

# Fortum's Annual Report 2014

*Fortum is an energy company highly committed to sustainability. We strive to respond to the needs of our customers by generating, selling and distributing low-carbon electricity and heat and by offering energy-sector expert services.*



## CEO Tapio Kuula's review

President and CEO until 31 January 2015

In 2014, the significant weakening of the global economy and the value of the rouble increased the uncertainty in the operating environment. There was positive development in the EU's climate policy, and in Europe a decision was reached on energy and climate targets for 2030. Fortum focused on increasing the flexibility of its business operations and prepared to take the next significant steps in implementing the company's strategy.

Alongside energy market development and the energy market model, climate change is an important issue that must be resolved. According to the latest assessment reports by the Intergovernmental Panel on Climate Change (IPCC), the global average temperature is estimated to rise by as much as three-four degrees Celsius by 2100 compared to the level of past decades.

The IPCC proposes relinquishing dependence on fossil fuels by the end of the century to keep climate warming below two degrees. Greenhouse gas emissions must be reduced significantly, which requires major changes to energy production. Additionally, smart solutions are needed to make energy distribution and consumption more efficient.

### Emissions-free production is Fortum's strategic choice

Fortum's strategy fits very well within the frame of reference of measures mitigating climate change. Our purpose is to create energy that improves life for present and future generations. We provide sustainable

solutions for society while delivering excellent value to our shareholders. We want to act responsibly, both in the short term and long term.

The cornerstones of our strategy are strong expertise in CO<sub>2</sub>-free hydro and nuclear power production, in efficient combined heat and power (CHP) production, and in operating in the energy markets.

### Tighter EU emissions reduction targets for 2030

Leaders of the EU countries decided in 2014 to decrease the member countries' combined carbon dioxide emissions from the 1990 level by 40 per cent by 2030. In the EU, preparations for a Market Stability Reserve (MSR) to strengthen the steering effects of emissions trading were also initiated. When the price for carbon dioxide emissions is adequately steering power plant operations

and future investments, the share of renewable energy can be increased in a market-based manner.

For cost and efficiency reasons, electricity supply and generation must be viewed from a Europe-wide perspective. When electricity is generated with a method that is most efficient for each area, a reasonable electricity price for consumers and a competitive supply for industry can be ensured. Instead of massive production subsidies from the public sector, it would be important to ensure market functionality by investing in, e.g., electricity interconnections that would improve the security of electricity supply throughout Europe.

**The EU's energy policy and national solutions**

Europe's energy and climate policy decision making in 2014 was characterised by concerns about competitiveness of the euro zone and the security of energy supply. Europe got into a situation in which the wholesale price of electricity was low in the weak economy, there was a surplus of emission allowances on the market and the share of heavily subsidised renewable production increased.

Due to the global market situation, coal was economical and fossil fuels were the most significant energy source for industrial countries. Electricity's low market prices didn't encourage market-based investments; instead, the majority of the new energy production capacity was based on public-sector subsidies, thereby growing the end customers' electricity bill and the burden on taxpayers.

Concerns about the security of energy supply led to the reinforcement of national perspectives. Instead of creating a European electricity market, some EU countries advanced towards national solutions. There were discussions in some EU countries about subsidies to maintain traditional capacity and about the so-called capacity mechanisms. However, from the perspective of the EU's integrated energy market, this is partial optimisation and an expensive solution, and it doesn't secure the supply of electricity in Europe in the

long-term.

If and when European countries adopt capacity mechanisms, they must not be tied to a single technology; they must be cross-border mechanisms and they must cover both old and new production capacity as well as all production forms.

**Predictable European energy markets operating on a commercial basis**

Even though the wholesale prices for electricity have continued to decrease, various taxes, fees and subsidies have increased the end-customers' energy costs. Therefore, it is important to create a predictable electricity market built on consumer participation, utilisation of the different value components of energy sources, as well as the inclusion of various energy producers.

Rather than advancing individual technologies or narrow-scope regional solutions, it is important to create the biggest possible integrated electricity market model that includes adequate physical transmission capacity and that has transmission system operators, grid companies and power exchanges operating in close cooperation. In addition, when environmental impacts are given the right price through CO<sub>2</sub> emissions, it creates energy markets that are competitive, attentive to environmental requirements, and provide security of supply.

In the future, both industrial customers and consumers should become involved in balancing production and consumption and in levelling consumption peaks in the electricity system. This is most successful when the premises are genuinely market-based and the levelling of consumption benefits economically both the electricity user and the producer. This will be one of the central challenges of energy market development in the years ahead.

