's CO<sub>2</sub>-free share of production. In Europe, Fortum is one of the leading companies in terms of specific emissions of power production already today, and we have set strict targets for the future both for power and heat production. In Russia, we are committed to increasing the efficiency of our production assets and thus reducing the environmental impacts from our power and heat generation in the coming years.

In line with our vision, we want to participate in the development of a carbon dioxide-free energy system for tomorrow. We are developing carbon capture and storage, researching ways to increase the use of renewable energy sources, and focusing on new nuclear technologies. We are helping our customers improve their energy efficiency, but also developing means to increase energy efficiency through the smart utilisation of electricity, for example in electric cars. Decisions to limit carbon dioxide emissions from company cars and to reduce work-related air travel

### **Compass**

Our vision reflects our strong commitment to performance excellence in all areas of operation. It conveys our belief that mitigating climate change is a success factor for forerunners.

### Fortum's strategy

defines our market area and the elements that will enable Fortum to continue on a profitable growth track also in the future.

Shared values guide the way we work at Fortum as well as how we interact with each other and with our partners and stakeholders.

The Core Purpose summarises the ultimate reason for Fortum's existence.

### Vision

To be the benchmark power and heat company excelling in sustainability

### Strategy

- Fortum focuses on the Nordic, Russian and Baltic Rim markets as a platform for profitable growth
- Become the leading power and heat company
- · Become the energy supplier of choice
- Benchmark business performance

### Values

- Excellent performance
- Co-operative spirit
- High ethics
- Creativity and innovation

### Core Purpose

Our energy improves life for present and future generations

STRATEGY 7

are examples of internal measures and evidence of Fortum's desire to shoulder responsibility for the climate.

# Competition and markets

index

Fortum's competitiveness is based on efficient operations and a wide customer base. We strive for benchmark performance in all our key activities. Our goal is to become the leading power and heat company and the energy supplier of choice in selected markets.

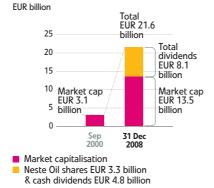
Customer satisfaction is of utmost importance to us, and we strive to enhance our products and services to better meet the needs of our customers. A prerequisite for success is also the continuous development of personnel; we strive to achieve this by improving the quality of leadership and by encouraging Fortum employees to take individual initiative.

Fortum believes that market-based development of the energy markets will lead to increased competition and improved efficiency, thus benefiting societies and individual consumers. Fortum actively promotes this development.

# Fortum's share price since Total shareholder value increase September 2000 EUR 18.5 billion



DI European Utilities



Fortum's share has outperformed its European utility peers during last five years. During 2008, Fortum's share price depreciated approximately 51%, while Dow Jones European Utility index decreased 38% and OMX Helsinki Cap index decreased 50%.

### Strategic agenda defines the areas of focus for the whole organisation

Fortum's strategic agenda supplements the Fortum Compass and defines the focus areas for the organisation to ensure development throughout the company in line with the strategy and vision. All units' plans, decisions and actions shall reflect the strategic agenda as relevant for each unit.

### Growth

Actions related to assessing organic growth opportunities, renewables-based growth, acquisitions in home markets and growth from R&D.

# Contribute to mitigating climate change

Actions related to making sustainability a success factor and developing the energy efficiency business.

### Make Russia a success

Actions related to successful integration of TGC-10 and carrying out the investment programme.

# Promote a market-driven development of the energy market

Actions related to driving Nordic harmonisation and infrastructure development, promoting integration towards continental Europe and ensuring viability of regulated businesses.

# Reinforce focus on performance – target world class

Actions related to strengthening the performance culture and delivering on stretched targets, gaining leadership in operational excellence and driving customer focus and sales culture.

### Engage people

Actions related to improving the quality of leadership on all levels of the organisation and encouraging individual initiative.

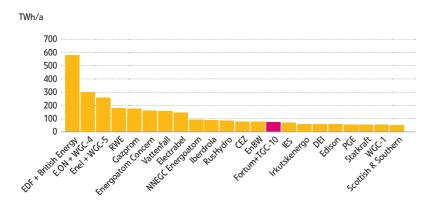
# Chapter 2

FORTUM CORPORATION ANNUAL REPORT 2008

# The world around us

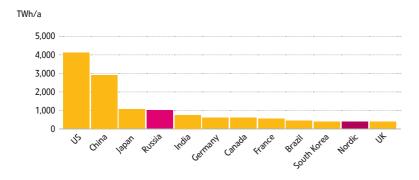


### Largest European and Russian power producers



Source: Fortum, company data 2007 figures. Effects of later structural changes taken into account.

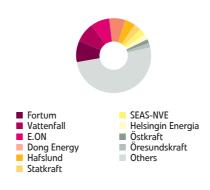
# Russia is the 4th largest power market in the world



Source: IEA 2008, figures for 2006.

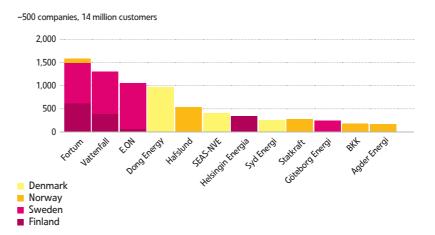
### Largest Nordic retail companies

~350 active companies, 14 million customers



European major utilities became even bigger in 2008. The merger of French Suez and GDF created the second largest utility in Europe in terms of market capitalisation. The largest utility, French EDF, acquired the nuclear producer British Energy. In January 2009, German RWE reached agreement with Dutch Essent to acquire the company. Swedish Vattenfall acquired two wind power companies from the UK and a minority stake in the Polish utility Enea. In addition, plenty of other acquisitions took place. Consolidation is expected to continue also in the future as market liberalisation proceeds.

# Largest Nordic distribution companies, thousand customers



# Market development

During 2008, the energy discussion intensified around global climate change mitigation and the rocketing and plummeting fuel prices. The latter part of the year was shadowed by the global financial downturn. Its impacts could also be seen in Fortum's market area.

ENERGY STRATEGY IN FOCUS

The short-term effects of the global downturn were seen already in the 2008 figures for fuel prices and electricity consumption. The long-term effects are hard to estimate, but the general understanding seems to be that global fuel prices will increase over the long run and that electricity consumption in western Europe, for example, will remain flat or fall for 1-2 years but then return to the moderate growth path seen during the past few years. In the Nordic countries, consumption decreased 5 terawatt-hours (TWh) during the last quarter of 2008 compared to 2007. The long-term electricity consumption growth is estimated

to be fairly moderate, below 1%. In Russia, consumption decreased during the last months of 2008. In the long term, consumption is estimated to grow 3–4% annually during the next 10–15 years.

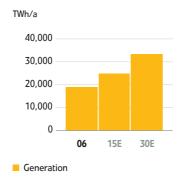
### Global development

The International Energy Agency (IEA) confirmed in its World Energy Outlook 2008 its view of future energy consumption. According to the IEA's reference scenario – a scenario without major changes in policies – the world's energy demand would increase by 45% between 2006 and 2030. This is a slightly lower increase compared to the estimate done a year ago. The decrease is mainly due

to the economic slowdown, increased fuel prices and some policy initiatives. According to the IEA, fossil fuels will continue to dominate the fuel mix globally. These trends will lead to continued growth in energy-related emissions of carbon dioxide  $(CO_2)$ .

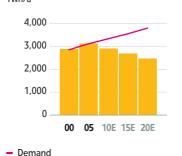
During 2008, preparations for the United Nations climate change conference, taking place in Copenhagen in December 2009, proceeded. It is expected that the post-2012 global climate change policy will be set at this meeting. In late 2008, WWF published a study concluding that the impact of increased CO<sub>2</sub> emissions is even more severe than the IPCC reported in 2007

# Global electricity generation



Source: IEA World Energy Outlook 2008 reference scenario for generation.

# Electricity demand and supply in the European market TWh/a

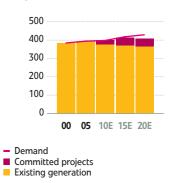


Source: Eurelectric, Eurprog 2007 EU27, Fortum.

Existing generation

# Electricity demand and supply in the Nordic market

TWh/a



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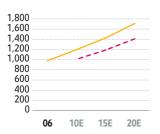
MARKET DEVELOPMENT

and that  $CO_2$  emissions would need to be cut by 80% by 2050 to keep the temperature increase below  $2^{\circ}C$ .

Several actors in the energy field, including the IEA, are calling for concrete action to tackle global climate change, as the consequences for inaction are devastating. The IEA sees that the energy sector has to play a central role in curbing emissions through improvements in efficiency, switching to renewables and other low-carbon technologies, essentially nuclear power and CCS (carbon capture and storage) for fossil fuel-based production. It is often seen that in order to realise needed investments and the desired

# Electricity demand in Russia

TWh/a



General scheme, base case, 2007
APBE, base case, post-crisis, January 2009

General scheme = power sector development target adopted by the government in 2007. APBE = forecasting agency in charge of updating General scheme. development there needs to be a global price for greenhouse gas emission.

As a result of the growth in energy consumption and need for  $\mathrm{CO}_2$  reductions, massive infrastructure investments will be needed. According to the IEA, the projected investment need is even higherthan estimated a year ago and the power sector accounts for over half of these investments. The global financial crisis is not expected to affect long-term investments, but could lead to delays in the short term.

# EU targeting sustainable energy policy

Despite the global financial and economic crisis, the will to take action in combating the rising emissions of greenhouse gases remains both within the industry and with European politicians. Energy strategy and policy, security of supply and market development were heavily on the political agenda during 2008 in the European Union (EU).

In January 2008, the European Commission introduced a comprehensive "Green Package" including the directive proposals for meeting the year 2020 targets to achieve its core energy objectives of sustainability, competitiveness and security of supply. In December, the package was approved by the member states and the European parliament. The target is to by 2020 cut greenhouse gas emissions by 20%, establish a 20%

share for renewable energy and improve energy efficiency by 20%. The revised European Emission Trading System (ETS) will apply from 2013 to 2020. The revised directive establishes auctioning of the emissions allowances from 2013 in principle, but includes several exceptions especially for energy-intensive industry. Contrary to emissions trading, where the main aim of the revision was to establish a harmonised EU-level scheme, targets for renewable energy are national. Trading between the member states – as well as common support schemes for renewable energy together with several member states - has been made possible, however.

The EU member states have agreed to establish an EU-wide internal market for electricity. To finalise this development, the Commission put forward the third legislative package in September 2007. In October 2008, the Council reached a political agreement on the legislative package concerning the internal energy market and the final adoption is expected to take place during the first half of 2009. As a proactive action related to this package, Transmission System Operators (TSOs) for electricity from 34 European countries founded a new association in December 2008: European Network of Transmission System Operators for Electricity (ENTSO-E). The association aims to promote reliable and efficient pan-European and

regional markets. ENTSO-E will work with a clear mandate based on full consultation with the European Commission, regulators and stakeholders.

In October, the European Commission adopted its second Strategic Energy Review focusing on the security of energy supply. This review is particularly important, as it will guide the energy policy of the new Commission starting in summer 2009. The report underscores the importance of a functioning internal electricity market as the number-one measure in improving the security of electricity supply. From the Nordic perspective, the strong push to better integrate the Baltic countries and to form one common electricity market around the Baltic Sea as an intermediate step towards an EU-wide market is of great importance. The Baltic countries are facing electricity supply challenges in the coming years with the gradual replacement of a production fleet that, for example, uses coal slate as fuel and the closing of Ignalina nuclear power plant combined with the estimated demand development.

### Nordic energy policy development

In March 2008, the IEA published a country review on the Finnish energy policy. The report commended Finland for a balanced and realistic energy policy, but also raised concerns around security of supply. For example, the IEA

points out that the current policies on regulated peak reserve power and peat subsidies do not enhance long-term energy security. In the future, more attention should be paid to strengthening the long-term policy measures related to energy efficiency.

In September 2008, the Nordic energy ministers approved a plan for accelerating Nordic power market development. The roadmap includes, for example, enhancement of interconnections and harmonisation of permitting procedures. There was also a suggestion for the Nordic TSOs to study the dividing of the Nordic market into a larger number of bidding areas, which can lead to price areas. This suggestion has raised some concerns in Finland and Sweden, in particular from the retail market point of view. More price areas would discourage retailers acting outside their own local areas, hence decreasing competition.

In November 2008, the Finnish government published its new climate and

energy strategy aiming at reducing energy demand growth and at increasing the share of renewable-based energy in final energy consumption to 38% (up by some 9 percentage-points), in line with the EU burden sharing. The strategy aims to ensure the competitiveness of energy-intensive industries also in the future and targets that Finland's own production capacity should cover the peak consumption. The strategy is also preparing for the building of additional nuclear generation.

Discussion on the future energy policy intensified in Sweden towards the year-end 2008. It culminated in the coalition government's agreement early February 2009. The government commits to continue the green certificate scheme to support the investments in renewable electricity production with an increased target, it is ready to accept the replacement of the existing nuclear plants one-to-one and it sets a target to get rid of fossil fuels in road transporta-

tion, with the help of biofuels and electric vehicles, by 2030. The government also reiterated its commitment to development of an EU internal energy market, the use of market-based steering mechanisms and harmonisation.

### Nordic wholesale market integrating towards continental Europe

The common Nordic wholesale electricity market has been in place for almost a decade. The focus in further development of the wholesale market is to increase the integration towards a continental European market. In March 2008, Nordel published a Nordic Grid Master plan recommending some internal grid reinforcements within the Nordic market. The new recommendations focused on strengthening the connections in Norway and between Norway and Sweden. The report also included suggestions on studies for multiregional interconnections from the Nordic region to the Netherlands, Germany, Poland and the Baltic countries.

A concrete step in further integration of the Nordic and the continental European markets was taken in May, when the 700-MW NorNed cable connecting Norway and the Netherlands started its commercial operation with daily capacity auctions. With the help of this new connection, the net export volume from the Nordic market to continental Europe (Germany, Poland and the Netherlands) reached 15 TWh in 2008, 67% higher than the 9 TWh in 2007.

Market coupling is seen as an efficient means to integrate and harmonise different regional electricity markets. Various preparations are ongoing in Northern and Continental Europe for harmonising the cross-border trading. Market coupling between Nord Pool and EEX was tested in September but, due to errors and problems in the calculation system, the market coupling was stopped. A solution to the problems is expected during the first part of 2009.

Development of the retail market in the Nordic countries has focused on giving customers a choice in their electricity pricing in the form of different contract types. Sweden is already implementing an automatic metering solution to the retail market: the solution will enable consumers to follow their electricity consumption more closely and also more actively participate in the market. Similar solutions are under preparation also in Finland and Norway. Despite some common development, the retail markets in the Nordic countries still have many national characteristics.

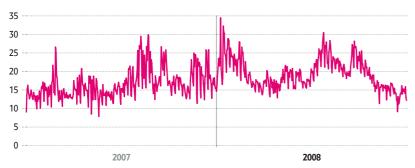
# Russian power market reform proceeds

The Russian power market is the fourth largest in the world, with annual production above 1,000 TWh. During the past few years, Russian consumption has grown by as much as 4% annually. The global economic slowdown has also impacted the Russian power market. According to preliminary statistics, the electricity consumption in Russia in 2008 increased by about 2% compared to 2007.

During the first nine months of 2008, electricity consumption had increased by over 5% compared to the first nine months of 2007, but the consumption turned to a rapid decrease during the last three months.

The Russian power sector reform, which was started in 2003, has pro-

# Electricity price<sup>1)</sup> in day-ahead market in European part of Russia Eur/MWh



<sup>&</sup>lt;sup>1)</sup>Excluding capacity tariff. Source: ATS.

gressed according to plans. The reform targets to secure the vast future investments needed in the power sector and to increase sector efficiency. All territorial generating companies (TGC) and all but one of the wholesale generation companies (WGC) have been privatised, establishing the basic structure for competition. RAO UES, the former monopoly in the power and heat sector, ceased to exist as of 1 July 2008. Its regulatory functions were divided between different governmental bodies. A Market Council, where all wholesale electricity market participants are members, was set up. The Market Council represents a non-commercial partnership, the primary task of which is to develop an efficient system of electricity wholesale and the capacity market.

The day-ahead market for electricity is in operation and all electrical energy supply and demand is matched through the spot market. The share of power sold at a competitive price is increasing gradually. At the beginning of 2008, 15%

of the power was sold at competitive prices, on 1 July, the share increased to 25% and further to 30% at the beginning of 2009. The first phase of the capacity market was launched at the beginning of July. At that time, 25% of the capacity was sold in competitive selection. The capacity market continues to be liberalised at the same pace as the electricity energy market. The rules for the long-term capacity market, taking place from 2011 onwards, are under preparation. The capacity market is established to provide system security over the long term. The launch of the financial derivatives market is planned for 2009. The wholesale power market is to be fully liberalised by 2011. Sales to households will remain regulated even after 2011.

The prices for liberalised electricity on the Russian power exchange ATS fluctuated during the year. In 2008, the average price for electrical energy in the European and Urals part of Russia was RUB 700 per MWh (2007: 570).

# Fortum's positions

The need for energy and the importance of energy affairs are constantly increasing in our society. Climate change, security of supply and the cost of energy are already every-day conversation topics.

# In particular, Fortum wants to promote:

- Open, competitive and transparent energy and electricity markets both on wholesale and retail levels.
- Market-based and harmonised steering mechanisms to protect the environment.
- A political and legal framework that encourages investments in new energy production.
- Secure and cost-efficient electricity transmission and distribution facilitating well functioning markets.
- Good quality and neutrality in customer services in sales and distribution of electricity and heat.
- · Efficient use of electricity and heat.

• Read more on www.fortum.com/public\_affairs.

## Generation and consumption in the Nordic countries and Russia

### Electricity consumption

TWh	2008	2007	
NORDIC	395	401	
Finland	87	91	
Sweden	144	147	
Norway	128	127	
Denmark	36	36	
RUSSIA	1,019	1,001	

### Power generation by source in the Nordic area

TWh	2008	2007	2006	2005
Hydro	225	215	192	222
Nuclear	83	87	87	92
Other thermal	77	85	97	73
Wind	10	10	8	8
Total	395	397	384	395
Net import <sup>1)</sup>	<b>–1</b>	3	11	-1

<sup>1)</sup> import-export

### Power generation by source in Russia

TWh	2008	2007	2006	2005
Hydro	166	179	173	173
Nuclear	164	160	156	149
Other thermal	706	676	665	629
Total	1,036	1,015	994	951

# Chapter 3

FORTUM CORPORATION ANNUAL REPORT 2008

# Investing in the future

Fortum's long-term vision of the world's energy system 2020–2100



# 2020

- Today's infrastructure and production assets widely used because of long life cycles
- Significant ongoing construction of new nuclear power
- Share of wind power and biomasses has increased significantly, solar power somewhat
- Large-scale testing of CCS technologies, commercialisation ongoing
- Electric and plug-in hybrid vehicles becoming mainstream

# 2050

- Renewables generate almost half of the electricity – nuclear power one quarter
- In electricity production, solar power has caught up with wind, wave energy is growing strongly, the relative share of biomasses has decreased
- CCS in wide commercial use (coal-, gas- and biomass-fired plants)
- Energy efficiency improvements have significantly reduced CO<sub>2</sub> emissions
- Fossil traffic fuels mostly replaced with electricity, hydrogen and nonfood-based biofuels

# 2100

- The system is based on clean electricity and a clean energy carrier, e.g. hydrogen
- Hydrogen is converted into energy using fuel cells
- Renewables very significant: wind power globally, solar and wave power based on local conditions. Natural variations are balanced with hydrogen production
- Biomass used mainly as a food source, building material and industrial raw material
- Fusion energy in commercial use
- Advanced fission technologies, e.g. generation IV nuclear power plant with integrated hydrogen production

Energy companies shoulder great responsibility. They must secure adequate power and heat generation capacity, reliable transmission and high quality services for industrial clients and households alike. At the same time, they play a key role in mitigating climate change, as the majority of greenhouse gases are generated in the production and consumption of energy. Decisions made today affect generations to come, as the average lifetime of a power plant is 40–60 years.

For Fortum's investments, the starting point is always an economically viable balance between increasing capacity demand and emissions reduction targets. Fortum wants to develop and apply new technologies to support the development towards a carbon dioxide-free energy system. All means are needed – it is not just a matter of technology. The most effective way to reduce environmental impacts is to use energy efficiently.

# Investments

In the midst of the global financial turmoil, Fortum retained its financial flexibility and continued committed, ongoing investments in new generation capacity as planned. The acquisition of the Russian TGC-10 increased Fortum's power generation capacity by 3,000 MW and doubled its heat generation capacity.

SECURING PROFITABLE GROWTH AND FINANCIAL INDEPENDENCE The global economic climate deteriorated dramatically and at an unforeseen pace during the latter part of 2008. In Fortum's main markets, the economy slumped from a steady growth track to recession in just months. At year-end, the consensus in the market was that the financial crisis will dampen overall economic growth at least for 2009–2010. Under these circumstances, maintaining financial flexibility is a priority for Fortum.

# Electricity demand will continue to grow

Despite the downturn, global consumption of electricity is expected to grow by

some 80% by 2030. New power generation capacity is needed to fulfil growing demand and to replace old capacity.

In the Nordic countries, demand is expected to grow by less than 1% annually. In addition to meeting the growing demand, new investments are needed to cover retiring generation. Committed plans for new generation capacity in the order of 40 TWh by the year 2020 are in place in the Nordic market. Despite current plans and ongoing projects to increase capacity, new decisions on additional generation are still needed to fill the supply gap estimated for 2020.

In Russia, electricity consumption is expected to grow by 3–4% annually dur-

### New capacity, except nuclear, will require over 60 EUR/MWh power price



Source: Nord Pool 2014 terms. Large variations in cost of new hydro and wind due to location and conditions.

FORTUM CORPORATION ANNUAL REPORT 2008 INVESTMENTS 31

ing the next 10–15 years. In the heavily industrialised and other high growth areas, electricity consumption has grown as much as 5–7% annually in the past few years. Extensive investments in new power generation are needed to match the demand growth and to replace retiring capacity. However, in the short term, electricity demand will be affected by the global economic slowdown.

Read more on pages 26–27.

At year-end, there was wide uncertainty about the impact of the global financial crisis on investment costs. As a responsible market player in an increasingly challenging investment climate, Fortum carefully analyses opportunities to invest in new generating capacity and assesses new production technologies within its R&D.

# Strategic step in the Russian power market

In 2008, Fortum took a major strategic step by acquiring the Russian Territorial Generating Company 10 (TGC-10) that operates in the developed oil- and gas-producing Urals and western Siberia regions. At year-end 2008, Fortum's ownership in TGC-10 was approximately 93%, including shares owned by TGC-10's fully-owned sub-

sidiary. The total consideration for Fortum's ownership in TGC-10 at year-end amounted to approximately EUR 2.5 billion, including the EUR 1.3 billion new share issue Fortum subscribed to in March 2008.

+ Read more on pages 64–65.

# Extensive Russian capacity investments

TGC-10 has a committed 2,300 megawatt (MW) investment programme. Once completed, the programme will have increased TGC-10's power generation capacity by approximately 70% from the current 3,000 MW to 5,300 MW. The investment programme covers

seven units; capacity will be increased by upgrading two existing units, building a new unit at two existing plants and by constructing a new power plant with three units.

Execution of the investment programme progressed well during 2008. Building of the new Nyagan power plant in the northern Urals area started with groundbreaking. Once completed, the power plant will have three 400-MW natural gas-fired power generation units. At Tyumen CHP-2, preparation for the construction of the fifth unit started. Once completed, the natural gas-fired unit will have a power generation capacity of 420 MW. Construction of the second unit at Tyumen CHP-1, with 190-MW power generation capacity and the third unit at Chelyabinsk CHP-3, with 220-MW power generation capacity, also began during the year. At Tobolsk CHP, work on the installation of the bottom turbine operating in condensation mode are ongoing. The new turbine will increase the plant's power generation capacity by 210 MW.

The total estimated value of the programme at year-end 2008 for year 2009 and onwards was EUR 2.0 billion. However, the economic slowdown is likely to further affect the Russian power demand-supply balance. Fortum and other power companies in Russia are currently in the process of analysing the impacts of the changed eco-

### Fortum's European investment plan as of December 2008

- Olkiluoto 3, Finland (nuclear)
- Nuclear upgrades, Sweden
- Suomenoja, Finland (gas-CHP)
- Järvenpää, Finland (biomass-CHP)
- Brista, Sweden (waste-CHP)
- Refurbishing of existing hydro assets
- Wind power, Sweden
- Częstochowa, Poland (biomass/coal CHP)
- Tartu, Estonia (biomass/peat CHP)
- Pärnu, Estonia (biomass/peat CHP)

Total ~1,200 MW

# 80% CO<sub>2</sub>-free

In addition

- · Automated meter management
- Security of supply in distribution

nomic conditions and their potential impact on the timing of investment programmes.

# Flexibility in the Nordic investment programme

At year-end 2008, Fortum had a 1,200-MW planned investment programme in the Nordic countries and Baltic Rim area. The flexibility of the programme is retained and consequently the level of annual investments can be adjusted depending on the overall economic conditions and availability of funding at a reasonable cost. The importance of flexibility is further heightened due to the fact that building new generation, except for nuclear power, was estimated to require a long-term power price of over EUR 60 per megawatt-hour (MWh) at year-end, while the average Nordic power price in 2008 was EUR 44.7 per MWh. At year-end, forward prices for both 2009 and 2010 were EUR 38 per MWh.

During the year, Fortum's biggest own ongoing capacity investment in the Nordic area was the construction of the natural gas-fired Suomenoja CHP plant in Finland. The project has proceeded as planned and the new unit will be taken into use during 2009. In addition, a number of new biomass-fired heating plant projects were started in Finland during the year.

In Sweden, Fortum continued its hydro refurbishment and grid reliabil-

ity investments as well as the roll-out of new smart meters (Automated Meter Management, AMM). At year-end 2008, about 800,000 meters out of 835,000 were installed. Fortum also completed the connection between the southern and central district heating grids in Stockholm and started the investment in flue-gas condensing in its Värtan power plant. This will increase the production of district heating without any increase in fuel usage.

# Strong nuclear agenda

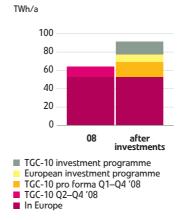
In 2007, Fortum commenced an environmental impact assessment (EIA) process for a new 1,000-1,800 MW nuclear power unit possibly to be built adjacent to the existing two units at the Loviisa nuclear power plant. The EIA was completed in 2008 and indicates that a new unit can be built on Hästholmen island in Loviisa. Consequently, on 5 February 2009, Fortum submitted to the Finnish Government an application for a decision-in-principle concerning the construction of the new nuclear power plant unit. According to plan, the new unit will be operational in 2020. Its designed service life is at least 60 years. The application presents five different plant unit alternatives, all of which will fulfil stringent Finnish safety standards.

In addition, Fortum is participating in the project to build the fifth

nuclear power unit (Olkiluoto 3) in Finland with a share of approximately 25%. The AREVA-Siemens Consortium, the turn-key supplier of Olkiluoto 3, has announced that the start-up of the unit will be postponed until 2012, while it was earlier anticipated to take place during 2011.

In Sweden, capacity increases at the Forsmark and Oskarshamn power plants in Sweden are planned to be carried out during 2009–2014. As a minority owner, Fortum is participating in these upgrades. Fortum's share of the planned capacity additions is estimated at 290 MW. Some of these projects still require licenses. The planned upgrad-

# Fortum's power generation



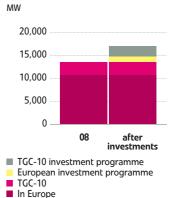
ing of Oskarshamn 3 in 2008 was postponed to 2009 due to component delays.

Read more on page 56.

# New investments in the Baltic Rim area

In addition to investing in new capacity in the Nordic market and Russia, Fortum carries out investments in Poland and the Baltic countries. Over the year, Fortum had two major ongoing projects; the construction of the Tartu CHP plant in Estonia and the construction of the Częstochowa CHP plant in Poland. The Tartu plant is biomass- and peat-fired and will be taken into use in 2009. The Częstochowa plant uses

# Fortum's power generation capacity



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**INVESTMENTS** 

coal and biomass for fuel and will begin production in 2010.

In June 2008, Fortum announced its decision to build a new CHP plant in Pärnu, Estonia. The power plant is planned to be operational by the end of 2010. As much biomas fuels will be used as are available in the local market and the remaining fuel-need will be covered with peat.

In February 2008, Fortum signed an agreement to acquire 100% of the shares in Jelgavas Kogeneracija in Latvia. The company provides district heating to the city of Jelgava. Heat is produced in natural gas-fuelled heating plants and the annual heat sales total 200 GWh.

# Profitability of investments first priority

Fortum's capital expenditures and investments in shares in 2008 totalled EUR 2,624 (2007: 972) million. Investments, excluding acquisitions, were EUR 1,108 (2007: 655) million.

The annual level of Fortum's capital expenditures, including investments in Russia, is estimated to be within a range of EUR 1.0–1.5 billion during 2009–2013.

During 2009, two new CHP plants will be commissioned, bringing volume and earnings growth. New, future capacity investments will be considered carefully with profitability as the first priority.



Plant			Generation capacity (MW)	
	Fuel type	Existing	Planned	Total
Tyumen CHP-2	Gas	755	450	1,205
Tyumen CHP-1	Gas	472	190	662
Tobolsk CHP	Gas	452	210	662
Chelyabinsk CHP-3	Gas	360	220	580
Chelyabinsk CHP-2	Coal, gas	320		320
Argayash CHP	Coal, gas	195		195
Chelyabinsk CHP-1	Coal, gas	149	***************************************	149
Chelyabinsk GRES	Gas	82		82
Nyagan GRES	Gas		1,200	1,200
Kurgan Generation (49%)	Gas	235	***************************************	235
TGC-10		3,020	2,270	5,290

# **Trends**

In order to solve the climate and capacity equation in an economically viable and efficient manner, all current technologies must be utilised and new technologies and solutions developed. From this setting, Fortum sees a number of new trends arising.

DISTRIBUTED PRODUCTION AND ENERGY CONSERVATION Bioenergy will contribute significantly to the achievement of the EU's climate targets by 2020. This is the case particularly in Finland, where the expansion of hydropower has been strictly regulated and the areas suitable for large-scale wind power are limited. The most important biomass fuels for power and heat production are industrial by-products and forest-residuals, like woodchips that can be used either as the main fuel or co-fired with other fuels.

The challenges commonly associated with the use of forest-based biomass are availability and the economic feasibility of transporting the fuel for long distances. To be able to find new ways to utilise forest biomass a number of advanced (second generation) bioenergy technologies are under development.

# Nuclear-CHP and CCS-equipped fossil-fired power plants

While the sun, wind and waves provide an inexhaustible source of energy, their large-scale utilisation is still relatively demanding. For example, just one percentage-point increase in the share of renewables from final energy consumption in Finland would require 1,500 MW of new wind power that equals to 500 new 3 MW-windmills. Therefore, it may be unrealistic to propose that the climate and capacity equation be solved

only with renewables-based power production within the foreseeable future.<sup>1)</sup>

CO<sub>2</sub>-free nuclear power is a good alternative for base-load production, yet it could be more energy efficient. Constructing nuclear plants as combined heat and power plants (CHP) and utilising the cooling water for district heating would help reduce the local environmental impacts and increase energy efficiency significantly. Fortum's planned third nuclear power plant unit in Loviisa will be designed to allow for CHP-production. Also new types of nuclear power plants that utilise the energy content of the nuclear fuel more efficiently than today's reactors are being developed.

World-wide, however, fossil fuels will continue to be the primary source of energy in the coming decades. Consequently, technology is needed to reduce the harmful impacts caused by such plants. Carbon capture and storage (CCS) is a process in which CO<sub>2</sub> created in energy production is captured, liquefied or converted into crystals and permanently sequestered from the atmosphere. Possible storage sites include e.g. depleted oil and gas deposits and saline aguifers in the bedrock. According to a number of energy system scenario studies, CCS will be the single most important technology to reduce CO2 emissions in electricity production in the upcoming decades.

# Distributed energy system

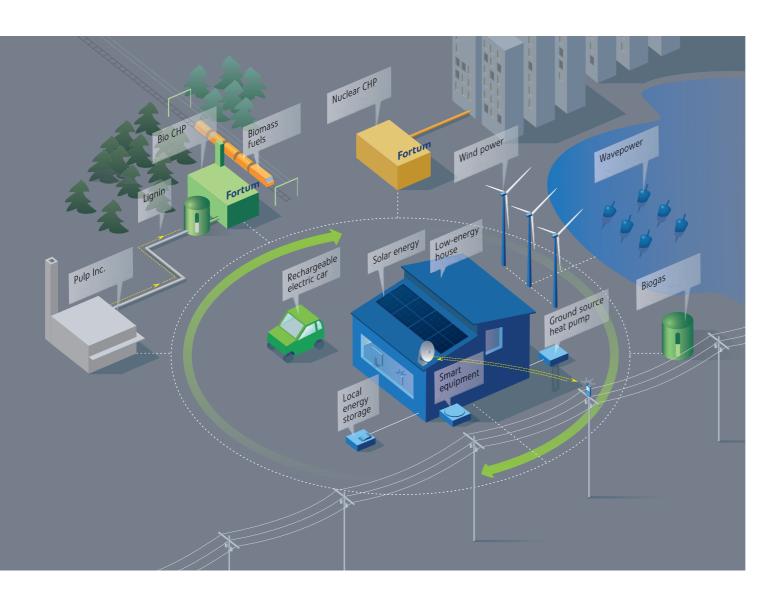
Distributed energy systems are characterised by energy production close to the point of consumption, and by smaller scale production units, compared to large-scale centralised power stations typically of the order of several hundred megawatts. The strong drivers to increase the share of renewables, will also most likely drive towards a more distributed production pattern. For example, in an extremely energy-efficient building (a "zero-energy house"), heating could be accomplished with rather small-scale local solutions or even a small amount of electricity.

Thus, households and other units much smaller than conventional power plants could participate in energy production. Households could, for example, generate electricity for their own consumption with solar panels or small wind power plants. An important feature of this kind of system is that households could feed the surplus electricity to the grid or store it locally for peak-load use. Therefore, this trend would also call for new, smarter ways to manage the grid and for better electricity storage technologies. In a somewhat larger scale, residential areas could, for example, utilise their waste waters for biogas production.

Thermal energy always exists in the

<sup>9</sup> Climate and capacity equation: According to the EU climate targets, Finland needs to increase the share of renewables from final energy consumption to 38% (2005: 28.5%) by 2020. At the same time, new power generation capacity in the Nordic market is required to replace retiring capacity and to cover demand.

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environment and can be utilised as well. Heat in the bedrock can be utilised with heat pumps. There is also usable thermal energy in seas and lakes. Ground source energy from the bedrock can be a good solution for energy production outside areas of district heating networks, especially in cases where cooling energy is needed as well.

#### **Energy efficiency**

Efficient use of energy plays a central role in tomorrow's more distributed energy system. In the Nordic countries, development of low-energy building solutions is an important trend. In low-energy buildings, the energy used for heating is a maximum of one-half of the average consumption of a single-family home. Buildings may also be equipped with smart equipment that optimise energy consumption as well as with real-time metering that enables the residents to see the results of more efficient energy use in their next bill.

Fortum also recognises that many measures to improve energy efficiency increase electricity consumption, which may be a good thing in terms of the total energy consumption and climate impacts. Electricity can replace other, more inefficient or polluting forms of energy: for example, electric engines can bring a three-fold improvement to the energy efficiency of passenger cars.

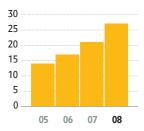
# Research & development activities

Fortum's research and development activities focus on economically viable solutions for a carbon-free future.



#### **R&D** expenditure

**EUR** million



Technology know-how is essential in the development of efficient, reliable and emissions-free energy production. Long-term development of the entire energy system – including the development of efficient smart grids and energy storage solutions – is also important from the perspective of sustainable development and climate change mitigation.

Fortum's long-term goal is to be a completely carbon dioxide-free energy company and, consequently, Fortum's R&D activities are also geared towards this goal. The R&D approach is based on building networks and partnerships with leading research organisations, engineering companies, and equipment and plant suppliers. Fortum also conducts significant in-house research and development in strategic key areas, such as nuclear safety and plant life-cycle management.

## Investments in cleantech funds

In 2008, Fortum added a new dimension to its research and development activities and decided to invest in cleantech venture capital funds in order to contribute to the research and development of environmentally-benign energy technologies. The primary objective is to gain strategic insight into the development of new energy technologies, while at the same time expecting sound financial returns.

Cleantech funds invest in companies that focus on the development of renewable energy production and solutions enhancing energy efficiency, performance and productivity. A central objective is that these technologies reduce energy consumption, waste or emissions.

Fortum's first investment was made in the Canadian Chrysalix Clean Energy Fund. Chrysalix's portfolio includes companies developing fuel cell and LED technologies, fusion and solar energy technologies and lithium batteries for use in applications such as electric cars.

## Fortum's R&D focus areas

- *Enabling growth:* Fortum conducts R&D aimed at the creation of new business opportunities for the company and opportunities to invest in new power and heat production technology.
- Mitigating climate change: Fortum invests in the research and development of energy efficiency, renewable energy sources, nuclear technology and carbon capture and storage.
- Contributing to the development of the long-term non-emitting energy system: Fortum participates in R&D of technologies that can be future breakthroughs in energy production. Fortum also conducts research and

- development that promote emissionsfree energy solutions over the long-
- Performance excellence in current operations: Fortum ensures that it has access to all the know-how it needs to be the benchmark company in power and heat production and distribution.

Technologies that have the most potential in terms of climate change mitigation are prominently represented in Fortum's R&D. Group-wide R&D programmes in 2008 focused on carbon capture and storage, new bioenergy technologies and development of the longer-term, sustainable energy system. Nuclear R&D also continues to be strongly represented in the overall R&D portfolio.

#### Carbon capture and storage: Launch of the Meri-Pori project

Carbon capture and storage (CCS) is a process in which carbon dioxide in fossil fuel-based energy production is captured, compressed or liquefied, transported for storage, and permanently isolated from the atmosphere. According to several analyses, CCS will be the single most important way to reduce carbon dioxide emissions in electricity production in the upcoming decades. Fortum is participating in numerous development projects involving all phases of

RESEARCH & DEVELOPMENT

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the CCS process. In Sweden, carbon capture was successfully tested in 2008 at the Värtan power plant in Stockholm in collaboration with the Norwegian com-

pany Sargas.

**FORTUM CORPORATION ANNUAL REPORT 2008** 

Fortum is also planning for a CCS solution for the Meri-Pori plant together with Teollisuuden Voima. The goal is to have Meri-Pori approved as one of the large-scale demonstration projects of the EU flagship programme that will be launched in 2015. The Meri-Pori project was launched in 2008 and during the year, an analysis of applicable technologies took place. More detailed planning on how the chosen technology can be retrofitted into the plant processes will be launched in early 2009. The objective is to make an investment decision in 2011 and thus have the system operational in Meri-Pori in 2015.

#### Electricity in transport: New development activity to accelerate electric-powered motoring

Replacing fossil traffic fuels with electricity is up to three times more energy efficient and significantly helps to reduce CO<sub>2</sub> emissions if the electricity is produced with low- or zero-emissions technologies. Fortum wants to accelerate the penetration of plug-in hybrid and electric vehicles when car manufacturers introduce them in the upcoming years. Accordingly, in 2008, an assessment of the technology status of plug-in hybrid and electric cars as well as of the changes that the introduction of electric cars would require in the electricity distribution infrastructure was launched. For practical testing of the cars and different charging solutions, Fortum also

started extensive co-operation projects with the cities of Stockholm in Sweden and Espoo in Finland.

#### Wave energy: Fortum joined the Lysekil project

Fortum and Uppsala University signed a collaboration agreement in 2008 whereby Fortum will invest in wave power research and development in Sweden and will acquire a share of the university's Islandsberg wave power park. Located off the coast of western Sweden, the Islandsberg test site has 10 wave power units, two of which Fortum acquired. The test site is based on technology developed at Uppsala University. It produces electricity from the movement of surface waves using a buoy coupled with a linear generator, the solution is specifically developed for Nordic wave conditions. The installation of the test site started in 2008, and upon completion the total output of the 10 units will be 100 kW.

Already in 2007, Fortum invested in AW-Energy, a Finnish company developing technology that harnesses the energy in near-shore bottom waves. Trials with this technology continued over the year in Peniche, Portugal.

#### Impact through networks: Supporting university research and the establishment of Cleen Oy

Achieving an emissions-free energy system will require new technological breakthroughs, which may arise from basic research. In this respect, close collaboration with universities and research facilities is important for Fortum.

# In 2008, Fortum engaged in university research in many ways:

- Fortum participated in the Academy of Finland's SusEn (Sustainable Energy) research programme as well as the programme's steering group and selected project support groups.
- Fortum participated in Helsinki University of Technology's new research programme and in steering group work of the energy projects. The programme is one of the main activities linked to the 100th anniversary of Helsinki University of Technology.
- Fortum made a EUR 2 million donation to the Fortum Foundation, which annually grants about EUR 700,000 in scholarships for graduate and postgraduate studies. Focus areas are energy production and consumption and traffic-related energy solutions.
- Fortum decided to donate a five-year professorship in environmental and energy law to the University of Helsinki's Faculty of Law. Fortum also decided to contribute to funding a professorship specialising in Russian energy policy to be established at the University of Helsinki.
- Through the Swedish Elforsk, Fortum has participated in Swedish university research in key areas for the company (e.g. hydropower-related research).
- Fortum extended the co-operation with Royal Institute of Technology, Stockholm, through the supervision of thesis work and arranging seminars for engineering programmes within Chemistry and Machinery.
   Furthermore, Fortum supported doctoral students in the areas of carbon capture and storage and cooling storage.

Cleen Oy (Cluster for Energy and Environment) is one of the strategic centres for science, technology and innovation established in 2008 in Finland based on the initiative from the Finnish Science and Technology Policy Council. Developing the business sectors in which these centres operate has been deemed vital for Finland in the upcoming years. Cleen's mission is to create competitive clusters and collaboration within Finnish energy and environmental expertise. Fortum was very actively engaged in the work to set up Cleen, and joined as a large corporate shareholder, it also participates actively in board work.

# R&D expenditures growing

The Group's total R&D expenditure in 2008 was EUR 27 million (2007: 21). The increase in expenses is mainly attributable to new programmes and activities initiated in 2008. Fortum's R&D expenditure in 2008 was 0.5% of net sales (2007: 0.5%) and 0.8% of total expenses (2007: 0.8%). The ratio of R&D expenditure to net sales is above average compared to European power and heat companies.

• Read more on www.fortum.com/ research.

# Chapter 4

**FORTUM CORPORATION ANNUAL REPORT 2008** 

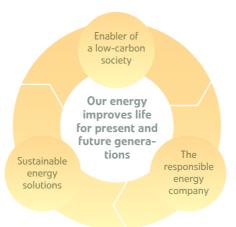
# Sustainability

# Fortum's sustainability goals for 2020

- Market leader in low-carbon products and energy-efficiency solutions
- Successful deployment of climate-benian R&D
- · Among the lowest-emitting energy companies
- Minimal environmental impacts from own activities
- Benchmark company for equal opportunities
- Best safety performance in the sector
- Respected corporate citizen

Performance indicators

# Desired position



Fortum's vision statement "to be the benchmark power and heat company excelling in sustainability" expresses our firm belief that sustainability is a success factor for our business.

In accordance with the vision statement. Fortum revisited and updated its Sustainability Agenda in 2008. The new agenda has three important elements: the desired future position for Fortum, our goals for 2020 and the actions to reach them.

#### The desired position defines our strategic ambitions

We want to:

SUSTAINABILITY

A SUCCESS **FACTOR** 

- Be an enabler of a low-carbon society.
- Be known as the responsible energy
- Provide sustainable energy solutions for our customers.

In order to move towards the desired position, the agenda states intermediate goals for 2020. These goals reflect the most important aspects of sustainability for Fortum and serve as input for the business planning. The new agenda was used for the first time in the business planning process for 2009.

In addition to the desired position and sustainability goals, the business units completed the agenda with their own sustainability targets and action plans for the years 2009-2014 as part of their business planning.

#### Code of Conduct

In 2008, 93% of Fortum employees participated in activities designed to familiarise all personnel with the Fortum Code of Conduct. As part of the roll-out, employees received a personal copy of the Code and had a chance to discuss its principles in a workshop.

The Fortum Code of Conduct was

approved by the Board of Directors in 2007 and is based on Fortum's shared values. It establishes principles for business conduct applicable throughout the company. All Fortum employees are expected to conduct themselves, and their business, in compliance with the Code - without exception.

# Environmental responsibility

Fortum's goal is to be among the lowest emitting energy companies.

SUSTAINABLE ENERGY SOLUTIONS

Mitigating climate change is one of Fortum's most important strategic goals. The company strives to keep the climate impact from its own activities at a minimum. In the long term, Fortum's aim is to be a CO<sub>2</sub>-free power and heat company. To this aim, Fortum has set tough targets for CO2 emissions from its electricity and heat production. The acquisition of TGC-10 increases the challenge, and therefore an Environmental, Health and Safety (EHS) action plan has been worked out for the company. It contains short - and longer - term actions in order to bring TGC-10 closer to the level of Fortum's European operations. • Read more on pages 64–65.

#### Fortum's climate goals within the EU:

- Emissions among the lowest in the energy sector.
- CO<sub>2</sub> emissions from power generation less than 80 g/kWh by 2020 as a five-year average.
- Specific emissions from heat production in each country reduced by at least 10% from 2006 until 2020.

#### Fortum's goals outside the EU:

 Energy efficiency of power plants increased and specific emissions reduced.

In 2008, Fortum's total CO<sub>2</sub> emissions were 17.6 million tonnes, a sharp

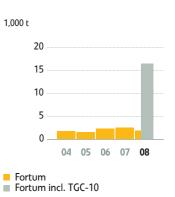
increase due to the acquisition of TGC-10 in Russia. TGC-10's power generation is mainly based on natural gas. The specific  $CO_2$  emissions of Fortum's total power generation, including TGC-10's power generation, was 134 g/kWh. The share of  $CO_2$ -free electricity in Fortum's total production was 75%.

Within the EU countries, 92% of the power generated by Fortum was CO<sub>2</sub>-free. The specific CO<sub>2</sub> emissions for power production in the EU countries was 41 g/kWh, which is among the lowest of the major European power companies. Fortum's total CO<sub>2</sub> emissions subject to the EU's emissions trading scheme (ETS) amounted to 7.2 mil-

#### Key figures, whole Fortum

	2008	2007
CO <sub>2</sub> emissions, 1,000 t	17,600	10,400
SO <sub>2</sub> emissions, 1,000 t	16.8	14.0
NO <sub>x</sub> emissions, 1,000 t	29.5	14.6
CO <sub>2</sub> emissions of power generation, g/kWh (own plants and partly-owned plants)	134	64
Share of renewable energy sources in power generation, %	38	40
Share of CO <sub>2</sub> -free energy sources in power generation, %	75	89
Share of renewable energy sources in heat production, $\%$	19	34

#### Particulate emissions



Additional environmental key figures are available at www.fortum.com/sustainability.

**ENVIRONMENTAL RESPONSIBILITY** 

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lion tonnes of CO<sub>2</sub>, while Fortum's average CO<sub>2</sub> emissions subject to the ETS were approximately 8.7 million tonnes per year during 2005–2007. CO<sub>2</sub> emissions from Fortum's own power plants outside the EU were 9.8 million tonnes.

Fortum has been a pioneer in utilising the Kyoto mechanisms and continued efforts in this area in 2008 by signing contracts with the Russian TGC-1 and TGC-10 on Joint Implementation projects. According to the agreements, Fortum will invest in energy-efficient production in these companies and in turn receive approximately 6.5 million tonnes of emission reduction units (ERU) from Russia during the Kyoto

#### Sulphur and nitrogen emissions



Fortum NO<sub>x</sub>

■ Fortum incl. TGC-10 SO<sub>2</sub>

Fortum incl. TGC-10 NO.

Renewable and CO<sub>2</sub>-free energy
Fortum believes that renewable energy

sources are an integral part of future

period 2008–2012. Part of the emission reduction units can be utilised in the EU emissions trading scheme.

When Fortum acquired TGC-10, the company had already agreed on and fixed an investment programme including both CHP and condensing plants, which will increase TGC-10's production capacity by 70%. TGC-10's total CO<sub>2</sub> emissions will increase due to the higher production volumes and larger share of gas condensing power production. However, the increase of specific CO<sub>2</sub> emissions will be limited to approximately 5% from the present level as the current 5% share of coal in the fuel mix will not be raised. Reductions in specific emissions will be achieved later, when existing old power plants are replaced with new ones with better energy efficiency. Planning and preparation for a CCS testing facility in TGC-10 will be started as TGC-10's geographical location close to major Russian oil and gas fields makes carbon capture and storage a very attractive future option.

In 2008, Fortum made an additional investment of USD 4.6 million to the Prototype Carbon Fund (PCF) of the World Bank. The first certified emission reductions were delivered from the Fund in January 2009.

energy solutions, and their use will create new business opportunities. The company constantly develops its hydropower generation and strives to increase the use of biomass and waste-derived fuels. Fortum also aims at a profitable growth in wind power generation.

In 2008, renewable energy sources accounted for 46% of Fortum's electricity generation and 32% of heat generation within the EU countries. The total use of biomass was 8.1 terawatthours (TWh), representing an increase of 4% from the previous year. The use of waste-derived fuels rose by 2% to 1.7 TWh.

Fortum is making several new investments in renewable energy. In Finland, Fortum is building new biomass-fuelled heat plants in Seinäjoki, Riihimäki, Levi and Hanko. In Sweden, Fortum started building an underground fuel storage at the planned bio-fuelled power plant unit in Värtan, Stockholm, and continued the planning of a waste-fuelled boiler in Brista. In Pärnu and Tartu in Estonia, and in Częstochowa in Poland, Fortum is building new CHP plants fuelled with biomass and local fuels, e.g. coal and peat. As part of the EHS action plan, Fortum will study the feasibility of replacing some coal use with biomass or waste derived fuels in TGC-10.

During 2008, Fortum completed refurbishment projects at three hydro-

power plants, resulting in 12 gigawatthours (GWh) of additional renewable energy annually. Fortum also participated in a refurbishment project at Kemijoki hydro power plants, resulting in 20 GWh of additional power production for the company.

Out of Fortum's total power production capacity of 13,573 megawatts (MW), wind power currently contributes slightly over 6 MW. Fortum's aim is to increase its wind power production substantially by 2025. In order to facilitate that, Fortum is carrying out numerous wind power studies.

In addition to renewables, nuclear energy is an important source of CO<sub>2</sub>-free electricity for Fortum.

Read more on pages 55-56.

#### Energy efficiency

Fortum promotes responsible use of natural resources by systematically improving the energy efficiency of operations. Energy-efficient CHP production accounts for a significant share of Fortum's energy production. Fortum is also developing solutions to utilise industry's waste energy and to improve the operating economy of power plants.

At the end of 2007, Fortum decided to establish a unit focusing on Energy Efficiency Solutions. The unit offers customised energy-efficiency services for industrial and medium-sized customers.

Furthermore, Fortum is involved in several national and international joint energy-efficiency projects within the energy industry. As part of the Finnish energy-efficiency agreements, Fortum has its own energy conservation plan, which is reviewed annually. The plan contains training in energy conservation for plant operators, optimisation of plant operations, energy-saving studies and investments based on them. Energy efficiency programmes are carried out also in plants in other countries as well as in offices.

In Russia, Fortum is improving the efficiency of TGC-10's district heating networks by 20% through an energy and

water loss reduction programme to be completed by 2015.

## Minimal environmental impacts from own activities

Fortum constantly strives to reduce the environmental impacts of its energy production.

The company's major thermal power plants in the EU are equipped with state-of-the-art technologies reducing sulphur dioxide, nitrogen oxide and particulate emissions.

Also the new gas-fired power plants to be built in TGC-10 will be on par with the strict EU emissions norms. In the coming years, Fortum will invest in particle and sulphur removal at the company's existing coal-fired power plants in Russia as part of the EHS action plan. The particle emissions from the Argayash plant will be reduced by 80% by the end of 2012. A significant reduction of also sulphur emissions will take place when modernising the plant around 2015. A study on replacement of the coal-fired units in Chelyabinsk will take place during 2009–2010. These studies will form the basis for further emissions-reduction target setting.

#### **Biodiversity**

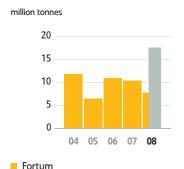
Fortum's impact on biological diversity originates mainly from hydro-

power generation. In order to minimise the impacts, restoration projects are implemented in river systems to improve habitats for endangered species and to support the recreational use of waterways.

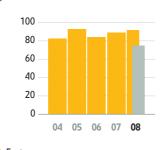
During 2008, Fortum participated in several waterway restoration projects. In Finland, Fortum was involved in conservation projects at the Oulujoki river. Fortum also co-operates with the Finnish Nature Conservation Association and Joensuu University in protecting the Saimaa ringed seal, the most endangered species in Finland. In Sweden, the company was involved in projects to improve the hab-

#### CO2 emissions

Fortum incl. TGC-10

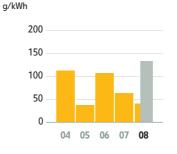


# Share of carbon-free energy sources in power generation



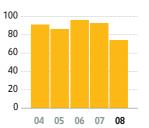
Fortum
Fortum incl. TGC-10

# CO<sub>2</sub> emissions from power generation



Fortum
Fortum incl. TGC-10

# CO<sub>2</sub> emissions from electricity production 5-year average, Europe, g/kWh

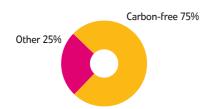


itat of threatened species in the Klarälven, Dalvälven and Västerdal rivers as well as in the Dellen lakes. Fortum also started a four-year research project with the University of Karlstad using the fish farming plant at Fortum's hydropower plant at Brattfors.

Fortum Distribution prefers underground cables in building new power lines across water bodies that have rich bird life. In Finland, Fortum participated in a joint project with WWF Finland and Finnish Energy Industries to install protective roosts to prevent sea eagles from receiving electric shocks while resting on pylons.

In order to participate in the protec-

#### Share of carbon-free energy sources in power generation

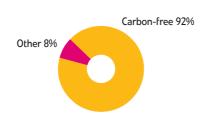


tion of the Baltic Sea and to safeguard its biodiversity, Fortum also contributed EUR 400,000 to the John Nurminen Foundation's Clean Baltic Sea project in 2008. The project aims at reducing phosphorous discharges from municipal sources in Poland.

#### Certification

The majority of Fortum's business units and subsidiaries have certified their management systems in accordance with the ISO 14001 standard and some units in accordance with ISO 9001/9002 and OHSAS 18001, as well. In 2008, new ISO 9001, ISO 14001 and OHSAS 18001 certificates were

#### Share of carbon-free energy sources in power generation. Europe



Graphs on pages 40-43: Environmental indicators are unverified and minor changes are possible during a later assurance process. Total emission figures include Meri-Pori and Kirkniemi power plants, although they were leased to another company in 2007-2008. The figures also include TGC-10 in Russia from 1 April 2008.

granted to Fortum Service Deutschland GmbH.

Today, environmental certificates cover approximately 97% of Fortum's business volume in Europe. According to the EHS action plan, TGC-10 will be ISO-14001 certified by the end of 2012.

#### Investments and safety performance

In 2008, Fortum invested a total of EUR 60 million (2007: 60) in improving environmental and safety performance. Environment, health and safety (EHS) related operating costs amounted to EUR 40 million (2007: 29), covering e.g. air-pollution control, soil protection, effluent treatment, waste management and occupational safety measures.

#### Liabilities

Fortum strives to systematically identify the sustainability-related risks of its operations. An internal sustainability assessment procedure is applied to all significant acquisition and other projects. Fortum has evaluated the liabilities relating to past operations and has made the necessary provisions for any future remedial costs concerning environmental damage.

Fortum's management is not aware of any cases that might have a material impact on the company's financial position. Of the provisions for liabilities and charges included in the financial state-

ments in 2008, EUR 7.9 million is for environmental liabilities. Such liabilities primarily relate to contaminated soil clean-up projects.

In accordance with the Finnish Nuclear Energy Act, Fortum has made provisions for future costs relating to nuclear waste management.

• Read more on page 162.

In 2008, Fortum recorded 16 cases of non-compliance with environmental regulations. Most of the cases were related to small, temporary exceedances of water level limits in regulated rivers and reservoirs. These cases did not incur any consequences to Fortum.

# Social responsibility

We want to be known as the responsible energy company.

THE RESPONSIBLE ENERGY COMPANY

Fortum's goal is to be a respected corporate citizen. The company strives to be the benchmark for equal opportunities and to have the best safety performance in its sector. Also Fortum's service and goods providers and contractors play an important role in the efforts towards sustainability. The company's commitment also extends into the community, where Fortum's businesses and employees support charitable events and sponsor community programmes and projects. Acting as a responsible and respected corporate citizen is an integral part of Fortum's holistic approach to business.

## Respected corporate citizen

Fortum is committed to sustainability in all its operations. According to its sustainability policy and internal Code of Conduct, Fortum wants to actively engage stakeholders to continuously improve its environmental, social and economic performance. Fortum takes responsibility for the impact its activities have on customers, employees, shareholders, communities and other stakeholders, as well as the environment.

In order to achieve Fortum's sustainability targets, it is important to recognise possible risks in the supply chain, evaluate them and actively work to mitigate those risks. That is why a "For-

tum way" of managing its suppliers in a responsible way is being developed. The project will produce a systematic way of assessing and managing suppliers, including the tools needed. During 2008, a new supplier code of conduct was attached to all large contracts prepared by Fortum's purchasers in Finland, Sweden and Norway. In the next phase, the purchasers in the Baltic countries and Russia will start to use the supplier code of conduct in their purchasing.

In Finland, Fortum and the city of Espoo agreed in 2006 on long-term cooperation to enhance the living environment of Espoo citizens. The cooperation includes improved illumination and thus improved safety in public areas, cultural events for families and the elderly as well as support for a local football club, Honka, which trains thousands of children and youngsters. In 2008, when Fortum and Espoo launched co-operation aiming to enable the widescale adoption of electric cars in the city and thus to significantly reduce traffic emissions.

In Sweden, Fortum and the city of Stockholm have engaged in active cooperation in several areas for several years. In 2008, Fortum and Stockholm started strategic co-operation to prepare for the large-scale introduction of plugin electric cars.

• Read more on page 61.

Another area of co-operation with Stockholm is removal of graffiti, which was expanded in 2008 to cover the whole city area in 24 hours. The purpose of the project is to improve the open-air environment and coordinate the cleaning of Fortum's substations and other equipment's exposed areas

Co-operation in two new sustainable environment areas in Stockholm was extended. The sustainable urban areas are a continuation of the Hammarby Sjöstad project, in which Fortum has participated for several years. The purpose is to bring energy-saving illumination to several dark walkways and parks and thereby make them safer and more pleasant. During the year, the illumination at Humlegården was renewed.

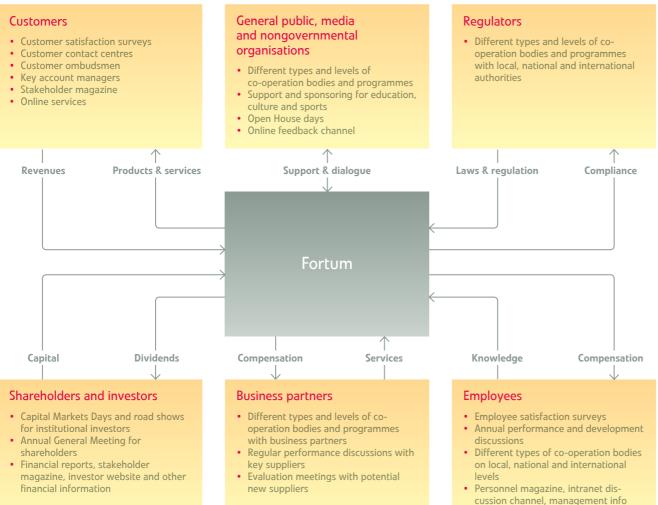
Furthermore, Fortum participated in several co-operation projects with schools during the year. Energisnackis project, which was started in Sweden in 2007, was now launched also in Finland as Energiakompassi (energy compass).

#### Support for society

In 2008, the Fortum Foundation distributed over EUR 630,000 to support energy sector research and development. Fortum also continued its cooperation with a number of schools and universities by donating several energy-related professorships to Finnish universities. Fortum also contributed

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#### Stakeholder relations at Fortum



programme at the Helsinki University
of Technology. In Sweden, Fortum participates in several research projects via

meetings and letters

• Read more on page 37.

universities.

SOCIAL RESPONSIBILITY

In Finland, Fortum made donations totalling approximately EUR 360,000 to various charitable causes. These included projects aiding children and youngsters, protecting the environment and support for culture. Fortum also supported the John Nurminen Foundation's Clean Baltic Sea project with a EUR 400,000 contribution.

EUR 3 million for an energy research

Swedish Elforsk together with several

In line with Fortum's core purpose, our energy improves life for present and future generations also in Fortum's sponsoring programme, which combines support for the next generation, society and the environment.

The main social support in 2008 included the Finnish Children and Youth Foundation project in Russian Carelia and co-operation with the Ung Företagsamhet organisation in Sweden.

In the area of environmental sponsorships, Fortum started co-operation with Skansen, the world's oldest openair museum and zoological park. The co-operation includes several areas, such as illumination, energy-efficiency and sponsoring youth activities. Also

concrete measures to save the endangered Saimaa ringed seal were started with the Finnish Nature Conservation Association.

Fortum's main sports sponsorship projects in 2008 were the Swedish Athletic Association and the Finnish Paralympic Committee. The co-operation with the Swedish Athletic Association is part of Fortum's commitment to climate change mitigation and includes, for instance, energy surveys for sports centres. In Finland, the focus of Fortum's sports sponsorship programmes is on the next generation. Team Forte and Fortum Tutor programmes were started in the end of 2008.

Furthermore, the main cultural support was donations of instruments made to the Finnish Sibelius Academy. Fortum's Art Foundation owns some 300 valuable pieces of art, including paintings from the Golden Age of Finnish art, modern art, sculptures and unique ceramics and glass artefacts,

as well as textile art. During the year, several of them were loaned out to art exhibitions. The Foundation also promotes Finnish art and art history research.

### Best safety performance in sector

Fortum is committed to providing a safe working environment for its employees and contractors. The company aims to be the industry benchmark in safety with the ultimate goal of zero accidents. To attain this goal, significant efforts to develop safety management have continued for several years and now also include TGC-10.

As part of the Environment, Health and Safety plan at TGC-10, an ambitious safety programme covering all its plants and all personnel is being launched. The programme consists of several focus areas in occupational health and safety with their own milestones, e.g. management procedures, the use of safety tools,

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training, asbestos management and establishing reliable incident reporting and investigation procedures. The injury frequency rate (LWIF) at TGC-10 will be included in Fortum reporting as soon as fully verified data is available. The target of the programme is to achieve the Fortum way of working regarding safety by 2012.

• Read more on pages 64–65.

During 2008, special emphasis was put on contractor safety and accident investigation. The injury frequency rate among contractors improved from 12.5 to 8.4, but the excellent trend over previous years regarding Fortum's own personnel reversed. A total of 63 occupational accidents leading to an absence of one working day or more happened (2007: 40). The resulting LWIF was 4.3 (2007: 2.9), despite over 8,730 safety walks carried out by the company's management and supervisors, which raised the general awareness of and commitment to occupational safety.

During 2008, Fortum encountered one fatal accident in its operations. In January, a contractor's employee fell from the scaffolding he was dismantling at one of the district heating plants in Stockholm. This accident, as all accidents at Fortum, has been thoroughly investigated to help to prevent similar accidents in the future.

The year saw also many positive developments, however. The first Fortum Safety Award acknowledged and recognised exemplary occupational safety behaviour. A total of 32 nominations from 10 different countries were competing for the award. This year the Champion Award went to the Loviisa

nuclear power plant and the Team Award to the Högdalen waste incineration plant.

Although Fortum's safety performance is clearly better than average within our sector, the reversed LWIF trend was a clear disappointment leading to reinforced actions to get safety development back on track. Occupational safety efforts will be stepped up further on several fronts: visible management commitment, reinforced training, improved risk assessment practices and better adherence to given instructions are key to attaining our very ambitious target of less than one injury per million working hours in 2010. This requires safety to be a mindset issue, embraced by everyone in the company.

#### Safety key figures

	2000	2007
Injury frequency (number of injuries/million hours worked)	4.3	2.9
Number of safety observation tours	8,731	6,450
Number of improvement proposals and near-miss reports	4,317	2,670

#### **Injuries**

	2008	2007	2006	2005
Injuries	63	40	55	68
Fatalities	1	2	2	2

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# Personnel

Integrating TGC-10's personnel to Fortum started in 2008 and will be one of the biggest efforts also throughout 2009.

OUR GOAL
IS TO BE
THE BENCHMARK
FOR EQUAL
OPPORTUNITIES

In spring 2008, Fortum's personnel almost doubled as a result of the acquisition of the Russian TGC-10, which employs 7,200 people. Fortum's management model, organisational structure and way of working were in place already in 2008, and a new HR organisation was created with the intention to harmonise key leadership and HR policies and processes.

The TGC-10 acquisition sets a big challenge to the organisation, but at the same time offers a wide range of opportunities for individual development. At year-end 2008, about 50 Fortum employees have moved from other parts of the organisation to work per-

manently in the TGC-10 organisation.

In 2008, Fortum employed an average of 14,077 people (2007: 8,304). At the end of the year, the number of personnel was 15,579 (2007: 8,303), of which 15,064 were permanent employees (2007: 7,954). Of the permanent employees, 2.2% were employed parttime (2007: 3,8%).

The increase in the number of personnel was due to the TGC-10 acquisition. At the same time, there was also a decrease of 318 people due to redundancies and outsourcings. A big part of these took place in Poland.

Fortum promotes equality and diversity in all its operations. Women repre-

sented 29% of the total workforce (2007: 23%), but accounted for 33% of corporate and business unit management (2007: 33%).

**PERSONNEL** 

### People development is continuous

Continuous people development has been on Fortum's strategic agenda since the beginning of the 2000s. It is carried out in personnel development discussions and development plans, and has been implemented through the career and development planning process, various management development programmes, job rotation and both in-house and external training.

In 2008, Fortum's career and development planning process was evaluated and was within the best quartile in a benchmark study covering 25 European companies. For managers, a special 360-degree feedback process is used to identify the most important individual development needs and in this way to support their growth as leaders.

Active job rotation is a key tool for individual and organisational development. In 2008, Fortum had 573 internal vacancies in Finland and in Sweden (2007: 244) and there were about 400 transfers between units (2007: 358). Job rotation in business unit and sub-unit management teams increased substantially.

#### **Key figures**

	2008	2007	Change %
Average number of employees	14,077	8,304	69.5
Number of employees at 31 Dec.	15,579	8,303	87.6
of whom permanently employed	15,064	7,954	91.9
Female, %	29	23	26.1
Women in management positions, %	33	33	0.0
Training days per person	4	4	0.0
Training expenditure, EUR mill.	8.3	7.6	9.2
Health care expenditure 1), EUR per person	428	412	3.9
Expenditure on recreation and leisure activities 1), % of salaries paid on working time	0.4	0.4	0.0

<sup>1)</sup> Finland

Four different development programmes for managers were running during 2008 and they will continue in 2009. Altogether, 497 managers participated in these. Investments in people development amounted to EUR 8.3 million (2007: 7.6). Fortum employees spent an average of 4.0 days in training (2007: 4.0).

# Fortum Sound probes engagement

The annual job satisfaction survey was replaced by a new employee survey, focusing on employee engagement. The new survey is linked to Fortum's values, strategy and business targets, and the

findings of the survey are utilised in the annual planning process. The first survey round had a response rate of 72% and it was implemented in 13 countries. According to the results. the key strengths of Fortum are team excellence, leadership and personal growth, to mention a few. The most important areas of development include change management, the link between Fortum strategy and employee's own targets as well as cross-unit collaboration. Based on the findings, each unit created respective development plans, the implementation of which will be regularly followed.

# Successful recruitments are a key for success

Various actions have been taken in order to enhance Fortum's employer image. In 2008, an employer value proposition was created to manifest Fortum's offering to new employees and also the employer's expectations of them. A Fortum Trainee programme for recent university graduates started in January 2009 with a total of 13 participants from Finland, Latvia, Poland, Sweden and Russia. In Finland and in Sweden, a special Summer Energy campaign was organised for recruiting the best possible summer trainees. In order to attract the best people, Fortum has

also developed its recruitment process and the tools used in recruitment.

### Fortum remunerates performance

Fortum's remuneration strategy aims at strengthening the performance culture and attracting and retaining the best people. Traditionally, all employees are covered by an annual bonus system, with the exception of Poland and Russia in 2008. Individual or team-based targets are set in the annual performance discussions between the individual or team and the superior.

The final bonus is based on the financial results of the Group or the business

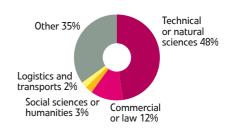
#### Number of employees by segment, 31 December

	2008	2007	Change %
Power Generation	3,520	3,511	0.3
Heat	2,318	2,279	1.7
Distribution	1,336	1,063	25.7
Markets	635	935	-32.1
Russia	7,262	-	N/A
Other operations	508	515	-1.4
Total	15,579	8,303	87.6

#### Number of employees by country, 31 December

	2008	2007	Change %
Russia	7,262	-	N/A
Sweden	3,436	3,465	-0.8
Finland	3,045	2,981	2.2
Poland	767	925	-17.1
Estonia	333	336	-0.9
Norway	292	277	5.4
Other countries	444	319	39.2
Total	15,579	8,303	87.6

#### Field of education, 31 December 2008



49

**PERSONNEL** 

unit and on the individual or team performance. Consequently, the average bonus payments vary between units and individuals. In spring 2008, the average bonus paid (from 2007 results) ranged from 0.5 to slightly over 10% of the annual salary of a Fortum employee.

In addition to the annual bonus, Group and business unit management participate in Fortum's share-based Long Term Incentive (LTI) system. The first shares under the scheme were distributed in February 2008. The LTI system was modified from January 2008 onwards.

The Fortum Personnel Fund covered 3,187 employees in Finland in spring

2008. Based on profit-sharing criteria, Fortum paid EUR 4.3 million to the fund and the fund paid EUR 3.7 million to its members.

• Read more on pages 74–77.

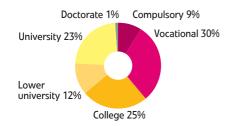
# TGC-10 integration and succession planning topical in 2009

Integration of the new Fortum employees in Russia will continue actively in the coming years and is a major personnel challenge for the Fortum organisation in 2009. Fortum's evolving business continues to create increasing opportunities for individual development within the company.

The coming years will also bring a

substantial change in the workforce due to the growing number of retirements and thus new recruitments. Fortum believes that the mixture of experience and knowledge combined with new skills and fresh ideas will form a solid platform also for future business development.

#### Level of education, 31 December 2008



#### Duration of employment, years,

31 December 2008

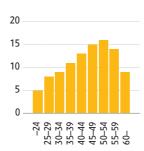
%



#### Age distribution, years,

31 December 2008

%



# Economic responsibility

Fortum's goal is to be the market leader in low-carbon products and energy efficiency solutions. Successful deployment of climate-benign R&D is essential in building a low-carbon society.

ENABLER OF A LOW-CARBON SOCIETY Since 2000, Fortum has invested a total of EUR 7 billion in climate-benign energy production. These investments make Fortum one of the lowest-emitting energy companies in Europe. In a carbon constrained society with CO<sub>2</sub> having value, CO<sub>2</sub>-free energy production is a clear economic benefit for Fortum. This is living evidence that sustainability and business success can go hand in hand.

## Market leader in low-carbon products

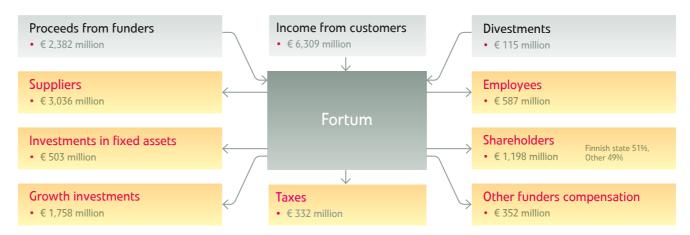
There is a developing market for climate-smart energy solutions as more and more companies and households

want to decrease their carbon footprint. Thus by providing customers with low-carbon energy products and expertise in efficient use of energy, Fortum can create growth.

Fortum is the largest provider of ecolabelled electricity in the Nordic countries. The company sells eco-labelled electricity to over 700,000 customers in Sweden, Finland and Norway. In Finland, customers receive environmentally-labelled "Norppa" electricity, which meets the criteria of the Finnish Association for Nature Conservation. In a similar way, Fortum's Swedish customers receive "Bra Miljöval"-labelled (good environmental choice) electricity according to the criteria set by the Swedish Society for Nature Conservation. In Norway, Fortum sells CO<sub>2</sub>-FRI certificate of origin, based on RECS certificates. The RECS, Renewable Energy Certificates System, is a European system where a certificate shows that the electricity is produced with renewables. A part of Fortum's Finnish heat generation also carries the Norppa eco-label.

At the beginning of 2008, Fortum introduced two eco-labels for business customers in the Finnish and Swedish markets. Electricity that is produced without carbon dioxide emissions carries the Fortum Carbon Free eco-label, and electricity produced from entirely

#### Fortum's economic impacts in 2008



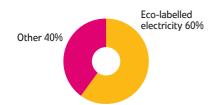
renewable energy sources carries the Fortum Renewable eco-label. Today, nearly all Fortum's business customers receive nuclear energy-based Fortum Carbon Free-labelled energy. Also the first Fortum Renewable agreements were made in 2008.

# Market leader in energy-efficiency solutions

Improving energy efficiency is one of the essential means to mitigate climate change. Hence, the role of an energyefficiency expert and services provider is becoming an increasingly integral part of Fortum's business.

At the the end of 2007, Fortum

# Over 700,000 Fortum customers buy eco-labelled electricity



started a new Energy Efficiency Solutions unit, which serves as a competence centre for the company's energy-efficiency services. The new unit is a part of the implementation of Fortum's renewed sustainability agenda. In 2008, the new unit started its operations in Sweden and the operations will begin in Finland in 2009.

In order to create market growth for energy-efficient transport solutions, Fortum has started co-operation with the cities of Stockholm and Espoo aiming at enabling the wide-scale adoption of electric cars and thus significantly reducing traffic emissions. A key component of these projects is to develop the infrastructure needed to recharge the electric cars in order to make the adoption of them as smooth as possible when car manufacturers introduce electric cars to the markets in a few years. In Stockholm, the project developed the first functional infrastructure for recharging hybrids already in 2008. In the first phase of the Espoo project, Fortum and Espoo acquired several rechargeable hybrid and battery electric vehicles and recharging stations for test use.

In Sweden, Fortum's Energihjälpen (Energy help) programme continued in customer communications and interaction. Energihjälpen encourages and advises customers to save energy and cut costs.

In Finland, Forum carried out exten-

sive campaigns providing information on renewable energy and advice on energy saving. Fortum also provided some 50 local libraries in its network areas with energy consumption meters that people can use to measure the energy consumption of their household appliances.

# Successful deployment of climate-benign R&D

Fortum's R&D vision is to enable a carbon dioxide-free sustainable future. Hence, technologies curbing climate change are prominently represented in Fortum's R&D activities. Fortum's R&D programmes focus on carbon capture and storage, new bioenergy technologies and sustainable energy systems. Nuclear R&D is also strongly represented in the overall R&D portfolio.

• Read more on pages 36–37.

# Rewards and recognitions

Fortum received several significant recognitions for its sustainability performance in 2008. For the sixth year in a row, the company secured its place on the global Dow Jones Sustainability World Index. This year, Fortum was also included in the Dow Jones STOXX Sustainability Index.

Furthermore, Fortum was included for the second consecutive time in the Climate Disclosure Leadership Index, a prestigious honour for global corporations addressing the challenges of climate change. Globally, Fortum was ranked as one of the top-six utility companies and as the best in the Nordic countries by the Carbon Disclosure Project. Fortum is also included on Storebrand's global "Best in Class" list as the most responsible energy company.





CARBON DISCLOSURE PROJECT

# Chapter 5

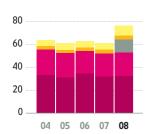
FORTUM CORPORATION ANNUAL REPORT 2008

# Segment reviews

# Fortum's total electricity procurement by type

TWh

TWh



Purchases
Import to the Nordic market
Own power plants in Russia
Partly-owned power plants in Europe
Own power plants in Europe

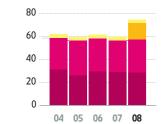
#### Fortum's power generation capacity, 31 December 2008

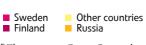
MW	Finland	Sweden	Russia	Other	Total
Hydropower	1,493	3,161			4,654
Nuclear power	1,433	1,656			3,089
Combined heat and power	574	535	2,785	145	4,039
Condensing power	1,376	297			1,673
Other	6	112			118
Total	4,882	5,761	2,785	145	13,573

#### Fortum's heat production capacity, 31 December 2008

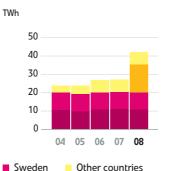
MW	Finland	Sweden	Russia	Other	Total
Heat	3,634	4,644	13,796	2,190	24,264

# Fortum's total electricity sales by area 1)





#### Fortum's total heat sales by area



# Fortum's power generation by source

TWh	2008	2007
Hydro	22.9	20.0
Nuclear	23.7	24.9
Thermal	6.0	7.3
Total in EU and Norway	52.6	52.2
Thermal in Russia	11.6	0.0
Total	64.2	52.2

Finland



Fortum's business is divided into five reporting segments. Power is generated in plants owned or partly owned by Fortum in the Power Generation segment and in combined heat and power (CHP) plants in the Heat segment.

Power Generation sells the electricity it generates through the Nordic power exchange Nord Pool. The Markets segment buys its electricity through Nord Pool and sells it to private and business customers as well as to other electricity retailers. The Heat segment sells steam, district heating and cooling mainly to industrial and municipal customers as well as to real estate companies. It also sells the electricity it generates at CHP plants. Fortum's distribution and regional network transmissions are reported in the Distribution segment. Power and heat generation and sales in Russia are reported in the Russia segment.

<sup>&</sup>quot;The segments, Power Generation, Heat and Markets, sell electricity to Nord Pool or external customers, and purchase electricity from Nord Pool or other external sources. Fortum's Nord Pool transactions are calculated as a net amount of hourly sales and purchases at the Group level. Segment Russia sells electricity to the Russian wholesale market.

# **Power Generation**

The key success areas for Power Generation are a high level of power plant availability, investments in continuous modernisation of the existing fleet and in sustainable electricity production as well as operational excellence in physical and financial trading.

BUILDING ON A STRONG PRODUCTION PORTFOLIO The Power Generation segment generates and sells power, manages and develops Fortum's power generation assets and is responsible for risk management and commodity trading operations related to power generation. The segment sells power to the Nordic power exchange Nord Pool and the over-the-counter (OTC) market. Power Generation also provides operation and maintenance services for power and heat companies in the Nordic area and selected international markets. The segment has three business units: Generation, Portfolio Management and Trading (PMT) and Service.

Power Generation contributes to Fortum's vision of becoming the benchmark power and heat company excelling in sustainability with its flexible and sustainable production portfolio. Commitment to sustainability shows in all of Fortum's actions and investments. All of the company's Nordic power generation operations have ISO 14001 environmental certification. About 4 terawatt-hours (TWh), 20%, of Fortum's annual hydro production has been certified by Finnish and Swedish societies for nature conservation.

#### **Key figures**

EUR million	2008	2007	Change %
Sales	2,892	2,350	23.1
power sales	2,566	2,019	27.1
other sales	326	331	-1.5
Operating profit	1,599	1,115	43.4
Comparable operating profit	1,528	1,095	39.5
Net assets (at end of period)	5,331	5,599	-4.8
Return on net assets, %	29.6	19.2	54.2
Comparable return on net assets, %	28.0	18.9	48.1
Gross investments	134	145	-7.6
Number of employees	3,520	3,511	0.3

# High fluctuations in electricity prices

The main financial performance drivers in the power generation business are power plant availability and the wholesale price for electricity. The main factors affecting the wholesale price are the prices for CO<sub>2</sub> emissions allowances and fuels in the international markets, inflow to the Nordic water reservoirs, as well as the overall supply and demand balance.

2008 saw heavy price fluctuations on the Nordic electricity market. The average spot price for electricity in 2008 in Nord Pool was EUR 44.7 per megawatt-hour (MWh) (2007: 27.9), which is 62% higher than in 2007. During the year, there was high volatility in prices. Forward price quotations for 2009 increased during the first half of 2008 from around EUR 50 per MWh to above EUR 65 per MWh, but decreased during the second half of 2008, closing at EUR 38 per MWh at the end of 2008.

Area price differences in the Nordic wholesale market were more common than in previous years. These differences were mainly caused by a longlasting, extraordinary failure in transmission connections between southern Norway and Sweden. However, the prices in Finland and Sweden were exactly the same 97% of the time during the year, with the average spot price in Finland being EUR 51.0 per MWh (2007:

55

ENERGY ADVICE

30.0) and in Sweden EUR 51.1 per MWh (2007: 30.3).

The average spot price in Germany was EUR 65.8 per MWh (2007: 38.0). With the initiation of a new connection between Norway and the Netherlands in May 2008, the Nordic market became more closely connected to the continental market. Net exports from the Nordic market to continental Europe grew from 9 TWh in 2007 to 15 TWh in 2008.

The new emissions trading period, the Kyoto period, started at the beginning of 2008 and meant a significant increase in emissions allowance prices compared to 2007. During the year, the prices for emissions allowances fluctuated between EUR 15–28 per tonne CO<sub>2</sub>. Oil and coal price development has an increasing influence on the Nordic electricity price. After a steady increase since early 2007, the fuel prices decreased dramatically during the second half of 2008.

The year started with a significant surplus of 9 TWh in the Nordic water reservoirs, and, compared to historical average, the reservoirs maintained a surplus until late August. The year ended with the reservoirs 5 TWh below average.

# All-time high hydropower production

The segment's power generation in 2008 was 47.9 TWh (2007: 47.2), of which 46.9 TWh (2007: 46.1) originated in the

Nordic countries. Compared to the previous year, hydropower generation increased due to the stronger hydrological situation and thermal production decreased due to low spot-price levels as well as high fuel and CO<sub>2</sub> prices.

Reduced nuclear power production was caused by technical problems with lower availabilities in the partly-owned Swedish Forsmark and Oskarshamn nuclear power plants. At the Loviisa nuclear power plant in Finland, a planned, extended annual outage affecting the production volume was carried out at the Unit 1, although Loviisa's availability remained at a high level.

In 2008, 97% of the segment's power generation in Europe was CO<sub>2</sub>-free (2007: 95%). At year-end, the segment's power generating capacity totalled 9,575 megawatts (2007: 9,560), of which 9,435 MW (2007: 9,420) was in the Nordic countries and 140 MW (2007: 140) in other countries.

Power Generation's achieved Nordic power price (excluding pass-through sales) was EUR 49.3 per MWh (2007: 39.7), 24% higher than the year before, due to improved hedging prices and physical optimisation margin. The related sales volume was 48.4 TWh (2007: 46.6). Power Generation continues to steer value creation by timing decisions in financial hedging and physical production optimisation.

### New wind power initiatives

Power Generation investments are related to additional safety, growth by adding capacity focusing on renewable and other CO<sub>2</sub>-free production, and the upgrading of the existing plant fleet. The investment programme includes refurbishment investments in several hydropower plants to increase capacity, improve safety and maintain good plant availability. During 2008, Fortum completed three refurbishment projects. One of the new projects started is the old Frykforsen hydropower plant in Värmland, Sweden. The plant will be replaced with a new plant with 15% higher efficiency. The construction work of the new plant started at the end of 2008 and is planned be in commercial use during spring 2010.

Fortum is proceeding with several wind power projects in the Nordic countries. Plans include both onand off-shore wind farm developments in the region. In Finland, Fortum and Metsähallitus, the national forest enterprise, made a reservation agreement on the state-owned Pitkämatala and Maakrunni sea areas in the municipalities of Kemi, Simo and Ii for large-scale wind power generation. Both areas have been marked as wind power areas in the land use plans for Lapland and Northern Ostrobothnia provinces.

#### **Encourage your employees to save**

Bringing up energy consumption with your employees is definitely worthwhile because their working habits have a big impact on the energy bill. All devices that use electricity (lights, pumps, fans, motors etc.) should be turned off after use. You should also make sure they are turned off at night and on weekends. However, any devices that should remain on 24/7 should be clearly marked.

Motion sensors save energy in big warehouse areas, and it makes sense to do any office printing and photocopying work without interruption.



# Nuclear power high on the agenda in Finland

In Finland, Fortum is participating in the country's fifth nuclear power plant unit, Olkiluoto 3, with an approximately 25% share representing some 400 MW in capacity. The construction of the unit in Eurajoki has proceeded, but the commissioning has been delayed until summer 2012. In December 2008, the constructor, Teollisuuden Voima (TVO), announced that the plant supplier, the AREVA-Siemens consortium, has filed a request for arbitration concerning the Olkiluoto 3 delay and related costs in the International Chamber of Commerce (ICC).

In 2007, Fortum commenced an environmental impact assessment (EIA) process for a new 1,000–1,800 MW nuclear power unit possibly to be built adjacent to Fortum's existing two units on Hästholmen Island in Loviisa. The EIA includes the assessment of the impacts of an electricity-produc-

ing unit and, optionally, a unit producing electricity and heat. Fortum submitted the EIA report on Loviisa 3 to the Finnish Ministry of Employment and the Economy at the beginning of April 2008. In August 2008, the ministry gave its statement on the report, stating that it meets the content requirements for legislation and has been handled in the manner required under the regulations in force.

In February 2009, Fortum submitted to the Finnish Government an application for a decision-in-principle concerning Loviisa 3. The application presents five different plant alternatives, all of which will fulfil stringent Finnish safety standards once completed. The total cost of the new, 1,000–1,800 MW nuclear power plant unit is EUR 4–6 billion, depending on the size and type of plant selected. According to plan, the new unit will be operational in 2020. Its designed service life is at least 60 years.

Fortum is a minority shareholder in

TVO, which already in April 2008 submitted its decision-in-principle application for a fourth nuclear power unit to be built in Olkiluoto, Eurajoki.

Posiva Ov, the company responsible for the final disposal of Fortum's and TVO's spent nuclear fuel in Finland, conducted an EIA on the expansion of the planned final repository for spent nuclear fuel in Olkiluoto. The expansion is needed if Fortum builds a new nuclear power plant unit. Posiva submitted its EIA report to the Ministry of Employment and the Economy at the end of October. After a statement from the contact authority, Posiva can submit to the Finnish Government an application for a decision-in-principle for the expansion of the repository in Olkiluoto.

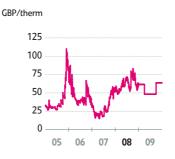
Capacity increases at the Forsmark and Oskarshamn power plants in Sweden are planned to be carried out during 2009–2014. As a minority owner, Fortum is participating in these upgrades. Fortum's share of the planned capacity additions is estimated at 290 MW. Some of these projects still require Swedish nuclear safety authority licenses. One of the capacity increases, the planned upgrading of Oskarshamn 3 in 2008, was postponed to 2009 due to component delays.

Fortum's nuclear waste management liability is based on the Finnish Nuclear Energy Act. The Ministry of Employment and the Economy annually decides on a nuclear waste management fee in relation to the amount of spent nuclear fuel and other nuclear waste management actions. Fortum is obligated to contribute the funds to the State Nuclear Waste Management Fund to cover the legal liability. Future costs will increase mainly due to updated decommissioning plans of the Loviisa nuclear power plant units. In 2008, the legal liability was increased by approximately EUR 80 million.

#### Oil price



#### Gas price



#### Coal price



#### CO<sub>2</sub> allowance price (EU)





Source: Reuters, Future prices as of 31 December 2008.

## Growth in international O&M and energy-efficiency services

**FORTUM CORPORATION ANNUAL REPORT 2008** 

Fortum Service offers operation and maintenance (O&M), productivity and energy-efficiency services to power and heat companies, industrial companies with own power production as well as commercial energy users. At Fortum, Service is the competence centre for the company's own power plant O&M, ensuring high availability and cost-efficient utilisation of the company's generation assets.

Service is growing both in Fortum's home market and selected international markets, for example Russia, Middle East, Asia and Germany, where Service is the leading independent O&M service supplier with responsibility for the O&M of 2,400 MW of power plant capacity. Service's operations in the highly competitive international markets also support Fortum's competence development.

The availability and efficiency of Fortum's own power plants as well as those

operated globally by Fortum is very good by international standards. In 2008, the operation time energy availability (tgdE) of power plants in Fortum's O&M fleet, excluding hydropower and Russia was 96.6% (2007: 96.7%).

During the year, Service had a major role in the integration of TGC-10 to Fortum. Service was responsible for driving improvements in the operation and maintenance activities in TGC-10 power plants as well as for the take-over of TGC-10 maintenance companies. The aim was to implement a uniform Fortum way of working and thus improve the profitability and efficiency of the power plants and maintenance companies. Also in Russia, Service supported the implementation of hydropower plant modernisation projects at the Vuoksi and Syväri rivers as part of Fortum associate company TGC-1's Joint Implementation projects.

At the end of 2007, Fortum decided to establish a unit concentrating on

Energy Efficiency Solutions within Service. In June, Fortum acquired the Swedish energy-efficiency consulting company Processio AB to complement the competence of the unit.

Infrastructure services are an important part of Service's business. New growth opportunities in the area opened when Hafslund Infratek ASA and Fortum decided to combine their businesses of construction and operation of infrastructure from the beginning of 2009. Fortum's ownership in the combined company, Infratek ASA, is 33%. Hafslund ASA holds 43.3% and the remaining shares are owned by institutional and private shareholders. The transaction concerned some 1,000 Service employees, approximately 700 in Sweden, 150 in Finland and 150 in Norway.

# Successful future supported by R&D

The majority of Fortum's research and development is conducted in Power

# Segment's power generation by source

TWh	2008	2007
Hydro	22.9	20.0
Nuclear	23.7	24.9
Thermal	0.3	1.2
Total in the Nordic	46.9	46.1
Thermal in other countries	1.0	1.1
Total	47.9	47.2

Generation. The work is aimed at securing the continuous and very efficient operation of Fortum's power plants and developing sustainable solutions for new power generation.

The main focus of this work has been to develop and enhance the availability of Fortum's existing power plants and follow-up of new production technologies. Within nuclear power, R&D work has focused on nuclear safety and waste management. New R&D areas include developing a nuclear power plant producing electricity and heat, preparations for a full-scale demo plant using carbon capture and storage technology and participation in wave power opportunities.

• Read more on pages 36–37.

Fortum will continue to invest in power generation capacity during the coming years. The focus in these investments is in wind, nuclear and hydro power production.

### Segment's Nordic electricity sales volume

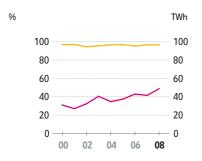
TWh	2008	2007
Sales	52.1	51.8
of which pass-through sales	3.7	5.2

#### Segment's Nordic sales price

EUR/MWh	2008	2007
Segment's power price 1)	49.3	39.7

<sup>&</sup>lt;sup>1)</sup>For the Power Generation segment in the Nordic area, excluding pass-through sales.

#### Availability of power plants 1)



Operation-time energy availability, tgdE %
Generation, TWh

<sup>1)</sup>Fortum's O&M fleet, excluding hydropower and Russia.

# Nordic wholesale electricity price on Nord Pool

EUR/MWh



Source: Nord Pool, futures as of 31 December 2008.

**HEAT** 

# Heat

Heat continued with the measures to ensure future competitiveness. The extensive investment programme for new combined heat and power capacity proceeded.

**GROWTH WITH COMBINED HEAT** AND POWER

Heat concentrates on combined heat and power (CHP), district heating and cooling, waste-to-energy production, and energy outsourcing services to industry. It owns and operates 20 CHP plants (2007: 21) and several hundred heat plants in the Nordic and Baltic countries as well as in Poland. The segment consists of two business units: Heat, operating in Finland, Norway, the Baltic countries and Poland, and Värme, operating in Sweden.

The segment's goal is to become the benchmark of the heating industry. Today, Heat is the leading provider of heat in the Nordic countries and in the Baltic Rim area.

#### Investment programme proceeded

Heat is striving for earnings growth and efficiency improvements with an environmentally-benign investment programme concentrating on new CHP to replace old, heat-only production and to increase electricity generation. The CHP projects in Tartu, Estonia, in Suomenoja, Finland, and in Częstochowa, Poland, proceeded well. The commercial use of these plants will start during 2009-2010. Once completed, these plants will increase Heat's annual electricity generation by about 1.5 terawatt-hours (TWh).

In June, Fortum also decided to invest in a biomass fuel- and peat-fired CHP

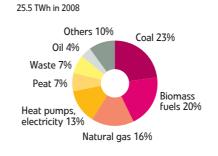
plant in Pärnu, Estonia, and in a gasengine CHP plant in Jelgava, Latvia. The Pärnu plant is scheduled to be in commercial use in 2011 and the Jelgava plant in 2009. Once completed, these plants will increase Heat's annual electricity generation by about 0.1 TWh.

Planning of the biomass fuel-fired CHP plant in Värtan, Stockholm, and in Järvenpää, Finland, and the wasteto-energy plant in Brista, Stockholm, continued. The connection between the southern and central district heating grids in Stockholm was completed and the grid was taken into operation in spring 2008. Investment in flue-gas condensing in Värtan was started. Once

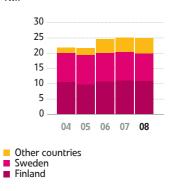
#### Key figures

EUR million	2008	2007	Change %
Sales	1,466	1,356	8.1
heat sales	1,120	1,053	6.4
power sales	228	202	12.9
other sales	118	101	16.8
Operating profit	307	294	4.4
Comparable operating profit	250	290	-13.8
Net assets (at end of period)	3,468	3,507	-1.1
Return on net assets, %	8.9	9.3	-4.3
Comparable return on net assets, %	7.3	9.2	-20.7
Gross investments	431	327	31.8
Number of employees	2,318	2,279	1.7

#### Fortum's heat production<sup>1)</sup>



#### Segment's district heating and industrial steam sales by area TWh



<sup>&</sup>lt;sup>1)</sup>Excluding heat production in Russia.

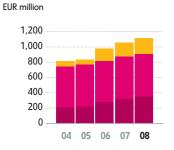
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completed, it will increase the production of district heating without any increase in fuel usage. Construction of the rock storage system that will be used for handling the biomass fuel for the new Värtan plant continued and it will be ready by early 2009. A number of new biomass-fired heating plant projects were started during the year in Finland.

#### Growth in the Baltic Rim area

Heat continued leveraging its growth platforms by acquiring a heating company in Latvia in February. The company provides district heating to the city of Jelgava. Its annual heat sales total 200 gigawatt-hours (GWh) and the net sales around EUR 10 million. The district heating is produced in seven natural gas-fired heating plants. Fortum entered the Latvian heat market by acquiring the Riga Airport heat deliveries in January 2007.

# Segment's district heating and industrial steam by area



Other countriesSwedenFinland

#### Steps towards CO<sub>2</sub>-free heating

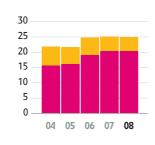
In June, Fortum and the Norwegian Sargas announced the results of the CO<sub>2</sub> capture technology pilot project in the Värtan power plant in Sweden. The results were very good and clearly demonstrated that the technology for CO<sub>2</sub> capture is adaptable, although further development of storing and logistics are still needed.

In Finland, Fortum together with the YIT and Uponor corporations created a working concept for using rockheating in a residential area. The solution will be first implemented in Espoo, Finland. The warming of the houses and of the household water will be CO<sub>2</sub>-free. In addition, the system offers free cooling for the houses in summer.

# Measures to guarantee future competitiveness

The segment makes continuous efforts to ensure long-term profitable growth

# Segment's district heating and industrial steam sales



■ Steam ■ Heat

TWh

and satisfied customers in its key areas. Customer satisfaction is followed on a yearly basis. The segment's overall customer satisfaction in 2008 was good and the trend has been continuously positive. Safe and environmentally-benign operations with the target to reduce specific CO<sub>2</sub> emissions by 10% by 2020 are also in focus.

In order to reach the demanding targets, Heat has taken steps to create and maintain the optimal heat operations and asset base. As part of the development programme, Heat decided to divest its 60% ownership in Jyväskylän Energiantuotanto Oy as well as the related business operations in Finland. The transaction took effect at the end of 2008.

Also some other non-core assets in Finland were divested. In July, the gas turbine in Hyvinkää was sold, and in October, Heat sold its heat operations in Tornio. In addition, the optical fibre canalisation capacity in Sweden was sold to the city of Stockholm.

A new programme for the development of maintenance, Main-X, was started in Sweden. The target is to reach world-class operation and maintenance practices in heat production and distribution.

#### Sustainable growth

In upcoming years, Heat will focus on ensuring profitable growth and successful completion of its on-going investment projects. Increasing the utilisation of biomass fuels is continuously on the agenda. Possibilities for new CHP plants are being evaluated.

ENERGY ADVICE

# Correct room temperature brings savings

Use a thermometer to monitor room temperature. The recommended temperature is 20–22°C. At higher temperatures, the air dries out and energy consumption increases. A one-degree increase in room temperature can add five percent to the heating bill.

A draught can make a room feel chilly, so it makes sense to seal doors and windows. Remember to close the curtains on cold nights; curtains function as a third layer of window glass. Avoid placing furniture in front of radiators; make it easy for the heat to warm up the room. It's a good idea to make sure radiators are functioning properly before the start of the heating season.



# Distribution

In 2008, Distribution launched initiatives on delivering the infrastructure of the future.

SECURING IMPLEMENTATION OF FUTURE INFRA-STRUCTURE Distribution is responsible for the reliable and secure supply of electricity to 1.6 million customers in Finland, Sweden, Norway and Estonia. Fortum owns and operates distribution and regional networks that have a combined length of 157,300 km, corresponding to 3.5 times around the earth.

In 2008, the volume of local and regional network transmissions totalled 25.8 terawatt-hours (TWh) (2007: 26.0) and 17.7 TWh (2007: 18.1), respectively. Electricity transmissions via the regional distribution network totalled 14.8 TWh in Sweden (2007: 14.9) and 2.9 TWh in Finland (2007: 3.2).

The market share of electricity dis-

tribution, based upon volume transmitted in the <20 kV local network, was 19% in Finland (2007: 20%), 14% in Sweden (2007: 15%), 3% in Norway (2007: 3%) and 3% in Estonia (2007: 3%). A special feature of the Finnish electricity market is that one single player is allowed a maximum share of 25% of the electricity distributed in the 0.4 kV network across the country. At the end of 2008, Fortum's share stood at 20%.

# Reliable electricity – a prerequisite for a well-functioning society

The need of reliable electricity has become more and more crucial in our daily lives. Fortum's network reliability is over 99.9%. In order to secure reliability, quality and safety, the focus is on systematic maintenance, renewal and development of the networks. A significant part of network investments is related to the Reliability Investment Programme, which proceeded according to plan. The aim is to halve the average yearly outage time.

In total, about 1,100 km of middle voltage lines were secured by cables in ground or by other measures during 2008. A positive trend of fewer and shorter outages can already be seen as a result of the Reliability Investment Programme. For example, in those Swedish areas where the network has been

#### Key figures

EUR million	2008	2007	Change %
Sales	789	769	2.6
distribution network transmission	669	648	3.2
regional network transmission	77	81	-4.9
other sales	43	40	7.5
Operating profit	248	233	6.4
Comparable operating profit	248	231	7.4
Net assets (at end of period)	3,032	3,239	-6.4
Return on net assets, %	8.1	7.7	5.2
Comparable return on net assets, %	8.2	7.6	7.9
Gross investments	296	237	24.9
Number of employees	1,336	1,063	25.7

# Number of electricity distribution customers by area, 31 December

thousands	2008	2007
Sweden	877	871
Finland	606	591
Norway	99	98
Estonia	24	24
Total	1,606	1,584

# Volume of distributed electricity in distribution networks

TWh	2008	2007
Sweden	14.0	14.3
Finland	9.3	9.2
Norway	2.3	2.3
Estonia	0.2	0.2
Total	25.8	26.0

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secured, the average outage time has decreased from 11.7% in 2005 to 4.4% in 2008. The areas secured are chosen based on the number of customers and where the network is most affected by weather.

### AMM roll-out in Sweden almost finalised

The roll-out of automatic meter management (AMM) in Sweden peaked during 2008 when 500,000 automatic meters were installed. At year-end 800,000 (96%) out of the 835,000 were installed. The remaining meters will be installed by July 2009.

The major benefit of AMM is that invoicing is based on actual consumption. At the end of 2008, 690,000 customers received invoices based on monthly meter readings. In the future, customers can also monitor their consumption on an hourly basis in Fortum's online service. For the customer, this means better control, understanding and awareness of energy consumption.

Over the year, Distribution started the planning for an AMM roll-out also in Finland and Norway. Tender evaluation is ongoing in Finland, but no investment decisions have been made.

### Preparing for the adoption of plug-in electric vehicles

As part of Fortum's continuous efforts to promote sustainable development, a corporate-wide initiative, lead by Distribution, to study the large-scale introduction of plug-in electric vehicles in Sweden and Finland was launched. A key component of the project is to develop the infrastructure needed to recharge the electric cars in order to

facilitate adoption when car manufacturers introduce them to the markets in a few years. Fortum believes that there is potential for significant usage of electric cars in the Nordic countries, and that adoption of them can help to achieve the EU's climate targets especially regarding traffic.

# Securing long-term profitability

An extensive internal efficiency programme was carried out in 2008 with actions to follow also in the coming years. The focus of the programme is on improving customer service and enhancing the efficiency of internal processes, and thus securing the long-term competitiveness of the business. For Distribution, this also means a centralisation of office work to the head-quarters in Finland and to Stockholm and Karlstad in Sweden.

Another major change during the year was the outsourcing of field construction services to Hafslund Infratek, which affected ca. 140 employees by an annual volume of EUR 20 million.

In 2009, Distribution will focus on finalising the ongoing efficiency programme in order to secure faster throughput time and higher quality for customers.

#### Regulatory development

The distribution business is strictly regulated and supervised by national authorities. However, Fortum sees its responsibility as wider than just following regulations. The goal is to secure long-term customer satisfaction and consistent development of the future regulatory framework.

In December, the Swedish Energy

Market Inspectorate (Energimarknads-inspektionen) and Swedish network companies agreed to finalise their ongoing court cases regarding net prices. For Fortum, this means that supervision for the years 2003–2008, regarding Stockholm and West Coast is closed. Fortum is now concentrating on the new regulation model in which net pricing is determined in advance. This model is proposed to be applied from 2012 onward. Fortum will actively work to get a clear model for the future.

The Finnish regulation period 2005–2007 has ended. The final supervisory decision confirmed that Fortum's income for the period was below the allowed limit. Fortum has appealed the parameters on which the final decision for the regulation period 2008–2011 will be based. The Market Court decided on 31 December to accept some of the complaints given by the industry.

The same reasoning is behind the complaints about the parameters in the Norwegian regulator's decision. During 2008, Fortum received a favourable ruling on one of its appeals and compensation of EUR 2.7 million.

ENERGY ADVICE

#### Smart choices at home

Little changes made in household energy use can add up to big savings. In the kitchen, the average household can save about 10–15% on the electricity bill by not preheating the oven. Use a microwave to warm up small portions. Using a lid and stirring food during microwave cooking, as well as defrosting frozen foods using the microwave's defrost setting, can also bring savings.

Repair leaking toilets or faucets right away, and wash full loads when doing laundry. Running the light wash cycle or washing less than a full load typically uses almost as much water as a full load.



# **Markets**

Customers' wishes and values are clearly visible in the development of products and services by Markets.

CLIMATE CHANGE TOGETHER WITH CUSTOMERS

Markets is the leading electricity retail company in the Nordic countries with a total of 1.3 million private and business customers. Approximately 75% of electricity volumes are sold to business customers and 25% to consumers. In addition to direct electricity sales, Markets sells electricity to other electricity retailers in Sweden and Finland. Markets buys all its electricity through Nord Pool and is the largest seller of ecolabelled Norppa electricity in Finland and Bra Miljöval electricity in Sweden.

#### Tough competition in consumer prices

For electricity retail companies, 2008 was a period of intense competition in the Nordic market. The wholesale price of electricity increased sharply during the three first quarters. At the same time, tough competition kept consumer prices down and the high procurement costs put pressure on the sales margins.

Over the year, Markets was not able to fully offset the increased wholesale prices and procurement costs in the sales prices. This was especially the case with the consumer market segment in Finland and with the business market segment in all the Nordic countries. Sim-

#### Actions to enhance performance In order to enhance its finances, Mar-

ilar challenges existed also in the other

segments in all the Nordic countries.

kets launched a performance improvement programme. To achieve significant improvements in sales margin performance, Markets renewed its procurement model. Revisions to electricity offering portfolio were initiated both in the consumer market segment and in the business market segment in order for end-customer pricing to follow Nord Pool prices more closely. Consequently, sales margin performance will be less affected by the wholesale price volatility. In the consumer market segment, new electricity products were being developed at spot-based prices.

Also an extensive internal efficiency programme was carried out in 2008 with actions to follow also in the coming years. The focus is on improving customer service, enhancing the efficiency of processes and securing the long-term competitiveness of the business. For Markets, this means a centralisation of operations to Espoo and Stockholm.

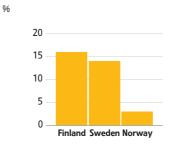
Fortum's own monthly customer satisfaction surveys show that the customers give high grades to customer service employees for their willingness to be of service and their positive attitude. Fortum Customer Services has put a lot

#### Key figures

EUR million	2008	2007	Change %
Sales	1,922	1,683	14.2
power sales	1,865	1,582	17.9
other sales	57	101	-43.6
Operating profit	<b>–</b> 35	12	N/A
Comparable operating profit	<b>–</b> 33	-1	N/A
Net assets (at end of period)	188	247	-23.9
Return on net assets, %	-14.0	6.9	N/A
Comparable return on net assets, %	-15.3	-0.6	N/A
Gross investments	3	3	0.0
Number of employees	635	935	-32.1

#### Market share by Nordic country,

31 December 2008



Electricity sales customers

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of effort into developing the processes so that customer requests are handled quickly, efficiently and in one contact with Fortum Customer Services.

According to the SKI Rating 2008 in Sweden, Fortum's customer satisfaction among consumers has improved and in 2008 the image of the company reached its highest level ever. In Finland, the EPSI rating 2008 shows that even though all customer segments are satisfied with the level and technical quality of customer service, customer loyalty declined in 2008.

# Customer's voice is heard in decision making

Markets' vision is to transform from an electricity retailer into a leading supplier of attractive energy offerings and solutions. As a customer's partner, Markets aims to be a catalyst in environmental impact mitigation and effective energy usage as well as a benchmark company in convenient and cost-effective customer services.

To engage with the customers' world, Markets has established customer councils together with local homeowners' associations. The councils discuss Fortum's services openly and test development ideas from Markets employees and council members alike. The dialogue has proven very fruitful and useful for the development of Markets' product and service offering. The positive experience from the consumer councils also encourages Markets to engage in a similar dialogue with business customers.

Energy partnership activities in Sweden and in Finland have also proven to be a very successful way to establish a natural co-operation relationship and

achieve direct interaction with current and potential customers. In Sweden, Energihjälpen (Energy help) programme continued in customer communications and interaction. The programme helps customers to improve their energy efficiency and thus reduce energy costs by offering and carbon dioxide emissions through activities such as energy efficiency guidance, consumption reports and by lending of flow meters. A similar energy advice programme was also started in Finland during 2008.

# Online service increasingly popular

More and more consumers deal with their energy transactions via the internet. Markets is developing its online services in order to facilitate this global trend and to gradually make the internet the main transaction channel for customers. Starting in 2009, Fortum's Finnish customers can, for example, find information on their energy consumption, energy-efficiency improvement measures and even the profitability of energy-conservation investments on the Fortum website.

#### New environmental labels

Markets shares the global concern for the environment and wants to make it easy for its customers to make choices that help to combat climate change. For several years, Markets has maintained its place as the largest seller of eco-labelled Norppa and Bra Miljöval electricity in the Nordic countries. Almost 70% of Markets' customers purchase Norppa or Bra Miljöval electricity, both of which meet the strict environmental requirements of the Finnish and Swedish Associations for Nature Conservation.

To complement these eco-labels, Markets started to sell CO<sub>2</sub>FRI guarantees of origin to all customers in Norway at the beginning of the year. The idea is that customers purchase guarantees of origin from Markets corresponding to the amount of their own consumption and thus contribute to the introduction of new electricity generation that is free of CO<sub>2</sub> emissions. These guarantees of origin may also be purchased by customers who buy their actual physical electricity supply from another electricity retailer.

In Finland and Sweden, Markets introduced two new environmental labels for business customers. Under the Fortum Carbon Free environmental label, electricity is produced without CO<sub>2</sub> emissions using nuclear power. The production of electricity under the Fortum Renewable label, in turn, is based entirely on renewable energy sources, mainly hydro, bio and wind power. Fortum Renewable is sold to companies that want to acquire a corresponding amount of environmental value to offset their electricity consumption under their current electricity contract.

#### Balancing the economy and moving towards environmental leadership

Markets' number-one target for 2009 is balancing its own economy and getting through the worldwide economic recession as a winner. This means not only tight cost control, but also improved performance and significantly enhanced sales margin performance. At the same time, Markets must keep in mind its vision to be the benchmark company in offering environmental products and services on the Nordic market and thus move towards environmental leadership.

ENERGY ADVICE

### A computer can use as much electricity as an electric sauna heater

A laptop computer uses only a fraction of the energy used by a desktop computer. Be sure to activate your computer's power saving mode — it can reduce the computer's electricity consumption by as much as half, especially if the computer is on for long periods of time. A flat LCD screen uses half the energy of a CRT monitor, and screen savers are not energy savers. Operating habits matter: A continuously running desktop computer with all the peripherals can use as much as 1,000 kWh/a of electricity, i.e. as much as an electric sauna heater!



# Russia

Russia is a new reporting segment in Fortum as of 1 April 2008, comprising power and heat generation and sales in Russia. The segment includes TGC-10 and Fortum's approximately 25% holding in TGC-1.

CAPTURING A UNIQUE GROWTH OPPORTUNITY Fortum acquired 76.49% of TGC-10 shares in March 2008 through an auction held by RAO UES of Russia and in an additional share issue of the company. Subsequently, in accordance with Russian legislation, Fortum filed a mandatory public tender offer to the company's minorities. At year-end 2008, Fortum's ownership in TGC-10 had reached 93.4%, including shares owned by TGC-10's fully-owned subsidiary. The total consideration for Fortum's ownership in TGC-10, at year-end, amounted to approximately EUR 2.5 billion, including the EUR 1.3 billion new share issue Fortum subscribed to in March.

The acquisition of Territerial Gen-

erating Company 10 (TGC-10) was in line with Fortum's growth strategy and has positioned Fortum as a significant player in one of the world's largest energy markets.

• Read more on pages 26–27.

# TGC-10 is a unique investment opportunity

TGC-10 operates in well-developed industrial regions of the Urals and western Siberia. Out of all territorial generating companies, TGC-10 has the best capacity utilisation rates and it is the leading district heating supplier in its area. The total installed capacity of TGC-10 and its affiliates is over 3,000

megawatt (MW) electricity and 15,800 MW heat with an annual production of 18 terawatt-hours (TWh) electricity and 27 TWh heat.

TGC-10 is the main heat supplier in the area where it operates. Heat is produced mainly in combined heat and power (CHP) plants and additionally with heat boilers. The company operates district heating networks, 1/3 of which are owned and 2/3 of which are operated. Heat pricing is regulated, set by local authorities within the limits set at the federal level.

# Extensive investment programme

TGC-10 has a committed, extensive investment programme, which will increase its electricity generation capacity by approximately 70% to 5,300 MW by 2013.

• Read more on page 31.

#### Launching an EHS action plan

The Environmental, Health and Safety (EHS)-performance of the TGC-10 power plants and district heating networks has been evaluated to identify and prioritise actions needed to raise their EHS performance closer to the level of Fortum's European operations. The plan consists of actions to be initiated immediately and issues that need further studies before specified targets can be set. One of the first actions is to

#### Key figures

2008	2007	Change %
489	-	-
332	-	-
141	-	-
16	-	-
<b>-</b> 91	244	N/A
-92	-	-
2,205	456	N/A
-3.7	66.3	N/A
-3.8	0.0	-
1,748	245	N/A
7,262	-	-
	332 141 16 -91 -92 2,205 -3.7 -3.8 1,748 7,262	332     -       141     -       16     -       -91     244       -92     -       2,205     456       -3.7     66.3       -3.8     0.0       1,748     245

The segment includes TGC-10 and Fortum's approximately 25% holding in TGC-1. TGC-10 is accounted for as a subsidiary and fully consolidated from 1 April 2008. TGC-1 is an associated company and accounted for using the equity method.

establish an adequate EHS organisation. The target is to become ISO 14001 certified by 2012.

Another short term target is reducing particle and sulphur emissions from TGC-10's Argayash power plant. Particle emissions will be reduced by 80% before the end of 2012 and a significant reduction of sulphur emissions will take place when modernising the plant around 2015.

#### Safety programme launch

Starting 2009, an ambitious occupational health and safety programme is being launched at TGC-10 and will cover all plants and all personnel. The programme consists of several focus areas with their own milestones. The target of the programme is to achieve the Fortum way of working regarding safety by 2012.

### Addressing the CO<sub>2</sub>-challenge

As a result of the committed investment programme, TGC-10's total CO2 emissions will increase due to higher production volumes and a larger share of gas condensing power production. However, the increase of specific CO<sub>2</sub> emissions will be limited to approximately 5% from the present level as the current 5% share of coal in the fuel mix will not be raised. Reductions in specific emissions will be achieved later when existing old power plants are replaced with new ones with better energy efficiency. Fortum will also study the feasibility of replacing some coal use with biomass or waste-derived fuel and will start planning for a carbon capture and storage testing facility in TGC-10.

Another short-term measure to

reduce CO<sub>2</sub> emissions is to upgrade the district heating network. A programme was launched early in 2009 aiming at reducing energy and water losses by 20% in the networks owned and operated by TGC-10. This corresponds to an approximate energy saving of 1.5 TWh and a CO<sub>2</sub> emissions reduction of 300,000 tonnes by 2015. Optimising CHP and heat-only production offers another significant savings potential.

### Emissions reductions through Joint Implementation

Over the year, Fortum agreed on joint implementation projects with TGC-1 and TGC-10. According to the agreements, Fortum will invest for example, in hydro power plant refurbishments, efficiency improvements in district heating networks and construction of new energy-efficient production capacity. In return, Fortum will receive approximately 6.5 million tonnes of emission reduction units (ERU) from TGC-1 and TGC-10 between 2008 and 2012. Fortum can use the ERUs to cover part of its own emissions in the EU once the projects are approved by the authorities and the emissions reduction of the completed projects has been verified.

# Integration of TGC-10 a top priority

Fortum has put considerable efforts into integrating TGC-10. The integration team has worked in TGC-10 since the beginning of April and the Fortum management model, organisational structure and the way of working were in place at the beginning of September 2008. The company is now organised to function in a competitive market.

The main integration priorities have been to optimise purchasing processes, to do technical audits of sites and define value creation opportunities, to launch a portfolio management and trading function and to streamline other internal processes. The integration has proceeded as planned and several targets for efficiency improvements have been identified. Consequently, annual efficiency improvements are expected to increase to approximately EUR 100 million by 2011.

# TGC-1: Maintaining Fortum's ownership stake

Fortum's associated company, TGC-1, operates in the northwest region of Russia. It has 6,250 MW of electricity production capacity, approximately 50% of which is hydropower. TGC-1 has an investment programme that will increase the company's power generation capacity by 3,900 MW. The estimated value of the programme is about EUR 5 billion. Fortum's goal is to maintain its ownership in TGC-1 at over 25%.

# TGC-10 will continue to be a key focus area

The acquisition of TGC-10 was the beginning of a long-term commitment and unique opportunity for Fortum. It is a platform for growth in the fourth-largest energy market in the world. Fortum is committed to transferring and applying its expertise to Russian production plants in order to increase their energy and environmental efficiency with latest technologies. TGC-10 will continue to be a key focus area for Fortum also in the coming years.

ENERGY ADVICE

#### Preventive maintenance for equipment

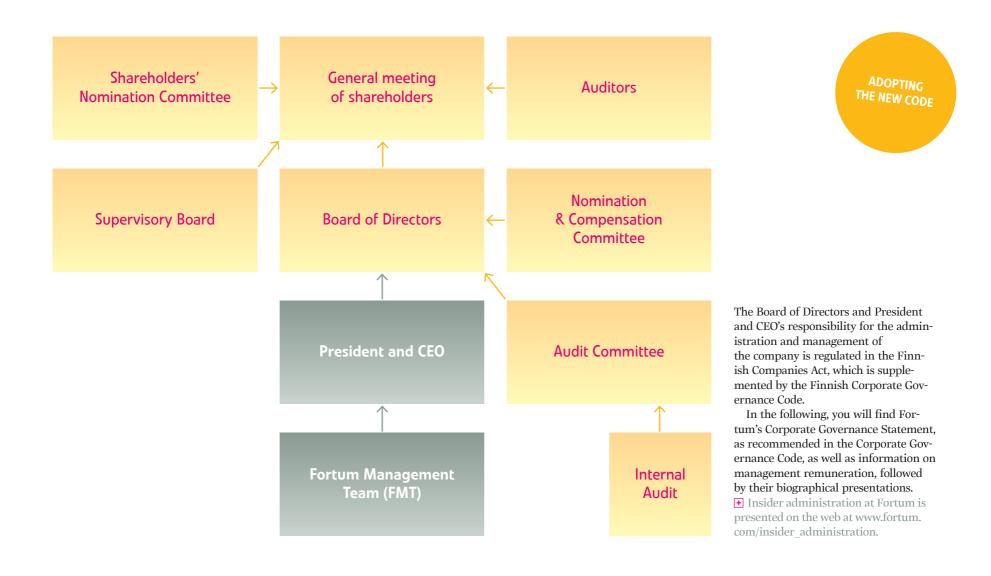
A power plant produces energy most costefficiently and with lower emissions when planned preventive maintenance is used to keep equipment and systems in operating condition.

In preventive maintenance, the condition of important production equipment is constantly monitored. Planned maintenance is done at regular intervals and worn parts are replaced. This prevents downtime in production and a lower performance level caused by malfunctions and equipment failures.



# Chapter 6

# Corporate governance



# Corporate Governance Statement

Corporate governance at Fortum is based on the laws of Finland, the company's Articles of Association and the new Finnish Corporate Governance Code 2008. The new Code replaced the Corporate Governance Recommendation for Listed Companies 2003, which the company earlier complied with.

This Corporate Governance Statement has been prepared pursuant to Recommendation 51 of the new Code and Chapter 2, Section 6 of the Securities Markets Act. The Corporate Governance Statement is issued separately from the company's operating and financial review.

Furthermore, Fortum complies with the rules of NASDAQ OMX Helsinki Ltd, where it is listed, and the rules and regulations of the Finnish Financial Supervisory Authority. Fortum's headquarters is located in Espoo, Finland.

The company complies with the Finnish Corporate Governance Code with the exception that Fortum's Board of Directors' Nomination and Compensation
Committee is not involved in the nomination process of members to the Board
of Directors. For this, the Annual General Meeting has established a Shareholders' Nomination Committee.

The Corporate Governance Code is
available on the website of the Securities
Markets Association (www.cgfinland.fi).

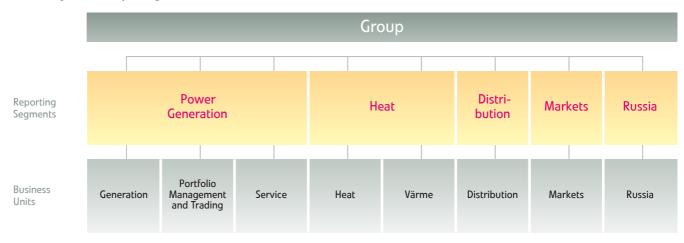
Fortum prepares consolidated financial statements and interim reports in accordance with the International Financial Reporting Standards (IFRS), as adopted by EU, the Securities Markets Act as well as the appropriate Financial Supervision Authority's stand-

ards and NASDAQ OMX Helsinki Ltd's rules. The company's operating and financial review report and parent company financial statements are prepared in accordance with Finnish Accounting Act and the opinions and guidelines of the Finnish Accounting Board. The auditor's report covers the operating and financial review report, consolidated financial statements and the parent company financial statements.

#### Organisation of the Group

The decision-making bodies managing and overseeing the Group's administration and operations are the Annual General Meeting of Shareholders, the

#### Fortum's financial reporting stucture



Supervisory Board, the Board of Directors with its two Committees, and the President and Chief Executive Officer (CEO) assisted by the Fortum Management Team. The Board of Directors supervises the performance of the company, its management and organisation. The Supervisory Board, the Board of Directors and the Fortum Management Team are separate bodies, and no person serves as a member of more than one of them.

Day-to-day operational responsibility at the Group level rests with the President and CEO assisted by the Fortum Management Team and at business unit level with each unit's head assisted by a management team.

Fortum's organisation is characterised by a decentralised organisation that is managed based on target-oriented leadership with clear targets and rewards based on performance. Each business unit has its own staff and other resources. However, there are service units supporting the business units. Fortum also has corporate centre functions to ensure that Group synergies can be captured.

#### General Meeting of Shareholders

The right of shareholders to make decisions over company matters is exercised at an appropriately convened General Meeting of Shareholders by those shareholders present, or by their authorised representatives. In accordance with the Articles of Association and Finnish Corporate Governance Code, a notice to convene the General Meeting of Shareholders is issued by the Board of Directors. The notice is delivered no more than two months and no less than 21 days before the General Meeting of

Shareholders by publishing the notice in two newspapers chosen by the Board of Directors.

The Annual General Meeting is held once a year, at the latest in June. An Extraordinary General Meeting of Shareholders shall be held whenever the Board of Directors finds cause for such a meeting or when provisions of the law rule that such a meeting must be held.

#### The duties of the Annual General Meeting are, among other things:

- Adoption of the financial statements and the consolidated financial statements
- Decision on the treatment of the distributable funds
- Elect the members of the Supervisory Board and the Board of Directors
- Decision on the discharge from liability of the Supervisory Board and the Board of Directors as well as of the President and CEO
- Decide on the remuneration of the Supervisory Board, the Board of Directors and the remuneration for the auditor
- Elect the auditor

The shareholders who are registered as shareholders in the company's shareholder register maintained by Euroclear Finland Ltd ten days prior to the meeting are entitled to attend the General Meeting of Shareholders. Shareholders who hold their shares under the name of a nominee can be temporarily registered in the company's shareholder register to allow attendance at the General Meeting of Shareholders.

To take part in the General Meeting of Shareholders, shareholders shall register with the company at the latest by the date mentioned in the notice convening the meeting, which may be no more than ten days before the meeting. Shareholders wishing to bring up a matter for consideration by the General Meeting of Shareholders shall present the matter in writing to the Board of Directors early enough for the matter to be included in the notice convening the meeting.

A dividend as decided by the General Meeting is paid to shareholders who, on the record date for dividend payment, are registered as shareholders in the company's shareholder register.

#### Shareholders' Nomination Committee

By decision of Fortum's Annual General Meeting 2008, a Shareholders' Nomination Committee was appointed to prepare proposals concerning Board members and their remuneration for the following Annual General Meeting. The Committee consists of the representatives of the three largest shareholders and the Chairman of the Board of Directors as an expert member. Those three shareholders, whose share of the total votes of all shares in the company were the largest as of 3 November 2008 preceding and whose ownership is registered in the book-entry system, were entitled to appoint the members representing the shareholders on the Committee. Should a shareholder not have wished to use its right to nominate, this right would have been be passed on to the next biggest shareholder.

In November 2008, the following persons were appointed to Fortum's Shareholders' Nomination Committee by the three largest shareholders: Pekka Timonen, Director General, Prime Minister's Office, Ownership Steering Department,

Harri Sailas, CEO, Ilmarinen Mutual Pension Insurance Company, and Jorma Huuhtanen, Director General, Social Insurance Institution. The Chairman of Fortum's Board of Directors, Peter Fagernäs, served as the Committee's expert member.

In its meeting on 2 February 2009, the Shareholders' Nomination Committee decided to propose to the Annual General Meeting, which is to be held 7 April 2009, that the following persons be elected to the Board of Directors: Peter Fagernäs as chairman, Matti Lehti as deputy chairman, and as members Esko Aho, Sari Baldauf (new member), Ilona Ervasti-Vaintola, Birgitta Johansson-Hedberg and Christian Ramm-Schmidt.

#### Supervisory Board

The Supervisory Board is responsible for overseeing that the shareholders' interests are safeguarded.

## The main tasks of the Supervisory Board are to:

- Oversee the company's administration by the Board of Directors and the President and CEO
- Submit its statement on the financial statements and the auditor's report to the Annual General Meeting
- Discuss proposals by the Board of Directors in matters concerning a substantial reduction or expansion of company's operation or and essential change to company's organisation

The members of the Supervisory Board, its Chairman and Deputy Chairman are elected at the Annual General Meeting for a one-year term of office. A person who has reached the age of 68 years may not be elected as a member of the

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Supervisory Board. The Supervisory Board comprises a minimum of six and a maximum of 12 members; in February 2009 there were 10 members. The Supervisory Board meetings are also attended by employee representatives who are not members of the Supervisory Board. More than half of the Supervisory Board's members must be present to constitute a quorum. In 2008, the Supervisory Board met 6 times. Average attendance at these meetings was 85%.

#### At the 2008 Annual General Meeting, the following persons were elected to the Supervisory Board for a one-year term of office:

- Mr Markku Laukkanen, born 1950, Member of Parliament, Chairman
- Ms Sanna Perkiö, born 1962, Member of Parliament, Deputy Chairman
- Mr Martti Alakoski, born 1953, Member of the City Council of Kurikka
- Ms Rakel Hiltunen, born 1940, Member of Parliament
- Mr Sampsa Kataja, born 1972, Member of Parliament
- Mr Kimmo Kiljunen, born 1951, Member of Parliament
- Ms Katri Komi, born 1968, Member of Parliament
- Mr Panu Laturi, born 1972, Secretary General
- Mr Juha Mieto, born 1949, Member of Parliament
- Mr Jukka Mäkelä, born 1960, Member of Parliament

The employee representatives on Fortum's Supervisory Board were Jouni Koskinen, Tapio Lamminen and Satu Viranko. The current employee representatives were elected in the spring 2007 and their term continues until the spring 2009.

#### **Board of Directors**

The Board of Directors is responsible for the administration of the Group and for ensuring that the business complies with the relevant laws and regulations, including the Finnish Companies Act, Fortum's Articles of Association, the instructions given by the General Meeting of Shareholders and the guidelines issued by the Supervisory Board. The responsibilities of the Board of Directors are outlined in the Board of Director's working order.

The Board of Directors comprises five to eight members who are elected at the Annual General Meeting for a one-year term of office, which expires at the end of the first Annual General Meeting following the election. More than half of the members must be present to constitute a quorum. A person who has reached the age of 68 cannot be elected to the Board of Directors.

#### At the 2008 Annual General Meeting, the following seven persons were elected to the Board of Directors:

- Mr Peter Fagernäs, born 1952, Chairman
- Mr Matti Lehti, born 1947, Deputy Chairman
- Mr Esko Aho, born 1954
- Ms Ilona Ervasti-Vaintola, born 1951
- Ms Birgitta Johansson-Hedberg, born 1947
- Ms Marianne Lie, born 1962
- Mr Christian Ramm-Schmidt, born 1946

In 2008, the Board of Directors met 10 times, of which one was a teleconfer-

ence. Average Director attendance at all Board meetings was 98.6%. In addition to steering and supervising the company's operational and financial development, the main items during the year were Fortum's strategy, financial position as well as risks and financial reporting. Main items also included the TGC-10 acquisition in Russia, electricity sales business, nuclear power projects and investments in new power and heat production. Over the year, the Board closely followed the development of the electricity market in Europe and in Russia. The Board also continued to address issues relating to sustainable business development and management performance, implementation of the Code of Conduct, and, at the end of the year, made a decision to comply with the new Finnish Corporate Governance Code.

The members of the Board of Directors are all independent from the company and its significant shareholders.

The President and CEO, the Chief Financial Officer and the General Counsel (being the secretary to the Board) attend Board meetings. Other Fortum Management Team members attend as required to provide information to the Board or upon invitation by the Board.

The Chairman of the Board, together with the President and CEO, prepares the items for discussion and to be decided upon at the Board of Directors' meetings.

# The Board of Director's working order

The Board of Directors has approved a working order to govern its work. The main contents of the working order have been summarised as follows:

# The main tasks of the Board of Directors:

- Strategic development and steering of the company's business and fields of activity
- Ensuring that the business complies with the relevant rules and regulation, the company's Articles of Association and guidelines given by the Supervisory Board
- Defining the dividend policy
- Ensuring that the accounting and financial administration are arranged appropriately
- Appointing the top management
- Reviewing the central risks and instructing the President and CEO concerning the risks
- Confirming the annual business plan
- Approving interim reports, consolidated financial statements, and operating and financial review and parent company financial statements
- Taking care of the duties of the company's Board of Directors specified in the Companies Act and in the Articles of Association
- · Deciding on major investments
- Electing members to the Board Committees

# Assessment of the Board of Directors' work:

Annual self-assessment

#### Procedures of Board meetings:

- Convenes according to a previously agreed schedule to discuss specified themes and other issues whenever considered necessary
- Chairman decides on the agenda based on proposals by the other members of the Board, the President and CEO, and the secretary to the Board

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- The Chairman shall convene a meeting to deal with a specific item, if requested by a member of the Board or the President and CEO
- Dealing with the reports of the Board committees and the President and CEO
- Materials shall be delivered to the members five days before meetings

#### The Board Committees

The Board of Directors appoints an Audit Committee, which has three members, as well as a Nomination and Compensation Committee, which has four members. The members of these committees are all members of the Board of Directors. Members are appointed for a one-year term of office, which expires at the end of the first Annual General Meeting following the election. All the members of the Board of Directors have the right to participate in the committee meetings. The secretary to the Board of Directors acts as the secretary to the committees.

The Board has approved written charters for the committees. The main contents of these rules are outlined below.

#### The Audit Committee

The Audit Committee assists the Board of Directors in fulfilling its supervisory responsibilities in accordance with the tasks specified for audit committees in the Finnish Corporate Governance Code. The Audit Committee follows the financial position of Fortum and oversees the financial reporting process, the management of financial risks and overviews the effectiveness of the internal control framework and the related systems of accounting and financial con-

trols, as well as reviewing of the company's Corporate Governance Statement. The committee also prepares the recommendation for the election of external auditors to the Board of Directors and monitors the independence and performance of the external auditors. The Audit Committee reports on its work to the Board of Directors regularly after each meeting.

The Audit Committee annually reviews its charter, approves the internal audit charter and the internal audit plan and carries out a self-assessment of its work. Furthermore, the Audit Committee meets the external auditors regularly to discuss the audit plan, audit reports and audit findings.

In 2008, the Audit Committee was chaired by Birgitta Johansson-Hedberg and its members were Ilona Ervasti-Vaintola and Christian Ramm-Schmidt. The Committee met five (5) times in 2008. Average Director attendance at all meetings was 93.4%. Also regularly participating in the Committee's meetings were external auditors, Head of Internal Audit, Chief Financial Officer, Corporate Controller and General Counsel as the Secretary to the Committee as well as other parties invited by the Committee.

The main items during the year included reviewing the interim reports, the financial statements, internal audit and risk management reports, monitoring of certain important projects, such as the acquisition of TGC-10 in Russia, preparing a recommendation for the election of the external auditor, as well as regulatory compliance and development of internal controls and monitoring the implementation of the Code of Conduct.

# The Nomination and Compensation Committee

The Nomination and Compensation Committee discusses, assesses and makes proposals on the salary structure, bonus and incentive systems for the Group and its management, and contributes to the Group's nomination issues. The Committee reports on its work to the Board of Directors after each meeting.

In 2008, the Nomination and Compensation Committee was chaired by Peter Fagernäs and its members were Esko Aho, Marianne Lie and Matti Lehti. The Committee met four (4) times during 2008. Director attendance at all meetings was 100%. Other regular participants at the Committee meetings were the President and CEO, Senior Vice President, Human Resources, and General Counsel as the secretary to the Committee.

The main items included top management performance evaluations and compensation issues, including performance target-setting for the Fortum Management Team as well as succession planning.

# Assessment of the Board of Directors

The Board of Directors conducts an annual self-assessment in order to further develop the work of the Board. The assessment process analyses the efficiency of the work, the size and composition of the Board, the preparation of the agenda, and the level and openness of discussions, as well as the members' ability to contribute to an independent judgement.

#### **President and CEO**

The role of the President and CEO is to manage the Group's business and

administration in accordance with the Finnish Companies Act and related legislation and the instructions from the Board of Directors. The President and CEO is supported by the Fortum Management Team. The performance of the President and CEO is evaluated annually by the Board of Directors. The evaluation is based on objective criteria that include the performance of the company and the achievement of goals previously set for the President and CEO by the Board's Nomination and Compensation Committee.

#### Fortum Management Team

The Fortum Management Team currently consists of eight members, including the President and CEO to whom the members of the Management Team report. The General Counsel acts as the Secretary to the Management Team. The Management Team meets regularly on a monthly basis. In addition, there are meetings dealing with strategy and business planning, as well as performance reviews and people issues such as management reviews.

The Fortum Management Team, among other things, sets the strategic targets, prepares the Group's annual business plans, follows up on the results, plans and decides on investments, mergers, acquisitions and divestments within authorisation, reviews the key day-to-day operations and the implementation of operational decisions.

#### Internal audit

Fortum's Corporate Internal Audit is responsible for assessing and assuring the adequacy and effectiveness of internal controls in the company. Furthermore, it evaluates the effective-

ness and efficiency of various business processes, the adequacy of risk management, and e.g. compliance with laws, regulations and internal instructions. The Standards for the Professional Practice of Internal Audit form the basis for its work.

Corporate Internal Audit is independent of the business and other units in Fortum. It reports to the Audit Committee of the Board of Directors and administratively to the CFO. The purpose, authority and responsibility of Corporate Internal Audit is formally defined in its charter. The charter and the annual audit plan are approved by the Audit Committee.

#### External audit

The company has one auditor, which shall be an audit firm certified by the Central Chamber of Commerce. The auditor is elected by the Annual General Meeting for a term of office that expires at the end of the first Annual General Meeting following the election.

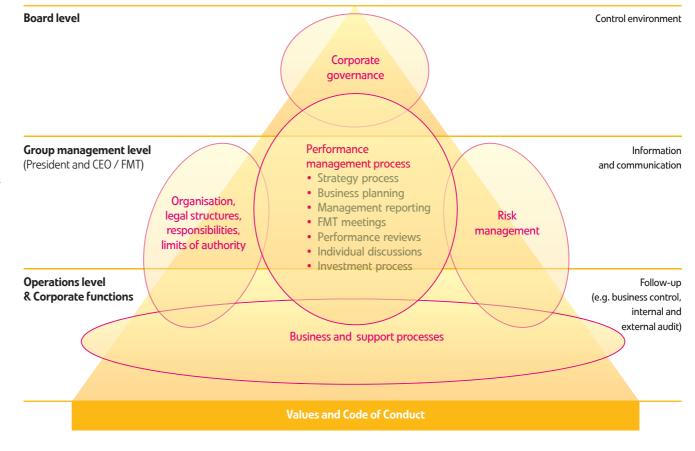
Fortum Corporation's Annual General Meeting on 1 April 2008 elected Authorised Public Accountant Deloitte & Touche Oy as auditor, with Authorised Public Accountant Mikael Paul having the principal responsibility.

#### Internal control and risk management systems pertaining to financial reporting

# System of risk management and internal controls

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

# Fortum's internal control framework



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defines the Fortum risk management process.

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The Fortum risk management process is also embedded in the internal control framework, and the process-level internal control structure has been created by using a risk-based approach. The same approach is also used for the financial reporting process.

Fortum's internal control framework includes main elements from the framework introduced by the Committee of Sponsoring Organisations of the Treadway Commission (COSO).

₹ Read more about Fortum's risk management process and largest risks on pages 98–102.

#### Control environment

Fortum has an internal control framework supporting the execution of the strategy and ensuring regulatory compliance. Values and Code of Conduct set the foundation for the internal control framework. The framework consists of Group-level structures, corporate-level processes as well as business and support process-level controls. The Audit Committee, appointed by the

Board of Directors, has oversight over risk management within the Group. Corporate Risk Management, an independent function headed by the Chief Risk Officer, reports to the CFO and is responsible for reporting risk exposures and maintaining the company's risk management framework. In the financial reporting process, the ownership of the overall control structure is in the Corporate Control and Accounting unit as part of the CFO's office.

#### Risk assessment

As part of the Fortum risk management process, also risks related to financial reporting are identified and analysed annually. Additionally, all new risks are analysed and escalated as they have been identified. The control risk assessment has been the basis for creating the process-level internal control framework and the same applies to the control points to prevent errors in the financial reporting process. The results of the control risk assessment and the process-level controls have been reported to the Audit Committee.

#### Control activities

Fortum's organisation is decentralised and a substantial degree of authority and responsibility has been delegated to the business units. Each business unit has its own staff and other resources. Control activities are applied in the business processes and, from a financial reporting perspective, they ensure that potential errors or deviations are prevented, discovered and corrected. The Fortum policy structure ensures that governance around all activities exists.

In financial reporting, the Controller's manual sets the standards. The Corporate Control and Accounting -unit defines the design of the control points, and internal controls cover the end-to-end financial reporting process. However, the part of the organisation responsible for performing the controls is also responsible for the effectiveness of the controls. There are transaction process-level controls and periodic controls. These periodic controls are linked to the monthly and annual reporting process and include reconciliations and analytical reviews to ensure the correctness of financial reporting.

#### Information and communication

Accounting manuals and policies are stored on intranet sites accessible by all people involved in the financial reporting process. Additionally, Corporate Control and Risk Management functions regularly arrange meetings in which information around the processes and practices is shared to ensure uniform application of the processes. Investor Relations and Corporate Communications together with Corporate Control maintain the instructions for releasing financial information.

#### Follow-up

Financial results are followed in the monthly reporting. In addition to that, the quarterly Performance Review meetings with Group and business unit management are embedded in the Fortum Performance Management process to review the financial performance and ultimately reviewed by the Audit Committee and Board of Directors.

The Performance Reviews have a monitoring role also in ensuring that the internal controls are functioning. As part of the Fortum internal control framework, all units are accountable for assessing the effectiveness of the controls they are responsible for. For the financial reporting process, business unit- and corporate-level controller teams are responsible for this assessment. In addition, Internal Audit performs audits of the financial reporting process.

#### Fortum performance management process

Corporate strategy

Business unit roles and expectations on business units

Business unit target setting and incentives

Business unit target setting and incentives

# Remuneration

Fortum offers a competitive compensation package for senior executives and other management, in order to attract and retain key resources. This package offers competitive, but not excessive, base salaries, purposeful benefits, challenging short-term incentives and deferred, share-based, long-term incentives. The compensation package is determined according to the Group's remuneration policy.

Fortum's remuneration takes into account the company's financial performance and external market data, in particular, remuneration levels for similar positions among peer companies. The remuneration policy is determined by the Board of Directors.

Compensation for the members of the Supervisory Board and the Board of Directors is decided by the Annual General Meeting of Fortum Corporation.

#### Short-Term Incentives (STI)

Fortum's short-term incentive system (called annual bonus below) exists to support the Group's values, the achieve-

ment of financial targets and structural changes, and to secure an alignment between the performance targets of the individual employee and the targets of the Group or his/her business unit. Traditionally, all Fortum employees are covered by the annual bonus system. In 2008, Poland and Russia were still exceptions.

The criteria used in determining the size of the bonus for senior management (President and CEO and other members of Fortum's Management Team) are decided annually by the Board of Directors on the recommendation of the Board's Nomination and Compensation Committee. The size of each senior executive's annual bonus is dependent on the Group's financial performance, as well as on their own success in reaching his/her personal goals. If the financial targets and personal goals are met, each senior executive receives a 25% bonus. The maximum bonus level, when all targets and goals are exceeded, is 40% of the person's annual salary including fringe benefits.

For executives with business unit responsibilities, the scheme reflects the performance of their business unit. The criteria for evaluating an executive's

#### Compensation for the President and CEO and the Fortum Management Team

	Salaries and	fringe benefits	Perfo	rmance bonuses		Total
EUR	2008	2007	2008	2007	2008	2007
President and CEO	866,824	833,304	156,359	297,018	1,023,182	1,130,322
Other Management Team members	1,718,584	1,562,073	102,104	539,550	1,820,688	2,101,623

Additionally, the President and CEO had a calculatory gross income of EUR 2,149,442 based on February 2008 share delivery from the LTI plan 2002–2007. The corresponding aggregated figure for the other members of the Fortum Management Team was EUR 3,468,162. These shares were granted in spring 2005 after the earning period with the value not exceeding participants' one year salary and were delivered after the three-year lock-up period.

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personal performance are mutually agreed between the executive and his/her superior in an annual performance discussion at the beginning of each year. The performance of the President and CEO is evaluated annually by the Board of Directors.

The annual performance bonuses paid to the Fortum Management Team, including the President and CEO, in 2008 amounted to EUR 258,463, which is 0.06% of the total salaries and remuneration paid in the Group.

In the event that Fortum decides to give of termination to the President and CEO, he is entitled to compensation equalling 24 months' salary.

#### Long-Term Incentives (LTI)

Fortum's Management Performance Share Arrangement (LTI) is a performance-based, long-term incentive arrangement. It was launched in 2003 to support the achievement of the Group's long-term goals by attracting and retaining key personnel. The last plan in this arrangement started in 2007 and will end 2012. In January 2008, the arrangement was further developed.

At present, approximately 160 managers, all of whom have been elected by the Board of Directors, are participants in at least one of the six ongoing annual LTI plans. The 2006–2011 LTI plan is for non-stock option holders only.

#### Share rights delivered and granted to the management

Shares	Year 2008 1)	Year 2009 1)	Year 2010 <sup>2)</sup>	Year 2011 2)
Mikael Frisk	10,450	6,292	5,661	3,502
Timo Karttinen	8,622	5,174	4,792	2,988
Tapio Kuula	14,415	8,682	7,813	5,168
Juha Laaksonen	12,010	7,227	6,504	4,718
Mikael Lilius	36,765	22,423	20,446	14,871
Christian Lundberg	10,762	6,667	6,232	3,861
Maria Paatero-Kaarnakari	3,721	2,643	2,353	1,592
Maria Romantschuk	-	-	-	-

<sup>&</sup>lt;sup>1)</sup>Actual numbers of shares delivered after taxation.

A new performance share plan under the new arrangement starts annually if approved by the Board of Directors and runs for a five-year period. Each share plan begins with a three-year earning period, followed by a two-year lock-up period. The individual number of share rights delivered after the three-year earning period is based on the achievement of the earnings criteria set by the Board of Directors. The earnings criteria are set annually, and may vary from year to year.

Before delivering the shares to the participant, the company deducts all taxes and other charges payable by the participant, and the participant receives the remaining portion (in Finland currently approximately 40–50%) of the value in Fortum shares. Taxation details may vary from country to country.

The maximum value of shares (before taxation) to be delivered to a participant after the earning period cannot exceed the participant's one-year salary.

During the lock-up period, the shares may not be sold, transferred, pledged or disposed in any other way. The shares will be released from lock-up after publication of the company's financial results for the fifth calendar year of an individual plan.

Based on the previous LTI system, the first annual share plan began in 2003 and was based on the 2002 financial results. After the three-year earning period, in spring 2005, share rights belonging to the first plan were granted to the participants. The shares, based on these share rights, were delivered to the participants in February 2008. In 2006, the earning period of the consecutive plan (2003–2008) ended and share rights belonging to this plan were granted to the participants and were delivered in February 2009. In 2007, the share rights from plan 2004–2009, and, in 2008, the share rights from plan 2005–2010, were granted to the participants.

The first shares under the new arrangement will be delivered to participants in 2011 and will be released from lock-up in 2013. The President and CEO is not participating in the new plans started in 2008 and 2009.

Fortum does not have any stock option programmes, where the subscription periods have not yet started. The subscription periods for the last stock option scheme (2002B) began in 2006 and will end in April 2009. The members of the current Fortum Management Team do not have any remaining stock options.

**★** For more information about the incentive schemes and stock option schemes, please refer to pages 153–155.

<sup>&</sup>lt;sup>2</sup>Calculative number of share rights based on 56% tax deduction.

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#### Pensions

Fortum's Finnish executives participate in the Finnish TyEL pension system, which provides for a retirement benefit based on years of service and earnings according to the prescribed statutory system. Under the Finnish pension system, base pay, incentives and taxable fringe benefits are included in the definition of earnings, although gains realised from stock options and from the Management Performance Share Arrangement are not. Finnish pension legislation now offers a flexible retirement from age 63 to age 68 without full pension limits.

For the President and CEO and the members of the Fortum Management Team, the retirement age is between 60 and 62 and the pension paid can be a maximum of 66% or 60% of the remuneration. In the first case, the pensions are insured and paid by Fortum's pension fund, and in the latter, pensions are insured by an insurance company. The pension of the President and CEO is 60% of the remuneration at the age of 60.

#### Pension fund in Finland

Fortum has one pension fund, the Fortum Pension Fund for employees in Finland only, which was closed in 1991. The fund offers certain supplementary pension benefits to people within

the sphere of its operations. The most important of these are the overall guaranteed pension of 66% and the reduced retirement age of 60 for women and some men. At the end of 2008, the number of employees covered by the fund was 1,020.

In addition to the persons covered by the pension fund, there are some three hundred other Fortum employees who have various additional pension benefits based on the systems of their previous employers. These benefits are insured by insurance companies. The clear majority of these persons are employees of the former E.ON Finland.

#### Pensions in Sweden

In Sweden, the majority of Fortum's employees are covered by statutory retirement pension benefits and an additional collective agreement-based supplementary pension scheme, ITP for white-collar workers and SAF/LO for blue-collar workers.

In addition, approximately 240 key persons have opted out a portion of the ITP plan and are members of Birkaplanen, an alternative ITP-based pension scheme. Birkaplanen guarantees a defined pension of the final pensionable salary at the time of retirement and was closed to new entrants in 2003.

In 2006, Fortum therefore launched a new, alternative ITP-based pen-

sion scheme, ÖVER 10, for key persons earning more than 10 income base amounts. The scheme is contribution-based and offered both to existing and new employees. A limited number of employees in Sweden are also covered by separate pension schemes, due to earlier agreements with former employers.

#### Fortum Personnel Fund

The Fortum Personnel Fund (for employees in Finland only) has been in operation since 2000. The Board of Directors determines the criteria for the fund's annual profit-sharing bonus. Persons included in the Management Performance Share Arrangement are not eligible to be members of this fund. Members of the personnel fund are the permanent and fixed-term employees of the Group. The membership of employees joining the company starts at the beginning of the next month after the employment relationship has been ongoing for six months. Fund membership terminates when the member has received his/her share of the fund in full.

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

of capital from the tied amount to the amount available for withdrawal each year, once the employee has been a member for five years. The fund's latest financial year ended at 30 April 2008 and the fund then had a total of 3,187 members. At the end of April 2008, Fortum contributed EUR 4.3 million to the personnel fund as an annual profitsharing bonus based on the financial results of 2007. The combined amount of members' shares in the fund was EUR 22.7 million.

The amount available for withdrawal is decided each year and it is paid to members who want to exercise their withdrawal rights.

# Remuneration for non-executive management

# Compensation for Supervisory Board service

Each Supervisory Board member receives a fixed monthly fee and a meeting fee. The employee representatives receive only a meeting fee. All members are entitled to travel expense compensation in accordance with the company's travel policy. Members of the Supervisory Board are not offered stock options, warrants or participation in other incentive schemes, nor do they have a pension plan at Fortum.

On 1 April 2008, the Annual General

Meeting confirmed the following remuneration for Supervisory Board service:

EUR/month	2008	2007
Chairman	1,000	1,000
Deputy Chairman	600	600
Members	500	500
Meeting fee	200	200

#### Total compensation for Supervisory Board paid by Fortum

EUR	2008	2007
Chairman	14,000	13,000
Deputy Chairman	8,000	8,000
Other members	54,423	57,700

#### Compensation for Board service

Each Board member receives a fixed monthly fee and a meeting fee. The meeting fee is also paid for committee meetings and is paid in double to a member who lives outside Finland in Europe. The members are entitled to travel expense compensation in accordance with the company's travel policy. Board members are not offered stock options, warrants or participation in other incentive schemes. There is no pension plan for non-executive directors.

#### Compensation for Board service

The Annual General Meeting of 2008 confirmed the following compensation for Board service:

EUR	2008	2007
Chairman	66,000	55,000
Deputy Chairman	49,200	42,000
Other members	35,400	30,000
Meeting fee	600	500

# Total compensation for Board of Directors paid by Fortum

EUR	2008	2007
Chairman	70,250	61,500
Deputy Chairman	54,259	50,000
Other members of the Board	220,850	186,500

# Board of Directors (31 December 2008)



Peter Fagernäs
Chairman, Born 1952, Master of Laws
Chairman of the Nomination and
Compensation Committee

#### Main occupation:

and Amanda Capital plc

Chairman of the Board of Oy Hermitage Ab and Managing Partner of Hermitage Co Ltd. *Primary working experience:*Chairman of the Board, Pohjola Group Plc Chairman of the Board, Conventum Plc CEO, Conventum Plc Member of the Board, Merita Bank CEO, Prospectus Oy Various positions at Kansallis-Osake-Pankki *Key positions of trust:* 

Member of the Board of Winpak Ltd., Canada

Independent member of Fortum's Board of Directors since 2004.

Fortum shareholding on 31 Dec. 2008: 30,591 (31 Dec. 2007: 30,591)



Esko Aho
Born 1954, Master of Political Sciences
Member of the Nomination and Compensation Committee

#### Main occupation: Executive Vice President, Corporate Relations

and Responsibility, Nokia Corporation.
Member of the Group Executive Board.
Primary working experience:
President of Sitra, the Finnish Innovation Fund
Prime Minister of Finland
Member of Parliament
Leader of the Centre Party
Lecturer at Harvard
Key positions of trust:

Member of the Board of Directors of Russian Venture Company

Independent member of Fortum's Board of Directors since 2006

Fortum shareholding on 31 Dec. 2008: 0 (31 Dec. 2007: 0)



Ilona Ervasti-Vaintola Born 1951, LL.M., Trained on the bench Member of the Audit Committee

#### Main occupation:

Group Chief Counsel, Principal Attorney, Secretary of the Board of Directors, Sampo plc.

Member of the Group Executive Committee.

Primary working experience:

Chief Counsel and member of the Board, Mandatum Bank plc Director, Partner, Mandatum & Co Ltd Head of Financial Law Department, Legal counsel, Union Bank of Finland Ltd

Key positions of trust:

Member of the Board of Fiskars Corporation
and Finnish Literature Society,
Chairman of Legal Committee and Member
of the Panel on Takeovers and Mergers at the

Central Chamber of Commerce of Finland

*Independent member of Fortum's* Board of Directors since 2008.

Fortum shareholding on 31 Dec. 2008: 4,000



Birgitta Johansson-Hedberg Born 1947, Bachelor of Arts, Master of Psychology Chairman of the Audit Committee

### Main occupation: Director

Primary working experience:

President and CEO of Lantmännen President and CEO of Föreningssparbanken Resident Director for Scandinavia, Wolters Kluwer

#### Key positions of trust:

Chairman of the Board of Umeå Universitet and Vinnova, Deputy Chairman of A-banan, Member of the Board of Sveaskog, Finansinspektionen, NAXS, Rieber & Son ASA and The Forest Company Limited

Independent member of Fortum's Board of Directors since 2004.

Fortum shareholding on 31 Dec. 2008: 900 (31 Dec. 2007: 0)

**BOARD OF DIRECTORS** 



Matti Lehti

Deputy Chairman, born 1947, PhD (Econ) Member of the Nomination and Compensation Committee

#### Main occupation:

Chancellor of the Helsinki School of Economics Primary working experience: Chairman of the Board, President and CEO, TietoEnator Corporation and Tietotehdas Oy Deputy Managing Director, Rautakirja Oy

*Key positions of trust:* 

Chairman of the Foundation for Economic Education, Vice Chairman of the Helsinki School of Economics Foundation



#### Marianne Lie

Born 1962, Law and Political Science studies at the University of Oslo (UiO) Member of the Nomination and Compensation Committee

#### Main occupation:

Director

Primary working experience:

Director General, Norwegian Shipowners Association (NSA)

Managing Director, Helsevakten Telemed AS, an Umoe Group company

Managing Director, Vattenfall Norge AS Director, Department of Information and Industrial Policy, NSA

#### Key positions of trust:

Chairman of the Board of Punkt Ø, Member of the Board of Kverneland and Arendals Fossekompani ASA



#### Christian Ramm-Schmidt

Born 1946, BSc (Econ) Member of the Audit Committee

#### Main occupation:

Senior Partner of Merasco Capital Ltd. Primary working experience: President of Baltic Beverages Holding Ab (BBH) President of Fazer Biscuits Ltd., Fazer Chocolates Ltd., Fazer Confectionery Group Ltd. Director, ISS ServiSystems Oy Key positions of trust:

Member of the Board of Rocla Oyj, Suomen Lähikauppa Oy, Bang & Bonsomer Oy, OOO Moron (Moscow) and OOO Vitim (Moscow)

*Independent member of Fortum's* Board of Directors since 2005

Fortum shareholding on 31 Dec. 2008: 0 (31 Dec. 2007: 0)

Independent member of Fortum's Board of Directors since 2005.

Fortum shareholding on 31 Dec. 2008: 0 (31 Dec. 2007: 0)

Independent member of Fortum's Board of Directors since 2006.

Fortum shareholding on 31 Dec. 2008: 3,500 (31 Dec. 2007: 1,000)

# Group management (31 December 2008)



Mikael Lilius
President and CEO since 2000
Born 1949. BSc (Econ)
Employed by Fortum since 2000

#### Previous positions:

President and CEO of Gambro AB, Stockholm, 1998

President and CEO of Incentive AB, Stockholm, 1991

1991 President and CEO of KF Industri AB (Nordico),

Stockholm, 1989 President of the Packing Division of Huhtamäki Oy, Helsinki, 1986

*Key positions of trust:* 

Chairman of the Board, Huhtamäki Oyj Vice Chairman of the Board, Sanitec Oy Member of the Board, Hafslund ASA

Fortum shareholding on 31 Dec. 2008: 170,050 (31 Dec. 2007: 170,050)



#### Mikael Frisk

Senior Vice President, Corporate Human Resources, since 2001 Born 1961. MSc (Econ) Member of the Management Team since 2001 Employed by Fortum since 2001

#### Previous positions:

Vice President, HR Global Functions, Nokia Mobile Phones, 1998 Vice President, HR, Nokia-Maillefer, Lausanne, Switzerland, 1993 HR Development Manager. Nokia NCM Division.

HR Development Manager, Nokia NCM Division 1992

HR Development Manager, Oy Huber Ab, 1990 *Key positions of trust:* 

Member of the Board, Talentor Group Oy Member of the Board, Staffpoint Oy

Fortum shareholding on 31 Dec. 2008: 25,350 (31 Dec. 2007: 14,900)



#### Timo Karttinen

Senior Vice President, Corporate
Development, since 2004
Born 1965. MSc (Eng)
Member of the Management Team since 2004
Employed by Fortum since 1991

#### Previous positions:

Business Unit Head, Portfolio Management and Trading, Fortum Power and Heat Oy, 2000 Vice President, Electricity Procurement and Trading, Fortum Power and Heat Oy, 1999 Vice President, Electricity Procurement, Imatran Voima Oy, 1997

#### Key positions of trust:

Member of the Board, Fingrid Oyj Vice Chairman of the Executive Board, Association of Finnish Energy Industries Member of the Supervisory Board, Gasum Oy Member of the Supervisory Board, AS Eesti Gaas Member of the Trade Policy Committee and Energy Committee, Confederation of Finnish Industries

Fortum shareholding on 31 Dec. 2008: 38,622 (31 Dec. 2007: 30,000)



#### Tapio Kuula

Senior Vice President since 2005 Born 1957. MSc (Eng), MSc (Econ) Member of the Management Team since 1997 Employed by Fortum since 1996

#### Previous positions:

President, Fortum Power and Heat Oy, 2000– President, Power and Heat Sector, Fortum Oyj, 2000

Executive Vice President, Fortum Power and Heat Oy, 1999

Executive Vice President, Member of the Board, Member of the Management Team, Imatran Voima Oy, 1997

Simultaneous key positions of trust:

Member of the Board, TGC-1

Chairman of the Board, Teollisuuden Voima Oyj Member of the Supervisory Board, Varma Mutual Pension Insurance Company

Fortum shareholding on 31 Dec. 2008: 64,465 (31 Dec. 2007: 50,050)



Juha Laaksonen
Chief Financial Officer since 2000
Born 1952. BSc (Econ)
Member of the Management Team since 2000
Employed by Fortum since 1979

#### Previous positions:

Corporate Vice President, M&A, Fortum Corporation, 2000 Executive Vice President, Finance & Planning, Fortum Oil & Gas Oy, 1999 CFO, Neste Oyj, 1998 Key positions of trust: Member of the Board, Kemira Oyj

Member of the Board, Kemira Oyj Member of the Board, Teollisuuden Voima Oyj Member of the Supervisory Board, Kemijoki Oy Chairman of the Board, Sato Oyj

Fortum shareholding on 31 Dec. 2008: 20,000 (31 Dec. 2007: 20,000)



Christian Lundberg
Senior Vice President since 2005
Born 1956
Member of the Management Team since 2003
Employed by Fortum since 2003

#### Previous positions:

President, Fortum Markets AB, 2003–2005 Regional Director Nordic/Baltic Services Microsoft, 2001 Regional Director MS Nordic/Baltic Microsoft, 2000 General Manager MS Sweden Microsoft, 1997 Key positions of trust:

Member of the Board, Svensk Energi Vice Chairman, EnergiFöretagens Arbetsgivareförening

Fortum shareholding on 31 Dec. 2008: 30,000 (31 Dec. 2007: 30,000)



Maria Paatero-Kaarnakari Senior Vice President, Corporate Strategy, since 2007 Born 1955. MSc (Eng) Member of the Management Team since 2007 Employed by Fortum since 1985

#### Previous positions:

Vice President, Corporate Development, Fortum Corporation, 2000 Manager, Strategic Planning, Neste Oyj, 1998 Business Development Manager, Neste Polyester Inc, USA, 1997 Various managerial positions, Neste Group, 1985

Fortum shareholding on 31 Dec. 2008: 5,751 (31 Dec. 2007: 2,030)



Maria Romantschuk
Senior Vice President, Corporate
Communications, since 2007
Born 1956

Member of the Management Team since 2007 Employed by Fortum since 2007

#### Previous positions:

(31 Dec. 2007: 0)

Head of Press Relations and Member of Cabinet, Office of The President of the Republic of Finland, 2000

Press Counselor, Embassy of Finland, Stockholm, Ministry of Foreign Affairs, 1997
Press Secretary to the Minister for Foreign Affairs, Ministry of Foreign Affairs, 1995
Political reporter, Hufvudstadsbladet, 1989
Key positions of trust:
Member of the Board, UNICEF Finland

Member of the Board, Svenska Teatern
Fortum shareholding on 31 Dec. 2008: 0

# Chapter 7

# financials '08

# Investor information

#### **Annual General Meeting**

The Annual General Meeting of Fortum Corporation will be held on Tuesday, 7 April 2009 at 14:00 pm at Cable Factory's Merikaapelihalli, address: Tammasaarenlaituri, Entrance J, 00180 Helsinki. The reception of shareholders who have registered for the meeting will commence at 13:00 pm.

#### **Payment of dividends**

The Board of Directors proposes to the Annual General Meeting that Fortum Corporation pay a cash dividend of EUR 1.00 per share for 2008, totalling EUR 888 million based on the number of registered shares as of 4 February 2009.

#### Fortum share basics

Listed on NASDAQ OMX Helsinki Trading ticker: FUM1V Number of shares, 4 February 2009: 887,789,330 Sector: Utilities

#### Investor relations at Fortum

Mika Paloranta, Vice President, Investor Relations, tel. +358 (0)10 452 4138, fax +358 (0) 10 452 4176, e-mail: mika.paloranta@fortum.com

Rauno Tiihonen, Manager, Investor Relations, tel. +358 (0)10 453 6150, fax +358 (0) 10 452 4176, e-mail: rauno.tiihonen@fortum.com

#### **Ordering financial information**

Financial documents can be obtained from Fortum Corporation, Mail Room, POB 1, FI-00048, FORTUM, Finland, tel. +358 (0)10 452 9151, e-mail: juha.ahonen@partners.fortum.com

Investor information is available online at www.fortum.com/investors

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# Operating & financial review

#### Financial performance

The year 2008 was a year of big swings in power and commodity prices. In the first half of the year, commodity prices and wholesale power prices increased rapidly. During the second half of the year, all commodity prices and also power prices in the Nordic region declined significantly from the peaks in autumn.

#### Key financial figures

EUR million	2008	2007	2006
Sales	5,636	4,479	4,491
Operating profit	1,963	1,847	1,455
Operating profit, % of sales	34.8	41.2	32.4
Comparable operating profit	1,845	1,564	1,437
Profit before taxes	1,850	1,934	1,421
Profit for the period attributable to equity holders	1,542	1,552	1,071
Earnings per share, EUR	1.74	1.74	1.22
Net cash from operating activities	2,002	1,670	1,151
Shareholders' equity per share, EUR	8.96	9.43	8.91
Capital employed	15,911	13,544	12,663
Interest-bearing net debt	6,179	4,466	4,345
Equity to assets ratio, %	41	49	48
Average number of shares, 1,000s	887,256	889,997	881,194

#### Group financial targets

			2007		
	Target	2008	Adjusted 1)	2007	2006
ROCE, %	12	15.0	14.0	16.5	13.4
ROE, %	14	18.7	15.8	19.1	14.4
Capital structure: Net debt / EBITDA	3.0-3.5	2.5	2.2	1.9	2.3

1) Adjusted for REC and Lenenergo gains.

In 2008, Fortum took a major strategic step in Russia through the acquisition of Territorial Generating Company 10 (TGC-10). The acquisition gave Fortum a significant presence in Russia's fast-evolving power markets. The acquisition doubled Fortum's heat production capacity, increased power generation capacity by over 25% and added over 7,000 employees to Fortum.

Fortum's 2008 comparable operating profit improved significantly from a year ago, driven by better results in the Power Generation segment. Fortum's consistent hedging strategy, higher average Nord Pool spot prices and higher hydropower volumes contributed to the improvement.

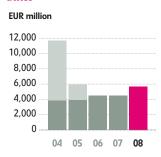
Fortum's earnings per share in 2008 were at the same level as a year ago, despite the higher amount of positive one-time items in 2007 earnings. In 2007, non-recurring sales gains amounted to EUR 412 million (Hafslund's REC shares, Lenenergo), cor-

responding to EUR 0.46 per share. In 2008, sales gains and a positive one-time tax effect amounted to EUR 184 million in net earnings, corresponding to EUR 0.21 per share. The tax effect is due to the lowering of corporate tax rates in Sweden and Russia, leading to a reduction in deferred tax liabilities.

The decline in the Swedish currency especially during the last two months of the year affected Fortum's operating profit negatively. The average SEK rate in 2008 declined by approximately 5% from 2007. The negative effect from the decline on the average SEK rate was approximately EUR 50 million in Fortum's 2008 comparable operating profit. The effect mainly impacted fourth quarter earnings.

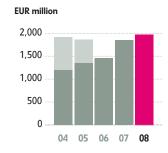
In 2008, the average system spot price in Nord Pool was EUR 44.7 per megawatthour (MWh), with the Finnish area price being EUR 51.0 per MWh and the Swedish area price EUR 51.1 per MWh. Power Generation's achieved Nordic power price was EUR 49.3 per MWh, up by 24% from a year ago.

#### Sales



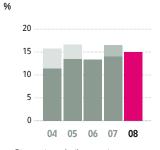
Discontinued oil operations

#### Operating profit



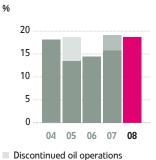
Discontinued oil operations

#### Return on capital employed



Discontinued oil operationsIncl. REC and Lenenergo gains

#### Return on shareholders' equity



Incl. REC and Lenenergo gains

#### Market conditions

According to preliminary statistics, the Nordic countries consumed 395 terawatt-hours (TWh) (2007: 401) of electricity in 2008, about 1% less than in the previous year. During the last quarter, consumption was about 5% less than the year before.

Year 2008 started with the Nordic water reservoirs being 9 TWh above the long-term average and remained above the average until late August. At the end of December, the Nordic water reservoirs were 5 TWh below the long-term average and 13 TWh below the corresponding level last year.

120

# Nordic Water Reservoirs Weekly filling as energy, TWh

#### 120 100 80 60 40 20



During 2008, the average spot price for power in Nord Pool was EUR 44.7 per MWh (2007: 27.9), or 60% higher than in 2007. The Nord Pool spot price was higher mainly due to higher fuel and  $\rm CO_2$  prices.

In Germany, the average spot price for the fourth quarter was EUR 68.0 per MWh (2007:57.7), being higher than in the Nordic area. This resulted in a net export from the Nordic area to Germany.

During 2008, the average market price of  $CO_2$  emission allowances (EUA) for 2008 was EUR 23 per tonne  $CO_2$ . In 2007, the corresponding price for  $CO_2$  emission allowances for 2007 was EUR 0.7 per tonne  $CO_2$ . Coal and oil prices decreased during the second half of 2008.

During the year, the average spot price for power for the European and Urals part of Russia in the Russian electricity exchange ATS was RUR 700 (2007: 570), approximately EUR 19.1 per MWh (2007: 16.3). The increase in the spot price was mainly due to higher gas prices. In addition, there is a capacity tariff for power generation, which varies by production unit but is, on average, approximately EUR 10 per MWh.

#### 2 Total power & heat generation figures

Fortum's total power generation was 64.2 TWh (2007: 52.2), of which 51.6 TWh (2007:51.1) was in the Nordic countries, representing 13% (2007: 13%) of the total Nordic electricity consumption. Fortum's total heat generation was 40.3 TWh (2007: 26.1), of which 20.8 TWh (2007: 22.1) was in the Nordic countries.

At year end, Fortum's total power generating capacity was 13,573 megawatt (MW) (2007: 10,920), of which 10,643 MW (2007: 10,775) was in the Nordic countries. At year end, Fortum's total heat production capacity was 24,263 MW (2007: 11,223), of which 8,448 MW (2007: 9,381) was in the Nordic countries. The increase in the total power and heat generation volumes and capacities are mainly due to the inclusion of TGC-10, consolidated from the beginning of April.

Fortum's total power and heat generation figures are presented below. In addition, the segment reviews include the respective figures by segment.

#### Fortum's total power and heat generation in EU and Norway

TWh	2008	2007	2006
Power generation	52.6	52.2	54.4
Heat generation	25.0	26.1	25.8

#### Fortum's total power and heat generation in Russia

TWh	2008	2007	2006
Power generation	11.6	-	-
Heat generation	15.3	-	-

#### Fortum's own power generation by source, total in the Nordic countries

TWh	2008	2007	2006
Hydropower	22.9	20.0	19.8
Nuclear power	23.7	24.9	24.4
Thermal power	5.0	6.2	9.0
Total	51.6	51.1	53.2

#### Fortum's own power generation by source, total in the Nordic countries

%	2008	2007	2006
Hydropower	44	39	37
Nuclear power	46	49	46
Thermal power	10	12	17
Total	100	100	100

#### 3 Total power & heat sales figures

Fortum's total power sales were 75.0 TWh (2007: 59.7), of which 59.1 TWh (2007: 58.5) were in the Nordic countries. This represents approximately 15% (2007: 15%) of estimated Nordic electricity consumption during 2008. Fortum's total heat sales were 42.2 TWh (2007: 27.1), of which 20.0 TWh (2007: 20.4) were in the Nordic countries.

#### Fortum's total electricity 1) and heat sales in EU and Norway

EUR million	2008	2007	2006
Electricity sales	2,959	2,370	2,437
Heat sales	1,157	1,096	1,014

#### Fortum's total electricity and heat sales in Russia

EUR million	2008	2007	2006
Electricity sales	332	-	-
Heat sales	141	-	-

#### Fortum's total electricity 1) sales by area

TWh	2008	2007	2006
Finland	28.7	29.0	29.6
Sweden	28.5	27.6	28.5
Russia	14.8	-	-
Other countries	3.0	3.1	3.5
Total	75.0	59.7	61.6

#### Fortum's total heat sales by area

TWh	2008	2007	2006
Russia	15.3	-	_
Finland	10.8	11.1	10.7
Sweden	9.1	9.2	9.3
Poland	3.6	3.5	3.6
Other countries <sup>2)</sup>	3.4	3.3	3.2
Total	42.2	27.1	26.8

<sup>1)</sup> Nord Pool transactions are calculated as a net amount of hourly sales and purchases at the Group level.

#### 4 Fortum's emissions subject to EU's trading scheme

In 2008, approximately 92% (2007: 89%) of the power generated by Fortum within the EU countries was  $CO_2$ -free.

Fortum's total CO<sub>2</sub> emissions subject to the EU's emissions trading scheme (ETS) amounted to 7.2 million tonnes of CO<sub>2</sub>.

Fortum's total annual  $CO_2$  allowance allocation for its power and heat plants is approximately 5.9 million tonnes per year during 2008–2012. In Finland, Fortum's  $CO_2$  allocation is approximately 4.1 million tonnes of  $CO_2$  per annum, representing 11% of the Finnish national allocation. In Sweden, Fortum's  $CO_2$  allocation is approximately 0.2 million tonnes of  $CO_2$  per annum, representing 0.7% of the Swedish national allocation.

Fortum's target in the EU countries is to decrease its emissions in power generation to less than  $80\,g/kWh$  by 2020 as a five-year average. In heat production, Fortum aims at reducing the specific emissions in each country by at least 10% from 2006 until 2020. Outside the EU, Fortum is committed to increasing the energy efficiency, thus reducing specific emissions.

#### Total CO2 emissions

Million tonnes	2008	2007	2006	2005
Total emissions	17.6	10.4	11.0	6.3
Emissions subject to ETS	7.2	9.8	10.5	5.9
Free emission allocation	5.9	8.1	8.1	8.1
Emissions in Russia	9.8	-	-	-

#### Specific CO<sub>2</sub> emissions of Fortum's power generation

g/kWh	2008	2007	2006	2005
Specific emissions within ETS	41	64	107	38

#### 5 Financial results

#### Sales by segment

EUR million	2008	2007	2006
Power Generation	2,892	2,350	2,439
Heat	1,466	1,356	1,268
Distribution	789	769	753
Markets	1,922	1,683	1,912
Russia	489	-	-
Other	83	81	78
Netting of Nord Pool transactions 1)	-1,736	-1,163	1,905
Eliminations	-269	-597	-54
Total	5,636	4,479	4,491

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

<sup>2)</sup> Including the UK, which is reported in the Power Generation segment, other sales.

#### Comparable operating profit by segment

EUR million	2008	2007	2006
Power Generation	1,528	1,095	985
Heat	250	290	253
Distribution	248	231	250
Markets	-33	-1	-4
Russia	<b>–92</b>	-	-
Other	<b>–56</b>	-51	-47
Total	1,845	1,564	1,437

#### Operating profit by segment

EUR million	2008	2007	2006
Power Generation	1,599	1,115	980
Heat	307	294	264
Distribution	248	233	252
Markets	<b>–35</b>	12	-6
Russia	<b>–91</b>	244	-
Other	<b>–65</b>	-51	-35
Total	1,963	1,847	1,455

Group sales were EUR 5,636 million (2007: 4,479). Group operating profit totalled EUR 1,963 million (2007: 1,847). Comparable operating profit increased to EUR 1,845 million (2007: 1,564).

The Group's net financial expenses increased to EUR 239 million (2007: 154). The increase is attributable to a higher average level of debt and higher short-term interest rates. The change in fair value of derivatives was EUR –11 million (2007: 7).

Profit before taxes was EUR 1,850 million (2007: 1,934).

Taxes for the period totalled EUR 254 million (2007: 326). The tax rate according to the income statement was 13.7% (2007: 16.9%). The tax rate in 2008 was lowered by the one-time booking due to a reduction in deferred tax liabilities, stemming from the lowering of corporate tax rates in Sweden and Russia. The tax rate in 2007 was lowered by the non-taxable gains from Hafslund's sale of REC shares and from the sale of Lenenergo shares.

Minority interests accounted for EUR 54 million (2007: 56). The minority interests are mainly attributable to Fortum Värme Holding AB, in which the City of Stockholm has a 50% economic interest.

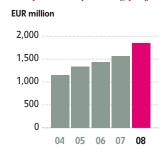
The profit for the period was EUR 1,542 million (2007: 1,552). Fortum's earnings per share were EUR 1.74 (2007: 1.74).

Fortum's total equity stood at EUR 7,954 million (2007: 8,359). The equity was lowered by translation effects due to lower SEK, NOK and RUB exchange rates at year end, while cash flow hedges (mainly power derivatives) contributed positively.

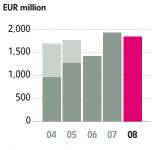
Hafslund ASA is showing the fair value change in the REC shareholding through the income statement, while Fortum is showing the fair value change in equity. The fair value booked in Fortum's equity and based on the number of shares reported by Hafslund ASA was EUR 126 million at the end of December 2008 (EUR 793 million at the end of 2007).

Return on capital employed was 15.0% (2007: 16.5%), and return on shareholders' equity was 18.7% (2007: 19.1%).





#### Profit before tax



Discontinued oil operations

#### 6 Segment reviews

#### **6.1 Power Generation**

The business area comprises power generation and sales in the Nordic countries and the provision of operation and maintenance services in the Nordic area and selected international markets. The Power Generation segment sells its production to Nord Pool. The segment includes the business units Generation, Portfolio Management and Trading (PMT), and Service.

2008	2007	2006
2,892	2,350	2,439
2,566	2,019	2,059
326	331	380
1,599	1,115	980
1,528	1,095	985
5,331	5,599	5,690
29.6	19.2	17.5
28.0	18.9	17.4
134	145	100
3,520	3,511	4,147
	2,892 2,566 326 1,599 1,528 5,331 29.6 28.0	2,892 2,350 2,566 2,019 326 331 1,599 1,115 1,528 1,095 5,331 5,599 29.6 19.2 28.0 18.9 134 145

In 2008, the segment's power generation in the Nordic countries was 46.9 TWh (2007: 46.1). Approximately 97% (2007: 95%) of the segment's power generation was  $CO_2$ -free.

Comparable operating profit of the Power Generation segment was clearly higher than last year. The segment's higher achieved Nordic power price and all-time high hydropower generation were the main drivers for the achievement. The positive effects were partly offset by unplanned nuclear outages in Sweden, lower thermal



power generation volumes and higher nuclear capacity tax and hydro property taxes in Sweden. The additional cost from these tax increases was approximately EUR 25 million in 2008.

The translation effect from weaker SEK was approximately EUR -35 million mainly in last quarter. The segment's comparable operating profit in 2008 does not include material gains from the sale of  $CO_2$  allowances as it did in 2007.

#### Nordic power generation by source

TWh	2008	2007	2006
Hydropower	22.9	20.0	19.8
Nuclear power	23.7	24.9	24.4
Thermal power	0.3	1.2	4.1
Total	46.9	46.1	48.3

#### Power generation by area

TWh	2008	2007	2006
Sweden	26.8	26.0	27.1
Finland	20.1	20.1	21.1
Other countries	1.0	1.1	1.2
Total	47.9	47.2	49.4

#### Nordic sales volume

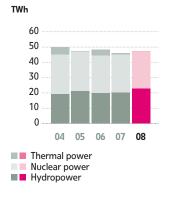
TWh	2008	2007	2006
Total	52.1	51.8	53.9
of which pass-through sales	3.7	5.2	4.5

#### Sales price

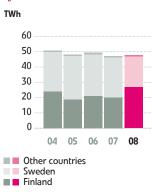
EUR/MWh	2008	2007	2006
Generation's Nordic power price 1)	49.3	39.7	37.1

<sup>1)</sup> For the Power Generation segment in the Nordic area, excluding pass-through sales.

# Segment's power generation in the Nordic countries by source



# Segment's power generation by area



In 2008, the average system spot price in Nord Pool was EUR 44.7 per MWh, with the Finnish area price being EUR 51.0 per MWh and the Swedish area price EUR 51.1 per MWh. Generation's achieved Nordic power price was EUR 49.3 per MWh, up by 24% from a year ago.

In Finland, Fortum is participating in the country's fifth nuclear power plant unit, Olkiluoto 3, with an approximately 25% share, representing some 400 MW in capacity. In January 2009, TVO disclosed information, confirmed by Areva-Siemens, that the construction of the unit is delayed and the unit is estimated to start up in summer 2012. In December 2008, the constructor TVO informed that the plant supplier, consortium AREVA-Siemens, had filed a request for arbitration in the International Chamber of Commerce (ICC) concerning the Olkiluoto 3 delay and related costs.

#### Nord Pool Power Price 2004-2008

Annual average spot price and Fortum's achieved Nordic Generation price, EUR/MWh



#### 6.2 Heat

The business area comprises heat generation and sales in the Nordic countries and other parts of the Baltic Rim. Fortum is a leading heat producer in the Nordic region. The segment also generates power in combined heat and power plants (CHP) and sells it to end-customers mainly through long-term contracts, as well as to Nord Pool. The segment includes the business units Värme, operating in Sweden, and Heat, operating mainly in other markets.

EUR million	2008	2007	2006
Sales	1,466	1,356	1,268
heat sales	1,120	1,053	976
power sales	228	202	198
other sales	118	101	94
Operating profit	307	294	264
Comparable operating profit	250	290	253
Net assets (at period-end)	3,468	3,507	3,407
Return on net assets, %	8.9	9.3	9.6
Comparable return on net assets, %	7.3	9.2	9.2
Gross investments	431	327	773
Number of employees	2,318	2,279	2,345

The segment's heat sales during the year totalled 24.9 TWh (2007: 25.1). Power sales at combined heat and power plants (CHP) totalled 4.7 TWh (2007: 5.0).

The Heat segment's comparable operating profit during 2008 was EUR 40 million lower than the previous year, mainly due to the warm weather, higher fuel prices, CO<sub>2</sub> emission costs, maintenance costs due to unavailability of some CHP plants and SEK depreciation.

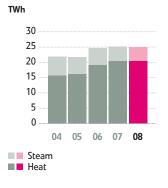
#### Heat sales by area

TWh	2008	2007	2006
Finland	10.8	11.1	10.7
Sweden	9.1	9.2	9.3
Poland	3.6	3.5	3.6
Other countries	1.4	1.3	1.1
Total	24.9	25.1	24.7

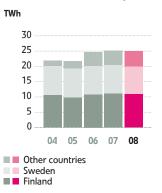
#### Power sales

TWh	2008	2007	2006
Total	4.7	5.0	5.0

# Segment's district heating and industrial steam sales



# Segment's district heating and industrial steam sales by area



#### 6.3 Distribution

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

EUR million	2008	2007	2006
Sales	789	769	753
distribution network transmission	669	648	636
regional network transmission	77	81	80
other sales	43	40	37
Operating profit	248	233	252
Comparable operating profit	248	231	250
Net assets (at period-end)	3,032	3,239	3,412
Return on net assets, %	8.1	7.7	8.4
Comparable return on net assets, %	8.2	7.6	8.3
Gross investments	296	237	313
Number of employees	1,336	1,063	983

In 2008 the volume of distribution and regional network transmissions totalled 25.8 TWh (2007: 26.0) and 17.7 TWh (2007: 18.1), respectively. Electricity transmissions via the regional distribution network totalled 14.8 TWh (2007: 14.9) in Sweden and 2.9 TWh (2007: 3.2) in Finland.

The comparable operating profit of the Distribution segment was EUR 248 million, EUR 17 million higher than the previous year. Depreciations on meters for automatic meter reading started in the second half of 2008. In 2007, the segment's result was negatively affected by winter storms in Sweden and price adjustments to customers in Finland.

The Swedish Energy Market Inspectorate (Energimarknadsinspektionen) and Swedish energy companies reached an agreement on 2003–2008 network tariffs. As a part of the agreement, Fortum has accepted to withdraw a planned price increase for

the West Coast area and to make a one-time payback of EUR 2 million to Fortum's Stockholm area distribution customers.

The main roll-out of new smart meters (Automated Meter Management, AMM) in Sweden was finalised during December 2008. By the end of the year, about 800,000 meters out of the 835,000 were installed, of which 690,000 have been activated for monthly meter reading. The remaining meters will be installed during the coming months. The legislation for monthly meter reading takes effect as of 1 July 2009.

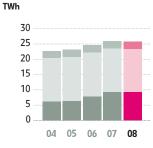
#### Volume of distributed electricity in distribution network

TWh	2008	2007	2006
Sweden	14.0	14.3	14.4
Finland	9.3	9.2	7.7
Norway	2.3	2.3	2.3
Estonia	0.2	0.2	0.2
Total	25.8	26.0	24.6

#### Number of electricity distribution customers by area

Thousands	2008	2007	2006
Sweden	877	871	865
Finland	606	591	580
Norway	99	98	97
Estonia	24	24	23
Total	1,606	1,584	1,565

# Volume of distributed electricity by country



# Other countries Sweden Finland

#### 6.4 Markets

Markets is responsible for retail sales of electricity to a total of 1.3 million private and business customers as well as to other electricity retailers in Sweden, Finland and Norway. Markets buys its electricity through Nord Pool. Markets sells approximately 75% of its volumes to business customers and 25% to retail consumers.

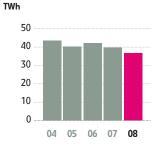
EUR million	2008	2007	2006
Sales	1,922	1,683	1,912
power sales	1,865	1,582	1,831
other sales	57	101	81
Operating profit	-35	12	-6
Comparable operating profit	-33	-1	-4
Net assets (at period-end)	188	247	176
Return on net assets, %	-14.0	6.9	-1.6
Comparable return on net assets, %	-15.3	-0.6	-0.8
Gross investments	3	3	14
Number of employees	635	935	825

In 2008, Markets electricity sales totalled 36.6 TWh (2007: 39.6).

In 2008, Markets was unable to fully pass on the increased wholesale prices and procurement costs in its retail sales prices.

Due to continuing unsatisfactory business performance, a restructuring programme was launched in 2008. Several cost-saving actions were initiated. The employee negotiations in Finland and Sweden to centralise Markets' service activities were finalised by the end of 2008. Markets' new organisation was published at the beginning of 2009.

#### Power sales



#### 6.5 Russia

The segment comprises power and heat generation and sales in Russia. The segment includes TGC-10 and Fortum's holding in TGC-1. TGC-10 is accounted for as a subsidiary and fully consolidated from 1 April 2008. TGC-1 is an associated company and accounted for using the equity method.

EUR million	2008	2007	2006
Sales	489	-	-
power sales	332	-	-
heat sales	141	-	-
other sales	16	-	-
Operating profit	<b>-91</b>	244	-
Comparable operating profit	-92	-	-
Net assets (at period-end)	2,205	456	294
Return on net assets, %	-3.7	66.3	0.0
Comparable return on net assets,%	-3.8	0.0	0.0
Gross investments	1,748	245	140
Number of employees	7,262	-	-

TGC-10 operates in well-developed industrial regions of the Urals and Western Siberia. The growing activities of oil and gas companies and the increase in housing construction are the main drivers behind the increasing power and heat demand in the region.

In 2008 segment's power sales amounted to 14.8 TWh and heat sales of the segment totalled 15.3 TWh.

TGC-10 figures have been consolidated starting from the beginning of April 2008. In 2008 the segment booked a comparable operating loss amounting to EUR 92 million.

The loss for the three consolidated quarters is explained by TGC-10's stand-alone loss of EUR 33 million, the surplus value depreciation of EUR 38 million (depreciation on the EUR 1,022 million that has been allocated to the fair value of TGC-10's property, plant and equipment), and integration costs of EUR 21 million.

Russian power sector reform is proceeding. Starting from 1 January 2009, 30% of all produced power is sold on the competitive market. The wholesale power market is expected to be fully liberalised by 2011. The capacity market was launched at the beginning of July 2008, as planned.

In August 2008, the contract was signed for the biggest project in the investment programme, the construction of the power island of Nyagan power plant (capacity 1,200 MW).

Construction work commenced at the Tyumen, Tobolsk and Chelyabinsk CHP sites.

In September, Fortum announced that it will gain approximately 1.5 million tonnes of emission reduction units (ERU) from joint implementation projects conducted at TGC-10 between 2009 and 2012.

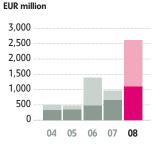
Fortum is putting considerable focus on the integration of TGC-10 as a part of Fortum. The integration process started in April 2008. The new organisational structure and Fortum's management model have been in place since the beginning of September 2008. The integration has proceeded well and several targets for efficiency improvements have been identified. Consequently, the annual efficiency improvements are expected to be approximately EUR 100 million by 2011.

# 7 Capital expenditure, investments & divestments of shares

2008	2007	2006
24	11	21
1,084	644	464
1,108	655	485
······································	·····	
1,506	18	765
8	295	124
2	4	21
1,516	317	910
	24 1,084 1,108 1,506 8 2	24 11 1,084 644 1,108 655 1,506 18 8 295 2 4

Capital expenditures and investments in shares in 2008 totalled EUR 2,624 million (2007: 972). Investments, excluding acquisitions, were EUR 1,108 million (2007: 655).

# Capital expenditure and gross investments in shares



# Capital expenditures per country 2008 EUR million



Investments in shares
Capital expenditure

#### 7.1 Power Generation

In June, Fortum and Hafslund Infratek ASA signed a letter of intent with the aim to combine Fortum Service's Infrastructure Solutions operations with Hafslund Infratek.

The deal concerns all Infrastructure Solutions operations in Sweden, Norway and Finland and altogether 1,060 Fortum employees. In January 2009, the Norwegian competition authorities accepted the establishment of Infratek ASA and the deal was closed. Fortum's ownership of the new combined company Infratek ASA is 33%. Hafslund ASA holds 43.3% of the shares in the combined company. Infratek ASA is listed on the Oslo Stock Exchange.

#### 7.2 Heat

The construction work of new CHP-plants in Częstochowa in Poland, in Tartu in Estonia and in Suomenoja, Finland, continued and investments were EUR 134 million (2007: 58).

In October, Heat sold its 60% share of a company operating a CHP plant in Jyväskylä, Finland. The transaction took effect at the end of 2008.

#### 7.3 Distribution

Investments, excluding acquisitions, were EUR 296 million (2007: 236). The AMM investment programme represented EUR 104 million (2007: 64) of this.

#### 7.4 Russia

In the first quarter of 2008, Fortum acquired a controlling stake (76.5%) in the Russian Territorial Generating Company No. 10 (TGC-10), consisting of a 29.1 percentage-point share acquisition from United Energy Systems of Russia (RAO UES), for approximately EUR 0.8 billion, and a 47.4 percentage-point share issue for approximately EUR 1.3 billion.

In the second quarter, Fortum filed the mandatory public tender offer to TGC-10's minorities. The period of offer was from 30 April until 18 October 2008. The tender offer covered 23.51% of the share capital of TGC-10 and was launched at a price of 111.8 roubles (approximately EUR 3) per share to be fully paid in cash. The tender price was the same price Fortum paid for its shares acquired through the auction and share issue, and it represented a significant premium to the market price. At the end of December, Fortum's ownership in TGC-10 was 93.4%, and by that time Fortum had paid EUR 465 million for the additional share purchases.

TGC-10 has an extensive investment programme aiming to increase its power capacity to 5,300 MW. In October, Fortum estimated the value of the investment programme in new capacity to be approximately EUR 2.5 billion. The value for the remaining part of the programme, calculated at year-end exchange rates, is estimated to be EUR 2.0 billion from January 2009 onwards.

#### 8 Financing

EUR million	2008	2007	2006
Interest expense	<b>–</b> 351	-220	-176
Interest income	143	76	50
Fair value gains and losses	<b>–11</b>	7	30
Other financial expenses	-20	-17	-7
Finance costs - net	-239	-154	-103
Interest-bearing liabilities	7,500	4,893	4,502
Liquid funds	1,321	427	157
Interest-bearing net debt	6,179	4,466	4,345

At year end, the interest-bearing net debt stood at EUR 6,179 million (2007: 4,466), resulting in a total increase in net debt during the year of EUR 1,713 million.

Cash flow during the year was strong with funds from operations amounting to EUR 2,104 million (2007: 1,619). Net cash used in investing activities was EUR 2,282 million (2007: 609). Capital expenditures EUR 1,018 million (2007: 592) and acquisitions EUR 1,243 million (2007: 285) were higher than during last years, and together with the dividend payment to shareholders of EUR 1,198 million are the main explanations for the increase in interest-bearing net debt.

Net debt to EBITDA for 2008 was 2.5 (2007: 1.9).

The Group's net financial expenses in 2008 were EUR 239 million (2007: 154). The increase in financial expenses is attributable to higher average net debt and higher average interest rates in 2008 compared to 2007. Net financial expenses include fair value losses on financial instruments of EUR 11 million (2007: fair value gain 7).

The average interest rate of Fortum's interest-bearing debt (including derivatives) for 2008 was 5.3% (2007: 4.3%).

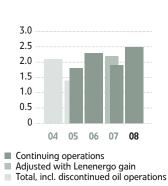
Group liquidity remained strong. Year-end liquid funds totalled EUR 1,321 million (2007: 427), of which EUR 1,020 million was in TGC-10. In addition, the Group had a total of approximately EUR 2.3 billion (2007: 1.4) available for drawings under committed credit facilities.

During the year, Fortum raised a syndicated loan facility of EUR 3,500 million. The loan facility is structured as a 3-year term-loan of EUR 2,000 million to be used for acquisition financing of TGC-10, and as a 5-year revolving credit facility of EUR 1,500 million. At year end the term-loan was fully drawn and EUR 600 million of the new revolving credit facility was drawn. Short-term financing (mainly issuance of Commercial paper) increased to EUR 520 million at year end (year-end 2007: 26). Fortum Corporation's long-term credit rating from Moody's and Standard & Poor's was "A2" (outlook stable) and "A–" (outlook stable) respectively.

#### Interest-bearing net debt



#### Net debt / EBITDA



#### **Employees**

The average number of employees in the Group during the period from January to December was 14,077 (2007: 8,304). The number of employees at the end of the period was 15,579 (2007; 8,303), of which 15,264 (2007; 7,954) were permanent employees.

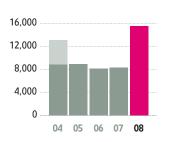
The increase in the number of employees is due to the acquisition of TGC-10. The number of employees in the parent company, Fortum Corporation, at year end

totalled 434 (2007: 583).

	2008	2007	2006
Number of employees	15,579	8,303	8,134
Average number of employees	14,077	8,304	8,910
Total amount of employee costs, EUR million	587	495	508
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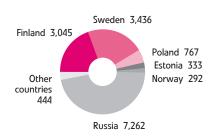
For further details of group personnel see Note 12 Management remuneration and employee cost on page 138 of the Consolidated Financial Statements. See also pages 47-49 of the Annual report.

#### Number of employees



Discontinued oil operations

#### **Employees per country 2008**



#### **10** Events after the period under review

Fortum and the Norwegian Hafslund Infratek ASA combined their businesses of construction and operating of infrastructure in Sweden, Finland and Norway as of 15 January 2009.

On February 4, the Fortum Board decided in their meeting that Fortum will on February 5 submit its application to the Finnish government for a decision-in-principle on the construction of a nuclear power plant unit to its Loviisa site, where Fortum already owns and operates two nuclear reactors. According to preliminary plans, the plant could be in operation in 2020. The plant's planned lifetime would be at least 60 years. Depending on the size and type of the reactor, the total investment is estimated to be EUR 4-6 billion.

#### 11 Outlook

The key market driver influencing Fortum's business performance is the wholesale price of electricity. Key drivers behind wholesale price development are the supply-demand balance, CO<sub>2</sub> emissions allowance and fuel prices as well as the hydrological situation.

The exchange rates of the Swedish krona and Russian rouble also affect Fortum's financials. The balance sheet translation effects from potential changes in currency exchange rates are booked in Fortum's equity.

The on-going economic and financial slowdown may continue to depress power demand in the markets where Fortum operates. Lower power demand and commodity prices, which may be further affected by the recession, have a negative impact on power prices. The on-going economic crisis may also increase Fortum's counterparty risk.

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

For further details on Fortum's risks and risk management, see Risk management section of the Operating and Financial Review on page 98 and Note 3 Financial risk management on page 123 in the Consolidated Financial Statements.

Economic slowdown is expected to further affect electricity consumption growth in the Nordic countries. In the longer term, electricity consumption in the Nordic countries is predicted to increase by less than 1% a year.

In Russia, one of the key assumptions in the TGC-10 acquisition is the continuation of the Russian power sector reform. As planned, the share of power sold at a competitive price was increased from 15% to 25% on 1 July 2008 and further to 30% in the beginning of 2009. The share is planned to be increased to 50% at the beginning of July 2009. The first phase of the capacity market was launched at the beginning of July. The rules for the long-term capacity market, taking place from 2011 onwards, are under preparation. The wholesale power market is expected to be fully liberalised in 2011.

TGC-10 is committed and contractually obligated to a significant investment programme, still amounting to approximately EUR 2.0 billion for 2009 and onwards. However, the economic slowdown is likely to further affect the Russian power demand-supply balance. Fortum as well as other power companies in Russia are currently in the process of analysing the effects from changed economic conditions and their potential impact on the timing of investment programmes.

The acquisition of TGC-10 is expected to marginally dilute Fortum's EPS during 2009. Annual efficiency improvements are expected to be approximately EUR 100 million in 2011.

In late January 2009, the Nordic water reservoirs were about 4 TWh below the long-term average and 14 TWh below the corresponding level of 2008. In late January, the market price for emissions allowances (EUA) for 2009 was about EUR 12 per tonne CO<sub>2</sub>. At the same time, the electricity forward price for the rest of 2009 was around EUR 38–39 per MWh and for 2010 around EUR 34–36 per MWh.

The first and last quarters of the year are usually the strongest quarters for the power and heat businesses.

Fortum Power Generation's achieved Nordic power price typically depends on e.g. the hedge ratio, hedge price, 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 Generation's

achieved Nordic sales price results in an approximately EUR 50 million change in Fortum's annual operating profit.

At the end of January 2009, Fortum had hedged approximately 65% of the Power Generation segment's estimated Nordic electricity sales volume for the rest of 2009 at approximately EUR 53 per MWh. For the calendar year 2010, approximately 50% of the Power Generation segment's estimated Nordic electricity sales volume was hedged at approximately EUR 46 per MWh.

The reported hedge ratios may vary significantly depending on Fortum's actions on the electricity derivatives markets. Hedges are mainly financial contracts, most of them Nord Pool forwards or standardised futures, consisting of several types of products and maturities. Hedge prices are also influenced by changes in the SEK/EUR exchange rates, as some of the hedges are conducted in SEK.

Fortum's results in 2008 were good. A flexible and climate-benign production portfolio accompanied by a strong financial position and liquidity enable Fortum to meet the challenges caused by the financial crisis. Fortum is in a stable position to weather the turbulence, despite the lower visibility beyond 2009.

#### 12 Research and development

R&D activities are geared towards Fortum's long-term goal to be a carbon dioxide-free company. Activities are based on building networks and partnerships with leading research organisations, engineering companies, and equipment and plant suppliers. Fortum also conducts in-house research and development in strategically significant key areas.

In 2008, key achievements in R&D were:

- Carbon capture and storage (CCS): Launch of the Meri-Pori project as a candidate for the EU flagship demonstration program for CCS that will be launched in 2015
- Electric and plug-in hybrid vehicles: New development activity to accelerate the use of electricity in transport
- Wave energy: Collaboration agreement with Uppsala University including the acquisition of two new wave power units at the Islandsberg test site in Sweden
- Technology investments: Investment in the Chrysalix Clean Energy fund with the objective to gain strategic insight into the development of new energy technologies, while expecting sound financial returns
- Impact through networks: Engagement in university research in energy technology, and active participation in the start-up of the Cluster for Energy and Environment (Cleen Oy) in Finland.

The group's total R&D expenditure in 2008 was EUR 27 million (2007: 21). The increase in expenses is mainly attributable to new activities and the technology investments initiated in 2008.

Fortum's R&D expenditure amounts to 0.5% of sales (2007: 0.5%) and 0.8% (2007: 0.8%) of total expenses. Fortum's R&D expenditure is above average level compared to European power and heat companies.

EUR million	2008	2007	2006
R&D expenditure, EUR million	27	21	17
R&D expenditure, % of sales	0.5	0.5	0.4
R&D expenditure, % of total expenses	0.8	0.8	0.6

For further details on research and development, see pages 36–37 of the Annual Report.

#### 13 Sustainability

Fortum's vision statement "to be the benchmark power and heat company excelling in sustainability" expresses the company's firm belief that sustainability is a success factor for its business.

In accordance with the vision statement, Fortum revisited and updated its Sustainability Agenda in 2008. The new agenda has three important elements: the desired future position for Fortum, our goals for 2020 and the actions to reach those goals.

The desired position defines our strategic ambitions. We want to:

- be an enabler of a low-carbon society;
- be known as the responsible energy company;
- provide sustainable energy solutions for our customers.

Mitigating climate change is one of Fortum's most important strategic goals. The company strives to keep the climate impact from own activities at a minimum. In the long-term, Fortum's vision is to be a  $CO_2$ -free power and heat company.

In 2008, 92% of the power generated by Fortum within the EU countries was  $CO_2$ -free. The specific  $CO_2$  emissions in the EU countries were 41 g/kWh, which continues to be among the lowest of the major European power companies. Fortum's target is to decrease its emissions in power generation to less than 80 g/kWh by 2020 as a five-year average. In heat production, Fortum aims at reducing the specific emissions in each country by at least 10% from 2006 until 2020. Outside the EU, Fortum is committed to increasing the energy efficiency of power plants and thus reducing specific emissions.

In 2008 Fortum's total CO<sub>2</sub> emissions subject to the EU's emissions trading scheme (ETS) amounted to 7.2 million tonnes of CO<sub>2</sub>.

Total  $CO_2$  emissions from Fortum's own power plants increased sharply in 2008 due to the acquisition of TGC-10 in Russia, as its power generation is largely based on natural gas. In 2008,  $CO_2$  emissions from Fortum's own power plants in Russia were 9.8 million tonnes. In 2008 Fortum's total emissions were 17.6 million tonnes of  $CO_2$ .

An Environment, Health and Safety (EHS) action plan was defined to raise TGC-10's EHS performance closer to the level of Fortum's other plants. The resulting plan consists of actions to be initiated immediately and issues that need to be investigated further before specified targets can be set. Issues to be addressed include increased energy efficiency, emission reductions and improved occupational health and safety, The EHS action plan will be revised on an annual basis when more precise information is available on how improvements can be achieved in the most feasible way. One of the

first actions is to establish an adequate EHS organisation with skilled professionals to ensure a consistent development of EHS affairs in the company. The target is to become ISO 14001 certified by 2012.

In 2008, there were a total of 63 occupational accidents (2007: 40) leading to an absence of more than one working day. This means 4.3 injuries (2007: 2.9) per one million working hours, which was above Fortum's target value of 2 for 2008. In order to meet the new very ambitious target of less than 1 injury per million working hours in 2010, Fortum will step up its safety efforts further.

In 2008, the Fortum Code of Conduct, which establishes principles for business conduct applicable throughout the company were introduced to all personnel. All Fortum employees are expected to conduct themselves, and their business, in compliance with the Code – without exception. During the year 93% of Fortum employees participated in a roll-out process, the purpose of which was to familiarise themselves with the principles of the Code. The Board of Directors approved the Fortum Code of Conduct in 2007.

For further details on Sustainability see pages 39–51 in the Annual report.

#### Risk management

Risk management is an integrated part of business planning and performance management. Its purpose is to enable the execution of the company's strategy and to support the business in achieving financial targets.

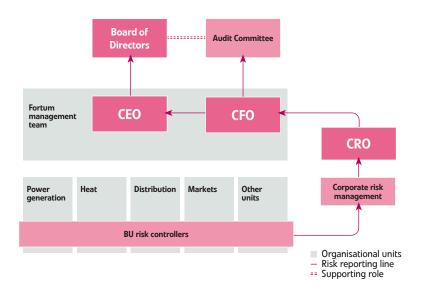
#### 1 Risk management framework

#### 1.1 Objective

Involvement in the power and heat business exposes Fortum to several types of financial, operational and strategic risks. Electricity prices, which in turn are affected by the weather in the Nordic region and the development of the global commodity markets, are the main source of financial risk.

Fortum is continuously developing its risk management capabilities to cope with prevailing market conditions, developing operations and an ever changing business environment. During 2008 the global financial crisis has set pressure on all areas of risk management. The impacts can been seen in funding and refinancing risks as well as other counterparty risks and long-term price development. In the Risk Management development work the focus has been on further enhancing the framework for operational risk management especially within the concept of internal controls.

#### Fortum's risk management reporting structure



#### 1.2 Policy

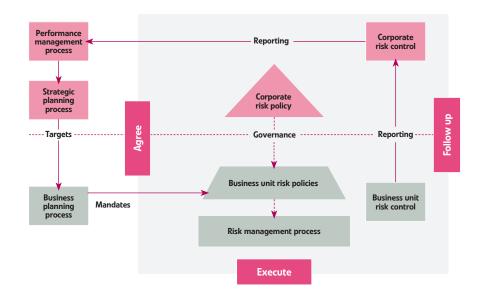
Fortum's Board of Directors approves the Corporate Risk Policy which sets the objective, principles and division of responsibilities for risk management activities within the Group as well as defining the overall risk management process.

Corporate guidelines are issued for those risks which are managed on Group level. Corporate Treasury is responsible for managing the Group's currency, interest rate, and liquidity and refinancing risks as well as for insurance management. Corporate Credit Control is responsible for assessing and consolidating the Group's exposure to counterpart risk, monitoring the creditworthiness of counterparts and for approving counterpart credit limits. Corporate IT is responsible for managing IT information and security risks. There are also corporate functions dealing with risks related to human resources, laws and regulation, and sustainability.

#### 1.3 Organisation

The Audit Committee is responsible for risk oversight within the Group. Corporate Risk Management, an independent function headed by the Chief Risk Officer (CRO), 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 source. In order to maintain a strict segregation of duties, risk control functions at the business and service unit level are responsible for reporting risks to Corporate Risk Management.

#### Risk management process



FORTUM CORPORATION ANNUAL REPORT 2008 OPERATING & FINANCIAL REVIEW

#### 1.3.1 Process

The risk management process consists of event identification, risk assessment, risk response and risk control. Risks are primarily identified and assessed by business and service units in accordance with corporate guidelines and models that are approved by Corporate Risk Management. Business and service units are 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 control, monitoring and reporting is carried out by the business and service units' risk control functions. The frequency of reporting is dependent upon the scope of the business. For example, trading activities are reported daily whereas strategic and operational risks are reported as part of the annual business planning process. Corporate Risk Management assesses and reports the Group's consolidated exposure to financial risks to Group Management and the Board of Directors on a monthly basis.

#### 2 Description of risks

#### 2.1 Strategic risks

Fortum seeks growth both by leveraging organic growth opportunities and actively participating in further Nordic consolidation. Fortum's aim is to grow profitably in chosen market areas: the Nordic countries, Russia, Poland and the Baltic countries. The growth possibilities are in part subject to regulatory supervision and political decisions.

Nordic/EU Policy harmonisation, infrastructure development and integration of the Nordic electricity market towards continental Europe depend partly on the actions of authorities. Changes in the market environment and regulation could endanger the implementation of the market-driven development of the electricity market. Fortum promotes market-driven development by maintaining an active dialogue with all stakeholders.

#### 2.1.1 Integration risks

Fortum's growth strategy includes expanding operations in emerging markets, particularly Poland and Russia. In the first quarter 2008, Fortum acquired a controlling stake in the Russian territorial generating company TGC-10. The integration of TGC-10 or any other such business may be difficult for a variety of reasons, including differing culture or management styles. As a result, the need to integrate TGC-10 or any potential future acquisitions poses risks to existing operations, including:

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

#### 2.1.2 Political and regulatory risks

Development of the political and regulatory environment has a major impact on the energy industry and on the conditions of its business operations. To manage these risks and proactively participate in the development of the political and regulatory framework, including energy taxation, Fortum maintains an active and on-going dialogue with the bodies involved in the development of laws and regulations.

As a result of the TGC-10 acquisition Fortum now owns and operates heat and power generation assets in Russia. These businesses are currently subject to regulation, but the power market in particular is undergoing a process of deregulation and, as a result, the prices for electricity in Russia are expected to increase. The main fuel source for heat and power generation in Russia is gas. Gas prices are partially regulated, and there is a dependency on a limited number of suppliers. Changes in the regulation regarding gas prices and suppliers can affect the supply and price of gas. Furthermore, if deregulation of the gas and electricity markets is not aligned, the impact of price changes in either electricity or gas could be significant.

Emerging markets countries are subject to greater political, economic and social uncertainties than countries with more developed institutional structures, and the risk of loss resulting from changes in law, economic and social upheaval and other factors may be substantial. Among the more significant risks of operating and investing in emerging market countries are those arising from the establishment or enforcement of foreign exchange restrictions, which could effectively prevent Fortum from repatriating profits or liquidating assets and withdrawing from one or more of these countries, and changes in tax regulations or enforcement mechanisms, which could substantially reduce or eliminate any revenues derived from operations in these countries and reduce significantly the value of assets related to such operations.

#### 2.1.3 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 it is operating on. 25% of the controls in the Fortum internal control framework mitigate compliance risks.

Inadequacies in the legal systems and law enforcement mechanisms in Russia and certain other of the emerging markets exposes Fortum to risk of loss as a result of 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, 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 proprietary information before it is published. Segregation of duties and internal controls are enforced to minimise the possibilities of unauthorised activities. Fortum has also MiFID Licence relating to its Customer Portfolio Services.

Compliance with the competition legislation is an important area for Fortum and it is managed through Fortum's Competition Compliance Programme.

#### Fortum risk map



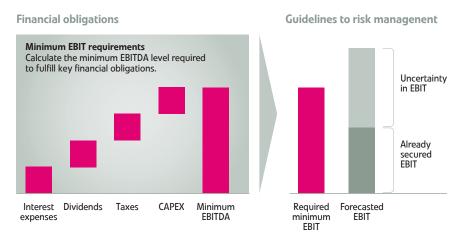
#### 2.2 Financial risks

Financial risk refers to the potential negative effects of market price movements, volume changes, liquidity events or counterpart events. A number of different methods, such as Value-at-Risk and Profit-at-Risk, are used throughout the Group to quantify financial risks. In particular, the potential impact of price and volume risks of electricity, weather, CO<sub>2</sub> and the main fuels are assessed taking into account their interdependencies. Stress-testing is carried out in order to assess the effects of extreme price movements on Fortum's earnings.

Financial risk taking in business units aims to capture potential upside by optimising hedging or by trading in the markets. Risk taking is limited by risk mandates. Risk mandates include minimum EBIT levels for the business units that are set by the CEO. Volumetric limits, Value-at-Risk limits, Stop Loss limits and counterpart exposure limits are also in place.

For further information on hedge ratios, exposures, sensitivities and outstanding derivatives contracts, see Note 3 Financial risk management on page 123.

#### Corporate view on minimum EBIT mandate



#### 2.2.1 Electricity price risks

Fortum is exposed to electricity market price movements mainly through its power generation and customer sales businesses. 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. Fortum manages exposure to electricity price risk through the use of hedging strategies that are executed by the business units within set mandates. Hedges for electricity price risks consist of electricity derivatives contracts.

#### 2.2.2 Volume risks

Power and heat generation, customer sales, and electricity distribution volumes are subject to changes in, for example, hydrological conditions and temperature. Although volume risks in power and heat generation are partly mitigated through generation flexibility, changes in volumes are closely monitored so that hedges can be adjusted accordingly.

#### 2.2.3 CO<sub>2</sub> allowances price risks

The European Union has established an emissions trading scheme to limit the amount of CO<sub>2</sub> emissions. Part of Fortum's power and heat generation is subject to requirements of the trading scheme. Fortum manages its exposure to CO<sub>2</sub> allowance prices through the use of CO<sub>2</sub> forwards and by ensuring that the costs of allowances are taken into account during production planning.

#### 2.2.4 Fuel price risks

Heat and power generation requires the use of fuels that are purchased from global or local markets. The main fuels used by the Group are uranium, coal, natural gas, peat, oil, and various bio-fuels such as wood pellets. Exposure to fuel prices is to some extent limited because of Fortum's flexible generation possibilities, which allow for

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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.

#### 2.2.5 Proprietary trading risks

Fortum engages in a certain level of trading for profit based on a high level of market knowledge. Fortum's proprietary trading activities are limited to standardised electricity, coal and CO<sub>2</sub> allowance contracts mainly traded through established markets such as Nord Pool, EEX and ICE.

Risks associated with trading activities are limited through strict management controls. Stop Loss mandates are set to limit the cumulative maximum loss during the year, and Value-at-Risk mandates limit the maximum risk taking during one day. All trading risks are monitored and reported on a daily basis.

#### 2.2.6 Liquidity and refinancing risks

Fortum's business is capital intensive and the Group has a regular need to raise financing. Financing needs may also arise as a result of Fortums growth strategy, such as the acquisition of TGC-10. This acquisition includes a committed investment program which is partially prefunded with approximately EUR 1 billion of bank deposits earmarked for investments. Fortum has a diversified loan portfolio mainly consisting of long-term bond financing but also a variety of other long- and short-term financing facilities.

The global financial crisis during 2008 has emphasised the need for prudent management of liquidity and refinancing risk. Fortum manages these risks through a combination of cash positions and committed credit facility agreements with its core banks. The Group shall at all times have access to cash/marketable securities and unused committed credit facilities including overdrafts, to cover all loans maturing within the next twelve-month period. As of 31 December 2008, Fortum had approximately EUR 1.3 billion of cash and bank deposits as well as access to EUR 2.3 billion million of undrawn committed credit facilities Debt maturities for 2009 amounted to EUR 980 million.

#### 2.2.7 Interest rate risks

Fortum's debt portfolio consists of interest-bearing assets and liabilities on fixed and floating rate bases 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).

#### 2.2.8 Currency risks

Fortum has cash flows, assets and liabilities in currencies other than in euro. Changes in exchange rates can therefore have an effect on Fortum's earnings and balance sheet. The main currency exposures for Fortum are EUR/SEK, arising from the Group's extensive operations in Sweden and EUR/RUB from translation exposure of TGC-10 investment in Russia.

The Group'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 in on Group level). Fortum Treasury policy states the principles and limits for managing currency exposures. For transaction risk the main principle is that all material exposures are hedged while translation exposures are not hedged or hedged selectively.

#### 2.2.9 Credit risks

Fortum is exposed to counterpart risk whenever there is a contractual obligation with an external counterpart. In order to minimize counterpart risk, Fortum has well-established routines and processes to identify, assess and control counterpart exposure. The Group Credit Guidelines regulates that no contractual obligation should be entered into without a proper, reasonable and viable credit check.

Corporate Credit Control is responsible for assuring stringent controls for all larger individual counterpart exposures. Creditworthiness is continuously monitored through the use of external sources to ensure that actions can be taken immediately when changes occur, and annual credit reviews are performed manually for all larger approved limits. Each Business Unit is responsible for ensuring that exposures remain within approved limits. Mitigation of counterpart risk includes, for example, the use of collateral, managing payment terms and contract length, as well as pursuing netting agreements. Corporate Credit Control continuously monitors and reports counterpart exposures against the approved limits.

Fortum's counterpart portfolio is well-diversified over a wide range of industries, private customers, small businesses and geographical regions. Although the Nordic countries account for most of the counterpart exposure, the exposure to Russia has increased as a result of the acquisition of TGC-10. Most of the exposures in Russia are related to deposits and guarantees from Russian banks which are earmarked for the on-going investment program.

#### 2.3 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.

The Group Insurance Policy governs 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.

#### 2.3.1 Risks at production facilities

Operational events at power and heat generation or electricity distribution facilities can lead to physical damages, business interruptions, and third-party liabilities. In Sweden, third-party liabilities from dam failures are strictly the plant owner's

responsibility. Together with other hydropower producers, Fortum has a shared dam liability insurance program in place that covers Swedish dam failure liabilities up to SEK 7,000 million. Operational risks in production facilities are mitigated by continuous maintenance, condition monitoring, and other operational improvements.

Storms and other unexpected events can result in electricity outages that create costs in the form of repairs and compensations. Although outages are typically short, it is not possible to completely prevent long outages in exceptional circumstances. There is an extensive procedure in place to minimise the length and consequences of outages.

#### 2.3.2 Nuclear risks

Fortum owns the Loviisa nuclear power plant, and has minority interests in one Finnish and two Swedish companies with nuclear plants. In the Loviisa power plant, assessment and improvement of nuclear safety is a continuous process which 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 insurance policy of SDR 175 million, +20% (approximately EUR 240 million) per nuclear incident. Similar insurance policies are in place for the operators where Fortum has a minority interest.

#### 2.3.3 Environmental, health and safety risks

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

#### 2.3.4 IT and information security risks

Information security risks are managed centrally by the corporate security and IT functions. Business-specific risks are managed within the business and service units. Corporate policies define guidelines and 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.

#### The Fortum share and shareholders

Fortum Corporation's shares have been listed on NASDAQ OMX Helsinki since 18 December 1998. The trading code is FUM1V. Fortum Corporation's shares are in the Finnish book entry system maintained by the Finnish Central Securities Depository Ltd (name changed from 2 February 2009 to Euroclear Finland LTD), which also maintains the official share register of Fortum Oyj.

#### Share key figures

EUR	2008	2007	2006
Earnings per share	1.74	1.74	1.22
Cash flow per share	2.26	1.88	1.31
Equity per share	8.96	9.43	8.91
Dividend per share	1.00 1)	1.35	1.26
Payout ratio, %	57.5 <sup>1)</sup>	77.6	103.3
Dividend yield, %	6.6 <sup>1)</sup>	4.4	5.8

<sup>1)</sup> Board of Directors' proposal for the Annual General Meeting 7 April 2009.

For full set of share key figures 1998–2008, see page 171.

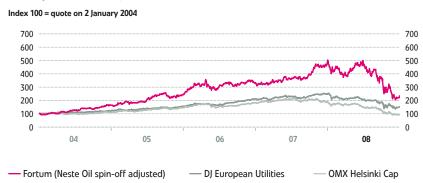
#### 1 Share price performance and volumes

Fortum's share has outperformed its European utility peers during last five years. Fortum's share price has appreciated approximately 135% during last five years, while Dow Jones European Utility Index has increased 18% and OMX Helsinki cap index has decreased 48%.

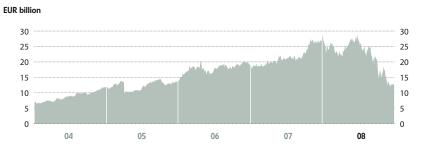
During 2008 Fortum's share price depreciated approximately 51%, while Dow Jones European Utility index decreased 38% and OMX Helsinki cap index decreased 50%.

During 2008, a total of 628.2 million (2007: 787.4) Fortum Corporation shares, total-ling EUR 15,571 million were traded. Fortum's market capitalisation, calculated using the closing quotation of the last trading day of the year, was EUR 13,519 million. The highest quotation of Fortum Corporation shares on NASDAQ OMX Helsinki in 2008 was EUR 33.00, the lowest EUR 12.77, and the volume weighted average quotation EUR 24.76. The closing quotation on the last trading day of the year was EUR 15.23 (2007: 30.81).

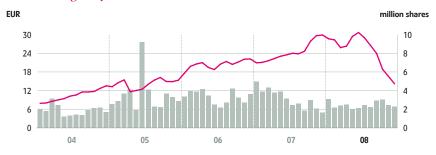
#### Share quatations 2004–2008



#### Market capitalisation 2004-2008



#### Share trading 2004-2008



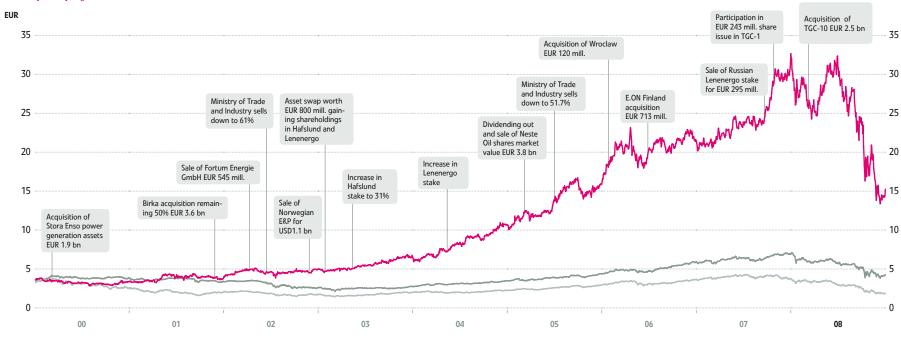
Share price, EUR (monthly average)
 Number of traded shares/day (monthly average)

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#### 2 Shareholder value

Fortum has continuously carried out structural and operational development according to its strategy. Since the year 2000 Fortum has made acquisitions totalling EUR 11 billion and divestments EUR 7 billion. Since the year 2000 the share price has increased by approximately 320%.

#### Share price performance



Fortum (Neste Oil spin-off adjusted)

OMX Helsinki CapDJ European Utilities

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#### 3 Share capital

Fortum has one class of shares. By the end of 2008, a total of 887,638,080 shares had been issued. The nominal value of the share is EUR 3.40 and each share entitles the holder to one vote at the Annual General Meeting. All shares entitle holders to an equal dividend. At the end of 2008 Fortum Corporation's share capital, paid in its entirety and entered in the trade register, was EUR 3,043,707,472.00.

Share capital of Fortum Corporation increased by a total of EUR 3,247,074.80 (2007: 17,678,000.80). A total of 955,022 shares (2007: 5,199,412) subscribed on the basis of share option schemes were entered into the trade register in 2008. At year end the amount of shares that can still be registered for under the share option schemes is a maximumof 0.1% (728,965 shares) of Fortum's 2008 year-end share capital and voting rights.

The registered share capital exceeds the aggregate nominal value of the issued shares due to the cancellations of the company's own shares in 2006 and 2007 (in total 7,570,000) without decreasing the share capital.

#### Share capital 1998-2008

	Number of shares	Share capital, EUR
Fortum established on 7 February 1998	500,000	1,681,879
Rights issue in 1998	782,282,635	2,631,409,886
Employee issue in 1998	2,000,000	6,727,517
31 December 1998	784,782,635	2,639,819,282
31 December 1999	784,782,635	2,639,819,282
Script issue in 2000	-	28,441,677
Rights issue in 2000	60,825,940	206,808,196
31 December 2000	845,608,575	2,875,069,155
31 December 2001	845,608,575	2,875,069,155
Subscriptions with options in 2002		
- 1999 bond loan with warrants	148,380	504,492
- 1999 management share option scheme	3,000	10,200
31 December 2002	845,759,955	2,875,583,847
Subscriptions with options in 2003		
- 1999 bond loan with warrants	159,520	542,368
- 1999 management share option scheme	2,913,000	9,904,200
31 December 2003	848,832,475	2,886,030,415
Subscriptions with options in 2004		
- 1999 bond loan with warrants	4,560,730	15,506,482
- 1999 management share option scheme	7,154,000	24,323,600
- 2002 A share options scheme for key employees	6,536,700	22,224,780
31 December 2004	867,083,905	2,948,085,277

	Number of shares	Share capital, EUR
Subscriptions with options in 2005		
- 1999 bond loan with warrants	1,284,370	4,366,858
- 1999 management share option scheme	1,698,000	5,773,200
- 2001 A share options scheme	1,636,350	5,563,590
- 2002 A share options scheme	3,591,400	12,210,760
31 December 2005	875,294,025	2,975,999,685
Subscriptions with options in 2006		
- 2001 A share options scheme	3,026,200	10,289,080
- 2001 B share options scheme	5,360,133	18,224,452
- 2002 A share options scheme	516,800	1,757,120
- 2002 B share options scheme	4,856,488	16,512,059
Cancellation of own shares	-1,660,000	-
31 December 2006	887,393,646	3,022,782,396
Subscriptions with options in 2007		
- 2001 A share options scheme	274,920	934,728
- 2001 B share options scheme	1,339,867	4,555,548
- 2002 A share options scheme	122,100	415,140
- 2002 B share options scheme	3,462,525	11,772,585
Cancellation of own shares	<b>–</b> 5,910,000	-
31 December 2007	886,683,058	3,040,460,397
Subscriptions with options in 2008		
- 2002 B share options scheme	955,022	3,247,075
31 December 2008	887,638,080	3,043,707,472

# 4 Shareholders

At the beginning of 2008, the Finnish State owned 50.86% of the company's shares. After the changes in amount of shares during 2008, increase in amount of shares due to the share subscriptions under the share option schemes for employees, the Finnish State owned 50.80% of the Company's shares at the end of the year. 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 35.2% (2007: 35.8%).

## Shareholders 31 December 2008

Shareholders	No. of shares	Holding %
Finnish State	450,932,988	50.80
Ilmarinen Mutual Pension Insurance Company	15,426,693	1.74
The Social Insurance Institution of Finland, KELA	7,195,896	0.81
The City of Kurikka	6,203,500	0.70
Varma Mutual Pension Insurance Company	6,150,000	0.69
The State Pension Fund	4,950,000	0.56
OP-Delta Fund	2,679,649	0.30
Etera Mutual Pension Insurance Company	2,038,911	0.23
Svenska Handelsbanken, Finland	1,635,780	0.19
Tapiola Mutual Pension Insurance Company	1,361,176	0.15
Nominee registrations	309,067,701	34.82
Other shareholders in total	79,995,786	9.01
Total number of shares	887,638,080	100.00

By shareholder category	% of total amount of shares
Finnish shareholders	
Corporations	0.7
Financial and insurance institutions	1.6
General government	56.4
Non-profit organisations	1.1
Households	5.0
Non-Finnish shareholders	35.2
Total	100.0

#### Breakdown of share ownership 31 December 2008

By number of shares owned	No. of share- holders	% of share- holders	No. of shares	% of total amount of shares
1–100	10,510	17.70	632,594	0.07
101–500	24,917	41.96	6,639,946	0.75
501–1,000	12,996	21.88	8,929,116	1.01
1,001–10,000	10,341	17.41	25,826,634	2.91
10,001–100,000	539	0.91	13,252,231	1.49
100,001–1,000,000	72	0.12	21,351,942	2.40
1,000,001–10,000,000	11	0.02	35,500,499	4.00
over 10,000,000	2	0.00	466,359,681	52.54
	59,388	100.00	578,492,643	65.17
Unregistered/uncleared transactions on 31 December			77,736	0.01
Nominee registrations			309,067,701	34.82
Total			887,638,080	100.00

# 5 Management interests 31 December 2008

At the end of 2008, the President and CEO and other members of the Fortum Management Team owned 354,238 shares (2007: 317,030), representing less than 0.04% of the total shares in the Company.

A full description of Fortum's equity incentive schemes is shown in Note 29 Employee bonus system, personnel fund and incentive schemes together with details on the President and CEO and other members of the Fortum Management Team's shareholdings and interests in equity incentive schemes on page 153.

# 6 Authorisations from the Annual General Meeting 2008

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. The Board of Directors has the authorisation from the Annual General Meeting of Shareholders on 1 April 2008 to buy Fortum Corporation's own shares. The authorisation, amounting to EUR 300 million or 15 million shares, is valid one year from the last year AGM. The shares repurchased by Fortum shall be cancelled through a separate decision made by the Board of Directors of Fortum.

For more information regarding share repurchases, see Note 27.1 Treasury shares on page 152.

# 7 Dividend policy

Fortum Corporation's dividend policy states that the company aims to pay a dividend which corresponds to an average payout ratio of 50% to 60%.

# 8 Dividend distribution proposal

Parent company's distributable equity as of 31 December 2008 amounted to EUR 3,742 million. After the end of the financial period there have been no material changes in the financial position of the Company.

The Board of Directors proposes to the Annual General Meeting that Fortum Corporation pay a cash dividend of EUR 1.00 per share for 2008, totalling EUR 888 million based on the number of registered shares as of 4 February 2009. The Annual General Meeting will be held on 7 April 2009 at 2:00 pm at the Cable Factory in Helsinki.

## Earnings per share



# Dividend per share



- Additional dividend, 2006 and 2007Discontinued oil operations
- Board of Directors' proposal for the Annual General Meeting in April 2009.

# Fortum's activities in capital markets during 2008

Fortum's Investor Relations (IR) activities cover equity and fixed-income markets to ensure full and fair valuation of the Company's shares, access to funding sources and stable bond pricing. Investors and analysts primarily in Europe and North America are met on a regular basis.

In 2008 the Fortum conducted close to 200 individual and group meetings with professional equity investors, whilst maintaining regular contact with equity research analysts at investment banks and brokerage firms. In addition, site visits were arranged for members of the investment community. During the year, IR and senior management gave approximately 15 presentations at investor conferences in Scandinavia, the United Kingdom and North America.

One of the main IR events of the year is the Capital Markets Day. In 2008 the event was held in October. The event was attended by approximately 100 representatives of equity and fixed-income markets, including fund managers, analysts and institutional shareholders.

# Consolidated financial statements

# Consolidated income statement

EUR million	Note	2008	2007
Sales	5	5,636	4,479
Other income	9	230	393
Materials and services	10	-2,117	-1,572
Employee costs	12	-587	-495
Depreciation, amortisation and impairment charges	5,13	-515	-451
Other expenses	11	-684	-507
Operating profit	5	1,963	1,847
Share of profit of associates and joint ventures	5,21	126	241
Interest expense	14	-351	-220
Interest income	14	143	76
Fair value gains and losses on financial instruments	6,14	-11	7
Other financial expenses - net	14	-20	-17
Finance costs - net	14	-239	-154
Profit before income tax		1,850	1,934
Income tax expense	15	-254	-326
Profit for the period		1,596	1,608
Attributable to:	• • • • • • • • • • • • • • • • • • • •	······································	
Equity holders of the Company		1,542	1,552
Minority interest		54	56
		1,596	1,608
Earnings per share for profit attributable to the equity holders of the Company during the year (in EUR per share)	16		
Basic	••••••••••	1.74	1.74
Diluted	• • • • • • • • • • • • • • • • • • • •	1.74	1.74

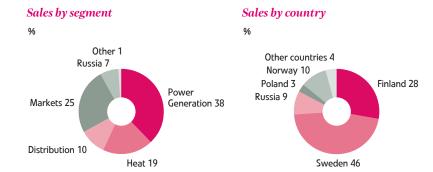
EUR million	2008	2007
Comparable operating profit	1,845	1,564
Non-recurring items	85	250 <sup>1)</sup>
Changes in fair values of derivatives hedging future cash flow	52	16
Nuclear fund adjustment	-19	17
Other items effecting comparability	33	33
Operating profit	1,963	1,847

1) In 2007 non-recurring items include gain on Lenenergo shares EUR 232 million.

In 2007 gain on Hafslund's REC shares EUR 180 million.

Higher average debt and interest rates 5.3% (4.3%) for debt including derivatives.

In 2008 one-time positive effect on lowering tax rates in Sweden and Russia amounting to EUR 113 million.



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# Consolidated balance sheet

EUR million	Note	31 Dec 2008	31 Dec 2007
ASSETS			
Non-current assets		•	
Intangible assets	19	395	85
Property, plant and equipment	20	12,138	11,343
Participations in associates and joint ventures	21	2,112	2,853
Share in State Nuclear Waste Management Fund	35	566	516
Other non-current assets	22	117	99
Deferred tax assets	32	2	3
Derivative financial instruments	3	445	153
Long-term interest-bearing receivables	23	742	736
Total non-current assets		16,517	15,788
Current assets			
Inventories	24	444	285
Derivative financial instruments	3	761	140
Trade and other receivables	25	1,235	1,034
Bank deposits		588	-
Cash and cash equivalents		733	427
Liquid funds	26	1,321	427
Total current assets		3,761	1,886
Total assets		20,278	17,674

EUR million	Note	31 Dec 2008	31 Dec 2007
EQUITY			
Capital and reserves attributable to the Company's equity holders		•	
Share capital	27	3,044	3,040
Other restricted funds	••••••	90	78
Fair value and other reserves	28	525	715
Retained earnings	•	4,295	4,526
Total		7,954	8,359
Minority interests	30	457	292
Total equity		8,411	8,651
LIABILITIES		······································	
Non-current liabilities	***************************************	•	
Interest-bearing liabilities	31	6,520	4,288
Derivative financial instruments	3	120	139
Deferred tax liabilities	32	1,851	1,687
Nuclear provisions	35	566	516
Pension and other provisions	33,34	250	144
Other non-current liabilities	36	470	486
Total non-current liabilities		9,777	7,260
Current liabilities			
Interest-bearing liabilities	31	980	605
Derivative financial instruments	3	126	260
Current tax liability		22	29
Trade payables and other liabilities	37	962	869
Total current liabilities		2,090	1,763
Total liabilities		11,867	9,023
Total equity and liabilities		20,278	17,674

# Consolidated statement of changes in total equity

EUR million	Note	Share capital	Other restricted funds	Fair value and other reserves	Treasury shares	Retained earnings	Attributable to the equity holders	Minority	Total
Total equity at 31.12.2007		3,040	78	715	-	4,526	8,359	292	8,651
Translation and other differences		-	6	-148	-	<b>–</b> 561	-703	-86	-789
Cash flow hedges		-	-	440	-	-	440	-	440
Other fair value adjustments		-	-	-484	-	-	-484	2	-482
Total gains and losses not recognised in income statement		-	6	-192	-	-561	-747	-84	-831
Profit for the period		-	-	-	-	1,542	1,542	54	1,596
Total recognised income for the period		-	6	-192	-	981	795	-30	765
Stock options exercised	27	4	-	-	-	-	4	-	4
Cash dividend	17	-	-	-	-	-1,198	-1,198	-	-1,198
Changes between restricted and unrestricted equity		-	6	-	-	-6	0	-	0
Changes due to business combinations	7	-	-	2	-	-8	-6	195	189
Total equity at 31.12.2008		3,044	90	525	-	4,295	7,954	457	8,411
T		7.027	74	F44		4 700	7.000	257	0.1/1
Total equity at 31.12.2006		3,023	74	511		4,300	7,908	253	8,161
Translation and other differences		-	-	10	-	-25	-15	-11	-26
Cash flow hedges			-	–168	-	-	-168	-2	-170
Other fair value adjustments		-	-	362	-	-	362	-	362
Total gains and losses not recognised in income statement				204	-	-25	179	-13	166
Profit for the period		-	-	-	-	1,552	1,552	56	1,608
Total recognised income for the period		-	-	204	-	1,527	1,731	43	1,774
Stock options exercised	27	17	-	-	-	-	17	-	17
Repurchase of own shares	27	-	-	-	-175	-	-175	-	-175
Cancellation of own shares	27	-	-	-	175	-175	0	-	0
Cash dividend	17	-	-	-	-	-1,122	-1,122	-	-1,122
Changes between restricted and unrestricted equity		-	4	-	-	-4	0	-	0
Changes due to business combinations	7						0	-4	-4
Total equity at 31.12.2007		3,040	78	715	-	4,526	8,359	292	8,651

## Translation differences 1)

The weakening of mainly RUB, SEK and NOK has impacted equity attributable to equity holders through translation differences with EUR -703 million. Part of the translation differences are arising from the NOK effect in fair valuation of Hafslund's REC shares EUR -148 million which is shown in fair value and other reserves.

## Cash flow hedges

The impact on equity attributable to equity holders from fair valuation of cash flow hedges, EUR 440 million, mainly relates to cash flow hedges hedging electricity price. When electricity price is lower than the hedging price, the impact on equity is positive.

See also Note 28 Fair value and other reserves on page 152.

## Other fair value adjustments

Other fair value adjustments EUR –484 million, mainly relates to the change in share price of Hafslund's REC shares during 2008 excluding exchange rate differences.

See also Note 21 Participations in associates and joint ventures on page 147.

## Changes in minority interest in equity

The main changes to minority interest in equity are translation differences EUR -86 million, arising from RUB and SEK and also changes through business combinations which relates to the minority interest in TGC-10.

1) Translation of financial information from subsidiaries in foreign currency is done using average rate for the income statement and end rate for the balance sheet. The exchange rate differences occurring from translation to EUR are booked to equity. For further information regarding exchange rates used, see Note 8 Exchange rates on page 137.

# Consolidated cash flow statement

		254 239 -126 515 2,478 -275 135 -352 51 399 -332 2,104	326 154 -241 451 <b>2,298</b> -286 75 -271 179
Adjustments: Income tax expenses Finance costs-net Share of profit of associates and joint ventures Depreciation, amortisation and impairment charges Operating profit before depreciations (EBITDA) Non-cash flow items and divesting activities Interest received Interest paid Dividends received Other financial items and realised foreign exchange gains and losses Taxes Funds from operations		254 239 -126 515 <b>2,478</b> -275 135 -352 51 399 -332	1,608  326 154 -241 451 2,298 -286 75 -271 179 7 -383
Income tax expenses Finance costs-net Share of profit of associates and joint ventures Depreciation, amortisation and impairment charges Operating profit before depreciations (EBITDA) Non-cash flow items and divesting activities Interest received Interest paid Dividends received Other financial items and realised foreign exchange gains and losses Taxes Funds from operations		239 -126 515 <b>2,478</b> -275 135 -352 51 399 -332	154 -241 451 <b>2,298</b> -286 75 -271 179 7
Finance costs-net  Share of profit of associates and joint ventures  Depreciation, amortisation and impairment charges  Operating profit before depreciations (EBITDA)  Non-cash flow items and divesting activities Interest received Interest paid Dividends received Other financial items and realised foreign exchange gains and losses  Taxes  Funds from operations		239 -126 515 <b>2,478</b> -275 135 -352 51 399 -332	154 -241 451 <b>2,298</b> -286 75 -271 179 7
Share of profit of associates and joint ventures  Depreciation, amortisation and impairment charges  Operating profit before depreciations (EBITDA)  Non-cash flow items and divesting activities Interest received Interest paid Dividends received Other financial items and realised foreign exchange gains and losses Taxes  Funds from operations		-126 515 <b>2,478</b> -275 135 -352 51 399 -332	-241 451 <b>2,298</b> -286 75 -271 179 7
Depreciation, amortisation and impairment charges  Operating profit before depreciations (EBITDA)  Non-cash flow items and divesting activities Interest received Interest paid Dividends received Other financial items and realised foreign exchange gains and losses Taxes  Funds from operations		515 <b>2,478</b> -275 135 -352 51 399 -332	451 <b>2,298</b> -286 75 -271 179 7 -383
Operating profit before depreciations (EBITDA)  Non-cash flow items and divesting activities Interest received Interest paid Dividends received Other financial items and realised foreign exchange gains and losses Taxes Funds from operations		2,478 -275 135 -352 51 399 -332	2,298 -286 75 -271 179 7 -383
Non-cash flow items and divesting activities Interest received Interest paid Dividends received Other financial items and realised foreign exchange gains and losses Taxes Funds from operations		-275 135 -352 51 399 -332	-286 75 -271 179 7 -383
Interest received Interest paid Dividends received Other financial items and realised foreign exchange gains and losses Taxes Funds from operations		135 -352 51 399 -332	75 -271 179 7 -383
Interest paid Dividends received Other financial items and realised foreign exchange gains and losses Taxes Funds from operations		-352 51 399 -332	–271 179 7 –383
Dividends received Other financial items and realised foreign exchange gains and losses Taxes Funds from operations		51 399 –332	179 7 –383
Other financial items and realised foreign exchange gains and losses Taxes Funds from operations		399 -332	7 –383
losses Taxes Funds from operations		-332	-383
Funds from operations			
**************************************		2,104	1 610
•••••••••••••••••••••••••••••••••••••••			1,019
Increase in interest-free receivables		-48	-11
Increase/decrease in inventories	······································	-132	40
Increase in interest-free liabilities	······································	78	22
Change in working capital	······································	-102	51
Total net cash from operating activities		2,002	1,670
Cash flow from investing activities	······································		
Capital expenditures 1)	5,19,20	-1,018	-592
Acquisition of subsidiaries, net of cash acquired	7	-1,210	-10
Acquisition of associates 2)	21	-32	-271
Acquisition of other long-term investments	······································	-1	-4
Proceeds from sales of fixed assets	······································	37	14
Proceeds from sales of subsidiaries, net of cash disposed	7	44	-
Proceeds from sales of associates	21	34	304
Proceeds from sales of other non-current assets	······································	0	29
Change in interest-bearing receivables	······································	-136	-79
Total net cash used in investing activities		-2,282	-609

EUR million	Note	2008	2007
Cash flow from financing activities			
Proceeds from long-term liabilities	•••••••••••••••	5,550	942
Payments of long-term liabilities	***************************************	-3,479	-417
Change in short-term liabilities	***************************************	551	-37
Proceeds from stock options exercised	27	4	17
Dividends paid to the Company's equity holders	17	-1,198	-1,122
Repurchase of own shares	27	-	-175
Other financing items	***************************************	-108	1
Total net cash used in financing activities		1,320	-791
Total net increase (+) / decrease (-) in liquid funds		1,040	270
Liquid funds at the beginning of the year		427	157
Foreign exchange differences in liquid funds	•••••••••••••••••••••••••••••••••••••••	-146	-
Liquid funds at the end of the year	26	1,321	427

<sup>1)</sup> Capital expenditures in cash flow do not include not yet paid investments. Capitalised borrowing costs are included in interest costs paid.
2) Acquisition of associates includes share issues and other capital contributions.

EUR million	2008	2007
Net debt 1 January	4,466	4,345
Foreign exchange rate differences	-203	-73
EBITDA	2,478	2,298
Paid net financial costs, taxes and adjustments for non-cash and divestment items	-374	-679
Change in working capital	-102	51
Capital expenditures	-1,018	-592
Acquisitions	-1,243	-285
Divestments	115	347
Change in interest-bearing receivables	-136	-79
Dividends and repurchase of own shares	-1,198	-1,297
Other financing activities	-103	18
Net cash flow (- increase in net debt)	-1,581	-218
Loans in acquired companies	272	7
Fair value change of bonds and amortised cost valuation	63	-31
Net debt 31 December	6,179	4 ,466

# Notes to the consolidated financial statements

# 1 Accounting policies

# 1.1 Principal activities

Fortum Corporation (the Company) is a Finnish public limited liability company with domicile in Espoo, Finland. The Company is listed on NASDAQ OMX Helsinki.

Fortum Corporation and its subsidiaries (together the Fortum Group) is a leading energy company focusing on the Nordic countries, Russia and the Baltic Rim area. Fortum's activities cover the generation, distribution and the sale of electricity and heat, the operation and maintenance of power plants as well as energy-related services.

Fortum's competitiveness in the power and heat business is based on a pan-Nordic concept which is characterised by a high level of operational efficiency and a broad customer base.

These Financial Statements were approved by the Board on 4 February 2009.

# 1.2 Basis of preparation

The consolidated financial statements of Fortum Group are prepared in accordance with International Financial Reporting Standards (IFRS)/International Accounting Standards (IAS) as adopted by the European Union.

The consolidated financial statements have been prepared under the historical cost convention except for the revaluation of certain financial instruments.

#### 1.2.1 Use of estimates

The preparation of financial statements in conformity with IFRS requires the use of certain critical accounting estimates. It also requires management to exercise its judgment in the process of applying the Group's accounting principles. The areas involving higher degree of judgment or complexity, or areas where assumptions and estimates are significant to the consolidated financial statements are disclosed in Note 2 Critical accounting estimates and judgments.

## 1.2.2 New Standards and amendments and interpretations to existing standards

# New standards and amendments and interpretations to existing standards effective in 2008

In the year ended at 31 December 2008 Fortum has adopted the following amended standard and interpretations to existing standards:

• Amendments to IAS 39 Financial Instruments: Recognition and Measurement and IFRS 7 Financial Instruments: Disclosures (effective from 1 July 2008). Amendment to IAS 39 allows an entity to reclassify certain non-derivative financial assets out of the held-for-trading category in rare circumstances as well as certain loans and receivables out of the held-for-trading or available-for-sale categories if the entity has the intention and ability to hold the asset for the foreseeable future or until maturity. The amendment to IFRS 7 requires extensive disclosures for any financial asset reclassified in the situations described. The amendments have no impact on the financial position or performance of Fortum Group as no assets have been re-classified.

- IFRIC 11 IFRS 2 Group and treasury share transactions (effective for annual periods beginning on or after 1 March 2007). IFRIC 11 requires a share-based payment arrangement in which the entity receives goods or services as consideration for its own equity instruments (i.e. treasury shares) to be accounted for as equity-settled share-based payment transaction even though if the entity buys the instruments from another party, or the shareholders provide the equity instruments needed. Fortum does not currently have such arrangements.
- IFRIC 12 Service concession arrangements (effective for annual periods beginning on or after 1 January 2008). IFRIC 12 is not relevant to Fortum as it is not participating in any service concession arrangements. The interpretation is still subject to endorsement by the EU.
- IFRIC 14 IAS 19 The limit on a defined benefit asset, minimum funding requirements and their interaction (effective for annual periods beginning on or after 1 January 2008). IFRIC 14 applies to all post-employment defined benefits and other long-term employee defined benefits. It addresses how to assess the limit in IAS 19 on the amount of the surplus that can be recorded as an asset ("asset ceiling") in particular, when there is a minimum funding requirement. IFRIC 14 is not relevant to Fortum as Group's pension arrangements do not have minimum funding requirements.

#### Early adopted standards and amendments

• IFRS 8 Operating segments was early adopted in 2008. The standard requires a "management approach" under which segment information is presented on the same basis as used for internal reporting purposes. A new Russia segment has been introduced in Fortum, following the acquisition of the Russian company, TGC-10. This means that the new segment structure has one segment based on geographical area, combined with segments based on types of business operations. IFRS 8 deals with disclosures and therefore has no impact on Group's reported results or financial position.

# New Standards and amendments and interpretations to existing standards which are not yet effective and have not been early adopted

- IAS 23 (Amendment) *Borrowing costs* (effective for annual periods beginning on or after 1 January 2009). The revised standard requires an entity to capitalise borrowing costs directly attributable to the acquisition, construction or production of a qualifying asset as part of the cost of that asset. The option of immediately expensing those borrowing costs is removed. The adoption of the revised IAS 23 will constitute an adjustment of the accounting policy for capitalising borrowing costs in Fortum Group. Fortum will apply the revised IAS 23 to qualifying assets for which capitalisation of borrowing costs commences on or after the effective date. The standard has been endorsed by the EU.
- IAS 1 (revised) *Presentation of financial statements* (effective for annual periods beginning on or after 1 January 2009). IAS 1 (revised) will change the presentation of the income statement and the statement of changes in equity. The standard requires to separate changes in equity of an entity arising from transactions with owners from other changes in equity. The adoption of the standard will not have impact

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- on Fortum's reported results or financial position. The revised standard has been endorsed in the EU.
- IFRS 3 (revised) *Business combinations* (effective for annual periods beginning on or after 1 July 2009.) The amendments will mainly impact the accounting of transaction costs, step acquisitions, goodwill and non-controlling interest (previously 'minority interest') and contingent consideration. Fortum will apply the revised standard to all business combinations from 1 January 2010. IFRS 3 (revised) is still subject to endorsement by the EU.
- IAS 27 (amended) Consolidated and separate financial statements (to be adopted for annual periods beginning on 1 January 2010). The amendments to IAS 27 require the effects of all transactions with non-controlling interests to be recorded in equity if there is no change in control. Fortum will apply amended standard prospectively to transactions with non-controlling interests from 1 July 2009. The amended standard is still subject to endorsement by the EU.
- IFRIC 16 Hedges of a net investment in a foreign operation (to be adopted for annual periods beginning on 1 January 2009). IFRIC 16 clarifies the accounting treatment in respect of net investment hedge. This includes the fact that net investment hedging relates to differences in functional currency not presentation currency and hedging instruments can be held anywhere in the group. The interpretation is not expected to have a material impact on the group's financial statements. The interpretation is still subject to endorsement by the EU.
- IAS 39 (Amendment) Financial Instruments: Recognition and Measurement (effective retrospectively for annual periods beginning on or after 1 July 2009). The amendment gives additional guidance on the designation of a hedged item. The amendment is not expected to have a material impact on the Fortum's financial statements. The amendment is still subject to endorsement by the EU.
- IFRIC 17 *Distributions of Non-cash Assets to Owners* (effective for annual periods beginning on or after 1 July 2009). Amendment clarifies that a dividend payable should be recognised when the dividend is appropriately authorised and is no longer at the discretion of the entity. It also states that the dividend payable shall be measured at the fair value of the net assets to be distributed and the difference between the dividend paid and the carrying amount of the net assets distributed is recognised in profit or loss. The interpretation is not expected to have a material impact on the Fortum's financial statements. The interpretation is still subject to endorsement by the EU.
- IFRS 2 (Amendment) *Share-based payment* (effective for annual periods beginning on or after 1 January 2009). The amended standard deals with vesting conditions and cancellations. It clarifies that vesting conditions are service conditions and performance conditions only. The amendment is not expected to have an impact to the Fortum's financial statements. The amendment has been endorsed in the EU.
- Annual improvements to IFRSs were issued in May 2008 to primarily remove inconsistencies and clarify wording of standards. There are separate transitional provisions for each standard. Amendments are not expected to have an impact on Fortum's financial statements. The amendments have been endorced by the EU.

The following amendments and interpretations are not relevant to the Fortum's operations:

• IFRIC 13 *Customer Loyalty Programmes* (effective for annual periods beginning on or after 1 July 2008). Fortum does not have any such programmes in the scope of the interpretation. The interpretation has been endorsed by the EU.

- IFRIC 15 Agreements for construction of real estate (effective for annual periods beginning on or after 1 January 2009). The interpretation clarifies whether IAS 18, Revenue, or IAS 11, Construction contracts, should be applied to particular transactions. IFRIC 15 is not relevant to Fortums operations. The interpretation is still subject to endorsement by the EU.
- IAS 32 (Amendment) Financial Instruments: Presentation and IAS 1 (Amendment) Presentation of Financial Statements (effective for annual periods beginning on or after 1 January 2009). The amended standards requires puttable instruments and instruments that impose on the entity an obligation to deliver to another party a pro rata share of the net assets on the entity only on liquidation, to be classified as equity if certain conditions are met. The amended standards have been endorsed in the EU.

#### 1.2.3 Classification of current and non-current assets and liabilities

An asset or a liability is classified as a current asset or liability when it is held primarily for commercial purposes or is expected to be realised within twelve months after the balance sheet date. Cash and cash equivalents are classified as current assets.

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

## 1.3 Consolidation

#### 1.3.1 Subsidiaries

The consolidated financial statements include the parent company Fortum Corporation and all those companies in which Fortum Corporation has the power to govern the financial and operating policies and generally holds, directly or indirectly, more than 50% of the voting rights.

The Fortum Group subsidiaries are disclosed in Note 45 Subsidiaries by segment on 31 December 2008.

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

The financial statements of Fortum Group have been consolidated according to the acquisition method. The cost of an acquisition is measured as the aggregate of fair value of the assets given and liabilities incurred or assumed at the date of exchange, plus costs directly attributable to the acquisition. Identifiable assets acquired and liabilities assumed in a business combination are measured initially at their fair values at the acquisition date, irrespective of the extent of any minority interest. The excess of the cost of acquisition over the fair value of the Group's share of the identifiable net assets acquired is recorded as goodwill. If the cost of acquisition is less than the fair value of the net assets of the subsidiary acquired, the difference is recognised directly in the Income Statement.

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

Intercompany transactions, balances and unrealised gains on transactions between Group companies are eliminated. Unrealised losses are also eliminated unless the

transaction provides evidence of an impairment of the asset transferred. Where necessary, subsidiaries' accounting policies have been changed to ensure consistency with the policies the Group has adopted.

#### 1.3.2 Associates and joint ventures

Associated companies are entities over which the Group has significant influence but not control, generally accompanying a shareholding of between 20% and 50% of the voting rights. Joint ventures are entities over which the Group has contractually agreed to share the power to govern the financial and operating policies of that entity with another venturer or venturers. The Group's interests in associated companies and jointly controlled entities are accounted for by the equity method of accounting. Assets acquired and liabilities assumed in the investment in associates or joint ventures are measured initially at their fair values at the acquisition date. The excess of the cost of acquisition over the fair value of the Group's share of the identifiable net assets acquired is recorded as goodwill. If the cost of acquisition is less than the fair value of the net assets of the associate or joint venture acquired, the difference is recognised directly in the income statement.

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

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

Unrealised gains on transactions between the Group and its associates or joint ventures are eliminated to the extent of the Group's interest in the associate or joint venture. Unrealised losses are also eliminated unless the transaction provides evidence of an impairment of the asset transferred. Accounting policies of associates or joint ventures have been changed where necessary to ensure consistency with the policies adopted by the Group. If the information is not available the share of the profit of certain associated or joint venture companies is included in the consolidated accounts based on the previous quarterly information.

Regarding accounting for Fortum's shareholding in Hafslund ASA and the Russian shareholdings, see Note 21 Participations in associated companies and joint ventures on page 147.

# 1.4 Segment reporting

Fortum discloses segment information in a manner consistent with internal reporting to Fortum's Board of Directors and to Fortum Management Team led by the President and CEO. Fortum mainly has segments based on type of business operations, combined with one segment based on geographical area. The Group's businesses are divided into the following reporting segments:

 Power Generation – comprises power generation and sales in the Nordic countries as well as operation and maintenance services in the Nordic area and selected international markets.

- Heat comprises heat generation and sales in the Nordic countries and other parts
  of the Baltic Rim. The segment also generates power in the combined heat and
  power plants (CHP) and sells it to end-customers mainly by long-term contracts as
  well as to Nord Pool.
- Distribution owns and operates distribution and regional networks and distributes electricity to customers in Sweden, Finland, Norway and Estonia.
- Markets focuses on the retail sale of electricity to private and business customers as well as to other electricity retailers in Sweden, Finland and Norway. The Markets segment buys its electricity through Nord Pool.
- Russia comprises power and heat generation and sales in Russia. It includes mainly the Russian subsidiary TGC-10, which is consolidated from 31 March 2008 and the shareholding in the associated company TGC-1.
- Other mainly the shareholding in the associated company Hafslund ASA and corporate center including the Fortum Group shared service centers. The shared service centers charge the companies according to service level agreements.
- For further information about the reporting segments, see Note 5 Segment reporting on page 130.

## 1.5 Discontinued operations and assets held for sale

Discontinued operations represent a separate major line of business that either have been disposed of or are classified as held for sale. Assets and liabilities attributable to the discontinued operations must be clearly distinguishable from the other consolidated entities in terms of their operations and cash flows. In addition, the reporting entity must not have any significant continuing involvement in the operations classified as a discontinued operation. The post-tax profit for the period attributable to discontinued operations including the gain or loss on the disposal is shown as a separate item in the income statement. The discontinued operations effect on cash flow is either separated in the cash flow statement or disclosed in the notes.

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

Neste Oil was included in Fortum Group up until 31 March 2005, when the Annual General Meeting took the final decision to separate the oil operations by distributing approximately 85% of Neste Oil Corporation shares as dividend. The remaining approximately 15% of shares were sold to investors in April 2005.

• Oil operations have been presented as discontinued operations for 2004 and 2005, see Financial key figures on pages 169–170.

# 1.6 Foreign currency transactions and translation

## 1.6.1 Functional and presentation currency

Items included in the financial statements of each of the Group's entities are measured using the currency of the primary economic environment in which the entity operates

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("the functional currency"). The consolidated financial statements are presented in euros, which is the Company's functional and presentation currency.

#### 1.6.2 Transactions and balances

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

## 1.6.3 Group companies

The income statements of subsidiaries, whose measurement and reporting currencies are not euros, are translated into the Group reporting currency using the average exchange rates for the year based on the month-end exchange rates, whereas the balance sheets of such subsidiaries are translated using the exchange rates on the balance sheet date. On consolidation, exchange differences arising from the translation of the net investment in foreign entities, and of borrowings and other currency instruments designated as hedges of such investments, are taken to equity. When a foreign operation is sold, such exchange differences are recognised in the income statement as part of the gain or loss on sale. Goodwill and fair value adjustments arising on the acquisition of a foreign entity are treated as assets and liabilities of the foreign entity and translated at the closing rate. The Group deems all cumulative translation differences for all foreign operations to be zero at the date of transition to IFRS, i.e. 1 January 2004.

Exchange rates used to translate reporting currencies into euros in the Consolidated Financial Statements are disclosed in Note 8 Exchange rates on page 137.

## 1.6.4 Associates and joint ventures

The Group's interests in associated companies and jointly controlled entities are accounted for by the equity method. Associates and joint ventures, whose measurement and reporting currencies are not euro, are translated into the Group reporting currency using the same principles as for subsidiaries, see 1.6.3 Group companies.

# 1.7 Revenue recognition

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

#### 1.7.1 Sale of electricity, heat, cooling and distribution of electricity

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

Physical energy sales and purchase contracts are accounted for on accrual basis as they are contracted with the Group's expected purchase, sale or usage requirements.

Electricity tax is levied on electricity delivered to retail customers by domestic utilities in Sweden. The tax is calculated on the basis of a fixed tax rate per kWh. The rate varies between different classes of customers. Sale of electricity in the income statement is shown net of electricity tax.

As from 1 January 2004 Fortum has replaced its physical electricity transactions between the segments with transactions against Nord Pool. The hourly sales and purchases with Nord Pool are netted on the Group level and posted either as revenue or cost, according to whether Fortum is a net seller or a net buyer during any particular hour.

The prices charged to customers for the sale of distribution of electricity are regulated. The regulatory mechanism differs from country to country. Any over or under income decided by the regulatory body is regarded as regulatory assets or liabilities that do not qualify for balance sheet recognition due to the fact that no contract defining the regulatory aspect has been entered into with a specific customer and thus the receivable is contingent on future delivery. The over or under income is normally credited or charged over a number of years in the future to the customer using the electricity connection at that time. No retroactive credit or charge can be made.

#### 1.7.2 Connection fees

Fees paid by the customer when connected to the electricity, gas, heat or cooling network are recognised as income to the extent that the fee does not cover future commitments. If the connection fee is linked to the contractual agreement with the customer, the income is recognised over the period of the agreement with the customer. Fees paid by customers when connected to the electricity network before 2003 are refundable in Finland if the customer would ever disconnect the initial connection. Also fees paid by the customer when connected to district heating network in Finland are refundable. These connection fees have not been recognised in the income statement and are included in other liabilities in the balance sheet.

#### 1.7.3 Contract revenue

Contract revenue is recognised under the percentage of completion method to determine the appropriate amount to recognise as revenue and expenses in a given period. The stage of completion is measured by reference to the contract costs incurred up to the closing date as a percentage of total estimated costs for each contract. Costs incurred in the year in connection with future activity on a contract are excluded from contract costs in determining the stage of completion. They are presented as inventories, prepayments or other assets, depending on their nature.

The Group presents as an asset the amount due from customers for contract work for all contracts in progress for which costs incurred plus recognised profits (less recognised losses) exceeds progress billings. Progress billings not yet paid by customers and retention are included within "trade and other receivables". The Group presents as a liability the amount due to customers for contract work for all contracts in progress for which progress billings exceed costs incurred plus recognised profits (less recognised losses).

#### 1.7.4 Other income

Revenue from activities outside normal operations is reported in Other income. This includes recurring items such as rental income and non-recurring items such as gains from sales of shares, property, plant and equipment, emission rights etc. Other income also includes the changes in the fair value of any derivative instruments that do not qualify for hedge accounting which are recognised immediately in the income statement.

# 1.8 Government grants

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

#### 1.9 Emission allowances

The Group accounts for emission allowances based on currently valid IFRS standards where purchased emission allowances are accounted for as intangible assets at cost, whereas emission allowances received free of charge are accounted for at nominal value. A provision is recognised to cover the obligation to return emission allowances. To the extent that Group already holds allowances to meet the obligation the provision is measured at the carrying amount of those allowances. Any shortfall of allowances held over the obligation is valued at the current market value of allowances. The cost of the provision is recognised in the income statement within materials and services. Gains from sales of emission rights are reported in Other income.

# 1.10 Borrowing costs

Borrowing costs are recognised as an expense in the period in which they are incurred, except if they are directly attributable to the construction of an asset that meets the determined criteria. The determined criteria is as follows (a) the costs incurred for the construction of an investment exceed EUR 100 million (b) it will take more than 18 months to get the related assets operational (c) it is an initial Greenfield investment.

# 1.11 Research and development costs

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

# 1.12 Property, plant and equipment

Property, plant and equipment comprise mainly power and heat producing buildings and machinery, transmission lines, tunnels, waterfall rights and district heating network. Property, plant and equipment are stated at historical cost less accumulated depreciation and accumulated impairment losses as applicable in the consolidated balance sheet. Historical cost includes expenditure that is directly attributable to the

acquisition of an item. Cost may also include transfers from equity of any gains or losses on qualifying cash flow hedges of foreign currency purchases of property, plant and equipment. Acquired assets on the acquisition of a new subsidiary are stated at their fair values at the date of acquisition.

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

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

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

Hydropower plant buildings, structures and machinery Thermal power plant buildings, structures and machinery	40–50 years 25 years
Nuclear power plant buildings, structures and machinery	25 years
CHP power plant buildings, structures and machinery (each CHP plant has an individual depreciation period)	15-25 years
Substation buildings, structures and machinery	30-40 years
Distribution network	15-40 years
District heating network	30-40 years
Other buildings and structures	20-40 years
Other tangible assets	20-40 years
Other machinery and equipment	3-20 years
Other non-current investments	5-10 years

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

## 1.12.1 Jointly controlled assets

Fortum owns, through its subsidiary Fortum Power and Heat Oy, the coal condensing power plant Meri-Pori in Finland, but Teollisuuden Voima Oyj (TVO) has the contractual right to participate in the plant with 45.55%. The capacity and production can be divided between Fortum and TVO. Each owner can decide when and how much capacity to produce. Both Fortum and TVO purchase fuel and CO<sub>2</sub> rights independently. Since both Fortum and TVO have control, including related risks and rewards, of their share of the power plant, Meri-Pori is accounted for as a jointly controlled asset.

Fortum is accounting for the part of the investment that corresponds to the investment Fortum has made, i.e. 55.55%. At present Fortum leases out its part of the Meri-Pori power plant. The lease agreement has been classified as an operating lease.

Fortum is also entitled to part of the electricity TVO produces in Meri-Pori through the shareholding of 26.58% of TVO C-series shares, see Note 21 Participations in associated companies and joint ventures.

# 1.13 Intangible assets

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

## 1.13.1 Computer software

Acquired computer software licences are capitalised on the basis of the costs incurred to the acquirer and bring to use the specific software. These costs are amortised over their estimated useful lives (three to five years). Costs associated with developing or maintaining computer software are recognised as an expense as incurred. Costs that are directly associated with the production of identifiable and unique software products controlled by the Group, and that will generate economic benefits exceeding costs beyond one year, are recognised as intangible assets. Direct costs include the software development employee costs and an appropriate portion of relevant overheads. Computer software development costs recognised as assets are amortised over their estimated useful lives (not exceeding three years).

#### 1.13.2 Trademarks and licences

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

#### 1.13.3 Customer base

Costs in connection with acquisition of customer base are stated at its fair values at the date of the acquisition. Customer base means a portfolio of customers or a market share. Costs for customer base is amortised over their useful life, usually in five years. The customer base is also reviewed for impairment by assessing at each closing date whether there is any indication that the carrying amount may be impaired.

#### 1.13.4 Goodwill

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

Goodwill is allocated to cash-generating units for the purpose of impairment testing. The allocation is made to those cash-generating units or groups of cash-generating units that are expected to benefit from the business combination in which the goodwill arose.

# 1.14 Impairment of non-financial assets

Assets that have an indefinite useful life are not subject to amortisation and are tested annually for impairment. Assets that are subject to amortisation are reviewed for impairment whenever events or changes in circumstances indicate that the carrying amount may not be recoverable. An impairment loss is recognised in the income statement for the amount by which the assets' carrying amount exceeds its recoverable

amount. The recoverable amount is the higher of an asset's fair value less costs to sell and value in use. For the purpose of assessing impairment, assets are grouped at the lowest levels for which there are separately identifiable cash flows (cash-generating units). Non-financial assets other than goodwill that suffered an impairment charge are reviewed for possible reversal of the impairment at each reporting date.

#### 1.15 Financial assets

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

## 1.15.1 Financial assets at fair value through profit or loss

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

#### 1.15.2 Loans and receivables

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

#### 1.15.3 Available-for-sale financial assets

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

Purchases and sales of investments are recognised on the trade-date – the date on which the Group commits to purchase or sell the asset. Investments are initially recognised at fair value plus transaction costs for all financial assets not carried at fair value through profit or loss. Investments are derecognised when the rights to receive cash flows from the investments have expired or have been transferred and the Group has transferred substantially all risks and rewards of ownership. Available-for-sale financial assets and financial assets at fair value through profit or loss are subsequently carried at fair value. Loans are carried at amortised cost using the effective interest method. Gains and losses arising from changes in the fair value of the "financial assets at fair value through profit or loss" category are included in the income statement in the period in which they arise. Gains and losses arising from changes in the fair value of securities classified as available-for-sale are recognised in equity. When securities classified as available-for-sale are sold or impaired, the accumulated fair value adjustments are included in the income statement.

The fair values of quoted investments are based on current bid prices. If the market for a financial asset is not active (and for unlisted securities), the Group establishes fair value by using valuation techniques. These include the use of recent arm's length

transactions, reference to other instruments that are substantially the same, discounted cash flow analysis, and option pricing models refined to reflect the issuer's specific circumstances.

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

#### 1.16 Trade receivables

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

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

# 1.17 Cash and cash equivalents

Cash and cash equivalents include cash in hand, deposits held at call with banks and other short-term, highly liquid investments with original maturities of three months or less. Bank overdrafts are shown within borrowings in current liabilities in the balance sheet.

# 1.18 Treasury shares

Where any group company purchases the Company's shares (treasury shares), the consideration paid, including any directly attributable incremental costs (net of income taxes), is deducted from equity attributable to the Company's equity holders. When such shares are subsequently sold or reissued, any consideration received is included in equity.

# 1.19 Borrowings

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

#### 1.20 Leases

#### 1.20.1 Finance leases

Leases of property, plant and equipment, where the Group has substantially all the risks and rewards of ownership, are classified as finance leases. Finance leases are capitalised at the commencement of the lease term at the lower of the fair value of

the leased property and the present value of the minimum lease payments each determined at the inception of the lease. Each lease payment is allocated between the reduction of the outstanding liability and the finance charges. The corresponding rental obligations, net of finance charges, are included in the long-term or short-term interest-bearing liabilities according to their maturities. The interest element of the finance cost is charged to the income statement over the lease term so as to produce a constant periodic rate of interest on the remaining balance of the liability for each period. The property, plant and equipment acquired under finance leases are depreciated over the shorter of the useful life of the asset or the lease term.

Sale and leaseback transactions resulting in a finance lease agreement are recognised according to the principles described above. The difference between the selling price and the carrying amount of the asset sold is deferred and amortised over the lease period.

The property, plant and equipment leased out under a finance lease are presented as interest-bearing receivables at an amount equal to the net investment in the lease. Each lease payment receivable is allocated between the repayment of the principal and the finance income. Finance income is recognised in the income statement over the lease term so as to produce a constant periodic rate of return on the remaining balance of the receivable for each period.

## 1.20.2 Operating leases

Leases of property, plant and equipment, where the Group does not have substantially all of the risks and rewards of ownership are classified as operating leases. Payments made under operating leases are recognised in the income statement as costs on a straight-line basis over the lease term.

Payments received under operating leases where the Group leases out fixed assets are recognised as other income in the income statement. Fortum has leased out its share of the coal condensing power plant Meri-Pori in Finland until June 2010. (See also Jointly controlled assets above.) The lease agreement has been classified as an operating lease.

#### 1.21 Inventories

Inventories are stated at the lower of cost and net realisable value. Cost is determined using the first-in, first-out (FIFO) method. The cost of finished goods and work in progress comprises raw materials, direct labour, other direct costs and related fixed production overheads (based on normal operating capacity). Net realisable value is the estimated selling price in the ordinary course of business, less applicable variable selling expenses.

## 1.22 Deferred income taxes

Deferred tax is provided in full, using the liability method, on temporary differences arising between the tax bases of assets and liabilities and their carrying amounts in the consolidated financial statements. However, if the deferred tax arises from initial recognition of an asset or liability in a transaction other than a business combination that at the time of the transaction affects neither accounting nor taxable profit or loss, it is not accounted for. Deferred tax is determined using tax rates (and laws) that have been enacted or substantially enacted by the closing date and are expected to apply when the related deferred tax asset is realised or the deferred tax liability is settled.

Deferred tax assets are recognised to the extent that it is probable that future taxable profit will be available against which the temporary differences can be utilised. Deferred tax assets are set off against deferred tax liabilities if they relate to income taxes levied by the same taxation authority.

Deferred tax is provided on temporary differences arising from investments in subsidiaries, associates and joint ventures, except where the timing of the reversal of the temporary difference is controlled by the Group, and it is probable that the temporary difference will not reverse in the foreseeable future.

# 1.23 Employee benefits

## 1.23.1 Pension obligations

The Group companies have various pension schemes in accordance with the local conditions and practises in the countries in which they operate. The schemes are generally funded through payments to insurance companies or Groups pension fund as determined by periodic actuarial calculations. The Group has both defined benefit and defined contribution plans.

The Group's contributions to defined contribution plans are charged to the income statement in the period to which the contributions relate.

For defined benefit plans, pension costs are assessed using the projected unit credit method. The cost of providing pensions is charged to the income statement as to spread the service cost over the service lives of employees. The defined benefit obligation is measured as the present value of the estimated future cash flows using interest rates of high-quality corporate bonds that have terms to maturity approximating to the terms of the related pension liability. The liability recognised in the balance sheet is the defined benefit obligation at the closing date less the fair value of plan assets with adjustments for unrecognized actuarial gains or losses. Prepaid contributions are recognised as an asset to the extent that a cash refund or a reduction in the future payments is available.

Actuarial gains and losses exceeding 10% of total of the present value of defined benefit obligations or the fair value of plan assets (whichever is higher) are recorded in the income statement over the employees' expected average remaining working lives. These limits are calculated and applied separately for each defined benefit plan. Past-service costs are recognised immediately in income statement amortised on a straight-line basis over the vesting period. The related interest cost is included in the employee benefit expense.

# 1.23.2 Share-based compensation

The Group operates long-term management performance share arrangements. The potential reward of the performance share arrangement is based on the performance of the Group, its business units and the individual participant as well as appreciation of the Fortum share. The potential reward of the performance share arrangement is treated as cash settled arrangement which is recognised as an expense during the vesting period with a corresponding increase in the liabilities. The fair value of the potential reward is measured based on the market value of Fortum share at each closing date and at the grant date. Estimated departures are taken into account when determining the fair value of the potential reward. The changes of the fair value of the potential reward are accrued over the remaining vesting period. A provision is recorded on the social charges related to the arrangement payable by the employer.

In order to hedge the Group against the changes in the fair values of the potential rewards the Group has entered into share forward transactions which are settled in cash. The forward transactions do not qualify for hedge accounting and therefore the periodic changes to their fair values are recorded in the income statement.

## 1.23.3 Stock options

Stock options are measured at fair value at the time they were granted, and, they are expensed on a straight-line basis in the income statement over the period from the date they were granted to commencement of the right to exercise them. The expense determined at the moment of granting the options is based on an estimate of the number of options that will vest at the time of commencement of the right to exercise them. The fair value of the options is determined on the basis of the Black-Scholes or Binomial pricing model. Estimates of the final amount of options are updated on each closing date if applicable and the effects of changes in estimates are recorded in the income statement. Social charges related to the options payable by the employer are entered as an expense to the income statement and as a provision in the balance sheet in the accounting period during which the options are granted. This provision is measured based on the fair value of the options, and the amount of the provision is adjusted to reflect the changes in the Fortum share price. When stock options are exercised, the cash payments received on the basis of the share subscriptions (adjusted for any transaction expenses) are recognised in equity.

#### 1.24 Provisions

Provisions for environmental restorations, asset retirement obligations, restructuring costs and legal claims are recognised when the Group has a present legal or constructive obligation as a result of past events to a third party, it is probable that an outflow of resources will be required to settle the obligation and the amount can be reliably estimated.

Provisions are measured at the present value of the expenditures expected to be required to settle the obligation using a pre-tax rate that reflects current market assessments of the time value of money and the risks specific to the obligation. The increase in the provision due to the passage of time is recognised as interest expense.

#### 1.24.1 Environmental restorations

Environmental provisions are recognised, based on current interpretation of environmental laws and regulations, when it is probable that a present obligation has arisen and the amount of such liability can be reliably estimated. Environmental expenditures resulting from the remediation of an existing condition caused by past operations, and which do contribute to current or future revenues, are expensed as incurred.

# 1.24.2 Asset retirement obligations

Asset retirement obligation is recognised either, when there is a contractual obligation towards a third party or a legal obligation and the obligation amount and the definite lifetime can be estimated reliably. Obligating event is e.g. when a plant is built on a leased land with an obligation to dismantle and remove the asset in the future or when a legal obligation towards Fortum changes. The asset retirement obligation is recognised as part of the cost of an item of property and plant when the asset is put in service or when contamination occurs. The costs will be depreciated over the remainder of the assets' useful life.

# 1.24.3 Restructuring provisions

Restructuring provisions comprise mainly of employee termination payments.

# 1.25 Assets and liabilities related to decommissioning of nuclear power plants and the disposal of spent fuel

Fortum owns Loviisa nuclear power plant in Finland. Fortum's part of the State Nuclear Waste Management Fund and the related nuclear provisions are both presented separately in the balance sheet. Fortum's share in the State Nuclear Waste Management Fund is accounted for according to IFRIC 5, Rights to interests arising from decommissioning, restoration and environmental rehabilitation funds, which states that the fund assets are measured at the lower of fair value or the value of the related liabilities since Fortum does not have control or joint control over the State Nuclear Waste Management Fund. The related provisions are the provision for decommissioning and the provision for disposal of spent fuel.

The fair values of the provisions are calculated by discounting the separate future cash flows, which are based on estimated future costs and actions already taken. The initial net present value of the provision for decommissioning (at the time of commissioning the nuclear power plant) has been included in the investment cost and is depreciated over the estimated operating time of the nuclear power plant. Changes in the technical plans etc, which have an impact on the future cash flow of the estimated costs for decommissioning, are accounted for by discounting the additional costs to the current point in time. The increased asset retirement cost due to the increased provision is added to property, plant and equipment and depreciated over the remaining estimated operating time of the nuclear power plant.

The provision for spent fuel covers the future disposal costs for fuel used until the end of the accounting period. Costs for disposal of spent fuel are expensed during the operating time based on fuel usage. The impact of the possible changes in the estimated future cash flow for related costs is recognised immediately in the income statement based on the accumulated amount of fuel used until the end of the accounting period. The related interest costs due to unwinding of the provision, for the period during which the spent fuel provision has been accumulated and present point in time, are also recognised immediately in the income statement.

The timing factor is taken into account by recognising the interest expense related to discounting the nuclear provisions. The interest on the State Nuclear Waste Management Fund assets is presented as financial income.

Fortum's actual share of the State Nuclear Waste Management Fund, related to Loviisa nuclear power plant, is higher than the carrying value of the Fund in the balance sheet. The legal nuclear liability should, according to the Finnish Nuclear Energy Act, be fully covered by payments and guarantees to the State Nuclear Waste Management Fund. The legal liability is not discounted while the provisions are, and since the future cash flow is spread over 100 years, the difference between the legal liability and the provisions are material.

The annual fee to the Fund is based on changes in the legal liability, the interest income generated in the State Nuclear Waste Management Fund and incurred costs of taken actions.

Fortum also has minority shareholdings in the associated nuclear power production companies Teollisuuden Voima Oyj (TVO) in Finland and directly and indirectly OKG AB and Forsmarks Kraftgrupp AB in Sweden. The Group's interests in associated

companies are accounted for by the equity method. Accounting policies of the associates regarding nuclear assets and liabilities have been changed where necessary to ensure consistency with the policies adopted by the Group.

For more information regarding nuclear related assets and liabilities, see Note 35 Nuclear related assets and liabilities on page 162.

# 1.26 Contingent liabilities

A contingent liability is disclosed when there is a possible obligation that arises from events and whose existence is only confirmed by one or more doubtful future events or when there is an obligation that is not recognised as a liability or provision because it is not likely that on outflow of resources will be required.

# 1.27 Earnings per share

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

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

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

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

#### 1.28 Dividends

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

# 1.29 Accounting for derivative financial instruments and hedging activities

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

Derivatives are initially recognised at fair value on the date a derivative contract is entered into and are subsequently re-measured at their fair value. The method of recognising the resulting gain or loss depends on whether the derivative is designated as a hedging instrument, and if so, the nature of the item being hedged. The Group designates certain derivatives as either: (1) hedges of highly probable forecast

transactions (cash flow hedges); (2) hedges of the fair value of recognised assets or liabilities or a firm commitment (fair value hedge); or (3) hedges of net investments in foreign operations. The Group documents at the inception of the transaction the relationship between hedging instruments and hedged items, as well as its risk management objective and strategy for undertaking various hedge transactions. The Group also documents its assessment, both at hedge inception and on an on-going basis, of whether the derivatives that are used in hedging transactions are highly effective in offsetting changes in fair values or cash flows of hedged items. Derivatives are divided into non-current and current based on maturity. Only for those electricity derivatives, which have cash flows in different years, the fair values are split between non-current and current assets or liabilities.

## 1.29.1 Cash flow hedge

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

#### 1.29.2 Fair value hedge

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

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

## 1.29.3 Net investment hedging in foreign operations

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

# 1.29.4 Derivatives that do not qualify for hedge accounting

Certain derivative instruments do not qualify for hedge accounting. Changes in the fair value of any derivative instruments that do not qualify for hedge accounting are recognised immediately in other income in the income statement.

#### 1.30 Fair value estimation

The fair value of financial instruments including electricity derivatives traded in active markets (such as publicly traded derivatives, and trading and available-forsale securities) is based on quoted market prices at the closing date. The fair value of financial instruments that are not traded in an active market is determined by using valuation techniques. The Group uses a variety of methods and makes assumptions that are based on market conditions existing at each closing date.

Fair valuation of electricity derivatives maturing over six years and which are not standard Nord Pool products are based on prices collected from reliable market participants. Other techniques, such as estimated discounted cash flows, are used to determine fair value for the remaining financial instruments. The fair value of interest-rate swaps is calculated as the present value of the estimated future cash flows. The fair value of forward foreign exchange contracts is determined using forward exchange market rates at the closing date. Fair values of options are determined by using option valuation models. The fair value of financial liabilities is estimated by discounting the future contractual cash flows at the current market interest rate that is available to the Group for similar financial instruments. Changes in assumptions about these factors will affect the reported fair value of financial instruments.

In fair valuation, credit spread has not been adjusted, as quoted market prices of instrument used are believed to be consistent with the objective of a fair value measurement. Financial instruments used in Fortum are standardized products that are either cleared via exchanges or widely traded in the market. Commodity derivatives are generally cleared through exchanges such as for example Nord Pool and financial derivatives done with creditworthy financial institutions with investment grade ratings.

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

# 2 Critical accounting estimates and judgments

The preparation of consolidated financial statements in conformity with generally accepted accounting principles requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities, the disclosure of contingent assets and liabilities at the dates of the consolidated financial statements and the reported amounts of revenues and expenses during the reporting period. Estimates and judgments are continually evaluated and are based on historical experience and other factors, including expectations of future events that are believed to be reasonable under the circumstances. Actual results may differ from these estimates. The company's critical accounting estimates and judgments are described below.

# 2.1 Impairment of property, plant and equipment

The Group has significant carrying values in property, plant and equipment which are tested for impairment according to the accounting policy stated in Note 1 Accounting policies. The recoverable amounts of cash-generating units have been determined based on value-in-use calculations. These calculations require the use of estimates of future cash flows.

The Group has not recognised any impairment losses during 2008 based on these calculations. If the revised estimated operating profit before depreciation at 31 December 2008 was 10% lower than management's estimates at 31 December 2008 or pre-tax discount rate applied to the discounted cash flows was 10% higher than management's estimates, the Group would not have recognised impairment against property plant and equipment.

#### 2.2 Deferred and income taxes

Fortum has deferred tax assets and liabilities which are expected to be realised through the income statement over the extended periods of time in the future. In calculating the deferred tax items, Fortum is required to make certain assumptions and estimates regarding the future tax consequences attributable to differences between the carrying amounts of assets and liabilities as recorded in the financial statements and their tax basis.

Assumptions made include the expectation that future operating performance for subsidiaries will be consistent with historical levels of operating results, recoverability periods for tax loss carry-forwards will not change, undistributed earnings of foreign investments have been permanently invested and that existing tax laws and rates will remain unchanged into foreseeable future. Fortum believes that it has prudent assumptions in developing its deferred tax balances.

The Group recognises liabilities for anticipated tax audit issues based on estimates of whether additional taxes will be due. Where the final outcome of these matters is different from the amounts that were initially recorded, such differences will impact the income tax and deferred tax provisions in the period in which such determination is made.

Were the actual final outcome (regarding tax audits) to differ negatively from management's estimates with 10%, the Group would need to increase the income tax liability by EUR 1 million.

# 2.3 Liabilities related to nuclear production

The provision for future obligations for nuclear waste management including decommissioning of Fortum's nuclear power plant and related spent fuel is based on long-term cash flow forecasts of estimated future costs. The main assumptions are technical plans, timing, costs estimates and discount rate. The technical plans, timing and cost estimates are approved by governmental authorities.

Any changes in the assumed discount rate would affect the provision. If the discount rate used would be lowered, the provision would increase. Fortum has contributed cash to the State Nuclear Waste Management Fund based on a non-discounted legal liability, which leads to that the increase in provision would be offset by an increase in the recorded share of Fortum's part of the State Nuclear Waste Management Fund in the balance sheet. The total effect on the income statement would be positive since the decommissioning part of the provision is treated as an asset retirement obligation. This situation will prevail as long as the legal obligation to contribute cash to the State Nuclear Waste Management Fund is based on a non-discounted liability and IFRS is limiting the carrying value of the assets to the amount of the provision since Fortum does not have control or joint control over the fund. (See Note 35 Nuclear related assets and liabilities).

# 2.4 Pension obligations

The present value of the pension obligations depends on a number of factors that are determined on an actuarial basis using a number of assumptions. Any changes in these assumptions will impact the carrying amount of pension obligations. Assumptions used and sensitivity analysis of change in discount factor is presented in Note 34 Pension obligations.

# 3 Financial risk management

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

## 3.1 Financial risks

Fortum defines financial risk as the negative effects of market price movements, volume changes, liquidity events or counterpart events. A number of different methods, such as Value-at-Risk and Profit-at-Risk, are used throughout Fortum to quantify financial risks. In particular, the potential impact of price and volume risks of electricity, weather,  $\rm CO_2$  and main fuels are assessed taking into account their interdependencies. Stress-testing is carried out in order to assess the effects of extreme electricity price movements on Fortum's earnings.

Financial risk taking in business units aims to capture potential upside by optimising hedging or by trading in the markets. Risk taking is limited by risk mandates. Risk mandates include minimum EBIT levels for the business units that are set by the President and CEO. Volumetric limits, Value-at-Risk limits, Stop-Loss limits and counterpart exposure limits are also in place.

# 3.2 Electricity price risks

Strategies for hedging the electricity price are developed and executed by the business units within set mandates approved by the Fortum Management Team. In the Nordic markets, the hedging strategies are executed by entering into electricity derivatives contracts. In Russia, there is currently no existing financial market for electricity as the majority of electricity sales are regulated. Hedging strategies for Russia will be developed in line with the deregulation of the electricity market. Risk in the hedging strategies and their execution are continuously evaluated in accordance with models approved by the CFO.

Fortum's sensitivity to electricity market price is dependent on the hedge level for a given time period. The hedge ratio on 31 December 2008 was approximately 65% for the year 2009 and 40% for 2010. Assuming no changes in generation volumes, hedge ratios or cost structure a 1 EUR/ MWh change in the market price of electricity would affect Fortum's 2009 profit before income tax by approximately EUR 18 million and 2010 EUR 30 million. Volume used in this sensitivity analysis is 50 TWh which includes the electricity generation sold to the spot market in Sweden and Finland in Power Generation and Heat segments without minority owner's shares of electricity or other pass-through sales. This volume is heavily dependent on price level, hydrological situation, the length of annual maintenance periods and availability of power plants. Sensitivity is calculated only for market price movement as hydrological conditions, temperature, CO<sub>2</sub> allowance prices, fuel prices and the import/export situation all affect electricity price on short-term basis and effects of these factors cannot be separated as individual sensitivity analysis. The sensitivity to electricity prices in Russia is not calculated as this price is to a large extent regulated, and the effects of any changes of the price will be off-set by changes to the price of gas, which is the main fuel cost component.

## 3.2.1 Sensitivity arising from financial instruments according to IFRS 7

Sensitivity analysis shows the sensitivity arising from financial electricity derivatives as defined in IFRS 7. These derivatives are used in hedging and proprietary trading purposes in various Business Units within Fortum. Sensitivities are calculated based on 31 December 2008 (31 December 2007) position. Positions are actively managed in the day-to-day business operations and therefore the sensitivities vary from time to time. Sensitivity analysis includes only the market risks arising from derivatives i.e. the underlying physical electricity sales and purchase is not included. Sensitivity is calculated with the assumption that electricity forward quotations in Nord Pool and in EEX would change 1 EUR/MWh for the period Fortum has derivatives.

# Sensitivity according to IFRS 7

+/- 1 EUR/MWh change in electricity forward quotations, EUR million	Effect	2008	2007
Effect on Profit before income tax	-/+	1	2
Effect on Equity	-/+	40	29

## 3.2.2 Electricity derivatives

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

See also Note 1 Accounting policies for accounting principles and bases for fair value estimations on page 112 and Note 6 Fair value changes of derivatives and underlying items in income statement on page 134 for the effects in the income statement regarding electricity derivatives not getting hedge accounting status.

#### Electricity derivatives by instrument - 31 December 2008

Gross		Volume,	TWh		Fair v	alue, EUR mill	ion
	Under 1 year	1–5 years	Over 5 years	Total	Positive	Negative	Net
Sales swaps	108	56	1	165	2,168	66	2,102
Purchase swaps	89	34	-	123	54	1,746	-1,692
Purchased options	2	-	-	2	0	0	0
Written options	4	-	-	4	2	16	-14
Total	203	90	1	294	2,224	1,828	396
Netting against electricity exchanges 1)					-1,717	-1,717	0
Balance					507	111	396

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

# Electricity derivatives by accounting status - 31 December 2008

Gross		Volume	, TWh		Fair v	alue, EUR mil	lion
	Under 1 year	1–5 years	Over 5 years	Total	Positive	Negative	Net
Derivatives with hedge accounting status	95	66	0	161	1,349	942	407
Derivatives with non-hedge accounting status <sup>1)</sup>	107	25	1	133	875	886	-11
Total	202	91	1	294	2,224	1,828	396
Netting against electricity exchanges <sup>2)</sup>		•					
Derivatives with hedge accounting sta	tus				-931	-931	0
Derivatives with non-hedge accounting status 1)		*			-786	<b>–</b> 786	0
Total					-1,717	-1,717	0
Balance					507	111	396
Of which long-term					219	45	174
Short-term					288	66	222

## Electricity derivatives by instrument - 31 December 2007

Gross		Volume,	TWh		Fair v	alue, EUR mi	llion
	Under 1 year	1–5 years	Over 5 years	Total	Positive	Negative	Net
Sales swaps	92	26	1	119	65	716	-651
Purchase swaps	71	17	0	88	526	64	462
Purchased options	-	-	-	-	-	-	-
Written options	2	-	-	2	1	2	-1
Total	165	43	1	209	592	782	-190
Netting against electricity exchanges <sup>2)</sup>	***************************************				-473	-473	0
Balance					119	309	-190

## Electricity derivatives by accounting status – 31 December 2007

Gross		Volume	, TWh		Fair v	alue, EUR mi	llion
	Under 1 year	1–5 years	Over 5 years	Total	Positive	Negative	Net
Derivatives with hedge accounting status	65	25	0	90	211	383	-172
Derivatives with non-hedge accounting status 1)	100	18	1	119	381	399	-18
Total	165	43	1	209	592	782	-190
Netting against electricity exchanges <sup>2)</sup>		•	·····			••••••••••	
Derivatives with hedge accounting st	atus	***************************************			-198	-198	0
Derivatives with non-hedge accounting status 1)		*			-275	-275	0
Total					-473	-473	0
Balance					119	309	-190
Of which long-term					56	88	-32
Short-term					63	221	-158

<sup>1)</sup> Derivatives with non-hedge accounting status consist of trading derivatives and cash flow hedges without hedge accounting status.

# 3.3 Volume risks

Power and heat generation, customer sales, and electricity distribution volumes have significant variations that depend on the nature of the business. These volumes are subject to changes in, for example, hydrological conditions and temperature.

Changes in volumes are closely monitored so that hedges can be adjusted accordingly. In addition, volume risks in power and heat generation are partly mitigated through generation flexibility.

# 3.4 Fuel price risks

Fortum uses financial derivatives such as oil and coal derivatives to mitigate its fuel price risk. At 31 December 2008 Fortum had oil sales swaps and futures amounting to 1,047 thousand bbl (2007: 460) and oil purchase swaps and futures amounting to 1,230 thousand bbl (2007: 795). The respective net fair values were EUR -14 million (2007: -4) and EUR 11 million (2007: 9). Volumes of sold and bought coal derivatives were 276 kt (2007: 150) and 641 kt (2007: 375) respectively and the net fair values were EUR 7 million (2007: -1) and EUR -16 million (2007: 1).

# 3.5 CO<sub>2</sub> emission allowance price risk

Fortum manages its exposure to  $CO_2$  allowance prices related to own production through the use of  $CO_2$  forwards and by ensuring that the costs of allowances are taken into account during production planning. These  $CO_2$  allowances are own use contracts valued at cost.

<sup>2)</sup> Receivables and liabilities against electricity exchanges arising from standard derivative contracts with same delivery period are netted.

In addition to own production Fortum has proprietary trading book. These allowances are treated as derivatives in the accounts. At 31 December 2008 the trading volumes of sold and bought CO<sub>2</sub> emission allowances were 592 ktCO<sub>2</sub> (2007: 3,101) and 592 ktCO<sub>2</sub> (2007: 3,121). The respective net fair values were EUR 4 million (2007: -13) and EUR -4 million (2007: 13).

On 20 February 2008, Fortum, the Russian Territorial Generating Company No. 1 (TGC-1) and ECF Project Ltd signed an agreement according to which Fortum will purchase approximately 5 million tonnes of emission reduction units (ERU) from TGC-1. The ERUs will come from Joint Implementation projects conducted at TGC-1's production facilities during the Kyoto Period (2008–2012) of the European Emissions Trading Scheme. The agreement has been classified as an own use contract and valued at cost.

## Maturity analysis of electricity derivatives

Amounts disclosed below are non-discounted cash flows for electricity derivatives.

EUR million	31 December 2008					31 Decemb	ber 2007	
	Under 1 year	1–5 years	Over 5 years	Total	Under 1 year	1–5 years	Over 5 years	Total
Electricity derivatives liabilities	-1,461	-657	-4	-2,122	642	166	9	817
Electricity derivatives assets	1,565	713	3	2,281	466	133	6	605

# 3.6 Proprietary trading risks

Fortum is trading electricity forwards, futures and options mainly on the Nord Pool and EEX market,  $CO_2$  allowances on the European market and financial coal derivatives on the ICE and OTC market.

Proprietary trading risks are monitored and reported daily, and have stringent controls in place. Overall trading mandates for Fortum are set by the Fortum Management Team, and these mandates are further cascaded down to individual portfolios. Stop-loss mandates are set to limit the cumulative maximum loss during the year, and "red-flag" thresholds for losses are established at predefined levels to signal the need for management involvement before reaching the stop-loss limit. Value-at-Risk mandates are set to limit the maximum level of risk at any given time.

# 3.7 Liquidity and refinancing risk

Fortum's business is capital intensive and the Group has a regular need to raise financing. Fortum has a diversified loan portfolio mainly consisting of long-term bond financing but also a variety of other long- and short-term financing facilities. On 31 December 2008, the total interest-bearing debt was EUR 7,500 million (2007: 4,893) and the interest-bearing net debt was EUR 6,179 million (2007: 4,466).

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

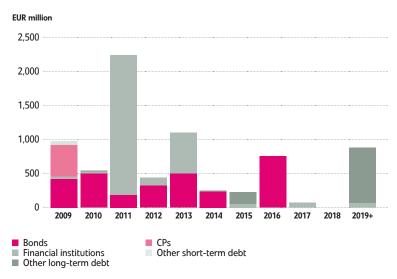
On 31 December 2008, loan maturities for the coming twelve-month period amounted to EUR 980 million (2007: 605), liquid funds amounted to EUR 1,321 million (2007: 427) including TGC-10 bank deposits amounting to EUR 1,014 million earmarked to be used in Russian investment programme. The total amount of committed credit facilities amounted to EUR 2,906 million (2007: 1,416) of which EUR 2,306 million was undrawn (2007: 1,416).

Debt maturities in 2009 and 2010 are limited. In 2009, EUR 395 million is maturing in Q1 and EUR 585 million during the rest of the year. EUR 457 million of the debt maturing in 2009 is CP financing. Debt maturing in 2010 amounts to EUR 543 million. In 2011, the Term Loan Facility of EUR 2,000 million will mature, and the total for maturing debt in 2011 is EUR 2,242 million.

## Maturity of interest-bearing debt

EUR million	2008
2009	980
2010	543
2011	2,242
2012	445
2013	1,104
2014 and later	2,186
Total	7,500

# Loan maturities per loan type



# Liquid funds, major credit lines and debt programmes - 31 December 2008

EUR million	Total facility	Drawn amount	Available amount
Liquid funds			
Cash and cash equivalents	•	•••••••••••••••••	733
Bank deposits over 3 months			588
Total			1,321
of which Russia (TGC-10)			1,020
Committed credit lines	······································		
EUR 1,200 million syndicated credit facility	1,200	-	1,200
EUR 1,500 million syndicated credit facility	1,500	600	900
Bilateral overdraft facilities	206	-	206
Total	2,906	600	2,306
Debt programmes (uncommitted)		······································	
Fortum Corporation, CP programmes EUR 500 million	500	172	328
Fortum Corporation, CP programmes SEK 5,000 million	460	285	175
Fortum Corporation, EMTN programmes EUR 5,000 million	5,000	2,918	2,082
Total	5,960	3,375	2,585

TGC-10 bank deposits amounting to EUR 1,014 million are earmarked to be used in Russian investment programme. Of these deposits at the year end 2008, EUR 504 million were euros and EUR 510 million Russian roubles. Bank deposits maturing over three months are all in TGC-10.

# Liquid funds, major credit lines and debt programmes - 31 December 2007

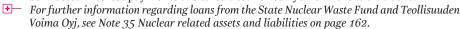
EUR million	Total facility	Drawn amount	Available amount
Cash and Marketable securities			427
Committed credit lines	•	•	
EUR 1,200 million syndicated credit facility	1,200	-	1,200
Bilateral overdraft facilities	216	-	216
Total	1,416	-	1,416
Debt programmes (uncommitted)	***************************************	••••	
Fortum Corporation, CP programmes EUR 500 million	500	-	500
Fortum Corporation, CP programmes SEK 5,000 million	530	-	530
Fortum Corporation, EMTN programmes EUR 5,000 million	5,000	3,361	1,639
Total	6,030	3,361	2,669

# Maturity analysis of interest-bearing liabilities and derivatives

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

EUR million		31 Decem	ber 2008			31 Decem	ber 2007	Over			
	Under 1 year	1–5 years	Over 5 years	Total	Under 1 year	1–5 years	Over 5 years	Total			
Interest-bearing liabilities	1,271	5,016	2,524	8,811	838	2,344	3,149	6,331			
Interest rate and currency derivatives liabilities	5,046	1,858	60	6,964	4,895	3,570	136	8,601			
Interest rate and currency derivatives receivables	-5,490	-2,027	-59	-7,576	-4,924	-3,608	-133	-8,665			
Total	827	4,847	2,525	8,199	809	2,306	3,152	6,267			

Interest-bearing liabilities include loans from the State Nuclear Waste Fund and Teollisuuden Voima Oyj EUR 708 million (2007: 658). These loans are renewed yearly and connected interest payments are calculated for ten years in the table above.



# 3.8 Interest rate risk and currency risk

#### 3.8.1 Interest rate risk

The Treasury risk policy stipulates that the average duration of the debt portfolio shall always be kept within a range of 12 and 24 months, and that the flow risk i.e. changes in interest rates shall not affect the net interest payments of the Group by more than EUR 60 million for the next rolling 12-month period. Within these mandates, strategies are evaluated and developed in order to find an optimal balance between risk and financing cost.

On 31 December 2008 the average duration of the debt portfolio (including derivatives) was 1.6 years (2007: 1.3). Approximately 64% (2007: 67%) of the debt portfolio was on a floating rate basis or are fixed rate loans maturing with the next 12 months period. The effect of one percentage point change in interest rates on the present value of the debt portfolio was EUR 88 million on 31 December 2008 (2007: 71). The flow risk, measured as the difference between the base case net interest cost estimate and the worst case scenario estimate for Fortum's debt portfolio for the coming 12 months, was EUR 19 million (2007: 14).

The average interest rate on loans and derivatives on December 31, 2008 was 4.7% (2007: 4.6%). Average cumulative interest rate on loans and derivatives for 2008 was 5.3% (2007: 4.3%).

#### 3.8.2 Currency risk

Fortum's policy is to hedge major transaction exposures to avoid exchange differences in the profit and loss statement. These exposures are mainly hedged by forward contracts. Translation exposures arising when consolidating income statements and balance sheet statements of entities in Fortum Group whose base currency is not euros, (in Fortum this means mainly entities operating in: Sweden, Russia, Norway

and Poland) are generally not hedged as the majority of these assets are considered to be long-term strategic holdings of the Fortum Group.

The currency risk relating to transaction exposures are measured using Value-at-Risk (VaR) for one-day period at 95% confidence level. Translation exposures relating to net investments in foreign entities are measured using a five day period at 95% confidence level. The limit for transaction exposure is VaR EUR 5 million. On 31 December 2008 the open transaction and translation exposures were EUR 38 million (2007: 23) and EUR 4,060 million (2007: 1,797). The VaR for the transaction exposure was EUR 0 million (2007: 0) and VaR for the translation exposure calculated without the fair value change of Renewable Energy Corporation (REC) in Hafslund was EUR 75 million (2007: 8).

For further information about the accounting of Fortum's shareholding in Hafslund, see Note 21 Participations in associated companies and joint ventures on page 147.

## Group Treasury's transaction exposure

EUR million	31	December 200	08	31	December 200	Open3/		
	Net position	Hedge	Open	Net position	Hedge	Open		
SEK	5,402	-5,402	0	6,266	-6,300	-34		
USD	-115	115	0	-118	118	0		
NOK	312	-312	0	391	-383	8		
Other	216	-254	-38	194	-191	3		
Total	5,815	-5,853	-38	6,733	-6,756	-23		

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

## Group Treasury's translation exposure

EUR million	31 (	December 200	08	31 0	ecember 200	7
	Investment	Hedge	Open	Investment	Hedge	Open
RUB	2,634	-	2,634	-	-	-
SEK	803	-	803	490	-	490
NOK	435	-	435	1,109	-	1,109
PLN	114	-	114	122	-	122
Other	140	-66	74	128	-52	76
Total	4,126	-66	4,060	1,849	-52	1,797

Translation exposure position includes net investments in foreign subsidiaries and associated companies. On consolidation, exchange differences arising from the translation of the net investment in foreign entities are taken to equity. The depreciation of SEK, NOK and RUB against EUR in 2008 is negatively affecting the consolidated equity with EUR 680 million.

NOK amount includes the fair value change of Renewable Energy Corporation (REC) shareholding in Hafslund EUR 126 million (2007: 793).

## Interest rate and currency derivatives by instrument - 31 December 2008

		Notional	amount				
EUR million		Remaining	lifetimes		Fair value		
	Under 1 year	1–5 years	Over 5 years	Total	Positive	Negative	Net
Forward foreign exchange contracts	4,200	321	_	4,521	400	30	370
Interest rate swaps	1,130	1,171	692	2,993	43	55	-12
Interest rate and currency swaps	769	1,471	-	2,240	233	15	218
Forward rate agreement	184	46	-	230	1	1	0
Total	6,283	3,009	692	9,984	677	101	576
Of which long-term					223	69	154
Short-term	• · · · · · · · · · · · · · · · · · · ·	• • • • • • • • • • • • • • • • • • • •			454	32	422

## Interest rate and currency derivatives by use – 31 December 2008

		Notional	amount					
EUR million		Remaining	lifetimes		Fair value			
	Under 1 year	1–5 years	Over 5 years	Total	Positive	Negative	Net	
Net investment hedging fo- reign exchange derivatives	73	-	-	73	0	0	0	
Cash flow hedging foreign exchange derivatives	287	70	_	357	16	4	12	
Non-hedging foreign exchange derivatives 1)	3,840	251	_	4,091	384	26	358	
Total forward foreign exchange contracts	4,200	321	_	4,521	400	30	370	
Fair value hedging interest rate derivatives	-	-	300	300	16	-	16	
Cash flow hedging interest rate derivatives	1,043	62	92	1,197	0	16	–16	
Non-hedging interest rate derivatives 1)	271	1,155	300	1,726	28	40	-12	
Total interest rate derivatives	1,314	1,217	692	3,223	44	56	-12	
Non-hedging interest rate and currency swaps <sup>1)</sup>	769	1,471	_	2,240	233	15	218	
Total interest rate and currency swaps	769	1,471	_	2,240	233	15	218	
Total	6,283	3,009	692	9,984	677	101	576	

<sup>1)</sup> Consists of deals without hedge-accounting status.

## Interest rate and currency derivatives by instrument - 31 December 2007

		Notional a	amount				
Forward foreign exchange contracts Interest rate swaps Interest rate and currency swaps Forward rate agreement Total Of which long-term		Remaining	lifetimes			Fair value	
	Under 1 year	1–5 years	Over 5 years	Total	Positive	Negative	Net
	3,889	563	-	4,452	59	30	29
Interest rate swaps	1,481	772	1,247	3,500	25	41	-16
	695	2,598	_	3,293	82	16	66
Forward rate agreement	503	238	-	741	0	0	0
Total	6,568	4,171	1,247	11,986	166	87	79
Of which long-term					93	49	44
Short-term					73	38	35

#### Interest rate and currency derivatives by use -31 December 2007

		Notional a	mount				
EUR million		Remaining	lifetimes			Fair value	
	Under 1 year	1–5 years	Over 5 years	Total	Positive	Negative	Net
Net investment hedging fo- reign exchange derivatives	52	-	-	52	0	0	0
Cash flow hedging foreign exchange derivatives	341	110	-	451	1	10	-9
Non-hedging foreign exchange derivatives 1)	3,496	453	-	3,949	58	20	38
Total forward foreign exchange contracts	3,889	563	_	4,452	59	30	29
Fair value hedging interest rate derivatives	_	300	1,141	1,441	0	23	-23
Cash flow hedging interest rate derivatives	_	293	106	399	6	1	5
Non-hedging interest rate derivatives 1)	1,984	417	-	2,401	19	17	2
Total interest rate derivatives	1,984	1,010	1,247	4,241	25	41	-16
Non-hedging interest rate and currency swaps 1)	695	2,598	-	3,293	82	16	66
Total interest rate and currency swaps	695	2,598	_	3,293	82	16	66
Total	6,568	4,171	1,247	11,986	166	87	79

<sup>1)</sup> Consists of deals without hedge-accounting status.

#### 3.9 Share derivatives

Cash-settled share forwards are used as a hedging instrument for the Fortum share price risk regarding the Fortum Group's long-term incentive schemes.

The amounts disclosed are non-discounted cash flows for the share derivatives. The maturity of the share forwards is 1-5 years.

See Note 29 Employee bonus, personnel fund and incentive schemes for more information about the Group's long-term incentive schemes on page 153.

	31 Dece	31 December 2008		
EUR million	Notional value	Net fair value	Notional value	Net fair value
Share forwards	37	24	36	66

#### 3.10 Credit risk

Fortum is exposed to credit risk whenever there is a contractual obligation with an external counterpart. Fortum has procedures in place to ensure that credit risks are kept at an acceptable level. All larger exposures are monitored centrally against limits which are approved according to authority levels defined in the Corporate Credit Guidelines. Counterpart creditworthiness is continuously monitored and reported.

Counterparty risk exposures relating to derivative instruments are often volatile due to rapidly changing market prices and are therefore monitored closely. Currency and interest rate derivative counterparts are limited to investment grade banks and financial institutions. Master agreements, such as ISDA, which include netting clauses, are in place with all of these counterparts. The majority of the Group's commodity derivatives are cleared through an exchange such as Nord Pool, but derivative transactions are also executed on the OTC market directly with external counterparties. These counterparts are limited to those considered of high creditworthiness. Master agreements, such as ISDA, FEMA and EFET, which include netting clauses, are in place with the majority of the counterparts. Furthermore, collaterals are requested if dealing with counterparts without approved limits or when exposures arising from engagements are considered too high in relation to the counterpart creditworthiness. Parent company guarantees are requested when dealing with subsidiaries not considered creditworthy on a stand-alone basis.

Credit risk relating to banks is monitored closely as the creditworthiness of financial institutions can deteriorate quickly. This has become apparent in the financial crisis during 2008. This can also be said for all Russian financial institutions as liquidity and financing can quickly dry up as foreign investors pull out of emerging markets. Fortum, like any capital intensive business, is exposed to the financial sector, and as a result of the acquisition of TGC-10 also to Russia. Where possible, exposures have been concentrated to key relationship banks considered to be of high credit quality and importance to the financial stability of their respective countries. In Russia, bank guarantees are used to cover exposures related to the investment programme of TGC-10. In case a contractor defaults or does not fulfill its obligations, there are guarantees covering any prepayments as well as performance guarantees in place. Issuers of these guarantees are banks with a strong local presence and understanding of the contractor. The creditworthiness of these banks as well as exposures arising from issued guarantees is monitored closely.

Credit risk in the retail and wholesale business is well diversified over a large number of private individuals and businesses and across several geographic regions and industry sectors.

## 3.10.1 Credit quality of major financial assets

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

EUR million	20	2007		
	Carrying amount	of which past due	Carrying amount	of which past due
Investment grade receivables	1,873	-	499	-
Electricity exchanges	273	-	9	-
Associated companies	704	-	639	-
Other	395	-	219	-
Total	3,245	-	1,366	-

Investment grade receivables consist of bank deposits (1,183), fair values of interest rate and currency derivatives (677) and fair values of electricity, coal and oil derivatives (13). Electricity exchange receivable is the fair value of derivatives on Nord Pool. Associated companies receivables consist of loan receivables (659) and fair values of electricity derivatives (45). Other receivables consist of loan and other interest-bearing receivables (59), bank deposits (61), finance lease receivables (81) and fair values of electricity, coal and oil derivatives (194).

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

# Bank deposits - 31 December 2008

EUR million	Receivables
Counterparties with external credit rating from Standard & Poor's and / or Moody's	
Investment grade ratings	•
AAA	0
AA+/AA/AA–	354
A+/A/A-	100
BBB+/BBB/BBB-	729
Total investment grade ratings	1,183
Non-investment grade ratings	0
Counterparties without external credit rating from Standard & Poor's and / or Moody's	61
Total	1,244

In addition to the above bank deposits, cash in bank accounts totalled EUR 77 million as per 31.12.2008.

# Interest rate and currency derivatives - 31 December 2008

EUR million	Receivables	Netted amount
Counterparties with external credit rating from Standard & Poor's and / or Moody's		
Investment grade ratings		
AAA	0	0
AA+/AA/AA-	329	266
A+/A/A-	348	326
BBB+/BBB/BBB-	0	0
Total investment grade ratings	677	592
Non-investment grade ratings	0	0
Total	677	592

# Electricity, coal and oil derivatives - 31 December 2008

EUR million	Receivables	Netted amount
Counterparties with external credit rating from Standard & Poor's and / or Moody's		
Investment grade ratings		
AAA	0	0
AA+/AA/AA-	1	1
A+/A/A-	6	0
BBB+/BBB/BBB-	6	5
Total investment grade ratings	13	6
Non-investment grade ratings		
BB+/BB/BB-	4	4
B+/B/B–	0	0
Below B–	0	0
Total non-investment grade ratings	4	4
Total associated companies	45	36
Counterparties without external credit rating from Standard & Poor's or Moody's		
Government or municipality	6	3
Fortum Rating 5 - Lowest risk	131	93
Fortum Rating 4 - Low risk	40	35
Fortum Rating 3 - Normal risk	0	0
Fortum Rating 2 - High risk	0	0
Fortum Rating 1 - Highest risk	0	0
No rating	13	13
Total non-rated counterparts	190	144
Total electricity, coal and oil derivatives	252	190

For derivatives, the receivable is the sum of the positive fair values. Netted amount include negative fair values where a valid netting agreement is in place with the counterpart or netting is otherwise allowed in accordance with local laws. When the

netted amount is less than zero, it is not included. In cases where a parent company guarantee is in place, the exposure is shown on the issuer of the guarantee.

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

In the electricity, coal and oil derivatives market, there are a number of counterparts not rated by Standard & Poor's or Moody's. For these counterparts, Fortum assigns an internal rating. The internal rating is based on external credit ratings from other credit agencies. The risk class from Asiakastieto is used for Finnish counterparties, the rating from Creditinform is used for Norwegian counterparties, the risk indicator from UC (Upplysningscentralen) is used for Swedish counterparties and for other counterparties the rating from Dun & Bradstreet is used. Governments and municipal companies are typically not rated, and are shown separately. This rating category does not include companies owned by governments or municipalities. Counterparts that have not been assigned a rating by the above listed credit agencies are in the "No rating" category.

# 4 Capital risk management

Fortum wants to have a prudent and efficient capital structure which at the same time allows the implementation of its strategy. The Group monitors the capital structure based on Net debt / EBITDA ratio. Net debt is calculated as interest-bearing liabilities less liquid funds. EBITDA is calculated by adding back depreciation, amortisation and impairment charges to operating profit. During 2008 and 2007 target capital structure has been defined as Net debt / EBITDA between 3.0–3.5.

Capital expenditure, acquisitions, dividend distributions, repurchases of own shares and capital returns to shareholders are ways to move towards the target capital structure. Fortum's dividend policy states that the company aims to pay a dividend which corresponds to an average payout ratio of 50 to 60%.

Fortum Corporation's long-term credit rating from Moody's and Standard and Poor's was A2 (stable) and A- (stable), respectively.

## The Net debt / EBITDA ratios for year 2008 and 2007

EUR million	Note	2008	2007
Interest-bearing liabilities	31	7,500	4,893
Less: Liquid funds	26	1,321	427
Net debt		6,179	4,466
Operating profit	······	1,963	1,847
Add: Depreciation, amortisation and impairment charges		515	451
EBITDA		2,478	2,298
Net debt / EBITDA 1)	<del>.</del>	2.5	1.9

<sup>1)</sup> Net debt / EBITDA for 2007 is 2.2 based on EBITDA excluding capital gain from the sale of Fortum's holding in Lenenergo amounting to EUR 232 million.

# **5** Segment reporting

# 5.1 Segment structure in Fortum

Following the acquisition of the Russian company, TGC-10, Fortum has changed its segment reporting during 2008 and a new Russia segment was introduced. Segment information for 2007 have been restated, see below 5.2.

Fortum's business operations are organised in eight business units. Fortum's business units are grouped into operating segments in the external reporting. Fortum's shared service centers consist of Corporate Financial Services, Corporate IT Services and Corporate Support Services. The service units have service level agreements with the business units for services provided.

The Group is reported in the following segments:

Power Generation segment generates and sells power mainly to the Nordic electricity market and is also responsible for the risk management operations within power generation. Power Generation segment consists of the business units Generation, Portfolio Management and Trading and Service. The business units Generation and PMT have from a financial perspective one common set of financial measures. No separate pricing mechanism is in use between the business units. The Portfolio Management and Trading business unit within the segment is responsible for optimising the operating of power plants and for selling power mainly to the Nordic power exchange Nord Pool. Generation is responsible for ownership, operation and maintenance of Fortum's power plants. Service business unit provides operation and maintenance services for the Nordic market and selected international markets, but its core activities refer to Generation business.

**Heat** provides district heating and cooling, industrial steam and energy produced in waste-to-energy production to industrial companies, municipalities and end-users in the Nordic countries, the Baltic countries and Poland. The Heat segment also sells electricity from its combined heat and power production (CHP) to the Nordic power exchange Nord Pool. Heat consists of two business units, Heat and Värme. Heat and Värme have similar businesses, but are separated into two business units since the City of Stockholm has a 50% economic interest in Värme. Värme's business operations are mainly concentrated to the larger Stockholm area in Sweden, while Heat has operations in Finland, Norway, Poland and other countries in the Baltic rim area.

**Distribution** is responsible for a reliable and secure electricity supply to its customers in the Nordic countries and Estonia. Fortum owns and operates distribution and regional networks and distributes electricity to a total of 1.6 million customers in Sweden, Finland, Norway and Estonia. Electricity distribution is considered and accepted as a regulated business, and is therefore supervised by national energy authorities. Models and principles for supervision and considerations of reasonable tariffs differ from country to country.

Markets is responsible for offering energy solutions to its 1.3 million customers in Finland, Sweden and Norway. The segment buys its electricity from Nord Pool and sells it further to household and business customers as well as other retailers in the Nordic countries. In addition to the actual sale of electricity, Markets provides comprehensive risk and portfolio management solutions to its business customers.

Electricity supply in the Nordic countries is a deregulated business since 1995 which means that customers can freely change electricity supplier.

Russia segment is based on the geographical area, Russia, and includes power and heat generation and sales in Russia. It includes mainly the Russian subsidiary TGC-10, which is consolidated from 31 March 2008 and the shareholding in the associated company TGC-1.

**Other** includes mainly the shareholding in the associated company Hafslund ASA and corporate center including the Fortum Group shared service centers. The shared service centers charge the companies according to service level agreements.

# 5.2 Changes in segment structure during 2008

Following the acquisition of the Russian company TGC-10, Fortum has changed its segment reporting during Q1 2008. A new Russia segment was introduced, which means that the new segment structure has one segment based on geographical area, combined with segments based on type of business operations. Due to the change in segment structure, Fortum has early adopted IFRS 8 Operating segments.

The new Russia segment includes:

- TGC-10, which has been consolidated from 31 March 2008, see Note 7 Acquisitions and disposals;
- the TGC-1 shareholding, which was transferred from the Power Generation segment:
- minor assets from shareholdings in the Lenenergo spin-off companies, transferred from Distribution, Markets and Other segments.

In addition to introducing a new segment, assets and profits from the associated company Hafslund have been transferred from Power Generation segment to Other segment.

Comparison numbers for 2007 have been restated according to the new segment structure, resulting mainly in the following effects in operating profit and non-recurring items:

- the non-recurring gain on the sale of Lenenergo shares (EUR 232 million) in Q3 2007, transferred from Distribution segment to the new Russia segment;
- the gain on the sale of WGC-5 shares (EUR 12 million) in Q4 2007, transferred from Power Generation segment to the new Russia segment;
- share of profits from associates regarding Hafslund during 2007, including the gain from Hafslund's divestment of shares in REC in Q1 2007, has been transferred from Power Generation segment to Other segment.

# 5.3 Definitions for segment information

Financial target setting, follow up and allocation of resources in the group's performance management process is mainly based on the business units' comparable operating profit including share of profit from associated companies and return on comparable net assets. Fortum discloses in the segment information operating profit and comparable operating profit as well as return on net assets and comparable return on net assets.

Consolidation by segment is based on the same principles as for the Group as a whole. Comparable operating profit is reported to give a better view of each segment's performance. The following items in operating profit have been adjusted for in comparable operating profit:

- non-recurring items, which mainly consist of capital gains and losses;
- effects from fair valuations of derivatives hedging future cash flows which do not obtain hedge accounting status according to IAS 39. The major part of Fortum's cash flow hedges obtain hedge accounting where the fair value changes are recorded in equity, see Note 6 Fair value changes of derivatives and underlying items in income statement;
- effects from the accounting of Fortum's part of the Nuclear Waste Fund where the assets in the balance sheet cannot exceed the related liabilities according to IFRIC 5, see Note 35 Nuclear related assets and liabilities.

Segment's net assets consist primarily of non-interest-bearing assets and liabilities such as property, plant and equipment, intangible assets, participations in associated companies, inventories, operative related accruals and trade and other receivables and liabilities. Net assets also include Fortum's share of the State Nuclear Waste Management Fund, nuclear related provisions, pension and other provisions as well as assets and liabilities from fair valuations of derivatives hedging future cash flows which do not obtain hedge accounting status according to IAS 39.

Interest-bearing receivables and liabilities and related accruals, current and deferred tax items, as well as assets and liabilities from fair valuations of derivatives hedging future cash flows which obtain hedge accounting status according to IAS 39 are not allocated to the segments' net assets.

In comparable net assets, segment's net assets are adjusted for assets and liabilities from fair valuations of derivatives hedging future cash flows which do not obtain hedge accounting status according to IAS 39 to be in line with comparable operating profit.

Gross investments in shares include investments in subsidiary shares, shares in associated companies and other shares in available for sale financial assets. Investments in subsidiary shares are net of cash and grossed with interest-bearing liabilities in the acquired company.

See also Definitions of key figures, Key financial ratios and Operational key figures, on pages 169-175. Quarterly segment information for 2008 and 2007 is available on Fortum's website www.fortum.com/investors/financial information.

# 5.4 Inter-segment transactions and eliminations

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

# 5.5 Segment information 2008

#### **Income statement**

EUR million	Power Generation	Heat	Distri- bution	Markets	Russia	Other	Netting of Nord Pool transac- tions 1)	Elimina- tions	Total
Sales	2,892	1,466	789	1,922	489	83	-1,736	-269	5,636
Of which internal sales	0	0	10	177	0	82	•••••	-269	0
External sales	2,892	1,466	779	1,745	489	1	-1,736	0	5,636
Depreciation, amortisation and impairment	97	169	165	7	67	10			515
Operating profit	1,599	307	248	-35	-91	-65	•••••		1,963
Share of profit of associated companies and joint ventures	26 <sup>2)</sup>	12	16	5	19	48	•		126
Finance costs - net							•••••		-239
Income taxes							•••••		-254
Profit for the period									1,596

1) Sales and purchases with Nord Pool are netted on Group level on an hourly basis and posted either as revenue or cost depending on if Fortum is a net seller or net buyer during any particular hour.
2) Share of profit of associated companies in the Power Generation segment includes effects from the accounting of Fortum's part of the associated companies share of the Finnish and Swedish nuclear funds amounting to EUR +9 million, see also Note 35 Nuclear related assets and liabilities.

# Comparable operating profit

EUR million	Power Generation	Heat	Distri- bution	Markets	Russia	Other	Total
Comparable operating profit	1,528	250	248	-33	-92	-56	1,845
Non-recurring items	18	64	2	-	1	0	85
Changes in fair values of derivatives hedging future cash flow	72	-7	-2	-2	-	-9	52
Nuclear fund adjustment	-19	-	-	-	-	-	-19
Other items effecting comparability	53	-7	-2	-2	-	-9	33
Operating profit	1,599	307	248	-35	-91	-65	1,963

- For further information on items not included in comparable operating profit please see:
  - Note 9 Other income regarding non-recurring items;
  - Note 6 Fair value changes of derivatives and underlying items regarding changes in fair values of derivatives hedging future cash flow;
  - Note 35 Nuclear related assets and liabilities regarding nuclear fund adjustment.

# Impairment losses and restructuring costs

EUR million	Power Generation	Heat	Distri- bution	Markets	Russia	Other	Total
Recognised impairment losses for trade receivables	0	1	1	1	8	0	11
Recognised impairment losses for property, plant and equipment	0	0	0	_	0	0	0
Restructuring costs	-	-	5	4	-	1	10

Impairment losses, EUR -11 million, and restructuring costs, EUR -10 million, are included in comparable operating profit.

#### Assets and liabilities

EUR million	Power Generation	Heat	Distri- bution	Markets	Russia	Other	Total
Non-interest-bearing assets	4,914	3,763	3,336	651	2,047	514	15,225
Participations in associated companies and joint ventures	818	160	210	12	429	483	2,112
Assets included in Net assets	5,732	3,923	3,546	663	2,476	997	17,337
Interest-bearing receivables	•	•		••••••••••••	•		799
Deferred taxes	•	•		•••••••••••	•		2
Other assets	•	•		•••••••••••••••••••••••••••••••••••••••	•		819
Liquid funds	•	•			•		1,321
Total assets							20,278
Liabilities included in Net assets	401	455	514	475	271	201	2,317
Deferred tax liabilities				••••••			1,851
Other liabilities	***************************************	•		•••••••••••	•		199
Total liabilities included in Capital employed	d						4,367
Interest-bearing liabilities							7,500
Total equity	***************************************	•		•	•		8,411
Total equity and liabilities							20,278

#### **Investments**

EUR million	Power Generation	Heat	Distri- bution	Markets	Russia	Other	Total
Gross investments in shares	0	23	0	0	1,492	1	1,516
Capital expenditure	134	408	296	3	256	11	1,108
of which capitalised borrowing costs	_	4	-	-	19	-	23

See also Note 7 Acquisitions and disposals regarding gross investments in shares and Note 20.2 Capital expenditure for more information regarding capital expenditure by segment.

## Comparable return on net assets

EUR million	Net assets by segments	Return on net assets (%)	Comparable return on net assets (%)
Power Generation	5,331	29.6	28.0
Heat	3,468	8.9	7.3
Distribution	3,032	8.1	8.2
Markets	188	-14.0	-15.3
Russia	2,205	-3.7	-3.8
Other	796	-1.8	-1.7

#### **Employees**

EUR million	Power Generation	Heat	bution	Markets	Russia	Other	Total
Number of employees 31 Dec	3,520	2,318	1,336	635	7,262	508	15,579
Average number of employees	3,591	2,422	1,222	766	5,566	510	14,077

# 5.6 Segment information 2007

#### **Income statement**

EUR million	Power Generation	Heat	Distri- bution	Markets	Russia	Other	Netting of Nord Pool transac- tions 1)	Elimina- tions	Total
Sales	2,350	1,356	769	1,683	-	81	-1,163	-597	4,479
Of which internal sales	323	38	9	155	-	72	•••••	-597	0
External sales	2,027	1,318	760	1,528	-	9	-1,163	0	4,479
Depreciation, amortisation and impairment	-103	-163	-162	-11	_	-12	_	_	<b>–</b> 451
Operating profit	1,115	294	233	12	244	-51	-	-	1,847
Share of profit of associated companies and joint ventures	–23 <sup>2)</sup>	24	18	0	_	222	_	-	241
Finance costs - net									-154
Income taxes									-326
Profit for the period									1,608

1) Sales and purchases with Nord Pool are netted on Group level on an hourly basis and posted either as revenue or cost depending on if Fortum is a net seller or net buyer during any particular hour.
2) Share of profit of associated companies in the Power Generation segment includes effects from the accounting of Fortum's part of the associated companies share of the Finnish and Swedish nuclear funds amounting to EUR –7 million.

# $Comparable\ operating\ profit$

EUR million	Power Generation	Heat	Distri- bution	Markets	Russia	Other	Total
Comparable operating profit	1,095	290	231	-1	-	-51	1,564
Non-recurring items	2	2	0	0	244	2	250
Changes in fair values of derivatives hedging future cash flow	1	2	2	13	-	-2	16
Nuclear fund adjustment	17	-	-	-	-	-	17
Other items effecting comparability	18	2	2	13	0	-2	33
Operating profit	1,115	294	233	12	244	-51	1,847

# Impairment losses and restructuring costs

EUR million	Power Generation	Heat	Distri- bution	Markets	Russia	Other	Total
Recognised impairment losses for trade receivables	-1	6	-2	-5	-	_	-2
Recognised impairment losses for property, plant and equipment	0	0	0	-	-	0	0
Restructuring costs	-	-	1	-	-	-	1

#### Assets and liabilities

EUR million	Power Generation	Heat	Distri- bution	Markets	Russia	Other	Total
Non-interest-bearing assets	5,348	3,770	3,549	622	1	195	13,485
Participations in associated companies and joint ventures	806	158	229	8	455	1,197	2,853
Assets included in Net assets	6,154	3,928	3,778	630	456	1,392	16,338
Interest-bearing receivables							747
Deferred taxes							3
Other assets	***************************************			•••••••			159
Liquid funds	***************************************			•••••••			427
Total assets							17,674
Liabilities included in Net assets	555	421	539	383	-	155	2,053
Deferred tax liabilities	•••••••••••••••••••••••••••••••••••••••			••••••			1,687
Other liabilities	***************************************			••••••			390
Total liabilities included in Capital employe	d						4,130
Interest-bearing liabilities							4,893
Total equity	***************************************			••••••			8,651
Total equity and liabilities							17,674

#### **Investments**

EUR million	Power Generation	Heat	Distri- bution	Markets	Russia	Other	Total
Gross investments in shares	52	18	1	0	245	1	317
Capital expenditure	93	309	236	3	-	14	655
of which capitalised borrowing costs		1	-	-	-	-	1

## Comparable return on net assets

EUR million	Net assets by segments	Return on net assets (%)	Comparable return on net assets (%)
Power Generation	5,599	19.2	18.9
Heat	3,507	9.3	9.2
Distribution	3,239	7.7	7.6
Markets	247	6.9	-0.6
Russia	456	66.3	0.0
Other	1,237	17.1	-2.1 <sup>1)</sup>

1) When calculating comparable return on net assets in Other segment, the gain 2007 in relation to Hafslund's divestment of REC-shares, approximately EUR 180 million, is excluded from the share of profits of associates and joint ventures.

## **Employees**

EUR million	Power Generation	Heat	Distri- bution	Markets	Russia	Other	Total
Number of employees 31 Dec	3,511	2,279	1,063	935	-	515	8,303
Average number of employees	3,475	2,302	1,060	936	-	531	8,304

# 5.7 Group-wide disclosures

The Group's operating segments operate mainly in the Nordic countries, Russia, Poland and other parts of the Baltic Rim area. Power Generation, Distribution and Markets operate mainly in Finland and Sweden, whereas Heat operates in all geographical areas except Russia. Other countries are mainly the Baltic countries and the UK. The home country is Finland.

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

## External sales by product area

EUR million	2008	2007
Power sales excluding indirect taxes	3,291	2,370
Heat sales	1,298	1,096
Network transmissions	746	729
Other sales	301	284
Total	5,636	4,479

Heating sales include sale of delivered heat and transmission of heat. Other sales include operations and maintenance sales of EUR 189 million (2007: 168), cooling sales of EUR 24 million (2007: 22), connection fees of electricity and district heating distribution of EUR 28 (2007: 42) million and sale of gas and other fuels of EUR 55 million (2007: 52).

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

#### Sales by market area based on customer location

EUR million	2008	2007
Finland 1)	1,974	1,823
Sweden	2,615	2,161
Russia	494	-
Poland	156	133
Norway 1)	178	153
Other countries	219	209
Total	5,636	4,479

1) The Finnish power production is sold to Nord Pool in Norway, but included in the sales for Finland (2007 comparison numbers are changed accordingly). The Swedish power production is sold through Nord Pool in Stockholm and included in the sales for Sweden.

# Capital expenditure by location

EUR million	2008	2007
Finland	296	203
Sweden	401	370
Russia	256	-
Poland	56	19
Norway	19	22
Other countries	80	41
Total	1,108	655

#### Segment assets by location

EUR million	2008	2007
Finland	4,623	3,828
Sweden	8,478	9,238
Russia	2,047	1
Poland	249	239
Norway	205	233
Other countries	313	232
Eliminations	-690	-286
Non-interest-bearing assets	15,225	13,485
Investments in associated companies and joint ventures	2,112	2,853
Total segment assets	17,337	16,338

#### Number of employees at 31 December by location

2008	2007
3,045	2,981
3,436	3,465
7,262	-
767	925
292	277
777	655
15,579	8,303
	7,262 767 292

# **6** Fair value changes of derivatives and underlying items in income statement

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

Fair value changes of currency derivatives in net financial expenses are arising mainly from balance sheet hedges without hedge accounting status according to IAS 39, because they are natural hedges of loans and receivables. Fair value change of interest rate hedges without hedge accounting is EUR 2 million (2007: 5). The net effect of fair value changes of hedging derivative and hedged bonds are EUR 0 million (2007: -1).

EUR million	2008	2007
n operating profit		
Fair value changes from derivatives not getting hedge accounting status		
Electricity derivatives	-8	-7
Currency derivatives	57	18
Oil derivatives	-8	4
Coal derivatives	-10	-
Share derivatives 1)	<b>–</b> 9	-1
Ineffectiveness from cash flow hedges	30	2
Total effect in operating profit	52	16
Fair value changes of derivatives not getting hedge accounting included in share of profit of associated companies	-2	2
n finance costs	······································	
Exchange gains and losses on loans and receivables	<b>–757</b>	-233
Fair value changes of derivatives not getting hedge accounting status	***************************************	
rair value changes of derivatives not getting nedge accounting status	744	236
Currency derivatives  Currency derivatives		5
	2	,
Currency derivatives	2 11	_37
Currency derivatives Interest rate derivatives	2 11 –11	<b>–</b> 37
Currency derivatives Interest rate derivatives Fair value change of hedging derivatives in fair value hedge relationship	2 11 -11 -11	

1) Related to cash-settled share forwards used as a hedging instrument for Fortum Group's performance share arrangement.

Fortum discloses in segment reporting comparable operating profit to give a better view of each segment's performance. The following items in operating profit have been adjusted for in comparable operating profit:

- · non-recurring items, which mainly consist of capital gains and losses;
- effects from fair valuations of derivatives in operating profit as presented in the table above. The major part of Fortum's cash flow hedges obtain hedge accounting where the fair value changes are recorded in equity;
- effects from the accounting of Fortum's part of the State Nuclear Waste Management Fund where the assets in the balance sheet cannot exceed the related liabilities according to IFRIC 5.

# 7 Acquisitions and disposals

In 2008 Fortum acquired shares in TGC-10 in Russia, in Jelgava Kogeneracija SIA (renamed Fortum Jelgava SIA) in Latvia and in Hofors Energi AB in Sweden. Fortum also acquired the remaining shares in Fortum Wroclaw SA, Poland. The company was merged at year-end. Total investments amounted to EUR 1,506 million.

Acquisitions in 2007 were shares in Pärnu Energia OÜ (renamed Fortum Pärnu OÜ) in Estonia, in Vattenfall Latvija SIA (renamed Fortum Latvija SIA) in Latvia and in EC Wojkowice in Poland. The total investments amounted to EUR 18 million.

The effect of the acquisitions on the 2008 sales is EUR 503 million, being:

- TGC-10 external sales, April to December, EUR 489 million;
- Jelgava Kogeneracija SIA external sales, April to December EUR 7 million;
- · Hofors Energi AB, January to December EUR 7 million.

#### Gross investments in subsidiary shares by segment

EUR million	2008	2007
Power Generation	0	0
Heat	14	18
Distribution	0	0
Markets	0	-
Russia	1,492	-
Other	-	0
Total	1,506	18

# Gross investments in subsidiary shares by country

EUR million	2008	2007
Finland	0	0
Sweden	3	0
Russia	1,492	-
Other countries	11	18
Total	1,506	18

Gross investments in subsidiary shares consist of interest-bearing debt as well as paid cash according to purchase agreement added with direct costs relating to the acquistion less cash and cash equivalents in acquired subsidiary.

# 7.1 Acquisitions 2008

In March Fortum acquired 76.49% of TGC-10 which is a Russian territorial generating company founded in 2006 and operating in the Urals and West Siberia region. The total installed capacity is 3,000 MW electricity and 15,800 MW heat with an annual production of 18 TWh electricity and 27 TWh heat. The company is committed and contractually obligated to an extensive investment plan to further increase its electricity capacity with 2,300 MW by 2013. The contractual obligations of TGC-10's investment programme include penalty clauses tied to the availability of the new generating capacity. Total sales during 2007 in TGC-10 were EUR 723 million and operating profit was EUR 26 million based on 2007 published IFRS Financial statements.

The acquisition was made through an acquisition of shares and through participation in a share issue. On 20 March 2008 Fortum paid for 47.42% of the shares in TGC-10 through a share issue for approximately EUR 1.3 billion. The capital received by TGC-10 will remain in the company and will be used to finance its committed capacity investment programme planned at EUR 2.2 billion. In October 2008, Fortum estimated the value of the investment programme in new capacity to be approximately EUR 2.5 billion. The value for the remaining part of the programme, calculated at year-end exchange rates, is estimated to be EUR 2.0 billion from January 2009 onwards.

On 26 March Fortum paid for an additional 29.07% of the shares in TGC-10 from United Energy Systems of Russia (RAO UES) for approximately EUR 0.8 billion. On

29 April Fortum filed the mandatory public tender offer (MTO) to TGC-10 minority shareholders. The offer was valid from 30 April until 18 October 2008. The tender offer covered 23.51% of the share capital of TGC-10 and has been launched at a price of 111.8 roubles per share to be fully paid in cash. At the end of December, Fortum's registered ownership in TGC-10 was 93.4% including the shares held by TGC-10's 100% owned subsidiary. Additional shares, approximately 0.9%, have been redeemed by TGC-10 in a redemption process ending in December 2008, but with payment and registration in 2009. These shares are included in the acquisition cost as of 31 December 2008 and by that time Fortum had invested EUR 465 million for share purchases under the MTO including the additionally redeemed shares.

The gross investment for the total transaction was EUR 1,492 million, excluding cash in TGC-10 (mainly coming from the share issue) and including interest-bearing liabilities in the company. The purchase price allocation is based on a balance sheet as of 31 March 2008 of TGC-10. The initial accounting of the acquisition is still provisional since all valuation effects have not been finalised, in particular regarding potential obligations. Fortum financial statements include the income statement effect of TGC-10 from 1 April 2008 onwards.

#### Other acquisitions in 2008 included:

In Latvia, Fortum acquired 100% of the shares in Jelgavas Kogeneracija SIA at the end of March. The acquired company provides district heating to the city of Jelgava. The annual heat sales are 200 GWh, the sales EUR 10 million, and the number of employees 170. The gross investment was EUR 10 million.

In Sweden, Fortum acquired additional 11.22% shares in Hofors Energi AB. After this acquisition Fortum's total ownership of the shares in Hofors Energi AB is 60%. The acquired company provides district heating to the Hofors area. The annual heat sales are 130 GWh, the sales EUR 7 million, and Fortum has already earlier taken care of operations in the company. The gross investment was EUR 3 million.

During 2008 Fortum continued to acquire shares in its Polish subsidiaries. Fortum reached 100% ownership in Fortum Wroclaw S.A and the company has been merged to Fortum Power and Heat Polska Sp z.o.o. at year-end.

#### **Consideration**

EUR million	TGC-10 Group	<b>Total Group Acquisitions</b>
Purchase consideration:		
Cash paid	2,533	2,545
Direct costs relating to the acquisition	8	8
Total purchase consideration	2,541	2,553
Fair value of the acquired net assets	2,211	2,223
Translation difference	<b>-9</b>	<b>-9</b>
Goodwill	339	339

## Specification of the acquired net identifiable assets

EUR million		TGC-10 Group		Total (	Group Acquisiti	ons
	Total Value	Allocated Fair Values	Acquired Book Value	Total Value	Allocated Fair Values	Acquired Book Value
Cash and cash equivalents	1,321		1,321	1,323		1,323
Intangible assets	9	***************************************	9	10	***************************************	10
Property, plant and equip- ment	1,602	1,022	580	1,634	1,043	591
Participations in associates and joint ventures	36		36	37		37
Inventories	60	***************************************	60	60	***************************************	60
Receivables	122		122	126		126
Non-interest-bearing liabilities	-306	-192	-114	<b>–311</b>	-192	–119
Interest-bearing liabilities	-272	***************************************	-272	-276	***************************************	-276
Deferred tax liabilities	-192	-199	7	-199	-204	5
Net identifiable assets	2,380	631	1,749	2,404	647	1,757
Minority interests	-169	-53	-116	-174	-56	-118
Step-by-step acquisition 1)	***************************************	***************************************		<b>–</b> 7	<b>–</b> 4	-3
Fair value of the acquired net identifiable assets	2,211	578	1,633	2,223	587	1,636

1) Refers to book values for the part of Hofors Energi previously owned by the Group and the related changes in asset revaluation surplus.

EUR million	TGC-10 Group	Total Group Acquisitions
Purchase consideration settled in cash	2,541	2,553
Cash and cash equivalents in subsidiaries acquired	1,321	1,323
Cash outflow on acquisition	1,220	1,230
Interest-bearing debt in subsidiaries acquired	272	276
Gross investment in subsidiaries acquired	1,492	1,506

## 7.2 Acquisitions 2007

No acquisitions or disposals of shares in subsidiaries which had a material effect on Fortum's income statement and balance sheet were made during 2007. Gross investment in subsidiary shares (see definition of key figures) amounted to EUR 18 million.

Fortum acquired in the beginning of July 100% of the shares in EC Wojkowice. The acquired company in Poland concentrates on district heating production and sales in three cities. The company also sells electricity. The annual heat sales are around 64 GWh and electricity sales 320 MWh. The number of employees was 34.

Fortum acquired in January 2007 100% of the shares in Vattenfall Estonia AS and Vattenfall Latvia SIA from Vattenfall. The acquired company in Estonia provides district heat and natural gas in the city of Pärnu. Its district heat network is the fourth biggest in Estonia. The annual heat sales are 190 GWh, sales EUR 5.4 million and number of employees 58. The district heat business in Pärnu will be integrated to the current countrywide heat operations of Fortum Termest AS.

The acquired company in Latvia provides heat to Riga airport. The annual heat sales are around 12 GWh and sales around EUR 0.5 million. The acquisition provides a platform for Fortum to Latvian heat market.

Fortum has also acquired additional shares in its subsidiaries in Poland, Fortum Częstochowa SA 11.11% (total ownership 98.71% at year-end 2007), Fortum Wroclaw 0.92% (total ownership of 99.17%), Fortum Plock SA 0.91% (total ownership of 98.66%) and Fortum DZT SA 0.63% (total ownership 99.92%).

#### **Consideration**

EUR million	Acquisitions
Purchase consideration:	
Cash paid	11
Direct costs relating to the acquisition	-
Total purchase consideration	11
Fair value of the acquired net assets	11
Translation difference	-
Goodwill	-

## Specification of the acquired net identifiable assets

EUR million	Tota	<b>Total Group Acquisitions</b>		
	Total Value	Allocated Fair Values		
Cash and cash equivalents	1	0	1	
Property, plant and equipment	16	6	10	
Inventories	0	0	0	
Receivables	1	0	1	
Non-interest-bearing liabilities	-1	0	-1	
Interest-bearing liabilities	-8	0	-8	
Deferred tax liabilities	0	0	0	
Net identifiable assets	9	6	3	
Minority interests	2	2	-	
Fair value of the acquired net identifiable assets	11	8	3	

EUR million	Total Group Acquisitions
Purchase consideration settled in cash	11
Cash and cash equivalents in subsidiaries acquired	1
Cash outflow on acquisition	10
Interest-bearing debt in subsidiaries acquired	8
Gross investment in subsidiaries acquired	18

# 7.3 Disposals 2008 and 2007

In the end of December 2008 Fortum sold its 60% ownership in Jyväskylän Energiantuotanto Oy to Jyväskylän Energia. The transaction included both subsidiary shares, land on which the power plant is located on and assets related to business operations. In July Fortum sold its Swedish subsidiary, Recotech AB.

There were no disposals in 2007.

# **8** Exchange rates

The income statement of subsidiaries, whose measurement and reporting currencies are not euros, are translated into the Group reporting currency using the average exchange rates, whereas the balance sheet of such subsidiaries are translated using the exchange rates on the balance sheet date.

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

## Key exchange rates for Fortum Group applied in the accounts

	Currency	Average rate		Balance sheet date rate	
		2008	2007	31 Dec 2008	31 Dec 2007
Sweden	SEK	9.6647	9.2475	10.8700	9.4415
Norway	NOK	8.2605	8.0253	9.7500	7.9580
Poland	PLN	3.5328	3.7792	4.1535	3.5935
Russia	RUB	36.6905	35.0759	41.2830	35.9860

# **9** Other income

EUR million	2008	2007
Capital gains on disposal of non-current assets	86	251
Gain on sale of emission rights	8	39
Rental income	39	39
Fair value changes on derivatives that do not qualify for hedge accounting status	52	16
Other items	45	48
Total	230	393

Revenue from activities outside normal operations is reported in other income. This includes recurring items such as rental income and non-recurring items such as gains from sale of shares, etc. Gains on sale of shares, property, plant and equipment and emission rights are included in capital gains on disposal of non-current assets.

Capital gains 2008 mainly include the sales gains from the divestments of Fortum's 50% shareholding in Panjin Liaohe Thermal Power Company Co in China and the 30% shareholding in Polartest Oy, both in Power Generation segment, and Fortum's 60% ownership in Jyväskylän Energiantuotanto Oy to Jyväskylän Energia and fixed assets in Stockholm, both in Heat segment. In 2007 Fortum sold its shares in JSC Lenenergo which resulted in an after tax gain of EUR 232 million and also the shareholding in WGC-5, both in Russia segment.

Gain on sale of emission rights amounted to EUR 8 million (2007: 39). Costs for made emissions which are not covered by emission rights received for free were EUR 14 million (2007: 0). The costs are included in Materials and services.

Fortum has leased out its 308-MW share of the Meri-Pori power plant from January 2007 to the end of June 2010. The lease agreement is classified as an operating lease and the rental income is included in other income.

Changes in the fair value of any derivative instruments that do not qualify for hedge accounting are recognised immediately in other income.

For more information regarding fair value changes of derivatives, see Note 6 Fair value changes of derivatives and underlying items in income statement on page 134.

# **10** Materials and services

EUR million	2008	2007
Materials	1,345	843
Materials purchased from associated companies	556	519
Transmission costs	127	131
External services	89	79
Total	2,117	1,572

Materials contain mainly nuclear, coal and gas used as fuels for producing power and heat. Materials purchased from associated companies consist of purchases of nuclear power and hydropower at production costs including interest costs and income taxes. See Note 21 Participations in associated companies and joint ventures. Total materials and services include production taxes and duties EUR 170 million (2007: 84) of which nuclear related capacity taxes EUR 80 million (2007: 68) and hydropower related property taxes EUR 11 million (2007: 11). Taxes related to nuclear and hydroproduction are included in materials purchased from associated companies.

# 11 Other expenses

EUR million	2008	2007
Operation and maintenance costs	234	116
Property taxes	79	66
IT and telecommunication costs	67	76
Research and development costs	27	21
Other items	277	228
Total	684	507

The major components recorded in other expenses are the external operation and maintenance costs of power and heat plants and of transmission lines. Property taxes include property taxes relating to hydropower production EUR 67 million (2007: 55).

# Principal auditors' fees

EUR million	2008	2007
Audit fees	1.2	1.0
Audit related assignments	0.2	0.1
Tax assignments	0.3	0.4
Other assignments	0.2	0.3
Total	1.9	1.8

Deloitte is the appointed auditor for the period until 2009 Annual General Meeting. In TGC-10, KPMG is the appointed auditor for the period until 2009 Annual General Meeting. Audit fees include fees for the audit of the consolidated financial statements, review of the interim reports as well as the fees for the audit of Fortum Oyj and its subsidiaries. Audit related assignments include fees for assurance and associated services related the audit. Tax fees include fees for tax advice and tax planning services.

# 12 Management remuneration and employee costs

EUR million	2008	2007
Wages and salaries	420	348
Pensions	•	
Defined contribution plans	36	35
Defined benefit plans	11	11
Social security costs	83	77
Share-based remunerations	5	8
Other employee costs	32	16
Total	587	495

The Nomination and Compensation Committee discusses, assesses and makes recommendations and proposals on the remuneration policy, pay structures, bonus and incentive systems for the Group and its management, and contributes to the Group's nomination issues. The remuneration policy is determined by the Board of Directors.

The compensation package for Fortum employees consists of a combination of salaries, benefits, short-term incentives, profit sharing paid to Personnel Fund and deferred share-based long-term incentives. The majority of Fortum employees are covered by an annual performance bonus system. The long-term incentive schemes are intended for senior executives and other management of the Fortum Group.

For further information on Fortum's employee bonus and equity incentive schemes as well as Personnel Fund, see Note 29 on page 153 and for pension obligations see Note 34 on page 159.

# 12.1 Supervisory Board remuneration

The Supervisory Board comprises a minimum of six and a maximum of 12 members. The Supervisory Board meetings are also attended by employee representatives who are not members of the Supervisory Board. The Annual General Meeting confirms the remuneration for the Supervisory Board members.

Each Supervisory Board member receives a fixed monthly fee and a meeting fee. The employee representatives receive only a meeting fee. All members are entitled to travel expense compensation against receipts in accordance with the company's travel policy. Members of the Supervisory Board are not offered stock options, warrants or participation in other incentive schemes, nor do they have a pension plan in Fortum.

Total remuneration for the Supervisory Board service in 2008 has been EUR 76 thousand (2007: 79).

# 12.2 Board remuneration

EUR thousand	2008	2007
Chairman, Peter Fagernäs	70	62
Deputy chairman, Matti Lehti (2007: Birgitta Kantola)	54	50
Other members of the Board	221	186
Total	345	298

The Board of Directors comprises five to seven members who are elected at the Annual General Meeting for a one-year term of office, which expires at the end of the first Annual General Meeting following the election. During 2008 and 2007 the Board consisted of seven members.

The annual general meeting confirms a yearly compensation for Board service. In addition, a EUR 600 meeting fee is paid. The meeting fee is also paid for committee meetings and is paid in double to a member who lives outside Finland in Europe. The members are entitled to travel expense compensation in accordance with the company's travel policy. Board members are not offered stock options, warrants or participation in other incentive schemes. There is no pension plan for non-executive members.

The table above shows total compensation for the Board of Directors paid by Fortum.

# 12.3 The President and CEO and the management team remuneration

2008	The Presider	nt and CEO	Other management team members		
EUR thousands	Renumeration booked as expense	Remuneration paid during the year	Renumeration booked as expense	Remuneration paid during the year	
Salaries and fringe benefits	867	867	1,719	1,719	
Performance bonuses	388	156	586	102	
Pensions and other post- employment benefits 1)	1,013	1,075	757	595	
Total	2,268	2,098	3,062	2,416	

2007	The Presider	nt and CEO	Other manageme	nt team members
EUR thousands	Renumeration booked as expense	Remuneration paid during the year	Renumeration booked as expense	Remuneration paid during the year
Salaries and fringe benefits	833	833	1,562	1,562
Performance bonuses	84	297	102	540
Pensions and other post- employment benefits 1)	808	1,169	600	508
Total	1,725	2,299	2,264	2,610

<sup>1)</sup> Payments relating to pensions and other post-employement benefits are paid to the insurance companies and to Fortum's pension funds.

The Fortum Management Team consists of eight members from 1 September 2007 (previously seven members), including the President and CEO to whom the members of the Management Team report.

The compensation package for Management Team consists of base salaries, purposeful benefits, annual individual short-term incentives (annual bonus) and deferred share-based long-term incentives.

The President and CEO as well as the Fortum Management Team are paid annual performance bonuses in addition to their salary and fringe benefits. The criteria used in determining the size of the annual bonus for senior management are decided annually by the Board of Directors on the recommendation of the Board's Nomination and Compensation Committee. The performance of each senior executive is evaluated annually. The size of each senior executive's annual bonus is dependent on the Group's financial performance, as well as on their own success in reaching their individual goals, which for the President and CEO are set by the Board's Nomination and Compensation Committee. The Committee recommends the level of the President and CEO's compensation to the Board of Directors for approval. Performance bonuses are paid next spring after publication of Fortum's yearly results and after the annual performance discussions have been held.

For the President and CEO and for part of the members of the Fortum Management Team, the retirement age between 60 and 62 and the pension paid is maximum 66% or 60% of the remuneration. In the first case the pensions are insured and paid by Fortum's pension fund, and in the latter, pensions are insured by an insurance company. The pension of the President and CEO is 60% of the remuneration at the age of 60.

In the event that Fortum decides to give notice of termination to the President and CEO, he is entitled to compensation equaling 24 months' salary, other Management Team members for 12 to 18 months.

The President and CEO as well as the Fortum Management Team participate in long-term incentive plans. The President and CEO is not participating in new plans started in 2008 and 2009. The expense in the income statement for these plans is calculated in accordance with IFRS 2 Share-based payments. The charge is calculated at the vesting value of shares granted in the year, plus any fair value movement in the year on previous awards. The cost in accounting does not agree with the actual cash costs on yearly basis, but on total level they do.

See Note 29 Employee bonus system, personnel fund and incentive schemes on page 153.

#### Share-based remuneration

	2008		20	07
	The President	Other mana- gement team	The President	Other mana- gement team
EUR thousand	and CEO	members	and CEO	members
Share-based remuneration	475	1,024	629	1,081

Shares for long-term incentive plan 2002–2007 were delivered to the participants in February 2008. The number of shares was granted in spring 2005 after the three-year earning period. The value of the shares at the grant date could not exceed participants' one year salary including fringe benefits. The shares were delivered to the participant after the three-year lock-up period. The President and CEO had a calculated gross income of EUR 2,149 thousand from the delivery. The corresponding figure for the other members of Fortum Management Team was EUR 3,468 thousand. These amounts will be included in the taxable income for 2008 of the individuals in question. Taxable income includes the value of actual Fortum shares received, income taxes, transfer taxes and certain statutory employment related expenses paid on the reward depending on the practice in the participant's country. The value of the shares is calculated based on the Fortum share price at the purchase date.

#### Calculation of taxable income received 2008

EUR thousand (except number of shares)	The President and CEO	Other management team members
Salaries and fringe benefits paid	867	1,719
Performance bonuses paid	156	102
Calculative value of shares received	1,013	1,654
Income tax and other charges	1,136	1,814
Taxable income from the long-term incentive plan	2,149	3,468
Taxable income received	3,172	5,289
Actual number of shares received	36,756	59,980

# 13 Depreciation, amortisation and impairment charges

EUR million	2008	2007
Depreciation of property, plant and equipment		
Buildings and structures	79	62
Machinery and equipment	410	360
Other tangible assets	5	6
Amortisation of intangible assets	21	23
Total	515	451
Impairment charges		
Other intangible assets	0	0
Buildings and structures	0	0
Total	0	0
Depreciation, amortisation and impairment charges total	515	451

The increase of depreciation in 2008 is mainly due to the acquisition of TGC-10, which took place in the end of March 2008.

• See also Note 5 Segment reporting on page 130.

# 14 Finance costs – net

EUR million	2008	2007
Interest expense		
Borrowings	-363	-218
Other interest expense	-9	-3
Capitalised borrowing costs	21	1
Total	-351	-220
Interest income		
Loan receivables	130	62
Other interest income	13	14
Total	143	76
Fair value gains and losses on financial instruments 1)	-11	7
Exchange gains and losses		
Loans and receivables	<b>–757</b>	-233
Derivatives	759	233
Dividend income	1	1
Interest income on share of State Nuclear Waste Management Fund 2)	30	26
Unwinding of discount on nuclear provisions 2)	-32	-35
Unwinding of discount on other provisions 3)	-12	0
Other financial income	4	1
Other financial expenses	-13	-10
Total	-20	-17
Finance costs - net	-239	-154

- 1) Please see Note 6 Fair value changes of derivatives and underlying items in the income statement on page 134.
- 2) Please see Note 35 Nuclear related assets and liabilities on page 162.
- 3) Please see Note 33 Pensions and other provisions on page 159.

Interest expenses include interest expenses on interest-bearing loans, interest on interest rate and currency swaps, forward points on forward foreign exchange contracts hedging loans and receivables. Other interest expenses includes interest on financial leases EUR 3 million and other interest cost EUR 6 million.

About capitalised borrowing costs see Note 20.1. Capitalised borrowing costs on page 145.

Interest income includes EUR 33 million (2007: 26) from shareholders' loans in Finnish and Swedish nuclear companies, EUR 65 million (2007: 21) from deposits as well as income coming from hedging of SEK denominated interest income of EUR 27 million (2007: 11). Other interest income includes mainly income from financial leases as a lessor.

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

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

# Fair value changes on interest rate and currency derivatives

EUR million	2008	2007
Interest rate and cross currency swaps		
Interest expenses on borrowings	4	9
Exchange rate difference from derivatives	322	140
Rate difference in fair value gains and losses on financial instruments 1)	13	-32
Total fair value change of interest rate derivatives in finance costs - net	339	117
Forward foreign exchange contracts	•	
Interest expenses on borrowings	-11	10
Exchange rate difference from derivatives	437	93
Rate difference in fair value gains and losses on financial instruments	-13	3
Total fair value change of currency derivatives in finance costs - net	413	106
Total fair value change of interest and currency derivatives in finance costs - net	752	223

<sup>1)</sup> Fair value gains and losses on financial instruments include fair value changes from interest rate swaps not getting hedge accounting amounting to EUR 2 million (2007: 5).

Aggregated exchange differences included in operating profit were EUR -1 million (2007: -1) and in finance costs EUR 2 million (2007: -5).

# 15 Income tax expense

## 15.1 Profit before tax

EUR million	2008	2007
Finnish companies	584	819
Swedish companies	723	577
Other companies	543	538
Total	1,850	1,934

# 15.2 Major components of income tax expense by major countries

EUR million	2008	2007
Current taxes		
Finnish companies	<b>–47</b>	-146
Swedish companies	<b>–147</b>	-131
Other companies	<b>–66</b>	-32
Total	-260	-309
Deferred taxes		
Finnish companies	-86	6
Swedish companies	36	-18
Other companies	51	5
Total	1	-7
Adjustments recognised for current tax of prior peri	ods	
Finnish companies	2	-5
Swedish companies	1	-4
Other companies	2	-1
Total	5	-10
Total income taxes	-254	-326

In December 2008 the Swedish Government passed legislation lowering the income tax rate from 28% to 26.3%. The one-time positive effect in the income tax cost from the legislation approximates EUR 81 million. Also December 2008 the Russian Government passed legislation lowering the income tax rate from 24% to 20%. The one-time positive effect in the income tax cost from the legislation approximates EUR 32 million.

See also Note 32 Deferred income tax on page 158.

# 15.3 Tax on the Group's profit before tax differs from the theoretical amount that would arise using the enacted tax rates in Finland

EUR million	2008	%	2007	%
Profit before tax	1,850		1,934	
Tax calculated at nominal Finnish tax rate	-481	26.0	-503	26.0
Differences in tax rates and regulations in other countries	76	-4.1	50	-2.6
Tax rate changes	113	-6.1	-	-
Income not subject to tax	9	-0.5	6	-0.3
Tax exempt capital gains	14	-0.8	61	-3.2
Expenses not deductible for tax purposes	-13	0.7	-1	0.1
Share of profit of associated companies and joint ventures	34	-1.8	67	-3.5
Taxes related to dividend distributions	-3	0.2	-1	0.1
Tax losses for which no deferred tax was recognised	-4	0.2	-3	0.2
Utilisation of previously unrecognised tax losses	1	-0.1	1	-0.1
Adjustments recognised for change in deferred tax of prior periods	<b>–</b> 5	0.3	2	-0.1
Adjustments recognised for current tax of prior period	5	-0.3	-5	0.3
Tax charge in the income statement	-254	13.7	-326	16.9

The weighted average applicable tax rate was 29.1% (2007: 27.9%). The tax rate according to the income statement was 13.7% (2007: 16.9%). The tax rate used in the income statement is always impacted by the fact that share of profits of associates and joint ventures are recorded based on Fortum's share of profits after tax. Excluding the share of profits from associates, capital gains and tax rate changes, the tax rate was 22.1% (2007: 22.3%).

#### 15.4 One-time effects

During 2008 Swedish and Russian Governments decided to decrease the income tax rate, which is one of the major reasons for decreased tax rate. Decreased tax rates in Sweden and Russia will be in force from the beginning of 2009, but major positive effect comes already during 2008 from revaluing the deferred taxes. The major part of the tax exempt capital gains is the sale of shares in Jyväskylän Energiantuotanto Oy.

Fortum received substantial non taxable capital gains during 2007, which is one of the major reasons for decreased tax rate. These effects are mainly one-time effects. The capital gain from sale of shares in JSC Lenenergo in August 2007 amounted to EUR 232 million. The share of profit of associated companies and joint ventures also decreased the effective tax rate mainly due to impact of Hafslund's sale of REC shares in March 2007 which impacted the share of profits from associates for the period with approximately EUR 180 million. Fortum completed various tax audits during the year. No major risks or failures were identified.

## **16** Earnings per share

#### **16.1 Basic**

Basic earnings per share is calculated by dividing the profit attributable to equity holders of the Company by the weighted average number of ordinary shares in issue during the year.

	2008	2007
Profit attributable to equity holders of the Company, (EUR million)	1,542	1,552
Weighted average number of shares (thousands)	887,256	889,997
Basic earnings per share (EUR per share)	1 74	1 74
basic carriings per share (EoK per share)	1.74	1.74

#### 16.2 Diluted

Diluted earnings per share is calculated adjusting the weighted average number of ordinary shares outstanding to assume conversion of all dilutive potential ordinary shares. At the end of 2008 the Group has one diluting stock option scheme 2002 for key employees. For the warrants and stock options a calculation is done to determine the number of shares that could have been acquired at fair value (determined as the average annual market share price of the Fortum's shares) based on the monetary value of the subscription rights attached to outstanding options. The number of shares calculated as above is compared with the number of shares that would have been issued assuming the exercise of the stock options.

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

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

	2008	2007
Profit attributable to equity holders of the Company, (EUR million)	1,542	1,552
Weighted average number of shares (thousands)	887,256	889,997
Effect of the 2002 key employees stock options (thousands)	583	1,398
Diluted average number of shares (thousands)	887,839	891,395
Diluted earnings per share (EUR per share)	1.74	1.74

## 17 Dividend per share

A dividend in respect of 2008 of EUR 1.00 per share, amounting to a total dividend of EUR 888 million based on the number of shares registered as of 4 February 2009, is to be proposed at the Annual General Meeting on 7 April 2009. These financial statements do not reflect this dividend.

The Annual General Meeting on 1 April 2008 decided to distribute a dividend of EUR 1.35 per share in respect of 2007 to the shareholders, of which EUR 0.77 per share was paid from Fortum's recurring earnings. An additional dividend of EUR 0.58 per share was decided to steer Fortum's capital structure towards agreed target. The total dividend amounted to EUR 1,198 million based on the amount of shares registered as of 4 April 2008. The dividend was paid on 11 April 2008.

The dividend for the year 2006 was EUR 1.26 per share, of which EUR 0.73 per share is in accordance with the Group's dividend policy. An additional dividend of EUR 0.53 per share was decided to steer Fortum's capital structure towards agreed target. The total dividend amounting to EUR 1,122 million was paid on 11 April 2007.

## 18 Financial assets and liabilities by categories

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

Financial assets by categories		Loans and rece	ivables	Financial assets	at fair-valu	ue through profit a	nd loss						
EUR million Note	Note	Amortised	cost	Hedge accoun		Non-hedge acco	ounting	Fair-value recog		Available-for financial as		Total financial	l assets
		2008	2007	2008	2007	2008	2007	2008	2007	2008	2007	2008	2007
Financial instruments in non-current assets													
Other long-term investments	22	79	57	•••••		•				40	42	119	99
Derivative financial instruments	3	•••••		•••••		•				•••••		•••••••••••••••••••••••••••••••••••••••	
Electricity derivatives		•••••••••		•••••		52	51	167	5	•••••		219	56
Interest rate and currency derivatives		•		16	6	202	87	5		•		223	93
Oil and other futures and forward contracts		•		•		3	4			•		3	4
Long-term interest-bearing receivables	23	672	648	•••••••••••••••••••••••••••••••••••••••						······································		672	648
Financial instruments in current assets				······································		······································				······································		······································	
Derivative financial instruments	3	•••••		•						•••••			
Electricity derivatives				• • • • • • • • • • • • • • • • • • • •		36	57	252	6			288	63
Interest rate and currency derivatives				• • • • • • • • • • • • • • • • • • • •	1	443	72	11				454	73
Oil and other futures and forward contracts				•		19	4					19	4
Trade receivables	25	849	840	•		***************************************						849	840
Other interest-bearing receivables		46	10	•		***************************************						46	10
Bank deposits	26	588		•		***************************************						588	
Cash and cash equivalents	26	733	427	• • • • • • • • • • • • • • • • • • • •		***************************************						733	427
Total		2,967	1,982	16	7	755	275	435	11	40	42	4,213	2,317

Financial liabilities by categories		Financial liabiliti	ies at fair-va	lue through profit	and loss			(	Other financial	liabilities			
EUR million Note	Hedge accou fair value he	nting, edges	Non-hedge acco	ounting	Fair-value recog equity, cash flow	nised in hedges	Amortised	cost	Fair valu	e	Total financial I	iabilities	
		2008	2007	2008	2007	2008	2007	2008	2007	2008	2007	2008	2007
Financial instruments in non-current liabilities													
Interest-bearing liabilities	31	•••••••••••••••••••••••••••••••••••••••		•••••••••••		***************************************		6,671	2,896	309	1,392	6,980	4,288
Derivative financial instruments	3	•••••••••••••••••••••••••••••••••••••••		•••••••••••		***************************************						•••••••••••••••••••••••••••••••••••••••	
Electricity derivatives		•••••••••••••••••••••••••••••••••••••••		42	49	3	39					45	88
Interest rate and currency derivatives		•••••••••••••••••••••••••••••••••••••••	29	58	20	11						69	49
Oil and other futures and forward contracts				6	2					•		6	2
Financial instruments in current liabilities				•						•			
Interest-bearing liabilities	31							520	605	•		520	605
Derivative financial instruments	3	***************************************		•		***************************************		*****				•	
Electricity derivatives		•		59	76	7	145	*****				66	221
Interest rate and currency derivatives		•	6	24	32	8		******				32	38
Oil and other futures and forward contracts		***************************************		28	1	***************************************		******				28	1
Trade payables	37					***************************************		343	272	••••••••••••		343	272
Other liabilities	37					***************************************		116	68	••••••••••••		116	68
Total			35	217	180	29	184	7,650	3,841	309	1,392	8,205	5,632

## 19 Intangible assets

	G	oodwill	Other intangib	le assets	To	otal
EUR million	2008	2007	2008	2007	2008	2007
Cost 1 January	-	-	344	317	344	317
Exchange rate differences and other adjustments	<b>–</b> 41	-	-3	-4	-44	-4
Increases through business combinations	339	-	13	25	352	25
Capital expenditure	-	-	9	11	9	11
Change in emission rights	-	-	14	-9	14	-9
Disposals	-	-	-3	-9	-3	-9
Reclassifications	-	-	5	13	5	13
Cost 31 December	298	-	379	344	677	344
Accumulated depreciation 1 January	-	-	259	221	259	221
Exchange rate differences and other adjustments	-	-	2	-2	2	-2
Increases through business combinations	-	-	2	25	2	25
Disposals	-	-	-2	-8	-2	-8
Depreciation for the period	-	-	21	23	21	23
Accumulated depreciation 31 December	-	_	282	259	282	259
Carrying amount 31 December	298	_	97	85	395	85

Goodwill is included in Russia segment and relates to the acquisition of TGC-10. The initial accounting of the acquisition is still provisional, see Note 7 Acquisitions and disposals. The goodwill has been tested for impairment by comparison of recoverable amounts of the net operating assets for TGC-10, including goodwill, with their carrying amounts. The recoverable amounts were determined on the basis of value in use, applying discounted cash-flow calculations. Key assumptions made by management and used in the cash-flow forecast were; expected development of Russia power market, utilization of power plants and other assets, forecasted maintenance and refurbishment investments and weighted average cost of capital. The cash-flows are based on business plan approved by the Board. As of 31 December 2008, the recoverable values were found to be in excess of their carrying values and therefore the related goodwill is not impaired. The pre-tax WACC rate used was 11.7%.

The main items in other intangible assets are costs for software products and software licenses, which are amortised over their useful lives. Other intangible assets also include bought emission rights, which are recognised to the lower of fair value and historical cost. Emission rights received free of charge are accounted to nominal value. The amount of emission rights in intangible assets is EUR 14 million (2007: 0).

## 20 Property, plant and equipment

EUR million	Land, waterfall rights and tunnels	Buildings, plants and structures	Machinery and equipment	Other tangible assets	Advances paid and construction in progress	Total
Cost 1 January 2008	3,059	2,373	11,385	217	578	17,612
Exchange rate differences and other adjustments	-395	-264	-1,340	-16	-154	-2,169
Increases through business combinations	-	341	1,196	-	183	1,720
Capital expenditure	18	54	183	3	841	1,099
Nuclear asset retirement cost	-	-	22	-	-	22
Disposals	-1	-32	-103	-1	-9	-146
Reclassifications	3	48	377	<b>-</b> 5	-428	<b>–</b> 5
Cost 31 December 2008	2,684	2,520	11,720	198	1,011	18,133
Accumulated depreciation 1 January 2008	-	1,073	5,059	137	-	6,269
Exchange rate differences and other adjustments	-	-109	-634	-13	-	-756
Increases through business combinations	-	62	28	-	-	90
Disposals	-	-23	-78	-1	-	-102
Depreciation for the period	-	79	410	5	-	494
Impairment charges	-	-	-	-	-	0
Accumulated depreciation 31 December 2008	_	1,082	4,785	128	-	5,995
Carrying amount 31 December 2008	2,684	1,438	6,935	70	1,011	12,138
Carrying amount 31 December 2007	3,059	1,300	6,326	80	578	11,343

The increase in the carrying amount of property, plant and equipment in 2008 due to the acquisition of TGC-10, EUR 1,630 million, is partly offset by the effects from the depreciation of SEK and RUB, EUR 1,413 million. Advances paid and construction in progress has increased with EUR 433 million during 2008, due to the on-going investments in new power plants and the Automatic Meter Management project, see Note 20.2 Capital expenditure. Advances paid amounts to EUR 306 million, of which EUR 229 million refers to TGC-10.

For more information on credit risks regarding on-going investments, see Note 3.10 Credit risk on page 128.

Property, plant and equipment that are subject to restrictions in the form of real estate mortgages amounts to EUR 343 million (2007: 241).

• See Note 38 Pledged assets on page 164.

EUR million	Land, waterfall rights and tunnels	Buildings, plants and structures	Machinery and equipment	Other tangible assets	Advances paid and construction in progress	Total
Cost 1 January 2007	3,189	2,237	11,363	221	401	17,411
Exchange rate differences and other adjustments	-129	-104	-197	-7	-13	-450
Increases through business combinations	-	22	28	-	-	50
Capital expenditure	-	44	97	4	499	644
Nuclear asset retirement cost	-	-	25	-	-	25
Disposals	-1	-14	-36	-2	-2	-55
Reclassifications	-	188	105	1	-307	-13
Cost 31 December 2007	3,059	2,373	11,385	217	578	17,612
Accumulated depreciation 1 January 2007	_	1,006	4,798	136	_	5,940
Exchange rate differences and other adjustments	-	2	-87	-3	_	-88
Increases through business combinations	-	11	23	-	-	34
Disposals	-	-8	-35	-2	-	-45
Depreciation for the period	-	62	360	6	-	428
Impairment charges	-	0	-	-	-	0
Accumulated depreciation 31 December 2007	-	1,073	5,059	137	-	6,269
Carrying amount 31 December 2007	3,059	1,300	6,326	80	578	11,343
Carrying amount 31 December 2006	3,189	1,231	6,565	85	401	11,471

## 20.1 Capitalised borrowing costs

EUR million	Machinery and equipment	Advances paid and construction in progress	Total
1 January 2008	16	1	17
Increases	-	22	22
Decreases	<b>–3</b>	-	-3
31 December 2008	13	23	36
EUR million	Machinery and equipment	Advances paid and construction in progress	Total
1 January 2007	19	0	19
Increases	-	1	1
Decreases	<b>–</b> 3	-	-3
31 December 2007	16	1	17

New borrowing costs of EUR 22 million were capitalised in 2008 (2007: 1) for TGC-10 investment program, Polish Częstochowa and Finnish Suomenoja CHP-plant projects. The interest rate used for capitalisation was 8.9% in Russia and 5.0% in other European countries (2007: 4.2%).

## 20.2 Capital expenditure 1)

	Fin	land	Swe	eden	Other co	untries	To	Total	
EUR million	2008	2007	2008	2007	2008	2007	2008	2007	
Power Generation									
Hydropower	11	3	52	50	-	-	63	53	
Nuclear power	57	32	-	-	-	-	57	32	
Fossil-based power	6	1	-	-	4	1	10	2	
Other	3	1	1	4	-	1	4	6	
Total Power Generation	77	37	53	54	4	2	134	93	
Heat		•••••••	•••••••			· · · · · · · · · · · · · · · · · · ·			
Fossil-based heat	54	55	16	4	82	31	152	9(	
Fossil-based power	25	-	-	-	2	-	27		
Renewable	11	18	29	53	23	7	63	78	
District heating network	34	19	82	79	20	28	136	120	
Other		-	19	12	11	3	30	15	
Total Heat	124	92	146	148	138	69	408	309	
Distribution	83	62	200	163	13	11	296	230	
Markets	1	1	2	2	-	-	3	3	
Other	11	11	-	3	-	-	11	14	
Total excluding Russia	296	203	401	370	155	82	852	65!	
Russia	••••••••••	•••••••	•••••••••••	•••••••		· · · · · · · · · · · · · · · · · · ·	••••••••••••		
Fossil-based power	•••••••••••	•••••••	••••••••••••	•••••••••••		· · · · · · · · · · · · · · · · · · ·	240		
Fossil-based heat	•••••••••••	•••••••••••	•••••••••••••	••••••••		· · · · · · · · · · · · · · · · · · ·	16		
Total Russia							256		
Total including Russia							1,108	65!	

<sup>1)</sup> Includes capital expenditure to both intangible assets and property, plant and equipment.

Maintenance investments during 2008 in property, plant and equipment were EUR 170 million (2007: 144). Investments due to requirements of legislation were EUR 147 million (2007: 106). Investments increasing productivity were EUR 220 million (2007: 195) and growth investments were EUR 572 million (2007: 210).

#### 20.2.1 Power Generation

In 2008 Fortum continued to invest into several hydro growth projects, the biggest of these was Eldforsen amounting to some EUR 8 million (2007: 0), the total hydro projects focusing on growth and productivity in 2008 amounted to some 28 million (2007: 21). In Finland, Fortum invested EUR 57 million into the Loviisa nuclear power plant. Additionally this segment has invested some EUR 50 million into refurbishment type investments; this investment level is the same as in 2007.

#### 20.2.2 Heat

There are currently four on-going CHP plant building projects. These are the natural gas-fired Suomenoja plant in Espoo, Finland, the Częstochowa plant in Poland and the Tartu and Pärnu plants in Estonia, of the Tartu plant Fortum has a 60% stake. In total growth investments in this segment amount to some 308 million euros, which is about 140 million euros more than in 2007. Refurbishment and other investments are over EUR 100 million in this segment, which is some 30 million less than in 2007. This amount consists mainly of investments in district heat networks, new connections as well as the maintenance of existing CHP plants.

#### 20.2.3 Distribution

In 2006 Fortum started the large-scale Automatic Meter Management (AMM) project in Sweden. This project is planned to go on into 2009, and is the largest capital expenditure project in the Distribution Segment. During 2008 some 500 thousand automatic meters were installed, the total number of installed meters being at around 800 thousand. In 2008 Fortum invested some EUR 104 million into this project (2007: 64). Another major project in Fortum's Distribution segment is the Reliability Investment Program, which was also started in 2006. This investment aims to improve the reliability of power delivery in e.g. storms. In 2008 Fortum invested some EUR 30 million (2007: 30) into this program. In addition to these two main projects, Fortum has invested some EUR 160 million of maintenance type investments into the Distribution businesses in Finland, Sweden, Norway and Estonia. This is some EUR 20 million more than in 2007.

#### 20.2.4 Russia

TGC-10 has an extensive investment programme aiming to increase its power capacity to 5,300 MW. In October 2008, Fortum estimated the value of the investment programme in new capacity to be approximately EUR 2.5 billion. The value for the remaining part of the programme, calculated at year-end exchange rates, is estimated to be EUR 2.0 billion from January 2009 onwards. During the 2008 some EUR 250 million was already invested of the total amount.

## 20.3 Assets leased in by finance lease agreements

EUR million	2008	2007
Acquisition cost	53	39
Accumulated depreciation at 1 January	-10	-7
Depreciation charge for the year	-4	-2
Carrying amount	39	30

The assets leased by financial lease agreements are classified as machinery and equipment. Fortum acts also as a lessor and has leased out property, plant and equipment for EUR 70 million (2007: 88), which are not included in property, plant and equipment in the consolidated financial statements.

## 20.4 Assets leased out by operating lease agreements

EUR million	2008	2007
Acquisition cost	174	174
Accumulated depreciation at 1 January	<b>–99</b>	-92
Depreciation charge for the year	-7	-7
Carrying amount	68	75

Fortum has leased out its 308 MW share of the Meri-Pori power plant from January 2007 to the end of June 2010.

# **21** Participations in associated companies and joint ventures

EUR million	2008	2007
Historical cost		
On 1 January	1,721	1,498
Exchange rate differences and other adjustments	-94	-4
Acquisitions	7	1
New share issues and shareholders' contributions	1	294
Increase through acquisition of subsidiaries	36	-
Reclassifications	-3	-
Divestments	-13	-68
Historical cost on 31 December	1,655	1,721
Equity adjustments to participations in associates and joint ventures	······································	
On 1 January	1,132	699
Exchange rate differences and other adjustments	-122	-2
Share of profits of associates	126	241
Dividends received	<b>–</b> 51	-178
Fair-value and other adjustments in equity	-628	372
Equity adjustments on 31 December	457	1,132
Carrying amount on 31 December	2,112	2,853

The carrying amount of investments in associated companies at the end of 2008 was EUR 2,112 million (2007: 2,853). Fortum owns shares in one (2007: three) company classified as joint venture. The total carrying value of this joint venture was EUR 40 million (2007: 61).

#### 21.1 Investments

In 2008 Fortum acquired a 14.73% share in UAB Klaipedos Energija from Stadtwerke Leipzig GmbH. Fortum now owns a 19.63% share of the company. UAB Klaipedos Energija generates and distributes district heat to the residents and industries in the cities of Klaipeda and Gargzdai. The net sales of the company are around EUR 27 million, annual heat sales 1 TWh and power sales 20 gigawatthours (GWh). The investment was EUR 7 million.

Through the acquisition of TGC-10 in March 2008, Fortum acquired a shareholding in Kurgan Generating Company.

No major acquisitions of new associated companies were made in 2007. In September 2007 Fortum participated in the share issue of Russian Territorial Generating Company 1 (TGC-1). The total value of Fortum's subscription was approximately 8.5 billion rubles or EUR 243 million. With this subscription, Fortum maintained its 25.7% stake in TGC-1 and its position as the second largest shareholder of the company.

In 2007, Fortum also participated in the share issue of Teollisuuden Voima Oyj (TVO) with a total amount of EUR 49 million. Olkiluoto 3, the nuclear power plant being built by TVO, is funded through external loans, share issues and shareholder loans according shareholder agreement between the owners of TVO.

#### 21.2 Divestments

During 2008 Fortum sold its 50% shareholding in Panjin Liaohe Thermal Power Company Co in China and its 30% shareholding in Polartest Oy and its 33% shareholding in the Herbrechtingen GmbH.

In August 2007 Fortum sold its 35% shareholding in JSC Lenenergo, an electricity distribution company in the City of St. Petersburg and the Leningrad Region. A capital gain of EUR 232 million was recorded.

## 21.3 Share of profits from associates

Some of the principal associates present their financial statements according to local accounting principles. Fortum makes adjustments to the reported numbers to ensure consistency with policies adopted by the Group. If information is not available, the share of profit of associated companies is based on the previous quarterly information.

Fortum's share of profits from associates for 2008 amounts to EUR 126 million (2007: 241), of which Hafslund represents EUR 48 million (2007: 219) and TGC-1 EUR 17 million. Share of profits from associates also includes Fortum share of the Swedish nuclear associates Forsmarks Kraftgrupp AB and OKG AB with EUR 47 million (2007: 2), of which EUR 42 million is due to accounting of nuclear related assets and liabilities.

• See Note 35 Nuclear related assets and liabilities.

In 2007 Hafslund sold approximately one third of its holdings in Renewable Energy Corporation (REC). As a consequence Fortum booked a gain of EUR 180 million as share of profits of associates due to the accounting policies following. According to Fortum group accounting policies, the share of profits from Hafslund has been included in Fortum Group figures based on the previous quarter information.

#### 21.4 Dividends received

Dividends received include dividend from Hafslund amounting to EUR 24 million (2007: 145).

## 21.5 Fair value adjustments in equity

When calculating the share of profits in Fortum's associated company Hafslund ASA, Fortum has in accordance with Fortum's accounting policies, reclassified Hafslund's accounting treatment for the shareholdings in REC and Fesil Holding AS. Hafslund has classified the shareholdings in REC and Fesil Holding AS as financial assets at

fair value through profit and loss, while Fortum has classified the shareholdings as available for sale financial assets with fair value changes directly through equity. Only if Hafslund would divest shares in REC and Fesil Holding AS would the cumulative fair value change effect Fortum's income statement. Since REC is listed in the Oslo stock exchange, Fortum is accounting for the fair value change in price in Oslo stock exchange at each closing date. The amount of shares is based on the amount published by Hafslund in the previous quarter if other information is not available.

The cumulative fair value change booked in Fortum's equity and based on the remaining number of shares reported by Hafslund was EUR 126 million at the end of the year 2008 (2007: 793).

Hafslund accounted for a value growth after establishing a new ownership structure in Fesil Holding AS. Fortum's share of this value growth EUR 10 million has been recorded directly to equity in Fortum.

## 21.6 Principal associated companies

## Book values of principal associates

EH	ъ.	:	11:	_	

			Participation in % Book		Book value	ook value in Group	
Company	Segment Domicile	Domicile	2008	2007	2008	2007	
Kemijoki Oy	Power Generation	Finland	18	18	250	256	
Teollisuuden Voima Oyj (TVO)	Power Generation	Finland	26	26	220	238	
OKG AB	Power Generation	Sweden	46	46	131	85	
Forsmarks Kraftgrupp AB	Power Generation	Sweden	26	26	110	86	
Gasum Oy	Heat	Finland	31	31	105	111	
Fingrid Oyj	Distribution	Finland	25	25	99	102	
Territorial Generating Company 1 (TGC-1)	Russia	Russia	26	26	394	452	
Hafslund ASA	Other	Norway	34	34	488	1,202	
Total					1,797	2,532	
Others					315	321	
Carrying amount of associ					2,112	2,853	

Fortum owns 63.8% of the hydro shares and 15.4% of the monetary shares in Kemijoki Oy. Each owner of hydro shares is entitled to the hydropower production in proportion to its hydro shareholding. Fortum's total ownership is 17.5% of the share capital. Since Fortum has significant influence due to its representation on the board of directors and participation in policy-making processes, Kemijoki Oy is accounted for as an associated company.

TVO has three series of shares which entitles the shareholders to electricity produced in the different power plants owned by TVO. Series A entitles to electricity produced in nuclear power plants Olkiluoto 1 and 2, series B entitles to electricity in the nuclear power plant presently being built, Olkiluoto 3, and series C to electricity produced in TVO's share of the thermal power plant Meri-Pori. The Meri-Pori power plant is a

jointly controlled asset between Fortum and TVO. Fortum accounts for its 54.55% of the assets and TVO for 45.45%.

• See also jointly controlled assets in Note 1.12.1 in Accounting principles.

Fortum owns 25.7% of the shares in Territorial Generating Company 1, TGC-1. TGC-1 was formed in late 2006 by mergers of several Russian companies. TGC-1 has published IFRS 2007 Financial statements in June 2008. Fortum has in Q2 2008 reporting started to account TGC-1 according to the equity method as TGC-1 prepares IFRS financial statements annually. The share of profits will be accounted for once a year in Q2 based on published IFRS Financial Statements for the previous year.

Market value, based on market quotations of listed principal associated companies 31 December (Hafslund ASA and TGC-1) was EUR 572 million (Hafslund 465 and TGC-1 107) (2007: 2,151). Market value for TGC-1 was EUR 107 million (2007: 847), based on market quotation. The low market quotation for the TGC-1 share is effected by the low liquidity of the TGC-1 shares in the Russian stock exchange during 2008. Less than 0.03% of the company's shares were publicly traded since August 2008.

## Assets, liabilities, sales and profit and loss as presented by the Group's principal associates are as follows – 2008

Domicile	Assets	Liabilities	Sales	Profit/ loss	owner- ship, %	votes, %
Finland	421	285	42	-7	18	18
Finland	3,787	2,873	116	-11	26	26
Sweden	1,483	1,470	395	1	46	46
Sweden	1,253	1,218	481	0	26	26
Finland	618	260	843	17	31	31
Finland	1,572	1,111	280	28	25	33
Russia	2,085	441	805	68	26	26
Norway	4,020	1,981	977	-1,381	34	33
	Finland Finland Sweden Sweden Finland Finland Russia	Finland 421 Finland 3,787 Sweden 1,483 Sweden 1,253 Finland 618 Finland 1,572 Russia 2,085	Finland         421         285           Finland         3,787         2,873           Sweden         1,483         1,470           Sweden         1,253         1,218           Finland         618         260           Finland         1,572         1,111           Russia         2,085         441	Finland         421         285         42           Finland         3,787         2,873         116           Sweden         1,483         1,470         395           Sweden         1,253         1,218         481           Finland         618         260         843           Finland         1,572         1,111         280           Russia         2,085         441         805	Domicile         Assets Liabilities         Sales         loss           Finland         421         285         42         -7           Finland         3,787         2,873         116         -11           Sweden         1,483         1,470         395         1           Sweden         1,253         1,218         481         0           Finland         618         260         843         17           Finland         1,572         1,111         280         28           Russia         2,085         441         805         68	Domicile         Assets         Liabilities         Sales         loss         ship,%           Finland         421         285         42         -7         18           Finland         3,787         2,873         116         -11         26           Sweden         1,483         1,470         395         1         46           Sweden         1,253         1,218         481         0         26           Finland         618         260         843         17         31           Finland         1,572         1,111         280         28         25           Russia         2,085         441         805         68         26

1) Power plants are often built jointly with other power producers. Under the consortium agreements, each owner is entitled to electricity in proportion to its share of ownership or other agreements and each owner is liable for an equivalent portion of costs. The associated companies are not profit making, since the owners purchase electricity at production cost including interest cost and income taxes. (Note 43 Related party transactions).

2) Based on September 2008 figures. Gasum Oy reports profit before taxes. The figure has been decreased with nominal tax 26% in this table.

3) Based on June 2008 figures.

4) Based on December 2007 figures.

Some of the principal associates present their financial statements according to local accounting principles. Fortum makes adjustments to the reported numbers to ensure consistency with policies adopted by the Group. If information is not available, the share of profit of associated companies is based on the previous quarterly information.

#### 21.7 Transactions and balances

#### Associated company transactions

EUR million	2008	2007
Sales to associated companies	113	129
Interest on associated company loan receivables	34	26
Purchases from associated companies	563	519

Purchases from associated companies are purchases of nuclear- and hydropower at production costs.

• See Note 43 Related party transactions.

## Associated company balances

EUR million	2008	2007
Receivables from associated companies		
Long-term interest-bearing loan receivables	659	636
Trade receivables	24	17
Other receivables	5	7
Liabilities to associated companies		
Long-term loan payables	184	171
Trade payables	26	25
Other payables	18	53

Long-term interest-bearing receivables are mainly from Swedish nuclear companies, OKG AB and Forsmarks Kraftgrupp AB EUR 594 million (2007: 567). Investments in Swedish nuclear companies are financed through loans from owners of the nuclear companies, pro rata ownership.

## Transactions and balances with joint ventures

EUR million	2008	2007
Purchases	1	1
Receivables from joint ventures	3	3

There were no outstanding loans receivable from joint ventures on 31 December 2008 or 2007.

## **22** Other non-current assets

EUR million	2008	2007
Available for sale financial assets	40	42
Defined benefit pension asset	59	14
Other	18	43
Total	117	99

Available for sale financial assets, i.e. shares which are not classified as associated companies or joint ventures, consists mainly of shares in unlisted companies of EUR 39 million (2007: 42), for which the fair value can not be reliably determined. These assets are measured at cost less possible impairment.

Available for sale financial assets include listed shares at fair value of EUR 1 million (2007: 0). The cumulative fair value change booked in Fortum's equity was EUR -1 million (2007: 0).

\* For information regarding defined benefit pension assets, please see Note 34 Pension obligations on page 159.

## 23 Long-term and short-term interest-bearing receivables

EUR million	2008	2007
Long-term loan receivables	672	648
Finance lease receivables	70	88
Total long-term interest-bearing receivables	742	736
Other short-term interest-bearing receivables	46	10
Short-term finance lease receivables	11	1
Total short-term interest-bearing receivables 1)	57	11
Total	799	747

1) Included in trade and other receivables in balance sheet.

Long-term loan receivables include receivables from associated companies EUR 659 million (2007: 636), mainly from Swedish nuclear companies, OKG AB and Forsmarks Kraftgrupp AB EUR 594 million (2007: 567). These companies are mainly funded with shareholder loans, pro rata each shareholders ownership.

Long-term loan receivables also include receivables from Teollisuuden Voima Oyj (TVO) amounting to EUR 45 million (2007: 45). Olkiluoto 3, the nuclear power plant being built by the associated company TVO, is funded through external loans, share issues and shareholder loans according shareholder' agreement between the owners of TVO.

For information regarding credit risks, see Note 3 Financial risk management on page 123.

## 23.1 Interest-bearing receivables

EUR million	Effective interest rate	Carrying amount 2008	Repricing under 1 year	Repricing 1–5 years	Repricing over 5 years	Fair value 2008	Carrying amount 2007	Fair value 2007
Long-term loan receivables	4.3	672	663	9	-	686	648	657
Finance lease receivables	6.9	81	37	5	39	100	88	103
Total long-term interest-bearing receivables 1)	4.6	753	700	14	39	786	736	760
Other current receivables	5.4	46	46	-	_	46	11	11
Total interest-bearing receivables	4.6	799	746	14	39	832	747	771

<sup>1)</sup> Including current portion of long-term receivables.

Fortum held 31 December 2008 mortgage as collateral for other interest-bearing receivables amounting to EUR 11 million (2007: 11).

#### 23.2 Finance lease receivables

Fortum owns assets (mainly CHP- and heating plants) that it leases to customers under financial leasing agreements in Finland, Sweden and Estonia. These assets are recorded at the gross investment cost in the lease, less unearned financial income. The average lease term is approximately 10 years. Of all contracts, 4.9 percent carry a floating interest rate and 95.1 percent a fixed rate.

EUR million	2008	2007
Gross investment in finance lease contracts	110	118
Less unearned finance income	29	29
Present value of future minimum lease payment receivables	81	89

#### Maturity of finance lease receivables

EUR million	2008	2007
Gross investment		
Less than 1 year	16	16
1–5 years	65	73
Over 5 years	28	29
Total	109	118

#### Present value of future minimum lease payments receivables

EUR million	2008	2007
Less than 1 year	11	11
1–5 years	48	55
Over 5 years	22	23
Total	81	89

No contingent rents were recognised in income statement neither in 2008 nor in 2007.

## **24** Inventories

EUR million	2008	2007
Nuclear fuel	78	61
Coal	189	76
Oil	35	36
Biofuels	59	60
Other inventories	83	52
Total	444	285

No impairment costs have been booked related to inventories neither in 2008 nor in 2007.

## **25** Trade and other receivables

EUR million	2008	2007
Trade receivables	849	840
Income tax receivables	94	37
Accrued interest income	9	2
Accrued income and prepaid expenses	94	52
Other receivables	132	92
Finance lease receivables	11	1
Other interest-bearing receivables	46	10
Total	1,235	1,034

The management consider that the carrying amount of trade and other receivables approximates their fair value.

#### 25.1 Trade receivables

#### Ageing analysis of trade receivables

	20	2008		2007	
EUR million	Gross	Impaired	Gross	Impaired	
Not past due	811	-	805	-	
Past due 1–90 days	37	2	31	-	
Past due 91–180 days	5	2	4	-	
Past due more than 181 days	34	34	23	23	
Total	887	38	863	23	

Impairment losses recognised in the income statement were EUR 11 million (2007: 2). The increase is mainly due to impairment losses in TGC-10 (consolidated from 31 March 2008), which amounts to EUR 8 million. As of 31 December 2008, trade receivables of EUR 38 million (2007: 23) were impaired and provided for, of which EUR 23 million refers to TGC-10.

For information regarding impairment losses by segment, see Note 5 Segment reporting on page 130.

## Trade receivables by currencies

EUR million	2008	2007
EUR	318	268
SEK	399	500
NOK	37	35
USD	1	1
PLN	29	30
RUB	74	-
Other	29	29
Total	887	863

Trade receivables are arising from large number of customers mainly in EUR and SEK mitigating the concentration of risk. Fortum held 31 December 2008 bank guarantee as collateral for trade receivables amounting to EUR 8 million (2007: 10).

## **26** Liquid funds

EUR million	2008	2007
Cash at bank and in hand	77	100
Bank deposits with maturity under 3 months	656	327
Cash and cash equivalents	733	427
Bank deposits with maturity more than 3 months	588	-
Liquid funds	1,321	427

Short-term and long-term bank deposits include bank deposits held by TGC-10 amounting to EUR 426 million and EUR 588 million respectively. Of TGC-10 short-term deposits at the year end 2008, EUR 70 million were euros and EUR 356 million Russian roubles. The corresponding numbers for long-term were EUR 434 million and EUR 154 million. The funds in TGC-10 are committed to the investment programme to further increase TGC-10 electricity capacity. The bank deposits in euros held by TGC-10 are hedging future payments in euros.

Maturity of cash and cash equivalents is under 3 months.

For information regarding credit risks, see Note 3 Financial risk management on page 123 and for more information regarding the TGC-10 acquisition, see Note 7 Acquisitions and disposals on page 135.

## 27 Share capital

	20	2007		
EUR million	Number of shares	Share capital	Number of shares	Share capital
Registered shares at 1 January	886,683,058	3,040	887,393,646	3,023
Shares subscribed with options and registered by year-end	955,022	4	5,199,412	17
Cancellation of own shares	-	-	-5,910,000	-
Registered shares at 31 December	887,638,080	3,044	886,683,058	3,040
Unregistered shares	56,000		50,000	

Fortum has one class of shares. By the end of 2008, a total 887,638,080 shares had been issued. The nominal value of the shares is EUR 3.40 and each share entitles the holder to one vote at the Annual General Meeting. All shares entitle holders to an equal dividend. At the end of 2008 Fortum Corporation's share capital, paid in its entirety and entered in the trade register, was EUR 3,043,707,472.00.

The registered share capital exceeds the aggregate nominal value of the issued shares due to the cancellations of the company's own shares in 2006 and 2007 (in total 7,570,000 shares) without decreasing the share capital.

Fortum Corporation's shares are listed on NASDAQ OMX Helsinki. The trading code is FUM1V. Fortum Corporation's shares are in the Finnish book entry system maintained by the Finnish Central Securities Depository Ltd (name changed from 2 February 2009 to Euroclear Finland Ltd).

At the beginning of 2008, the Finnish State owned 50.86% of the Company's shares. After the changes in amount of shares during 2008, increase in amount of shares due to the share subscriptions under share option schemes for key employees the Finnish

State owned 50.80% of the company's shares at the end of the year. 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.

At the end of 2008, the President and CEO and other members of the Fortum management team owned 354,238 shares (2007: 317,030), representing less than 0.04% of the shares in the Company.

A full description of Fortum's equity incentive schemes is shown in Note 29 together with details on the President and CEO and other members of the Fortum management team's shareholdings and interest in the equity incentive schemes. A description of shares, share capital and shareholders in Fortum is shown in the Operating and financial review.

## 27.1 Treasury shares

Fortum Corporation's Annual General Meeting held on 1 April 2008 authorised the Board of Directors to decide on repurchasing the company's own shares by using funds available for distribution of profit. The authorisation is valid until next Annual General Meeting. The maximum amount of shares to be repurchased is 15 million. In addition, the amount of funds used for the repurchases may not exceed EUR 300 million. The maximum amount of shares to be repurchased corresponds to approximately two percent of the share capital of the company and the total voting rights.

The shares will be repurchased through public trading of securities NASDAQ OMX Helsinki at the market price of the shares at the time of the repurchase. The repurchases shall be carried out and settled according to the Rules of NASDAQ OMX Helsinki and the Rules of the Finnish Central Securities Depository (name changed from 2 February 2009 to Euroclear Finland Ltd).

Shares repurchased by the company shall be cancelled by a decision of the Board of Directors. The repurchase will reduce the company's distributable retained earnings but will not have a material impact on the division of the ownership of the shares and the voting rights.

There were no share repurchases during the year 2008. The amount of shares repurchased in 2007 was 5,910,000 and the cost was EUR 175 million. In December 2007 the Board of Directors decided to cancel the total amount of repurchased shares without decreasing the share capital. The cancellation was entered in the Trade Register on 20 December 2007.

## 27.2 Other convertible bond loans, bonds with warrants and unused authorisations

Fortum Corporation has issued no other convertible bonds or bonds with attached warrants, which would entitle the bearer to subscribe for Fortum shares. The Board of Directors of Fortum Corporation has today no unused authorisations from the General Meeting of shareholders to issue convertible bond loans or bonds with warrants or increase the company's share capital.

## **28** Fair value and other reserves

EUR million	Net investment	Hedging	Share-based	AFS	Other fair value changes	Total
Balance on	investment	reserve	payments	AFS	cnanges	Iotai
31 December 2007	19	-120	16	793	7	715
Cash flow hedges				•••••••••••••••••••••••••••••••••••••••	***************************************	
Fair value gains/ losses in period	-	453	-	-	-	453
Tax on fair value gains/ losses	-	-128	-	-	-	-128
Transfers to income statement	-	160	-	-	-	160
Tax on transfers to income statement	-	-42	-	-	-	-42
Transfers to inventory/ fixed assets	-	-4	-	-	-	-4
Tax on transfers to inventory/ fixed assets	-	1	-	-	-	1
Net investment hedge	-	-	_	-	-	_
Tax on net investment hedge	-	-	-	-	-	-
Changes due to business combinations	-	-	-	-	2	2
Other equity changes in associates and available for sale financial assets	-	-	-	-667	35	-632
Balance on 31 December 2008	19	320	16	126	44	525
EUR million	Net investment	Hedging reserve	Share-based payments	AFS	Other fair value changes	Total
Balance on			poyments	7.00		
31 December 2006	17	50	10	446	-12	511
Cash flow hedges			***************************************			
Fair value gains/losses in period		-165		_	_	-165
Tax on fair value gains/ losses	-	46		-	-	46
Transfers to income statement	-	-69		-	-	-69
Tax on transfers to income statement	-	18		-	-	18
Net investment hedge	2	-		_	-	2
ivee investment neage				_	-	-
Tax on net investment hedge	-	-	-			
Tax on net investment hedge	-	-	- 6		-	6
Tax on net		- - -	•	347	- 19	366

Hedging reserve includes fair value changes of those derivatives getting hedge accounting under IAS 39. Major part of these fair value changes (numbers presented before deferred taxes) relates to cash flow hedges hedging electricity price risk amounting to EUR 382 million (2007: –167), EUR 58 million (2007: –9) relates to cash flow hedges hedging foreign currency risk in future payments of certain investments and purchases, and EUR –9 million (2007: 11) relates to interest rate hedges, see Note 3 Financial risk management.

Fair value changes for available for sale financial assets include the fair value change of the Renewable Energy Corporation shareholding in Hafslund, (see Note 21 Participations in associated companies and joint ventures) and the fair value change on Fortum's own shareholdings in available for sale financial assets (see Note 22 Other non-current assets).

## Cash flow hedges - amount moved from equity to income statement by line item

EUR million	2008	2007
Included in operating profit	160	-81
Included in financial costs	0	12
Total cash flow hedges - amounts moved from equity to income statement	160	-69

# **29** Employee bonus system, personnel fund and incentive schemes

## 29.1 Employee bonus system

Fortum's short-term incentive system (called annual bonus below) exists to support the Group's values, the achievement of financial targets and structural changes, as well as to secure an alignment between the performance targets of the individual employee and the targets of the Group or his/her business unit. Traditionally all Fortum employees are covered by the annual bonus system. In 2008, Poland and Russia were still exceptions.

The criteria used in determining the size of the bonus for senior management (President and CEO and other members of Fortum's Management Team) are decided annually by the Board of Directors on the recommendation of the Board's Nomination and Compensation Committee. The size of each senior executive's annual bonus is dependent on the Group's financial performance, as well as on their own success in reaching their individual goals. If the financial targets and personal goals are met, each senior executive receives a 25% bonus. The maximum bonus level, in the case when all targets and goals are exceeded, is 40% of the person's annual salary including fringe benefits.

For executives with business unit responsibilities, the scheme reflects the performance of their business unit. The criteria for evaluating an executive's personal performance are mutually agreed between the executive and his/her superior in an annual performance discussion at the beginning of each year. The performance of the President and CEO is evaluated annually by the Board of Directors.

For further information on bonus costs for senior management, see Note 12 Management Remuneration and Employee Costs on page 138.

#### 29.2 Fortum Personnel Fund

The Fortum Personnel Fund (for employees in Finland only) has been in operation since 2000. The Board of Directors determines the criteria for the fund's annual profit-sharing bonus. Persons included in the Management Performance Share Arrangement are not eligible to be members of this fund. Members of the personnel fund are the permanent and fixed-term employees of the Group. The membership of employees joining the company starts at the beginning of the next month after the employment relationship has been on-going for six months. Fund membership terminates when the member has received his/her share of the fund in full.

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

The amount available for withdrawal is decided each year and it is paid to members who want to exercise their withdrawal rights. Since 2005, employees have had the choice of having the amount paid in Fortum shares acquired by the personnel fund.

The fund's latest financial year ended at 30 April 2008 and the fund then had a total of 3,187 members (2007: 3,491). At the end of April 2008 Fortum contributed EUR 4.3 million (2007: 4.6) to the personnel fund as an annual profit-sharing bonus based on the financial results of 2007. The combined amount of members' shares in the fund was EUR 22.7 million (2007: 27.8).

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

#### 29.3 Incentive Schemes

## 29.3.1 Long-term incentive schemes

Fortum's Management Performance Share Arrangement (LTI) is a performance-based, long-term incentive arrangement. It was launched in 2003 to support the achievement of the Group's long-term goals by attracting and retaining key personnel. The last plan under this arrangement (called previous arrangement below) started in 2007 and will end in 2012. In January 2008, the arrangement was further developed (called new arrangement below).

At present, approximately 160 managers, all of whom have been elected by the Board of Directors, are participants in at least one of the six on-going annual LTI plans. The 2006–2011 LTI plan is for non-stock option holders only. The President and CEO is not participating in new plans started in 2008 and 2009.

Each LTI plan in the previous arrangement comprises of two three-year periods following each other. The plan starts with a three-year earning period, during which the person earns annual bonus based on the performance of the Group, the relevant business unit and the achievements of the individual participant. The grant date when the amount of the potential reward as a calculative amount of share rights is decided is determined by the Board of Directors following the announcement of the Group's annual results for the last calendar year after the earning period has ended. The maximum value in share rights a participant can be granted after the three years earning period cannot at the grant date exceed the participant's one-year salary including fringe benefits.

The earning period of the previous arrangement is followed by an approximately three year restriction period which ends at the cash-settlement of the earned reward provided that the participant remains employed by the Group. The potential reward under each annual LTI plan is adjusted during the restriction period by potential dividends paid up until the settlement date, which takes place at the end of the restriction period. The participant has approved that the earned reward will be used to acquire Fortum shares in the name of the participant deducted by the income tax and the statutory employment related expenses and insurance contributions payable by the participant on the reward.

Based on the previous LTI arrangement, the first annual share plan began in 2003 and was based on the 2002 financial results. After the three-year earning period, in spring 2005, share rights belonging to the first plan were granted to the participants. The shares, based on these share rights, were delivered to the participants in February 2008. In 2006, the earning period of the consecutive plan (2003–2008) ended and share rights belonging to this plan were granted to the participants and were delivered in February 2009. In 2007, the share rights from plan 2004–2009 and in 2008, the share rights from plan 2005–2010 were granted to the participants.

Under the new arrangement a new performance share plan starts annually if approved by the Board of Directors and runs for a five-year period. Each share plan begins with a three-year earning period, followed by a two-year lock-up period. The individual number of share rights delivered after the three-year earning period is based on the achievement of the earnings criteria set by the Board of Directors. The earnings criteria are set annually, and may vary from year to year. The maximum value in share rights a participant can be granted after the three years earning period cannot at the grant date exceed the participant's one-year salary including fringe benefits. The participant has approved that the earned reward will be used to acquire Fortum shares in the name of the participant deducted by the income tax and the statutory employment related expenses and insurance contributions payable by the participant on the reward.

During the lock-up period the shares may not be sold, transferred, pledged or disposed in any other way. Dividends and other financial returns paid on the shares during the lock-up period are, however, not subject to restrictions. The shares will be released from the lock-up after publishing of the Company's financial results for the fifth calendar year of an individual plan.

The first share rights under the new arrangement will be delivered to the participants in 2011 and will be released from the lock-up in 2013.

The LTI arrangement is treated as a cash-settled arrangement. The total LTI liability including provisions for social charges at the end of the year 2008 was EUR 22 million (2007: 37). The expense recorded in the personnel costs for the period was EUR 19 million (2007: 7) netted with the change in the fair values of the hedge arrangements.

Under the previous LTI arrangement in order to hedge the Group against the changes in the fair values of the potential rewards the Group has entered into share forward transactions which are settled in cash. The change during the year 2008 in the fair values of the hedge arrangements for the 2003–2008, 2004–2009 and 2005–2010 plans amounted to EUR –24 million (2007: 18). The change is netting personnel expenses with a corresponding entry in other non-current liabilities (long-term receivables in 2007). Under the new LTI arrangement Fortum has no obligation to hedge or otherwise protect the value of the shares for the participants during the lock-up period.

#### Calculative share rights granted

	Plan 2005–2010	Plan 2004–2009	Plan 2003–2008	Plan 2002–2007
Grant date	8.2.2008	8.2.2007	13.2.2006	11.2.2005
Grant price, EUR	27.54	20.99	19.07	14.51
Number of share rights granted	303,153	496,362	514,903	573,885
Outstanding at the beginning of the period	0	508,844	534,775	814,209
Granted during the period	303,153	0	0	0
Dividend adjustments during the period	16,519	26,602	27,935	0
Payments during the period	-9,343	-32,843	-36,239	-806,166
Cancelled during the period	-409	-6,426	-7,975	-8,043
Outstanding at the end of the period	309,920	496,177	518,496	0
Estimated departures, %	4.52	4.52	4.52	4.52
Fortum share price at the end of the grant year, EUR	15.23	30.81	21.56	15.84

The fair value of the potential reward is measured based on the market value of Fortum share at each closing date and at the grant date taking into account the estimated departures. The changes of the fair values of the potential rewards are accrued over the remaining vesting period. The income tax and other statutory employment related expenses and insurance contributions payable by the participant will be deducted from the outstanding amounts at the payments.

#### 29.3.2 Net calculative share rights granted to the management

The calculative share rights with adjustment for dividends and after taxes (assumed average tax deduction of 56%) that the President and CEO and other members of the Fortum Management Team will receive in 2010 and 2011 are at 31 December as follows. For 2009 (2008) the number of shares represents the actual number of shares delivered in February 2009 (February 2008).

Name	Year 2008	Year 2009	Year 2010	Year 2011
Mikael Frisk	10,450	6,292	5,661	3,502
Timo Karttinen	8,622	5,174	4,792	2,988
Tapio Kuula	14,415	8,682	7,813	5,168
Juha Laaksonen	12,010	7,227	6,504	4,718
Mikael Lilius	36,756	22,423	20,446	14,871
Christian Lundberg	10,762	6,667	6,232	3,861
Maria Paatero-Kaarnakari (from 1 September 2007)	3,721	2,643	2,353	1,592
Maria Romantschuk (from 1 September 2007)	-	-	-	-

## 29.4 Stock option schemes with expiry date later than 2008

#### 29.4.1 Stock option scheme for key employees (2002)

In March 2002, a resolution was passed to issue a maximum of 25,000,000 stock options to key employees of the Fortum Group and to a wholly owned subsidiary of Fortum Corporation. Of the total number of stock options, 12,500,000 were marked with the letter A and were exercisable from 1 October 2004 through 1 May 2007, and 12,500,000 are marked with the letter B and are exercisable from 1 October 2006 through 1 May 2009. The Board of Directors could distribute stock options to the key personnel, only if the increase in Fortum Group's earnings per share (EPS) was at least five percent compared with the preceding period. The proportion of the annual maximum amount that became available for distribution was influenced by the Company's relative share price development compared to the European Utilities Index during a period of twelve calendar months preceding the month that the stock options were distributed.

The total number of stock options marked with a letter A listed on 1 October 2004 was 10,767,000. Each stock warrant entitled the holder to subscribe for one share. The warrants were exercisable during the period from 1 October 2004 through to 30 April 2007. By the end of the option 2002 A scheme in April 2007, a total of 10,767,000 shares were subscribed for and entered into the trade register. This scheme covered some 350 persons.

The total number of stock options marked with a letter B listed on 2 October 2006 was 10,003,000. Each stock warrant entitles the holder to subscribe for one share. The warrants are exercisable during the period from 2 October 2006 to 30 April 2009. By the end of 2008, a total of 9,274,035 shares were subscribed for and entered into the trade register with the stock options marked with a letter B. At the end of 2008 total of 728,965 shares could still have been registered with the stock options 2002B such that the share capital is increased by a maximum of EUR 2,478,481, which corresponds to 0.1% of the share capital at the end of 2008. At the end of 2008, the subscription price of the stock options marked with the letter B was EUR 3.40. This scheme covered some 350 persons.

The entitlement of the shares subscribed for with the 2002A or B options to dividend, and other shareholder rights, will commence once the increase in the share capital has been registered. The stock options are freely transferable, when the relevant share subscription period has commenced.

#### Movements in the number of share options outstanding and their related weighted average exercise prices are as follows

	2008		200	7
	Weighted average exercise price, EUR	Number of options (thousand)	Weighted average exercise price, EUR	Number of options (thousand)
Outstanding at the beginning of the period	3.40	1,684	3.40	6,883
Granted during the period	-	_	-	-
Forfeited during the period	-	-	-	-
Exercised during the period	3.40	955	3.40	5,199
Expired or cancelled during the period	-	-	-	-
Outstanding at the end of the period		729		1,684
Exercisable at the end of the period		729	•	1,684

#### 29.4.2 Fair value of stock options

In compliance with IFRS, the fair value was defined for 2002B options that were granted 15 April 2003 and vested 2 October 2006. The fair value of transferable 2002B options was determined at the grant date by using the Binomial valuation model and was expensed over the vesting period, which ended 2 October 2006.

#### 29.5 Management shareholding and stock options

On 31 December 2008, the members of the Supervisory Board of Fortum Corporation owned a total of 690 shares (2007: 200) or 0.0% of the shares and voting rights. The members of the Board of Directors owned a total of 38,991 shares (2007: 31,591), which corresponds to 0.0% of the company's shares and voting rights.

The President and CEO and other members of the Fortum Management Team owned a total of 354,238 shares (2007: 317,030) which corresponds to less than 0.04% (2007: 0.036%) of the company's shares and voting rights. The President and CEO and other members of the Fortum Management Team members did not have any remaining stock options on 31 December 2008.

#### Shares held by member of the Board of Directors

	2008	2007
Peter Fagernäs	30,591	30,591
Christian Ramm-Schmidt	3,500	1,000
Ilona Ervasti-Vaintola	4,000	-
Birgitta Johansson-Hedberg	900	-
Total	38,991	31,591

## Shares held by members of Fortum Management Team

	2008	2007
Mikael Frisk	25,350	14,900
Timo Karttinen	38,622	30,000
Tapio Kuula	64,465	50,050
Juha Laaksonen	20,000	20,000
Mikael Lilius	170,050	170,050
Christian Lundberg	30,000	30,000
Maria Paatero-Kaarnakari (from 1 September 2007)	5,751	2,030
Maria Romantschuk (from 1 September 2007)	-	-
Total	354,238	317,030

## **30** Minority interests

#### Principal minority interests

EUR million		2008	2007
AB Fortum Värme Holding samägt med Stockholms stad	Sweden	259	270
TGC-10	Russia	164	-
Tartu Energi Group	Estonia	5	5
Ekerö Energi Group	Sweden	4	4
Hofors Energi AB	Sweden	4	-
Fortum Wroclaw S.A.	Poland	-	1
Jyväskylän Energiatuotanto Oy	Finland	-	4
Other	•	21	8
Total minority interests		457	292

Acquisitions during 2008 effecting minority interests in the group consists mainly of the acquisition of 93.4% of the shares in TGC-10, leaving 6.6% as a minority. Fortum also acquired 11% of the shares in Hofors Energi AB in Sweden, resulting in a 60% ownership.

During 2008 Fortum continued to acquire shares in its Polish subsidiaries. Fortum reached 100% ownership in Fortum Wroclaw S.A and the company has been merged to Fortum Power and Heat Polska Sp z.o.o. at year-end.

The only divestment in 2008 effecting minority interests consists of the sale of the 60% shareholding in Jyväskylän Energia which took place at year-end.

Fortum owns, via Fortum Power and Heat AB, 90.1% of the shares which represents 50.1% of the votes in AB Fortum Värme Holding samägt med Stockholms stad. 9.9% of the shares are owned by the City of Stockholm. The City of Stockholm holds preference shares in AB Fortum Värme Holding samägt med Stockholms stad, which entitles them 50% of the economical interest. The ownership and administration of AB Fortum Värme Holding samägt med Stockholms stad is settled by a consortium agreement.

## **31** Interest-bearing liabilities

EUR million	2008	2007
Bonds	2,495	2,820
Loans from financial institutions	3,016	467
Finance lease liabilities	26	30
Other long-term interest-bearing debt	983	971
Total long-term interest-bearing debt	6,520	4,288
Current portion of long-term bonds	422	541
Current portion of loans from financial institutions	31	36
Current portion of other long-term interest-bearing debt	1	1
Current portion of financial lease liabilities	6	1
Commercial papers	457	-
Other short-term interest-bearing debt	63	26
Total short-term interest-bearing debt	980	605
Total	7,500	4,893

#### Interest-bearing debt

EUR million	Effective interest rate	Carrying amount 2008	Repricing under 1 year	Repricing 1–5 years	Repricing over 5 years	Fair value 2008	Carrying amount 2007	Fair value 2007
Bonds	5.0	2,918	744	1,180	994	2,925	3,361	3,416
Loans from financial institutions	4.0	3,047	3,028	1	18	3,115	503	515
Other long-term interest-bearing debt 1)	4.3	1,015	991	17	7	1,032	1,003	1,007
Total long-term interest-bearing debt <sup>2)</sup>	4.5	6,980	4,763	1,198	1,019	7,072	4,867	4,938
Commercial papers	5.2	457	457	-	-	467	-	-
Other short-term interest-bearing debt	11.5	63	63	-	_	64	26	26
Total short-term interest-bearing debt	5.9	520	520	-	-	531	26	26
Total interest-bearing debt	4.6 <sup>3)</sup>	7,500	5,283	1,198	1,019	7,603	4,893	4,964

- 1) Includes loan from State Nuclear Waste Management Fund and Teollisuuden Voima Oyj EUR 708 million (2007: 658), financial leases EUR 32 (2007: 31), loans from from Fortum's Finnish pension fund EUR 33 million (2007: 33) and other loans EUR 242 million (2007: 281).
- 2) Including current portion of long-term debt.
- 3) The average interest rate on loans and derivatives on December 31, 2008 was 4.7% (2007: 4.6%).

Fortum raised a syndicated loan facility of EUR 3,500 million in 2008. The loan facility is structured as a 3-year term loan of EUR 2,000 million used for acquisition financing of TGC-10, and as a 5-year revolving credit facility of EUR 1,500 million used for general corporate purposes. As per year end the 3-year term loan was fully drawn while EUR 600 million was drawn under the 5-year revolving credit facility. During the year long-term bonds of EUR 500 million, EUR 20 million and SEK 200 million were repaid. Issuance of Commercial Papers (CPs) in the Finnish and Swedish markets increased in 2008, per year-end the amount of short-term CPs outstanding amounted to EUR 457 million (2007: 0). Debt in TGC-10 amounted to the equivalent of EUR 259 million as per year-end.

The reported interest-bearing debt increased during the year by EUR 2,607 million to EUR 7,500 million (2007: 4,893). Liquid funds increased by EUR 894 million to EUR 1,321 million (2007: 427) including liquid funds held by TGC-10 amounting to EUR 1,020 million.

For more information please see Note 3 Financial risk management on page 123, Note 38 Pledged assets on page 164 and Note 41 Contingent liabilities on page 165.

#### 31.1 Bond issues

Issued Maturity	Loan description 1)	Interest basis	Interest rate	Effective interest	Currency	Nominal million	Carrying amount 31.12.2008
2003/2010	Fortum Oyj EUR 5,000 Million EMTN Programme	Fixed	4.625	4.728	EUR	500	499
2003/2013	Fortum Oyj EUR 5,000 Million EMTN Programme	Fixed	5.000	5.164	EUR	500	497
2006/2011	Fortum Oyj EUR 5,000 Million EMTN Programme	Fixed	3.750	3.793	SEK	2,000	184
2006/2009	Fortum Oyj EUR 5,000 Million EMTN Programme	Floating	Stibor 3M+0.10		SEK	2,500	230
2006/2016	Fortum Oyj EUR 5,000 Million EMTN Programme	Fixed	4.500	4.615	EUR	750	756
2007/2012	Fortum Oyj EUR 5,000 Million EMTN Programme	Floating	Stibor 3M+0.15		SEK	3,500	322
2007/2014	Fortum Oyj EUR 5,000 Million EMTN Programme	Fixed	4.700	4.764	SEK	2,600	238
2007/2010	TGC-10	Fixed	7.600	7.745	RUB	3,000	72
2008/2013	TGC-10	Fixed	9.750	9.988	RUB	5,000	120
Total outstanding of	carrying amount 31 December 2008						2,918

1) EMTN = Euro Medium Term Note

TGC-10 has two bond loans of totally RUB 8,000 million with final maturity 2010 and 2013. The loan documentation includes a put option, giving bond holders the right to request redemption of the bonds in 2009. In the balance sheet these bonds are classified as short-term.

## 31.2 Finance lease liabilities

On 31 December 2008 Fortum had a small number of finance leasing agreements for machinery and equipment. No new leasing commitments were entered into in 2008 or 2007.

## Present value of finance lease liabilities

EUR million	2008	2007
Minimum lease payments	43	42
Less future finance charges	11	11
Total	32	31

## Maturity of minumum lease payments

EUR million	2008	2007
Less than 1 year	8	3
1–5 years	16	16
Over 5 years	19	23
Total	43	42

## Maturity of finance lease liabilities

EUR million	2008	2007
Less than 1 year	6	1
1–5 years	9	9
Over 5 years	17	21
Total	32	31

## **32** Deferred income taxes

#### The movement in deferred tax assets and liabilities during 2008

EUR million	1 Jan 2008	Charged to income statement	Charged in equity	Exchange rate differences, reclassifications and other changes	Acquisitions and disposals	31 Dec 2008
Deferred tax assets						
Property, plant and equipment	10	3		-1		12
Provisions	19	-2		-1		16
Tax losses and tax credits carry-forward	20	11	••••	•	•	31
Other	10	6	••••••	-1	•••••••••••••••••	15
Total deferred tax assets	59	18		-3		74
Offset against deferred tax liabilities	-56	-16	••••	•	•	-72
Deferred tax assets after offset	3	2		-3		2
Deferred tax liabilities		•••••		•••••	•••••••••••••••••••••••••••••••••••••••	
Property, plant and equipment	1,769	-93	••••	-180	198	1,694
Fair value adjustments	0	67	***************************************	•	•••••••••••••••••	67
Derivative financial instruments	-47	14	153	-2		118
Current assets	7	5	•	•	•••••••••••	12
Other	14	19	•••••	-1	••••••••••••	32
Offset against deferred tax assets	-56	-16	•	•	•	-72
Deferred tax liabilities after offset	1,687	-4	153	-183	198	1,851

Deferred income tax assets and liabilities are offset when there is a legally enforceable right to offset current tax assets against current tax liabilities and when the deferred income taxes relate to the same fiscal authority.

In December 2008 the Swedish Government passed legislation lowering the income tax rate from 28% to 26.3%. The one-time positive effect in the net deferred liabilities approximated EUR 81 million. Also December 2008 the Russian Government passed legislation lowering the income tax rate from 24% to 20%. The one-time positive effect in the net deferred liabilities approximated EUR 32 million.

See also Note 15 Income tax expense on page 141.

Deferred tax assets and liabilities from acquisitions 2008 mainly refer to the Russian acquisition of TGC-10.

Deferred tax assets of EUR 14 million (2007: 16) have not been recognised in the consolidated financial statements, because the realisation is not probable. The major part of the unrecognised tax asset (EUR 9 million) relates to capital loss in UK, which has no expiration date. The rest of the unrecognised tax assets (EUR 5 million) relates to loss carry-forwards that are unlikely to be used under the expiration date.

Deferred income tax liabilities of EUR 5 million (2007: 3) have been recognised for the withholding tax and other taxes that would be payable on the all unremitted earnings of Estonian subsidiaries. Unremitted earnings from these companies totalled EUR 23 million on 31 December 2008 (2007: 25).

#### The movement in deferred tax assets and liabilities during 2007

EUR million	1 Jan 2007	Charged to income statement	Charged in equity	Exchange rate differences, reclassifications and other changes	Acquisitions and disposals	31 Dec 2007
Deferred tax assets						
Property, plant and equipment	17	-7	-	-	-	10
Provisions	29	-10	-	-	-	19
Tax losses and tax credits carry-forward	9	11	-	-	-	20
Other	15	-5	-	-	_	10
Total deferred tax assets	70	-11	-	-	-	59
Offset against deferred tax liabilities	-65	9	••••		-	-56
Deferred tax assets after offset	5	-2	-	_	-	3
Deferred tax liabilities						
Property, plant and equipment	1,829	-8	-	-52	-	1,769
Derivative financial instruments	19	-5	-61	-	-	-47
Current assets	7	0	-	-	-	7
Other	5	9	-	-	-	14
Offset against deferred tax assets	-65	9	-	-	-	-56
Deferred tax liabilities after offset	1,795	5	-61	-52	-	1,687

Deferred income tax assets are recognised for tax loss carry-forward to the extent that the realisation of the related tax benefit through future profits is probable. The recognised tax assets relate to losses carry-forward with no expiration date and partly with expiry date as described below.

	20	008	2007	
EUR million	Tax losses	Deferred tax asset	Tax Iosses	Deferred tax asset
Losses without expiration date (Sweden, Norway)	110	28	73	19
Losses with expiration date (Poland)	18	3	14	1
Total	128	31	87	20

## 33 Pension and other provisions

EUR million	Pension	CSA provision	Environ- mental	Other	Total
1 January 2008	119	-	9	16	144
Provisions for the period	-	-	-	12	12
Increases through acquisition of subsidiary companies	10	192	-	3	205
Provisions used	-	-	-	-7	-7
Change in pension obligation (see Note 34 Pension obligations)	-78	-	<del>-</del>	_	-78
Provisions reversed	-	-	-	-2	-2
Unwinding of discount	-	12	-	-	12
Exchange rate differencies	-	-24	-1	-2	-27
31 December 2008	51	180	8	20	259
Allocation between current and non-current provisions  Current provisions				9	9
Non-current provisions	51	180	8	11	250
EUR million	Pension	CSA provision	Environ- mental	Other	Total
1 January 2007	126	-	13	47	186
Provisions for the period	-	-	_	2	2
Provisions used	-	-	-4	-22	-26
Change in pension obligation (see Note 34 Pension obligations)	-7	-	-	-	-7
Provisions reversed	=	-	-	-11	-11
31 December 2007	119	_	9	16	144
Allocation between current and non-current provisions					
Current provisions	-	-	-	2	2
Non-current provisions	119	_	9	14	142

Capacity supply agreement provision (CSA) is the possible penalty that the Russian System Operator can claim against Fortum if the extensive investment program of TGC-10 to increase electricity capacity with 2,300 MW by 2013 is substantially delayed or agreed major terms in connection with the acquisition of TGC-10 are not otherwise fulfilled.

Environmental provision relates to dismantling of buildings and structures on contaminated land. The provision is estimated to be used within five years. Other provisions include provisions for restructuring costs, insurance payments, tax claims and provisions for onerous contracts. The provision is estimated to be used within two to five years. Pension obligations for 2007 include EUR 2 million of unpaid liabilities related to defined contribution plans, see Note 34 Pension obligations.

Restructuring provisions, included in other provisions, of EUR 10 million (2007: 3). The restructuring provision relates to re-organisations of service functions in order to develop internal processes and aims to create more efficient and higher

quality workflows. The re-organisation affects maximum 55 employees in Finland and 180 employees in Sweden. The main part of the restructuring provision is staff costs and the major part of the provision will be utilized in 2009 and some minor parts in 2010 onwards.

## **34** Pension obligations

The Group companies have various defined benefit and defined contribution pension plans in accordance with the local conditions and practices in the countries in which they operate. The concerned pensions are primarily retirement pensions, disability pensions and family pensions but contain also early retirement arrangements.

In Finland the most significant pension plan is the Finnish Statutory Employment Pension Scheme (TyEL) in which benefits are directly linked to employees' earnings. These pensions are funded in insurance company and treated as defined contribution plans. The benefits provided under TyEL are old age pensions, disability pensions, unemployment pensions and survivors' pensions. In addition, certain employees in Finland have additional pension coverage through companies' own pension funds or through insurance companies.

In Sweden the Group operates several defined benefit and defined contribution plans like the general ITP-pension plan and the PA-KL and PA-KFS plans that are eligible for employees within companies formerly owned by municipalities. The pension arrangements comprise normal retirement pension, complementary retirement pensions, survivors' pension and disability pension. The most significant pension plan is the ITP-plan for white-collar employees in permanent employment (or temporary employees after a certain waiting period), who fulfill the age conditions. To qualify for a full pension the employee must have a projected period of pensionable service, from the date of entry until retirement age, of at least 30 years. The ITP-plan has been partly financed through insurance premiums and partly through provisions in the balance sheet (book-reserves). In April 2008 Fortum transferred majority of its pension liabilities previously financed through insurance premiums or through provisioning to a newly established own pension fund. Among the transferred pension arrangements were major part of the general ITP-pension plan, all plans eligible for employees of formerly municipality-owned companies as well as certain other smaller arrangements. The total amount of transferred liability was at the time of transfer SEK 742 million (EUR 68 million). At the time of transfer Fortum paid contributions to the fund amounting to the same amount, in order to cover this liability. The part of the ITP multiemployer pension plan that is secured by paying pension premiums to Alecta, in Fortums case the collective family pension, is accounted for as a defined contribution plan due to lack of information necessary to account for the plan as a defined benefit plan.

The Norwegian companies are part of schemes that are common for municipalities in Norway. These are defined benefit pension plans and provide old age pensions and disability pension, including pension benefits from the National Insurance Scheme (Folketrygden). The schemes also provide survivor's pensions. The schemes are fully funded within the rules set out in the Norwegian insurance legislation.

Pension arrangements in Russia include payments made to the Russian Federation's state pension fund. These arrangements are treated as defined contribution plans. In

addition the Russian companies participate in a non-state power industry pension fund as well as in certain defined benefit plans, defined by collective agreements. The benefits provided under these arrangements include one-time benefits paid in case of employee mortality or disability as well as lump sum payments for anniversary and financial support to honored workers and pensioners.

In other countries the pension arrangements are done in accordance with the local legislation and practice, mostly being defined contribution plans.

The pension obligations are calculated annually, on the balance sheet date, based on actuarial principles. When accounting for defined contribution plans the obligation for each period is determined by the amounts to be contributed for that period. When accounting for defined benefit plans, actuarial calculations are required to measure the obligation on discounted basis and the expense. The plan assets for pensions are valued at market value. When the net cumulative unrecognised actuarial gain or loss on pension obligations and plan assets goes outside the corridor with 10% of the greater of either pension obligations or the market value of the plan assets, the surplus amount is amortised over the average remaining employment period.

## Amounts recognised in the income statement

EUR million	2008	2007
Current service cost	-11	-11
Interest cost	<b>–20</b>	-16
Expected return on plan assets	20	15
Settlements	1	1
Past service cost	<b>–1</b>	-
Total included in employee costs (Note 12)	-11	-11

The actual return on plan assets in Finland and Sweden totalled EUR -29 million (2007: 17).

## Amounts recognised in the balance sheet

EUR million	2008	2007
Present value of funded obligations	406	390
Fair value of plan assets	-343	-276
Deficit (+) / Surplus (–)	63	114
Present value of unfunded obligations	0	0
Unrecognised past service cost	<b>–</b> 4	-
Unrecognised actuarial gains and losses	-67	-11
Net asset (–) / liability (+) in the balance sheet	-8	103
Defined benefit asset included in the assets (Note 22)	59	14
Pension obligations in the balance sheet	51	117
Experience adjustments arising on funded obligations; gain(–)/loss(+)	20	11
Experience adjustments arising on plan assets; gain(+)/loss(-)	-48	21

## Movement in the liability recognised in the balance sheet

EUR million	2008	2007
1 January	103	124
Exchange rate differencies	-14	-4
Increases through acquisition of subsidiary companies	10	0
Formation of the Swedish pension fund	-68	0
Total expense charged in the income statement	11	12
Contributions paid	<b>–</b> 50	-29
31 December Net asset(-)/liability(+)	-8	103
Defined benefit obligations	51	117
Defined benefit assets included in assets	<b>–</b> 59	-14
Net asset(–)/ liability(+)	-8	103

Contributions expected to be paid during the year 2009 are EUR 20 million.

#### Movement in the present value of defined benefit obligations

EUR million	2008	2007
1 January	390	367
Exchange rate differencies	-28	-7
Increases through acquisition of subsidiary companies	11	-
Service cost	11	11
Interest cost	20	15
Increase in obligation	4	0
Effect of settlement	-1	-5
Actuarial gains(–)/ losses(+) on obligations	17	25
Benefits paid	-18	-16
31 December	406	390

## Movement in the fair value of plan assets

EUR million	2008	2007
1 January	276	250
Exchange rate differencies	<b>–</b> 6	0
Expected return of plan assets	20	15
Actuarial gains and losses	-44	1
Formation of the Swedish pension fund	68	-
Contributions by employer	41	24
Effect of settlement	-	-5
Benefits paid	<b>–12</b>	-9
31 December	343	276

## Fair value of plan assets comprise

EUR million	2008	2007
Equity instruments	101	73
Debt instruments	112	53
Property (of which EUR 71 million (2007: 65) occupied by the Group)	75	65
Company's own ordinary shares	4	9
Other assets	51	76
Total	343	276

When the pension plan has been financed through incurance company, the specification of plan assets has not been available. In these cases the fair value of plan assets has been included in the Other assets.

#### Amounts recognised in the balance sheet by country - 31 December 2008

EUR million	Finland	Sweden	Other countries	Total
Present value of funded obligations	204	151	51	406
Fair value of plan assets	-222	-98	-23	-343
Deficit(+)/Surplus(–)	-18	53	28	63
Present value of unfunded obligations	0	0	0	0
Unrecognised past service cost	0	0	-4	-4
Unrecognised actuarial gains and losses	-16	-43	-8	-67
Net asset(–)/ liability (+) in the balance sheet	-34	10	16	-8
Defined benefit asset included in the assets (Note 22)	46	13	0	59
Pension obligations in the balance sheet	12	23	16	51

## Amounts recognised in the balance sheet by country - 31 December 2007

Finland	Sweden	countries	Total
202	153	35	390
-230	-25	-21	-276
-28	128	14	114
0	0	0	0
28	-32	-7	-11
0	96	7	103
14	0	0	14
14	96	7	117
	202 -230 -28 0	202         153           -230         -25           -28         128           0         0           28         -32	Finland         Sweden         countries           202         153         35           -230         -25         -21           -28         128         14           0         0         0           28         -32         -7

## Comparative pension information

EUR million	2008	2007	2006
Present value of defined benefit obligation	406	390	361
Fair value of plan assets	-343	-276	-250
Deficit/(surplus) in the plan	63	114	111
Experience adjustments on plan liabilities	20	11	21
Experience adjustments on plan assets	-48	21	-10

#### The principal actuarial assumptions used

		2008					
	Finland	Sweden	Russia	Other countries	Finland	Sweden	Other countries
Discount rate, %	5.50	4.30	9.00	4.30	5.00	4.50	4.70
Expected return on plan assets, %	6.50	5.50		5.80–6.30	6.50	4.50	5.75
Future salary increases, %	4.00	3.70	8.00	4.50	4.00	3.50	3.20
Future pension increases, %	2.10	2.20	6.50	1.75	2.10	2.00	2.70
Rate of inflation, %	2.00	2.20	6.50	2.50	2.00	2.00	2.50

The discount rate in Finland is based on the quoted European government bonds with maturity that best reflects the estimated term of the defined benefit pension plans. The discount rate in Sweden and Norway is based on the yield of long-term government bonds which are consistent with the currency and the estimated term of the postemployment benefit obligations. The expected return on plan assets is determined by considering the expected returns available on the assets underlying the current investment policy. Expected returns are based on long-term real rates of return experienced in the respective markets and reported by external asset manager.

During 2007, new mortality tables were published by the Swedish Insurance Supervisory Board (Finansinspektionen). The new tables are based on updated data and present mortality rates for different age cohorts. The Group has adopted the new mortality tables as at December 31, 2007. The change of mortality table results in an actuarial loss in aggregate of 7% due to the increase in average life expectancy.

Discount rate used is one of the key assumptions used when calculating defined benefit obligations. A change of 0.5 percentage points in the discount rate holding all other assumptions stable would have the following effects to the defined benefit obligation as of 31 December 2008:

Change in the assumption	Impact to the pen (increase +/	
	Finland	Sweden
0.5% increase in discount rate	-6.4%	-8.6%
0.5% decrease in discount rate	5.8%	9.8%

## 35 Nuclear related assets and liabilities

Fortum owns the Loviisa nuclear power plant in Finland. Based on the Nuclear Energy Act in Finland, Fortum has a legal obligation to fully fund the legal liability decided by the governmental authorities, for decommissioning of the power plant and disposal of spent fuel through the State Nuclear Waste Management Fund. The text below should be read in conjunction with information in Note 1 Accounting principles.

EUR million	2008	2007
Carrying values in the balance sheet		
Nuclear provisions	566	516
Share in the State Nuclear Waste Management Fund	566	516
Legal liability and actual share of the State Nuclear Waste Management Fund	······································	
Liability for nuclear waste management according to the Nuclear Energy Act	895	816
Funding obligation target	767	698
Fortum's share of the State Nuclear Waste Management Fund	728	673

#### 35.1 Nuclear related provisions

The nuclear provisions are related to future obligations for nuclear waste management including decommissioning of the power plant and disposal of spent fuel. The fair values of the provisions are calculated according to IAS 37 based on future cash flows regarding estimated future costs for each of the provisions separately. The cash flows used are based on the cost estimates which are also the basis for the legal liability. Provisions for decommissioning and for disposal of spent fuel are both included in Nuclear provisions in the balance sheet.

In September 2008 Fortum submitted the yearly proposal for the nuclear waste management legal liability regarding the Loviisa nuclear power plant to the Ministry of Employment and the Economy. The legal liability is calculated according to the Nuclear Energy Act in Finland and is decided by the Ministry of Employment and the Economy in January every year. The proposal was based on an updated cost estimate, which is done every year, and on a new technical plan, which is made every third year and was updated last time in 2007. Based on the new plan, the future costs are estimated to increase mainly due to the new limits for free release of materials set by the authorities (STUK) which has caused a larger scope for future decommissioning of the nuclear power plant.

The legal liability by the end of 2008, based on the proposal to the Ministry of Employment and the Economy and calculated according to the Nuclear Energy Act, is EUR 895 million (2007: 816). The carrying value of the nuclear provisions, calculated according to IAS 37, have increased by EUR 50 million compared to 31 December 2007, totalling EUR 566 million as of 31 December 2008. The main reason for the difference between the carrying value of the provision and the legal liability is the fact that the legal liability is not discounted to net present value.

The increase of the provision for spent fuel caused a negative one-time effect of EUR 3 million in comparable operating profit in Q3 2008 (Q3 2007: 13 million) due to higher nuclear waste management costs related to already spent fuel. The increase of the provision for spent fuel also caused negative one-time effect in interest costs, due to unwinding of the provision for the period during which the spent fuel provision has been accumulated and present point in time, which are recognised immediately in the income statement.

The increase of the provision for decommissioning is added to the nuclear decommissioning cost and depreciated over the remaining estimated operating time of the nuclear power plant. See Note 20 Property, plant and equipment.

#### **Nuclear provisions**

EUR million	2008	2007
At 1 January	516	450
Additional provisions	34	46
Used during the year	-16	-15
Unwinding of discount	32	35
At 31 December	566	516
Carrying value of Fortum's share in the State Nuclear Waste Management Fund	566	516

# 35.2 Carrying value of Fortum's share in the State Nuclear Waste Management Fund

Fortum contributes funds to the State Nuclear Waste Management Fund in Finland to cover future obligations based on the legal liability calculated according to the Finnish Nuclear Energy Act. The fund is managed by governmental authorities. The carrying value of the Fund in Fortum's balance sheet is calculated according to IFRIC 5 Rights to interests arising from Decommissioning, Restoration and Environmental Rehabilitation Funds.

According to the Nuclear Energy Act, Fortum is obligated to contribute the funds in full to the State Nuclear Waste Management Fund to cover the legal liability. Based on the law, Fortum applied for periodising of the payments to the Fund over six years, due to the proposed increase in the legal liability. The application was approved by Council of State in December 2007.

The periodisation of the payments to the State Nuclear Waste Management Fund has an impact on cash flow, but also on operating profit since the carrying value of the Fund in the balance sheet cannot exceed the carrying value of the nuclear provisions according to IFRIC Interpretation 5. The Fund is from an IFRS perspective overfunded with EUR 162 million (2007: 157), since Fortum's share of the Fund as of 31 December 2008 is EUR 728 million (2007: 673) and the carrying value in the balance sheet is EUR 566 million (2007: 516).

Operating profit for 2008 includes a negative total adjustment of EUR –19 million (2007: 17), since the value of the Fund has increased more than the carrying value of the provision. The positive adjustment in 2007 related to the increase of the carrying value of the Fund in the balance sheet as a result of the increased provision due to the updated technical plan. These adjustments are included in "Other items effecting comparability" in the Power Generation segment, see Note 5 Segment information, and are not included in comparable operating profit. As long as the Fund stays overfunded from an IFRS perspective, positive accounting effects to Operating profit will always occur when the nuclear provision is increasing more than the net payments to the Fund. Negative accounting effects will occur when the net payments to the Fund are higher than the increase of the provision.

#### 35.2.1 The funding obligation target

The funding obligation target for the each year is decided by the Ministry of Employment and the Economy retrospectively in January each year after the legal liability has been decided. The difference between the funding obligation target for Fortum and Fortum's actual share of the State Nuclear Waste Fund is paid in Q1 each year.

The funding obligation target, corresponding to both the new legal liability and the new decision for periodisation to the Fund, amounts EUR 767 million (2007: 698). The difference between the legal liability at year end 2008 and the corresponding funding obligation target, EUR 39 million (2007: 25) is covered by a security which has been given in the end of June 2008. The real estate mortgages given also covers unexpected events according to the Nuclear Energy Act, see also Note 38 Pledged assets.

## 35.3 Borrowing from the Finnish State Nuclear Waste Management Fund

Finnish participants in the State Nuclear Waste Management Fund are allowed to borrow from the Fund according to certain rules. Fortum uses the right to borrow back and has pledged Kemijoki shares as security for the loan. The loans are renewed yearly.

See also Note 31 Interest-bearing liabilities on page 156 and Note 38 Pledged assets on page 164.

## 35.4 Associated companies

Fortum has minority shareholdings in associated Finnish and Swedish nuclear production companies. The shareholdings entitle Fortum to electricity produced according to consortium agreements.

Regarding the Finnish company Teollisuuden Voima Oyj (TVO), similar IFRS nuclear accounting adjustments are made when accounting for the share of profit from the associate company, Regarding the two Swedish shareholdings, OKG AB and Forsmarks Kraftgrupp AB, Fortum has at year-end received the cash flow information for its Swedish nuclear associated companies from Swedish Nuclear Fuel and Waste Management Co (SKB). The cash flow information is based on the 2008 technical plan and cost estimates, which are also the basis for the legal fee and guarantee calculations to be decided for 2010 and 2011. Fortum has accounted for its share of the effects from nuclear related assets and provisions according to Fortum accounting principles. The effect in share of profits was EUR 43 million in Q4. The positive effect included EUR +16 million due to the increase of the carrying value of the Swedish Nuclear Waste Fund as a result of the increased provision due to the new technical plan in 2008. The Swedish Fund has been overfunded from an IFRS perspective, but is almost equal to the provision at year-end. The total nuclear fund adjustments for 2008 included in share of profits from associates (also including TVO) amounted to EUR +9 million (2007: -7).

Fortum has according to law given guarantees to the Finnish and Swedish nuclear Funds on behalf of the associated companies, to guarantee that sufficient funds exist to cover future expenses of decommissioning of the power plants and disposal of spent fuel, see Note 41 Contingent liabilities.

Through the shareholding in TVO, Fortum uses the right to borrow from the Fund.

## **36** Other non-current liabilities

EUR million	2008	2007
Connection fees	410	405
Other liabilities	60	81
Total	470	486

Connection fees to the electricity network in Finland that are paid before 2003 are refundable, if the customer would ever disconnect the initial connection. The connections fees to the electricity network amounted to EUR 307 million (2007: 307).

Connection fees to the district heating network in Finland amounted to EUR 103 million (2007: 98).

## 37 Trade payables and other current liabilities

EUR million	2008	2007
Trade payables	343	272
Accrued expenses and deferred income	***************************************	
Personnel expenses	78	89
Interest expenses	86	107
Other accrued expenses and deferred income	158	201
Other liabilities	***************************************	
VAT-liability	61	34
Energy taxes	33	36
Advances received	87	62
Other liabilities	116	68
Total	962	869

The management considers that the amount of trade and other payables approximates fair value.

## 38 Pledged assets

2000	2007
***************************************	
229	170
137	138
***************************************	
206	103
***************************************	
2	3
	229 137 206

## 38.1 Pledged assets for debt

Finnish participants in the State Nuclear Waste Management Fund are allowed to borrow from the Fund. Fortum has during 2008 increased the loan from the fund and has pledged additional shares in Kemijoki as security. The carrying value of the pledged shares is EUR 208 million as of 31 December 2008 (2007: 145).

Pledges also include bank deposits as trading collateral of EUR 1 million (2007: 5) for trading of electricity and CO<sub>2</sub> allowances in Nord Pool and trading of CO<sub>2</sub> with Intercontinental Exchange (ICE) and European Energy Exchange (EEX).

Fortum Tartu in Estonia (60% owned by Fortum) has given real estate mortgages for a value of EUR 96 million (2007: 95) as a security for an external loan. Real estate mortgages have also been given for loans from Fortum's pension fund for EUR 41 million (2007: 41).

Regarding the relevant interest-bearing liabilities, see Note 31 Interest-bearing liabilities on page 156.

## 38.2 Pledged assets for other commitments

Fortum has given real estate mortgages in Naantali and Inkoo power plants in Finland for a value of EUR 206 million (2007: 102) as a security to the State Nuclear Waste Management Fund for the uncovered part of the legal liability and unexpected events relating to costs for future decommissioning and disposal of spent fuel in the wholly owned Loviisa nuclear power plant. The legal liability, based on the situation as of 31 December, is decided by the Ministry of Employment and the Economy in January the following year and the amount of the security is adjusted by the end of June.

• See also Note 35 Nuclear related assets and liabilities on page 162.

## **39** Operating leases

#### 39.1 Leases as lessor

Fortum has leased out its 308 MW share of the Meri-Pori power plant from January 2007 to the end of June 2010. The rental income recognised in income statement was EUR 25 million (2007: 25).

#### Future minimum lease payments receivable on operating leases

EUR million	2008	2007
Not later than 1 year	25	25
Later than 1 year and not later than 5 years	12	37
Later than 5 years	=	-
Total	37	62

#### 39.2 Leases as lessee

Fortum leases office equipment and cars under various non-cancellable operating leases, some of which contain renewal options. The future costs for non-cancellable operating leasing contracts are stated below. Lease rental expenses amounting to EUR 15 million (2007: 12) are included in the income statement in other expenses. Future minimum lease payments include land leases with long lease periods.

#### Future minimum lease payments receivable on operating leases

EUR million	2008	2007
Not later than 1 year	28	21
Later than 1 year and not later than 5 years	47	31
Later than 5 years	86	69
Total	161	121

## **40** Capital commitments

#### Capital expenditure contracted for at the balance sheet date but not recognised in the financial statements

EUR million	2008	2007
Property, plant and equipment	1,321	425
Intangible assets	7	11
Total	1,328	436

The increase in capital commitments from 2007 is mainly due to the acquisition of TGC-10 in March 2008, representing approximately EUR 940 million at year-end 2008, of which approximately EUR 390 million refers to investments in 2009.

Other contracted future investments refers mainly to the installation of new meters for automatic meter reading in Distribution business in Sweden and CHP plants being built in the Heat business in Finland, Estonia and Poland.

For more information regarding capital expenditure, see Note 20 Property, plant and equipment on page 144. See also Note 7 Acquisitions and disposals on page 135 for information regarding TGC-10.

## **41** Contingent liabilities

2008	2007
362	224
565	235
125	125
***************************************	
10	10
1	1
	2008  362  565 125  10 1

#### 41.1 Guarantees on own behalf

Other contingent liabilities on own behalf include guarantees issued for the fulfillment of various contractual obligations relating to Fortum's Service business in the UK, amounting to a maximum of EUR 66 million (2007: 85). Fortum has also given guarantees to suppliers, EUR 60 million (2007: 66) regarding the new CHP plant being built by business unit Heat in Częstochowa in Poland and EUR 173 million regarding the investment program in TGC-10.

## 41.2 Guarantees on behalf of associated companies

Guarantees and other contingent liabilities on behalf of associated companies and joint ventures mainly consist of guarantees relating to Fortum's associated nuclear companies Teollisuuden Voima Oyj (TVO), Forsmarks Kraftgrupp AB (FKA) and OKG AB (OKG). The guarantees are given in proportion to Fortum's respective ownership in each of theses companies.

According to law, nuclear companies operating in Finland and Sweden shall give securities to the Finnish State Nuclear Waste Management Fund and the Swedish Nuclear Waste Fund respectively, to guarantee that sufficient funds exist to cover future expenses of decommissioning of the power plant and disposal of spent fuel. In Finland, Fortum has given a guarantee on behalf of TVO to the Finnish State Nuclear Waste Management Fund amounting to EUR 70 million (2007: 32) to cover Fortum's part of TVO's uncovered part of the legal liability and for unexpected events.

In Sweden, Fortum has given guarantees on behalf of FKA and OKG to the Swedish Nuclear Waste Fund to cover Fortum's part of FKA's and OKG's liability. Starting on 1 January 2008, a new law applies in Sweden for financing of future fees to the fund for spent nuclear fuel and decommissioning of the plant. Following the implementation of the new law, the total amounts of guarantees relating to nuclear waste management in Sweden have increased from SEK 1,841 million (EUR 169 million) in December 2007 to SEK 5,314 million (EUR 489 million) in December 2008. The guarantees are changed the year after new decisions have been made regarding the level of the legal liabilities and the payment schedules to fund the Nuclear Waste Funds.

Meri-Pori power plant in Finland is owned by Fortum 54.55% and Teollisuuden Voima Oyj (TVO) 45.45%. Based on the participation agreement Fortum has to give a guarantee to TVO against possible loss of asset or breach in contract of TVO's share of the asset, EUR 125 million (2007: 125).

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

## 42 Legal actions and official proceedings

## **42.1 Group companies**

Two subsidiaries of Fortum, Grangemouth CHP Limited and Fortum O&M (UK) Limited, are defendants in a court case regarding greenhouse gas emissions allowances in the High Court of Justice in London. Grangemouth CHP Limited is a party to an Electricity Supply Agreement with Ineos Manufacturing Scotland Limited, pursuant to which Grangemouth CHP Limited provides electricity from its CHP plant to the Grangemouth site in Scotland until April 2016. Ineos Manufacturing Scotland Limited claims that it is entitled to all of the emissions allowances allocated under the EU ETS scheme for greenhouse gas emission allowance trading with respect to the CHP plant. Grangemouth CHP Limited denies this claim. The case has currently been postponed until further notice.

The Finnish Competition Authority gave on 2 June 2006 its conditional approval to the transaction by which Fortum acquired control in E.ON Finland Oyj. On 3 July 2006 Fortum appealed against the decision to the Market Court. In March 2008 the Finnish Market Court decision overruled the conditional decision given by the Finnish Competition Authority in June 2006 on the acquisition of E.ON Finland. In their ruling, the Market Court stated that the Finnish Competition Authority had no grounds for setting conditions, because Fortum cannot be considered to have a dominant position in the power generation and wholesale market. According to the Market Court, the relevant geographical market area in power generation and wholesale consist of at least Finland and Sweden. The Finnish Competition authority has appealed the decision to the Supreme Administrative Court.

In addition to the litigations described above, some Group companies are involved in disputes incidental to their business. In management's opinion the outcome of such disputes will not have material effect on the Group's financial position.

## **42.2** Associated companies

In Finland, Fortum is participating in the country's fifth nuclear power plant unit, Olkiluoto 3, through the shareholding in Teollisuuden Voima Oyj (TVO) with an approximately 25% share representing some 400 MW in capacity. In January 2009 TVO disclosed information, confirmed by AREVA-Siemens, that the construction of the unit is delayed and the unit is estimated to start up in summer 2012. In December 2008 the constructor TVO informed that the plant supplier, consortium AREVA-Siemens, has filed a request for arbitration concerning Olkiluoto 3 delay and related costs in the International Chamber of Commerce (ICC).

## **43** Related party transactions

At the beginning of 2008 the Finnish State owned 50.86% of the company and at the end of 2008 50.80%. See The Fortum share and shareholders section of the Operating and Financial Review for further information on Fortum shareholders. All transactions between Fortum and other companies owned by the Finnish State are on arms length basis. In the ordinary course of business Fortum engages in transactions on commercial terms with associated companies and other related parties, which are on same terms as they would be for third parties, except for some associates as discussed later in this note.

## 43.1 Board of Directors and Fortum Management Team

Fortum has not been involved in any material transactions with members of the Board of Directors or Fortum Management Team. No loans exist to any member of the Board of Directors or Fortum Management Team at 31 December 2008. Members of the Board of Directors and Fortum Management Team holdings of options and shares are disclosed in Note 29 Employee bonus, personnel fund and incentive schemes. Compensation to members of the Supervisory Board, the Board of Directors and Fortum Management Team are disclosed in Note 12 Management remuneration and employee costs.

## 43.2 Finnish State and companies owned by the Finnish State

All transactions between Fortum and other companies owned by the Finnish State are on arms length basis. The service agreement with Neste Oil concerning services from Fortum's Shared Financial Service Center was terminated in August 2007. The service agreement was on arms length.

## 43.3 Associated companies and joint ventures

Fortum owns shareholdings in associated companies and joint ventures which in turn own hydro- and nuclear power plants. Under the consortium agreements, each owner is entitled to electricity in proportion to its share of ownership or other agreements. Each owner is liable for an equivalent portion of costs regardless of output. The associated companies are not profit making, since the owners purchase electricity at production cost including interest costs and income taxes, which generally is lower than market price.

For further information of transactions and balances with associated companies and joint ventures, see Note 21 Participations in associated companies and joint ventures.

## 44 Events after the balance sheet date

In October 2008 Fortum and (Norwegian) Hafslund Infratek ASA signed a contract according to which they will combine their businesses of construction and operating of infrastructure in Sweden, Finland and Norway. The deal became effective as of 15 January 2009. Fortum transfers its construction and operating of infrastructure as well as parts of its distribution network construction activities in Sweden into the new combined company. Fortum receives newly issued shares in Infratek ASA entitling to a 33% ownership in the enlarged company. Hafslund ASA holds 43.3% of the shares. The remaining shares are owned by institutional and private shareholders.

On 4 February, the Fortum Board decided in their meeting that Fortum will on 5 February submit its application to the Finnish government for a decision-in-principle on the construction of a nuclear power plant to its Loviisa site, where Fortum already owns and operates two nuclear reactors. According to preliminary plans, the plant could be in operation in 2020. The plant's planned lifetime would be at least 60 years. Depending on the size and type of the reactor, the total investment is estimated to be EUR 4–6 billion.

## 45 Subsidiaries by segment on 31 December 2008

- = Power Generation
- 1) Acquired 2) Founded

= Heat

▲ = Distribution

3) Shares held by the parent company

- = Markets
- 4) Dormant
- = Russia
- ▼ = Other Operations

Corp. Name		Domicile	Segment	Group holding %
Finnish Substation Service Oy	2)	Finland	•	100.0
Fortum Asiakaspalvelu Oy	3)	Finland	ABO	100.0
Fortum Assets Oy	·····	Finland	▼	100.0
Fortum BCS Oy	2)	Finland		100.0
Fortum Espoo Distribution Oy	3)	Finland	<b>A</b>	100.0
Fortum Heat and Gas Oy	3)	Finland		100.0
Fortum Markets Oy	3)	Finland	0	100.0
Fortum Nuclear Services Oy		Finland	•	100.0
Fortum Portfolio Services Oy		Finland	0	100.0
Fortum Power and Heat Oy	3)	Finland		100.0
Fortum Sähkönsiirto Oy	3)	Finland	<b>A</b>	100.0
Hexivo Oy		Finland	•	52.0
Imatran Voima Oy		Finland	<b>A</b>	100.0
Imatrankosken Voima Oy		Finland	<b>A</b>	100.0
Kiinteistö Oy Espoon Energiatalo		Finland	▼	100.0
Killin Voima Oy		Finland	•	60.0
Koillis-Pohjan Energiantuotanto Oy		Finland	•	100.0
Koskivo Oy		Finland	<b>A</b>	100.0
KPPV-Sijoitus Oy		Finland	<b>A</b>	100.0
Linnankosken Voima Oy		Finland	<b>A</b>	100.0
Lounais-Suomen Lämpö Oy		Finland	<b>A</b>	100.0
Mansikkalan Voima Oy		Finland	<b>A</b>	100.0
Mäntynummen Lämpö Oy		Finland	_	58.3
Oy Pauken Ab		Finland	▼	100.0
Oy Tersil Ab		Finland	<b>A</b>	100.0
Oy Tertrade Ab		Finland	<b>_</b>	100.0
Rajapatsaan Voima Oy		Finland	<b>A</b>	100.0
Saimaanrannan Voima Oy		Finland	<b>_</b>	100.0
Tunturituuli Oy		Finland	•	55.4
Varsinais-Suomen Sähkö Oy		Finland	<b>A</b>	100.0
Viikinki Energia Oy		Finland	•	100.0
Fortum Liegenschaftsverwaltungs GmbH		Austria	▼	100.0
Fortum EIF NV	2), 3)	Belgium	▼	100.0
Fortum Project Finance N.V.	3)	Belgium	▼	100.0
Fortum Energi A/S	4)	Denmark	0	100.0
AS Anne Soojus		Estonia		60.0
AS Fortum Tartu	·····	Estonia		60.0

Corp. Name		Domicile	Segment	Group holding %
AS Tartu Joujaam		Estonia		60.0
AS Tartu Keskkatlamaja		Estonia		60.0
Fortum CFS Eesti osauhing		Estonia	▼	100.0
Fortum Elekter AS		Estonia	<b>_</b>	99.3
Fortum Termest AS		Estonia		99.7
Lauka Turvas OU		Estonia		60.0
Fortum Service Deutschland GmbH		Germany	•	100.0
Fortum Direct Ltd		Great Britain	•	100.0
Fortum Energy Ltd		Great Britain	•	100.0
Fortum Gas Ltd		Great Britain	•	100.0
Fortum Insurance Ltd		Great Britain	▼	100.0
Fortum O&M (UK) Limited		Great Britain	•	100.0
Grangemouth CHP Limited		Great Britain	•	100.0
IVO Energy Limited		Great Britain	•	100.0
Kildare Energy Ltd		Ireland	•	55.0
Fortum Jelgava SIA	1)	Latvia	•	100.0
Fortum Latvija SIA		Latvia	•	100.0
SIA Jelgavas Inzeniersistemu Serviss	1)	Latvia	•	100.0
SIA Komunikasiju vadiba	1)	Latvia	•	100.0
UAB Fortum Ekosiluma		Lithuania	•	100.0
UAB Fortum Heat Lietuva		Lithuania	•	100.0
UAB Fortum Klaipeda		Lithuania	•	51.0
UAB Joniskio energija		Lithuania		66.0
UAB Svencioniu energija		Lithuania		50.0
Fortum Sendi Prima Sdn Bhd		Malaysia	•	100.0
Fortum Distribution AS		Norway	<b>▲</b> O	100.0
Fortum Fjernvarme AS		Norway	•	100.0
Fortum Förvaltning AS		Norway	•	100.0
Fortum Holding Norway AS		Norway		100.0
Fortum Leasing AS		Norway	•	100.0
Fortum Markets AS		Norway	0	100.0
Fortum Service AS		Norway	•	100.0
Mosjøen Fjernvarme AS		Norway	•	100.0
Fortum Częstochowa S.A.		Poland		98.8
Fortum Power and Heat Polska Sp z.o.o.		Poland		100.0
Fortum Plock Sp z o.o.		Poland		98.8
Chelyabinsk Energoremont	1)	Russia	□	93.4

- = Power Generation
- 1) Acquired 2) Founded

= Heat

▲ = Distribution

3) Shares held by the parent company 4) Dormant

- = Markets 🗖 = Russia
- ▼ = Other Operations

Corp. Name		Domicile	Segment	Group holding %
LLC Fortum Energy 000 Fortum Energija		Russia	●□▼	100.0
Territorial Generating Company No. 10	1)	Russia		93.4
TGC-10 Invest	1)	Russia	•	93.4
Tyumen Energoremont	1)	Russia	•	93.4
Urals Heat Network	1)	Russia		93.4
AB Fortum Värme Holding samägt med Stockholms stad		Sweden		50.1
AB Fortum Värme samägt med Stockholms	stad	Sweden		50.1
AB Ljusnans Samkörning		Sweden	<b>A</b>	80.0
Akallaverket AB		Sweden		37.6
Arvika Fjärrvärme AB		Sweden		30.1
Blybergs Kraft AB		Sweden	•	66.7
Brännälven Kraft AB		Sweden	•	67.0
Bullerforsens Kraft AB		Sweden	•	88.0
Ekerö Energi AB		Sweden	<b>_</b>	81.7
Ekerö Energi Försäljning AB		Sweden	0	81.7
Elbolaget OEP AB		Sweden	0	100.0
Fortum 1 AB		Sweden	▼	100.0
Fortum Dalälvens Kraft AB		Sweden	•	100.0
Fortum Distribution AB		Sweden	<b>A</b>	100.0
Fortum Fastigheter AB		Sweden	▼	100.0
Fortum Four AB	2)	Sweden	•	100.0
Fortum Generation AB		Sweden	•	100.0
Fortum Indalskraft AB		Sweden	•	100.0
Fortum Ljunga Kraft AB	***************************************	Sweden	•	100.0
Fortum Ljusnans Kraft AB	***************************************	Sweden	•	100.0
Fortum Markets AB		Sweden	0	100.0
Fortum Nordic AB	3)	Sweden	▼	100.0
Fortum Portfolio Services AB	***************************************	Sweden	0	100.0
Fortum Power and Heat AB	***************************************	Sweden	<b>■</b> ○▼	100.0
Fortum Produktionsnät AB		Sweden	•	100.0
Fortum Service AB		Sweden	•	100.0
Fortum Service Öst AB		Sweden	•	100.0
Fortum Sweden AB	3)	Sweden	▼	100.0
Fortum Värme Alpha AB		Sweden		50.1
Fortum Värme Fastigheter AB		Sweden		50.1

Corp. Name		Domicile	Segment	Group holding %
Fortum Värme Nynäshamn AB		Sweden		100.0
Fortum Zeta AB		Sweden	▼	100.0
Fortum Älvkraft i Värmland AB		Sweden	•	100.0
Hofors Energi AB		Sweden		30.1
Hällefors Värme AB		Sweden		47.6
Infra Service Väst AB		Sweden	•	100.0
Infra Service Öst AB		Sweden	•	100.0
Mellansvensk Kraftgrupp AB		Sweden	•	86.9
NGI Naturgasinvest AB		Sweden		100.0
Nybroviken Kraft AB		Sweden	•	100.0
Oreälvens Kraft AB		Sweden	•	65.0
Parteboda Kraft AB		Sweden	•	100.0
Processio AB	1)	Sweden	•	100.0
Ryssa Energi AB		Sweden	0	100.0
Sigtuna-Väsby Fastighets AB		Sweden	_	50.1
Stockholm Gas AB		Sweden	_	50.1
Säffle 5:35 Fastighets AB		Sweden	_	50.1
Säffle Fjärrvärme AB		Sweden	_	25.6
Uddeholm Kraft AB		Sweden	▼	100.0
Voxnan Kraft AB		Sweden	•	100.0
Värmlandskraft OKG-delägarna AB		Sweden	•	73.3
FB Generation Services B.V.		The Netherlands	•	75.0
Fortum Alpha B.V.		The Netherlands	▼	100.0
Fortum East China Energy Investments B.V.		The Netherlands	•	100.0
Fortum Finance 2 B.V.		The Netherlands	▼	100.0
Fortum Holding B.V.	3)	The Netherlands	●■▼	100.0
Fortum Power Holding B.V.		The Netherlands	•	100.0
Fortum Russia B.V.		The Netherlands	□	100.0
Fortum Russia Holding B.V.		The Netherlands	▼□	100.0

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KEY FIGURES 169

# **Key figures**

## Financial key figures

Fortum Corporation and its subsidiaries (together the Fortum Group) is a leading energy company focusing on the Nordic countries, Russia and the Baltic Rim area. Fortum's activities cover the generation, distribution and the sale of electricity and heat, the operation and maintenance of power plants as well as energy-related services. Neste Oil was included in Fortum Group up until 31 March 2005, when the Annual General Meeting took the final decision to separate the oil operations by distributing approximately 85% of Neste Oil Corporation shares as dividend. The remaining approximately 15% of shares were sold to investors in April 2005.

Oil operations have been presented as discontinued operations in years 2004 and 2005.

As from 2005, Fortum applies International Financial Reporting Standards (IFRS) for the annual and interim reports. The 2005 annual report included one comparison year 2004, which was restated to IFRS. Years 1998–2003 have not been restated to comply with IFRS. They are presented under Finnish Accounting Standards (FAS).

												Change 08/07
EUR million or as indicated	FAS 1998	FAS 1999	FAS 2000	FAS 2001	FAS 2002	FAS 2003	IFRS 2004	IFRS 2005	IFRS 2006	IFRS 2007	IFRS 2008	%
Sales total Fortum	8,494	8,232	10,614	10,410	11,148	11,392	11,659	5,918				
Sales continuing operations			······································	· · · · · · · · · · · · · · · · · · ·			3,835	3,877	4,491	4,479	5,636	26
EBITDA total Fortum <sup>1)</sup>	1,049	1,192	1,431	1,501	1,952	1,917	2,443	2,307	······································			
EBITDA continuing operations	•••••••••••••••••••••••••••••••••••••••	•••••••••••••••••••••••••••••••••••••••	······································	······································			1,583	1,754	1,884	2,298	2,478	8
Operating profit total Fortum	586	705	906	914	1,289	1,420	1,916	1,864			· · · · · · · · · · · · · · · · · · ·	
– of sales %	6.9	8.6	8.5	8.8	11.6	12.5	16.4	31.5		•	•••••••••••••••••••••••••••••••••••••••	
Operating profit continuing operations	•••••••••••••••••••••••••••••••••••••••	•••••••••••••••••••••••••••••••••••••••		······································	•••••••••••••••••••••••••••••••••••••••		1,195	1,347	1,455	1,847	1,963	6
– of sales %	······································	······································	······································	······································			31.2	34.7	32.4	41.2	34.8	
Comparable operating profit continuing operations			······································	······································	······································		1,148	1,334	1,437	1,564	1,845	18
Profit before income tax total Fortum	363	954	623	702	1,008	1,184	1,700	1,776			· · · · · · · · · · · · · · · · · · ·	
– of sales %	4.3	11.6	5.9	6.7	9.0	10.4	14.6	30.0	***************************************		•	***************************************
Profit before income tax continuing operations	•••••••••••••••••••••••••••••••••••••••	•••••••••••••••••••••••••••••••••••••••	••••••••••••••••••	***************************************	•		962	1,267	1,421	1,934	1,850	-4
– of sales %	•	•	•	······································			25.1	32.7	31.6	43.2	32.8	
Profit for the period continuing operations			······································				703	936	1,120	1,608	1,596	-1
– of which attributable to equity holders		······································	······································	······································			670	884	1,071	1,552	1,542	-1
Capital employed, total Fortum	8,647	9,425	11,365	11,032	13,765	12,704	12,890				······································	
Capital employed continuing operations	······································	······································	······································	······································			10,739	11,357	12,663	13,544	15,911	17
Interest-bearing net debt	3,898	3,818	4,626	3,674	5,848	5,626	5,095	3,158	4,345	4,466	6,179	38
Capital expenditure and gross investments in shares, total Fortum	1,702	1,059	3,131	713	4,381	1,136	830	578	1,395	972	2,624	170
– of sales %	20.0	12.9	29.5	6.8	39.3	10.0	7.1	9.8	31.1	21.7	46.6	

EUR million or as indicated	FAS 1998	FAS 1999	FAS 2000	FAS 2001	FAS 2002	FAS 2003	IFRS 2004	IFRS 2005	IFRS 2006	IFRS 2007	IFRS 2008	Change 08/07 %
Capital expenditure and gross investments in	TA3 1770	TA3 1777	TA3 2000	TA3 200 I	TA3 2002	FA3 2003	IFR3 2004	IFK3 2003	II K3 2000	II K3 2007	II K3 2000	70
shares continuing operations							514	479	1,395	972	2,624	170
Capital expenditure continuing operations							335	346	485	655	1,108	69
Net cash from operating activities, total Fortum	793	524	424	1,145	1,351	1,577	1,758	1,404	······································		<b>.</b>	
Net cash from operating activities continuing operations	•••••••••••••••••••••••••••••••••••••••	•		•••••••••••••••••••••••••••••••••••••••			1,232	1,271	1,151	1,670	2,002	20
Return on capital employed, total Fortum, %	7.7	8.4	9.4	8.7	11.1	11.4	15.8	16.6			······································	
Return on capital employed continuing operations, %		······································		•••••••••••••••••••••••••••••••••••••••			11.4	13.5	13.4	16.5	15.0	
Return on shareholders' equity, total Fortum, %	5.7	7.7	8.6	8.3	10.5	12.3	18.2	18.7	······································		······································	
Return on shareholders' equity continuing operations, $\%$ <sup>2)</sup>		······································					······································	13.5	14.4	19.1	18.7	
Interest coverage	2.6	3.4	3.7	4.3	4.7	5.8	8.0	11.6	11.5	12.8	9.4	
Funds from operations/interest-bearing net debt, $\%$	17.9	14.3	19.9	28.8	21.6	26.1	36.4	43.2	30.6	36.3	34.1	
Gearing, % <sup>3)</sup>	93	79	73	54	80	85	67	43	53	52	73	
Net debt / EBITDA	3.7	3.2	3.2	2.4	3.0	2.9	2.1	1.4	•••••••••••••••••••••••••••••••••••••••		······································	
Net debt / EBITDA continuing operations							-	1.8	2.3	1.9	2.5	
Equity-to-assets ratio, %	36	39	43	48	41	40	44	49	48	49	41	
Dividends <sup>4)</sup>	99	141	194	220	262	357	506	987	1,122	1,198	888 5)	-26
Dividends continuing operations	••••	•••••••••••••••••••••••••••••••••••••••	***************************************	***************************************	•		***************************************	511	650	683		
Dividends additional in 2006 / discontinued operations in 2005								476	472	515		
Research and development expenditure	92	72	58	53	33	35	26	14	17	21	27	29
– of sales %	1.1	0.9	0.5	0.5	0.3	0.3	0.2	0.2	0.4	0.5	0.5	
Average number of employees total Fortum	19,003	17,461	16,220	14,803	14,053	13,343	12,859	10,026	8,910	8,304	14,077	
Average number of employees continuing operations	***************************************		***************************************	***************************************	•		8,592	8,939	8,910	8,304	14,077	

<sup>1)</sup> EBITDA is defined as Operating profit continuing operations + Depreciation, amortisation and impairment charges. According to Finnish Accounting Standards (FAS) share of profit of associated companies were included in operating profit. In calculating EBITDA presented under FAS share of profit of associated companies have been excluded in 1998–2003.

<sup>2)</sup> Return on equity for continuing operations for 2005 is calculated based on profit for the period from continuing operations divided by total equity at the end of the period. Profit for the period from discontinued operations has

been subtracted from total equity on 31 December 2005.
3) Gearing is defined as interest-bearing net debt over shareholders' equity plus minority interest. In 2000–2002 minority interest included the preference shares amounting to EUR 1.2 billion, carrying fixed income dividend of 6.7 percent, issued by Fortum Capital Ltd.

<sup>4)</sup> In addition to cash dividend Fortum distributed approximately 85% of Neste Oil Corporation shares as dividend in 2005.
5) Board of Directors' proposal for the Annual General Meeting 7 April 2009. The total amount is calculated based on the number of registered shares on 4 February 2009.

**FORTUM CORPORATION ANNUAL REPORT 2008 KEY FIGURES** 

EUR or as indicated	FAS 1998	FAS 1999	FAS 2000	FAS 2001	FAS 2002	FAS 2003	IFRS 2004	IFRS 2005	IFRS 2006	IFRS 2007	IFRS 2008	08/07 %
Earnings per share total Fortum	0.27	0.41	0.55	0.57	0.79	0.91	1.48	1.55	1.22	1.74	1.74	0
Earnings per share continuing operations	-	-	-	-	-	-	0.79	1.01	1.22	1.74	1.74	0
Earnings per share discontinued operations	-	- · · · · · · · · · · · · · · · · · · ·	-	-	-	-	0.69	0.54	-	-		
Diluted earnings per share total Fortum			0.55	0.57	0.78	0.90	1.46	1.53	1.21	1.74	1.74	0
Diluted earnings per share continuing operations			- 0.55	0.37	- 0.70	0.70	0.78	1.00	1.21	1.74	1.74	0
Diluted earnings per share discontinued operations		-	-	-	-	-	0.68	0.53	-	-	1./4	
Cook Slave was above tatal Fasters	1.01	0.67	0.54	1.43	1.60	1.86	2.06	1.61	1.31	1.88	2.26	19
Cash flow per share total Fortum  Cash flow per share continuing operations	1.01	0.07	0.54	1.43	1.00	1.00	1.44	1.46	1.31	1.88	2.26	19
cash flow per share continuing operations			······································	······································			1.44	1.40	1.31	1.00	2.20	19
Equity per share	5.06	6.00	6.32	6.49	6.97	7.55	8.65	8.17	8.91	9.43	8.96	-5
Dividend per share total Fortum <sup>1)</sup>	0.13	0.18	0.23	0.26	0.31	0.42	0.58	1.12	1.26	1.35	1.00 <sup>2)</sup>	-26
Dividend per share continuing operations	_	_	-		-	-	-	0.58	0.73	0.77		
Dividend per share additional in 2006 and 2007 / discontinued operations in 2005	-	-	-	-	-	-	-	0.54	0.53	0.58		
Payout ratio total Fortum, %	46.3	43.4	41.9	45.6	39.2	46.2	39.2	72.3	103.3 4)	77.6 <sup>4)</sup>	<b>57.5</b> <sup>2)</sup>	
Payout ratio continuing operations, %	-	-	-	-	-	-	-	<b>57.4</b> <sup>3)</sup>	59.8 4)	44.3 4)	•••••••••••••••••••••••••••••••••••••••	
Payout ratio additional dividend in 2006 and 2007 / discontinued operations in 2005, %		_	_	_	-	-	-	100.0 3)	43.4 4)	33.3 4)		
Dividend yield, %	2.5	4.0	5.3	5.5	5.0	5.1	4.3	7.1	5.8	4.4	<b>6.6</b> <sup>2)</sup>	
Price/earnings ratio Fortum (P/E)	18.5	10.9	7.9	8.3	7.9	9.0	9.2	10.2	17.7	17.7	8.8	
Share prices	······································	······································	······································	······································	······································		······································	······································	·•····································	······································		
At the end of the period	5.03	4.50	4.35	4.75	6.25	8.18	13.62	15.84	21.56	30.81	15.23	
Average share price	5.66	4.76	4.18	4.79	5.87	6.94	10.29	13.87	20.39	23.57	24.79	
Lowest share price	4.86	4.24	3.50	4.05	4.75	5.66	7.45	10.45	15.71	20.01	12.77	
Highest share price	6.05	5.80	4.94	5.70	6.52	8.75	13.99	16.90	23.48	31.44	33.00	
Market capitalisation at the end of the period, EUR million	3,949	3,532	3,456	4,017	5,286	6,943	11,810	13,865	19,132	27,319	13,519	
Trading volumes	***************************************	······································	······································	••••••••••••••••••••••••••••••••••••••			······································					
Number of shares, 1 000 shares	17,643	112,398	93,900	134,499	251,216	270,278	478,832	900,347	830,764	787,380	628,155	
In relation to the weighted average number of shares, $\%$	2.2	14.3	11.9	16.8	29.7	31.9	59.2	103.2	94.3	88.5	70.8	
Number of shares, 1 000 shares	784,783	784,783	845,609	845,609	845,776	849,813	867,084	875,294	887,394	886,683	887,638	
Number of shares excluding own shares, 1 000 shares	NA	NA	794,571	NA	NA	NA	NA	NA	NA	NA	NA	
Average number of shares, 1 000 shares	784,783	784,783	787,223	798,346	845,642	846,831	852,625	872,613	881,194	889,997	887,256	
Diluted adjusted average number of shares, 1 000 shares		······································	787.223	798.308	851.482	858,732	861,772	887.653	886.929	891.395	887.839	• • • • • • • • • • • • • • • • • • • •

Years 1998-2003 have not been restated to comply with IFRS. They are presented under Finnish Accounting Standards (FAS). Definitions of key figures on pages 174 and 175.

<sup>1)</sup> In addition to cash dividend Fortum distributed approximately 85% of Neste Oil Corporation shares as dividend in 2005.
2) Board of Directors' proposal for the Annual General Meeting in April 2009.
3) 2005 payout ratio for continuing and discontinued operations are calculated based on the respective earnings per share from continuing and discontinued operations.
4) Payout ratios for dividends in 2006 and 2007 are based on the total earnings per share.

KEY FIGURES FORTUM CORPORATION ANNUAL REPORT 2008

# Operational key figures, volumes

		2004	2005	2006	2007	2008
Fortum's total power and heat generation in EU and Norway						
Power Generation	TWh	55.5	52.3	54.4	52.2	52.6
Heat Generation	TWh	25.4	25.1	25.8	26.1	25.5
Fortum's total power and heat generation in Russia			······································	······································		
Power Generation	TWh	-	-	-	-	11.6
Heat Generation	TWh	-	-	-	-	15.3
Fortum's own power generation by source, total in the Nordic co	ountries		· · · · · · · · · · · · · · · · · · ·			
Hydropower	TWh	19.1	21.2	19.8	20.0	22.9
Nuclear power	TWh	25.8	25.8	24.4	24.9	23.7
Thermal power	TWh	9.5	4.2	9.0	6.2	5.0
Total	TWh	54.4	51.2	53.2	51.1	51.6
Fortum's own power generation by source, total in the Nordic co	ountries		•••••••••••••••••••••••••••••••••••••••	······································		
Hydropower	%	35	42	37	39	44
Nuclear power	%	47	50	46	49	46
Thermal power	%	18	8	17	12	10
Total	%	100	100	100	100	100
Fortum's total electricity and heat sales in EU and Norway			•••••••••••••••••••••••••••••••••••••••		•••••••••••••••••••••••••••••••••••••••	
Electricity sales	EUR million	2,017	2,002	2,437	2,370	2,959
Heat sales	EUR million	809	867	1,014	1,096	1,157
Fortum's total electricity and heat sales in Russia						
Electricity sales	EUR million			-		332
Heat sales	EUR million	=	=	=	=	141
Fortum's total electricity sales by area					•••••••••••••••••••••••••••••••	
Finland	TWh	31.1	26.0	29.6	29.0	28.7
Sweden	TWh	27.6	30.4	28.5	27.6	28.5
Russia	TWh	=	-	-	-	14.8
Other countries	TWh	3.6	3.3	3.5	3.1	3.0
Total	TWh	62.3	59.7	61.6	59.7	75.0
Fortum's total heat sales by area		•••••••••••••••••••••••••••••••••••••••			•	
Finland	TWh	10.5	9.8	10.7	11.1	10.8
Russia	TWh	-	-	-	-	15.3
Sweden	TWh	9.6	9.5	9.3	9.2	9.1
Poland	TWh	0.4	1.1	3.6	3.5	3.6
Other countries	TWh	3.3	3.4	3.2	3.3	3.4
Total	TWh	23.8	23.8	26.8	27.1	42.2
Volume of distributed electricity in distribution networks		······				
Finland	TWh	6.2	6.3	7.7	9.2	9.3
Sweden	TWh	14.2	14.4	14.4	14.3	14.0
Norway	TWh	2.1	2.2	2.3	2.3	2.3
Estonia	TWh	0.2	0.2	0.2	0.2	0.2
Total	TWh	22.7	23.1	24.6	26.0	25.8

FORTUM CORPORATION ANNUAL REPORT 2008 KEY FIGURES 173

## Operational key figures, segments

As from 2005, Fortum applies International Financial Reporting Standards (IFRS) for the annual and interim reports. The 2005 annual report included one comparison year 2004, which was restated to IFRS. Segment numbers are presented based only on IFRS for comparison purposes, because in the transition to IFRS reportable segments were redefined and segment reporting as such was reassessed.

Following the acquisition of the Russian company, TGC-10, Fortum has changed its segment reporting during 2008. A new Russia segment was introduced which mean that the new segment structure has one segment based on geographical area, combined with segments based on type of business operations. Comparison numbers for 2004–2007 have been restated according to the new segment structure.

## Sales by segment

EUR million	2004	2005	2006	2007	2008
Power Generation	2,084	2,058	2,439	2,350	2,892
- of which internal	128	-97	-133	323	0
Heat	1,025	1,063	1,268	1,356	1,466
- of which internal	49	-12	-32	38	0
Distribution	707	707	753	769	789
- of which internal	10	-8	8	9	10
Markets	1,387	1,365	1,912	1,683	1,922
- of which internal	92	-101	149	155	177
Russia	=	_	-	-	489
- of which internal	=	_	-	-	0
Other	90	91	78	81	83
- of which internal	93	-63	62	72	82
Eliminations	-1,458	-1,407	-1,959	-1,760	-2,005
Total	3,835	3,877	4,491	4,479	5,636

## Comparable operating profit by segment

EUR million	2004	2005	2006	2007	2008
Power Generation	730	854	985	1,095	1,528
Heat	207	253	253	290	250
Distribution	240	244	250	231	248
Markets	23	30	-4	-1	-33
Russia	-	_	-	_	-92
Other	-52	-47	-47	-51	-56
Comparable operating profit	1,148	1,334	1,437	1,564	1,845
Non-recurring items	18	30	61	250	85
Other items effecting comparability	29	-17	-43	33	33
Operating profit	1,195	1,347	1,455	1,847	1,963

## Depreciation, amortisation and impairment charges by segment

EUR million	2004	2005	2006	2007	2008
Power Generation	104	112	108	103	97
Heat	124	123	144	163	169
Distribution	133	145	147	162	165
Markets	16	15	19	11	7
Russia	-	-	-	-	67
Other	11	12	11	12	10
Total	388	407	429	451	515

## Share of profits in associates and joint ventures by segment

EUR million	2004	2005	2006	2007	2008
Power Generation	-21	-21	-9	-23	26
Heat	15	11	23	24	12
Distribution	16	20	15	18	16
Markets	0	1	1	0	5
Russia	-	-	-	_	19
Other	2	44	39	222	48
Total	12	55	69	241	126

#### Capital expenditure by segment

EUR million	2004	2005	2006	2007	2008
Power Generation	84	83	95	93	134
Heat	123	124	184	309	408
Distribution	106	115	183	236	296
Markets	10	10	8	3	3
Russia	-	_	-	-	256
Other	12	14	15	14	11
Total	335	346	485	655	1,108

## Gross investments in shares by segment

EUR million	2004	2005	2006	2007	2008
Power Generation	23	45	5	52	0
Heat	53	87	589	18	23
Distribution	0	-	130	1	0
Markets	0	-	6	0	0
Russia	103	2	140	245	1,492
Other	0	-	40	1	1
Total	179	134	910	317	1,516

**KEY FIGURES FORTUM CORPORATION ANNUAL REPORT 2008** 

## Net assets by segment

EUR million	2004	2005	2006	2007	2008
Power Generation	5,804	5,493	5,690	5,599	5,331
Heat	2,440	2,551	3,407	3,507	3,468
Distribution	3,091	3,021	3,412	3,239	3,032
Markets	194	228	176	247	188
Russia	151	153	294	456	2,205
Other	220	447	835	1,237	796
Total	11,900	11,893	13,814	14,285	15,020

## Return on net assets by segment

%	2004	2005	2006	2007	2008
Power Generation	12.6	14.3	17.5	19.2	29.6
Heat	9.8	11.6	9.6	9.3	8.9
Distribution	8.1	8.8	8.4	7.7	8.1
Markets	25.2	17.4	-1.6	6.9	-14.0
Russia	-	-	-	66.3	-3.7

## Comparable return on net assets by segment

%	2004	2005	2006	2007	2008
Power Generation	12.0	14.9	17.4	18.9	28.0
Heat	9.3	11.0	9.2	9.2	7.3
Distribution	8.3	8.6	8.3	7.6	8.2
Markets	17.1	16.4	-0.8	-0.6	-15.3
Russia	-	-	-	0.0	-3.8

## Average number of personnel

	2004	2005	2006	2007	2008
Power Generation	4,588	4,374	4,147	3,475	3,591
Heat	1,605	2,186	2,345	2,302	2,422
Distribution	995	1,008	983	1,060	1,222
Markets	682	745	825	936	766
Russia	-	-	-	-	5,566
Other	722	626	610	531	510
Total	8,592	8,939	8,910	8,304	14,077

## Definitions of key figures

Return on capital employed, %

Definitions of key figt	JΓΕ	<u>!S</u>
EBITDA (Earnings before interest, taxes, depreciation and amortisation)	=	Operating profit + Depreciation, amortisation and impairment charges
Comparable operating profit	=	Operating profit - non-recurring items - other items effecting comparability
Non-recurring items	=	Mainly capital gains and losses
Other items effecting comparability	=	Includes effects from financial derivatives hedging future cash flows where hedge accounting is not applied according to IAS 39 and effects from the accounting of Fortum's part of the Finnish Nuclear Waste Fund where the asset in the balance sheet cannot exceed the related liabilities according to IFRIC interpretation 5.
Funds from operations (FFO)	=	Net cash from operating activities before change in working capital
Capital expenditure	=	Capitalised investments in property, plant and equipment and intangible assets including maintenance, productivity, growth and investments required by legislation including borrowing costs capitalised during construction period. Maintenance investments expand lifetime of an existing asset, maintain useage/availability and/or maintains reliability. Productivity improves productivity an existing asset. Growth investments' purpose is to build new assets and/or to increase customer base within existing businesses. Legislation investments are done at certain point of time due to legal requirements.
Gross investments in shares	=	Subsidiary shares, shares in associated companies and other shares in available for sale financial assets. Investments in subsidiary shares are net of cash and grossed with interest-bearing liabilities in the acquired company.
Return on shareholders' equity, %	=	Profit for the year x 100 Total equity average
Return on capital employed, %	=	Profit before taxes + interest and other financial expenses x 100

Capital employed average

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Return on capital employed continuing operations, %	Profit before taxes continuing operations + interest Interest coverage and other financial expenses continuing operations Capital employed continuing operations average x 100	= Operating profit Net interest expenses
	Average number of employees  Operating profit + Share of profit (loss) in associated	= Based on monthly average for the whole period
Return on net assets, %	= companies and joint ventures  Net assets average x 100  Earnings per share (EPS)	= Profit for the period - minority interest Average number of shares during the period
Comparable return on net assets, %	Comparable operating profit + Share of profit (loss) in associated companies and joint ventures = (adjusted for IAS 39 effects) Comparable net assets average x 100	= Net cash from operating activities  Average number of shares during the period
Capital employed	Equity per share  = Total assets - non-interest-bearing liabilities - defer- red tax liabilities - provisions	= Shareholders' equity Number of shares at the end of the period
Net assets	= Non-interest-bearing assets + interest-bearing assets related to the Nuclear Waste Fund - non-interest-bearing liabi-	$= \frac{\text{Dividend per share}}{\text{Earnings per share}} \times 100$
	lities - provisions (non-interest-bearing assets and liabilities do not include finance related items, tax and deferred tax and assets and liabilities from fair valuations of derivatives where hedge accounting is applied)  Payout ratio continuing operations, where hedge accounting is applied)	$\% = \frac{\text{Dividend per share continuing operation}}{\text{Earnings per share continuing operation}} \times 100$
Comparable net assets	Net assets adjusted for non-interest-bearing assets and  = liabilities arising from financial derivatives hedging future cash flows where hedge accounting is not applied according to IAS 39	= Dividend per share Share price at the end of the period x 100
Interest-bearing net debt	= Interest-bearing liabilities - liquid funds  Price/earnings (P/E) ratio	= Share price at the end of the period Earnings per share
Gearing, %	= Interest-bearing net debt x 100 Average share price	= Amount traded in euros during the period  Number of shares traded during the period
Equity-to-assets ratio, %	= Total equity including minority interest	<ul> <li>Number of shares at the end of the period x share price at the end of the period</li> </ul>
Net debt / EBITDA	Interest-bearing net debt  Operating profit + Depreciation, amortisation and impairment charges  Trading volumes	<ul> <li>Number of shares traded during the period in relation to the weighted average number of shares during the period</li> </ul>
Net debt / EBITDA continuing operations	Interest-bearing net debt  Operating profit continuing operations + Depreciation, amortisation and impairment charges continuing operations	

# Parent company financial statements, Finnish GAAP (FAS)

## Income statement

EUR million	Note	2008	2007
Sales	2	68	84
Other income	3	7	15
Employee costs	4	-48	-51
Depreciation, amortisation and write-downs		-10	-11
Other expenses		-60	-62
Operating profit		-43	-25
Financial income and expenses	5	1,215	1,797
Profit after financial items		1,172	1,772
Group contributions 1)	***************************************	757	724
Profit before income tax		1,929	2,496
Income tax expense	6	-108	-145
Profit for the period		1,821	2,351

<sup>1)</sup> Taxable profits transferred from Finnish subsidiaries.

## Balance sheet

EUR million	Note	31 Dec 2008	31 Dec 2007
ASSETS			
Non-current assets	7		
Intangible assets		15	17
Property, plant and equipment		15	13
Investments in group companies		16,285	12,255
Interest-bearing receivables from group companies		970	1,978
Investments in associated companies		0	0
Interest-bearing receivables from associated companies		2	1
Other non-current assets		6	3
Deferred tax assets		3	-
Total non-current assets		17,296	14,267
Current assets			
Trade and other receivables from group companies	8	798	768
Trade and other receivables from associated companies	8	0	0
Trade and other receivables	8	686	126
Cash and cash equivalents	9	249	372
Total current assets		1,733	1,266
Total assets		19,029	15,533

EUR million	Note	31 Dec 2008	31 Dec 2007
SHAREHOLDERS' EQUITY AND LIABILITIES			
Shareholders' equity	11	•••••••••••••••••••••••••••••••••••••••	
Share capital		3,044	3,040
Share issue		0	0
Share premium		2,822	2,822
Retained earnings		1,921	768
Profit for the period		1,821	2,351
Total shareholders' equity		9,608	8,981
Provisions for liabilities and charges		-	1
LIABILITIES	······································	······································	
Non-current liabilities		······································	
External interest-bearing liabilities	12	6,016	3,821
Interest-bearing liabilities to group companies	12	1,767	1,831
Interest-bearing liabilities to associated companies	12	184	172
Other non-current liabilities		13	19
Deferred tax liabilities		67	2
Total non-current liabilities		8,047	5,845
Current liabilities			
External interest-bearing liabilities	12	687	542
Trade and other payables to group companies	13	570	32
Trade and other payables to associated companies	13	8	7
Trade and other payables	13	109	125
Total current liabilities		1,374	706
Total liabilities		9,421	6,551
Total equity and liabilities		19,029	15,533

## Cash flow statement

EUR million	2008	2007
Cash flow from operating activities		
Profit for the period	1,821	2,35
Adjustments:	***************************************	
Income tax expense	108	145
Group contributions	<b>–</b> 757	-725
Finance costs - net	-1,215	-1,797
Depreciations, amortisation and write-downs	10	11
Operating profit before depreciations	-33	-15
Non-cash flow items and divesting activities	-1	2
Interest and other financial income	152	151
Interest and other financial expenses paid, net	-442	-291
Dividend income	1,596	1,939
Group contribution received	724	638
Realised foreign exchange gains and losses	-695	-261
Income taxes paid	-147	-108
Funds from operations	1,154	2,055
Decrease/increase in trade and other short-term receivables	5	-7
Increase in trade and other short-term payables	0	Ē
Change in working capital	5	-2
Net cash from operating activities	1,159	2,053
Cash flow from investing activities	•	
Capital expenditures	-13	-14
Acquisition of shares and capital contributions in subsidiaries	-4,110	-650
Acquisition of other shares	0	
Proceeds from sales of fixed assets	1	3
Proceeds from sales of shares in associates	-	
Change in interest-bearing receivables and other non-current assets	1,005	182
Net cash used in investing activities	-3,117	-479
Cash flow before financing activities	-1,958	1,574
Cash flow from financing activities	•	
Proceeds from long-term liabilities	5,382	210
Payment of long-term liabilities	-3,346	-37
Change in short-term liabilities	993	-167
Proceeds from stock options exercised	4	17
Repurchase of own shares	-	-175
Dividends paid	-1,198	-1,122
Net cash used in financing activities	1,835	-1,274
Net increase (+)/decrease (–) in cash and cash equivalents	-123	300
Cash and cash equivalents at the beginning of the period	373	73
Cash and cash equivalents at the end of the period	250	373
Net increase (+)/ decrease (-) in cash and cash equivalents	-123	300

## Parent company notes to the financial statements

## 1 Accounting policies and principles

The financial statements of Fortum Oyj are prepared in accordance with Finnish Accounting Standards (FAS).

#### 1.1 Sales

Sales include sales revenues from actual operations and exchange rate differences on trade receivables, less discounts and indirect taxes such as value added tax.

#### 1.2 Other income

Other income includes gains on the sales of tangible assets and shareholdings, as well as all other operating income not related to the sales of products or services, such as rents.

## 1.3 Foreign currency items and derivative instruments

Transactions denominated in foreign currencies have been valued using the exchange rate at the date of the transaction. Receivables and liabilities denominated in foreign currencies outstanding on the balance sheet date have been valued using the exchange rate quoted on the balance sheet date. Exchange rate differences have been entered in the financial net in the income statement.

Fortum Oyj enters into derivative contracts mainly for hedging foreign exchange and interest rate exposures.

Derivatives used to hedge balance sheet items e.g. bank accounts, loans or receivables are valued employing the exchange rate quoted on the balance sheet date, and gains or losses are recognised in the income statement. The interest element on forward contracts is accrued for the period.

Option premiums are treated as advances paid or received until the option matures, and any losses on options entered into other than for hedging purposes are entered as an expense in the income statement.

Interest income or expense for derivatives used to hedge the interest rate risk exposure is accrued over the period to maturity and is recognised as an adjustment to the interest expense of the liabilities.

#### 1.4 Income taxes

Income taxes presented in the income statement consist of accrued taxes for the financial year and tax adjustments for prior years.

## 1.5 Property, plant and equipment and depreciation

The balance sheet value of property, plant and equipment consists of historical costs less depreciation and other deductions. Property, plant and equipment are depreciated using straight-line depreciation based on the expected useful life of the asset.

The depreciation is based on the following expected useful lives:

Buildings and structures		15-4	0 years
Machinery and equipment		3-1	5 years
Other intangible assets		5-1	0 years

## 1.6 Pension expenses

Statutory pension obligations are covered through a compulsory pension insurance policy or Group's own pension fund. Payments to Group's pension fund are recorded in the income statement in amounts determined by the pension fund according to the actuarial assumptions pursuant to the Finnish Employees' Pension Act.

## 1.7 Equity-related compensation benefits

Costs related to the Fortum long-term incentive plans are accrued over the plan period and the related liability is booked to the balance sheet.

#### 1.8 Provisions

Foreseeable future expenses and losses that have no corresponding revenue to which Fortum is committed or obliged to settle, and whose monetary value can be reasonably assessed, are entered as expenses in the income statement and included as provisions in the balance sheet.

## 2 Sales by market area

EUR million	2008	2007
Finland	63	81
Sweden and other countries	5	3
Total	68	84

## **3** Other income

EUR million	2008	2007
Gain on sales of shareholdings	-	1
Rental income and other	7	14
Total	7	15

## 4 Employee costs

EUR million	2008	2007
Personnel expenses		
Wages, salaries and remunerations	30	36
Indirect employee costs	***************************************	
Pension costs	11	12
Other indirect employee costs	2	2
Other personnel expenses	5	1
Total	48	51
Salaries and remunerations	······································	
President and CEO, members of the Board of Directors and the Supervisory Board	4	2
Average number of employees	504	594

## **5** Financial income and expenses

EUR million	2008	2007
Dividend income from group companies	1,596	1,939
Interest and other financial income from group companies	125	127
Write-downs of participations in group companies	-80	-
Interest and other financial income	12	24
Exchange rate differences	<b>–7</b>	6
Interest and other financial expenses to group companies	-112	-112
Interest and other financial expenses	<b>–</b> 319	-187
Total	1,215	1,797
Total interest income and expenses		
Interest income	136	151
Interest expenses	-427	-292
Interest net	-291	-141

Write-downs of participations in group companies is a consequence of received dividends.

## **6** Income tax expense

EUR million	2008	2007
Taxes on regular business operations	-89	-43
Taxes on group contributions	197	188
Total	108	145
Current taxes for the period	45	140
Current taxes for prior periods	0	0
Changes in deferred tax	63	5
Total	108	145

## **7** Non-current assets

## **Intangible assets**

Intangible assets total
34
4
<b>–2</b>
36
17
-1
5
21
15
17

## Property, plant and equipment

Buildings and structures	Machinery and equipment	paid and construction in progress	Total
1	27	2	30
-	5	3	8
-	-1	-	-1
1	31	5	37
0	17		17
-	-1	-	-1
-	6	-	6
0	22	-	22
1	9	5	15
1	10	2	13
		structures   equipment	Structures   equipment   in progress   1   27   2   2   - 5   3   3   - 1   - 1   - 1   5   5   5   5   5   5   5   5   5

#### **Investments**

EUR million	Shares in Group companies	Receivables from Group companies	Shares in associated companies	Receivables from associated companies	Other non-current assets	Total
1 January 2008	12,255	1,977	0	2	3	14,237
Additions 1)	4,110	5,158	-	-	3	9,271
Disposals	-	-6,165	-	-	-	-6,165
31 December 2008	16,365	970	0	2	6	17,343
Accumulated depreciation 1 January 2008	-	_	-	-	-	-
Impairment charges	-80	_	-	-	_	-80
Accumulated depreciation 31 December 2008	-80	0	0	0	0	-80
Carrying amount 31 December 2008	16,285	970	0	2	6	17,263

<sup>1)</sup> Additions regarding shares comprise acquisitions of shares and capital contributions.

## **8** Trade and other receivables

EUR million	2008	2007
Trade and other receivables from group companies		
Trade receivables	28	33
Other receivables	757	724
Accrued income and prepaid expenses	13	11
Total	798	768
Trade and other receivables from associated companies		
Accrued income and prepaid expenses	0	0
Trade and other receivables		
Trade receivables	0	1
Other receivables	1	1
Accrued income and prepaid expenses	685	124
Total	686	126

## **9** Cash and cash equivalents

EUR million	2008	2007
Cash at bank and in hand	19	62
Bank deposits	230	310
Cash and cash equivalents	249	372

## 10 Pension commitments to corporate management

For the President and CEO and the members of the Fortum Management Team, the retirement age is 60. The pension obligations are covered either through insurance companies or Fortum Pension Fund. See also Note 34 to the Consolidated financial statements.

## 11 Changes in shareholders' equity

EUR million	Share capital	Share issue	Share premium	Retained earnings	Total
Total equity 31 December 2007	3,040	0	2,822	3,119	8,981
Stock options exercised	4	-	-	-	4
Cash dividend	-	-	-	-1,198	-1,198
Repurchase of own shares	-	-	-	-	0
Profit for the period	-	-	-	1,821	1,821
Total equity 31 December 2008	3,044	0	2,822	3,742	9,608
Total equity 31 December 2006	3,023	0	2,822	2,065	7,910
Stock options exercised	17	0	-	-	17
Cash dividend	-	-	-	-1,122	-1,122
Repurchase of own shares	-	-	-	-175	-175
Profit for the period	-	-	-	2,351	2,351
Total equity 31 December 2007	3,040	0	2,822	3,119	8,981
EUR million				2008	2007
Distributable funds 31 December				3,742	3,119

## **12** Interest-bearing liabilities

## **External interest-bearing liabilities**

EUR million	2008	2007
Bonds	2,488	2,865
Loans from financial institutions	2,837	280
Other long-term interest-bearing debt	691	676
Total long-term interest-bearing debt	6,016	3,821
Current portion of long-term bonds	230	541
Current portion of loans from financial institutions	0	1
Commercial papers	457	0
Other short-term interest-bearing debt	0	0
Total short-term interest-bearing debt	687	542
Total external interest-bearing debt	6,703	4,363

#### Maturity of external interest-bearing liabilities

EUR million	2008
2009	687
2010	500
2011	2,208
2012	414
2013	1,098
2014 and later	1,796
Total	6,703

## External interest-bearing liabilities due after five years

EUR million	2008	2007
Bonds	985	1,519
Loans from financial institutions	120	131
Other long-term liabilities	691	676
Total	1,796	2,326

## Other interest-bearing liabilities due after five years

EUR million	2008	2007
Interest-bearing liabilities to group companies	17	17
Interest-bearing liabilities to associated companies	184	172
Total	201	189

## **13** Trade and other payables

EUR million	2008	2007
Trade and other payables to group companies		
Trade payables	8	7
Other liabilities	559	19
Accruals and deferred income	3	6
Total	570	32
Trade and other payables to associated companies	<u>.</u>	
Accruals and deferred income	8	7
Total	8	7
Trade and other payables		
Trade payables	10	10
Other liabilities	2	3
Other short-term accruals and deferred income	97	112
Total	109	125

## **14** Contingent liabilities

EUR million	2008	2008
On own behalf		
Other contingent liabilities	6	3
On behalf of group companies	•	
Guarantees	463	349
On behalf of associated companies	•	
Guarantees	489	195
On behalf of others	•	
Guarantees	4	4
Contingent liabilities total	962	551

## **Operating leases**

EUR million	2008	2007
Lease payments		
Not later than 1 year	1	1
Later than 1 year and not later than 5 years	0	0
Total	1	1

## **Derivatives**

EUR million		2008			2007	
	Contract or notional value	Fair value	Not recog- nised as an income	Contract or notional value	Fair value	Not recog- nised as an income
Forward rate agreements	230	0	0	741	0	0
Interest rate swaps	2,977	-12	-13	3,476	-16	-26
Forward foreign exchange contracts 1)	12,846	366	-4	13,158	41	8
Interest rate and currency swaps	2,145	217	6	3,191	76	-2

<sup>1)</sup> Includes also closed forward and future positions.

# Proposal for the distribution of earnings

Parent company's distributable equity as of 31 December 2008 amounted to EUR 3,742,202,898.57. After the end of the financial period there have been no material changes in the financial position of the Company.

The Board of Directors proposes to the Annual General Meeting that Fortum Corporation pay a cash dividend of EUR 1.00 per share for 2008, totalling EUR 888 million based on the number of registered shares as of 4 February 2009.

Espoo, 4 February 2009

Birgitta Johansson-Hedberg

Matti Lehti

Christian Ramm-Schmidt

Ilona Ervasti-Vaintola

President and CEO

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# Auditor's report

## To the Annual General Meeting of Fortum Oyj

We have audited the accounting records, the financial statements, the Operating and Financial Review, and the administration of Fortum Oyj for the financial period 1.1.–31.12.2008. The financial statements comprise the consolidated balance sheet, income statement, cash flow statement, statement of changes in equity and notes to the consolidated financial statements, as well as the parent company's balance sheet, income statement, cash flow statement and notes to the financial statements.

#### The responsibility of the Supervisory Board, Board of Directors and the President and CEO

The responsibility of the Supervisory Board is to supervise the company's administration by the Board of Directors and the President and CEO. The Board of Directors and the President and CEO are responsible for the preparation of the financial statements and the Operating and Financial Review and for the fair presentation of the consolidated financial statements in accordance with International Financial Reporting Standards (IFRS) as adopted by the EU, as well as for the fair presentation of the parent company's financial statements and the Operating and Financial Review in accordance with laws and regulations governing the preparation of the financial statements and the report of the Operating and Financial Review in Finland. The Board of Directors is responsible for the appropriate arrangement of the control of the company's accounts and finances, and the President and CEO shall see to it that the accounts of the company are in compliance with the law and that its financial affairs have been arranged in a reliable manner.

#### Auditor's responsibility

Our responsibility is to perform an audit in accordance with good auditing practice in Finland, and to express an opinion on the parent company's financial statements, on the consolidated financial statements and on the Operating and Financial Review based on our audit. Good auditing practice requires that we comply with ethical requirements and plan and perform the audit to obtain reasonable assurance whether the financial statements and the Operating and Financial Review are free from material misstatement and whether the members of the parent company's Supervisory Board and Board of Directors and the President and CEO have complied with the Limited Liability Companies Act.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the financial statements and the Operating and Financial Review. The procedures selected depend on the auditor's judgment, including the assessment of the risks of material misstatement of the financial statements, whether due to fraud or error. In making those risk assessments, the auditor considers internal control relevant to the company's preparation and fair presentation of the financial statements in order to design audit procedures that are appropriate in the circumstances. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of accounting estimates made by management, as well as evaluating the overall presentation of the financial statements and the Operating and Financial Review.

The audit was performed in accordance with good auditing practice in Finland. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinion.

#### Opinion on the consolidated financial statements

In our opinion, the consolidated financial statements give a true and fair view of the financial position, financial performance, and cash flows of the group in accordance with International Financial Reporting Standards (IFRS) as adopted by the EU.

## Opinion on the company's financial statements and the Operating and Financial Review

In our opinion, the financial statements, together with the consolidated financial statements included therein, and the Operating and Financial Review give a true and fair view of the financial performance and financial position of the company in accordance with the laws and regulations governing the preparation of the financial statements and the Operating and Financial Review in Finland. The information in the Operating and Financial Review is consistent with the information in the financial statements.

The consolidated financial statements and the parent company's financial statements can be adopted and the members of the Supervisory Board and the Board of Directors and the President and CEO of the parent company can be discharged from liability for the period audited by us. The proposal by the Board of Directors regarding the treatment of distributable funds is in compliance with the Limited Liability Companies Act.

Espoo, February 4, 2009

Deloitte & Touche Oy Authorized Public Audit Firm

Mikael Paul Authorized Public Auditor

# Statement by the Supervisory Board

The Supervisory Board has today in their meeting reviewed Fortum Corporation's income statement, balance sheet and notes to the financial statements for the year 2008 as well as consolidated financial statements and the auditors' report provided by the Company's auditors. The Supervisory Board has no comments to make on these.

Martti Alakoski

Kimmo Kiljunen

Juha Mieto

The Supervisory Board recommends that the income statement, balance sheet and consolidated financial statements can be approved.

The Supervisory Board states that it has received adequate information from the Board of Directors and the company's management.

Espoo, 4 February 2009

Markku Laukkanen

Rakel Hiltunen

Katri Komi

Jukka Mäkelä

Panu Laturi

Sanna Perkiö