**We increased our operational efficiency and our flexibility**

In a challenging market situation, Fortum's 2014 results were strong. The wholesale price of electricity, global economic development and the weakened rouble were clearly disappointing. The drop in also

commodity prices during the fourth quarter was not foreseeable.

On the other hand, the price of CO<sub>2</sub> emission allowances in EU emissions trading scheme increased somewhat; as a result, the drop in the price of electricity in the wholesale market was smaller than the decrease in commodity prices. In the Nordic countries, electricity production increased slightly thanks to the growth in exports, and demand in Russia remained at the 2013 level.

Fortum's sales in 2014 were EUR 4,751 million. Comparable operating profit, excluding items affecting comparability, mainly profit from the sale of the electricity distribution businesses in Finland and Norway, totalled EUR 1,351 million and cash from operating activities was a strong EUR 1,762 million. Earnings per share were EUR 3.55, of which EUR 2.36 per share relates to items affecting comparability.

During the year, we continued Fortum's internal transformation to further increase efficiency and flexibility. We finalised successfully our two-year efficiency programme, within which we decreased investments, divested non-core assets, reduced fixed costs and improved working capital efficiency.

**We divested Finnish and Norwegian electricity distribution businesses**

Fortum sold its electricity distribution business in Finland in spring 2014 to a new distribution company owned by the Finnish pension insurance companies Keva and LocalTapiola Pension and the international infrastructure investors First State Investments and Borealis Infrastructure. The Norwegian electricity distribution business was sold to the energy company Hafslund ASA. We are continuing to prepare and evaluate opportunities to divest the Swedish electricity distribution business.

By divesting the electricity distribution businesses, Fortum is better equipped to focus on the production and sales of efficient and low-carbon electricity and heat. This significantly increases Fortum's strategic freedom, and gives the company an exceptionally good platform for improving shareholder value.

**Electricity sales and services related to electricity use are our**

## core competences

Electricity has become a cornerstone of modern society and the driving force of the information society. With the electrification of transportation, and as information technology becomes even more integrated into the daily life of consumers, electricity's share in total energy consumption will grow.

Fortum is continuously developing new tools and services enabling business and private customers to monitor, control and boost the efficiency of their electricity consumption. Customers are also offered open, two-way solutions that enable them to sell the surplus electricity they produce to Fortum.

Knowing consumers' needs and identifying changes is an important part of Fortum's strategy implementation. From this perspective, the natural next steps are growing the electricity sales-related business and strengthening our expertise related to the services offered to electricity users.

## For the good of customers and the surrounding society

We are committed to the principles of the UN Global Compact initiative. Our sustainability indicators emphasise Fortum's role in society and measure environmental and safety performance as well as the company's reputation, customer satisfaction, and the delivery reliability of electricity and heat.

In 2014, we served our customers well. Customer satisfaction improved in all divisions, and customer loyalty and customer willingness to recommend Fortum were reflected in the growing number of customers. Fortum became the biggest electricity seller in the Nordic countries last year. The quality of our products and services were also appreciated. In terms of the delivery reliability of electricity, we reached our target. The average outage per customer was 97 minutes during the year.

### Customer satisfaction

Results of the annual customer satisfaction survey indicate that we are moving in the right direction. The survey results published late last year indicate that Fortum's customer satisfaction had improved more than that of any other major electricity company's.

Customer satisfaction has developed very favourably for several years. Fortum now has about 1.3 million electricity customers in Finland, Sweden and Norway; consequently, Fortum is the biggest seller of electricity in the Nordic countries.

We have collaborated with our customers to modify electricity agreements to meet their needs. We offer electricity produced with emissions-free hydropower through easy-to-understand agreements with logical, competitive pricing. This basic work is supported with energy-efficiency services the customers can use to influence the cost of their electricity bill.

Measured through the annual [One Fortum survey](#), the company's reputation remained stable and improved in Finland. However, in Sweden our reputation among the general public is not at the desired level, so we must continue our efforts to improve it.

## Russian investment programme close to completion

The investment programme consisting of eight new production units in Russia has advanced to the final phase. In 2014, the last of the three big, new power plant units in Nyagan was commissioned. The final two units of the programme will be commissioned in 2015 in Chelyabinsk.

Fortum's target set at the time of the acquisition of the Russian subsidiary OAO Fortum in 2008 was to reach a run-rate level in operating profit (EBIT) of RUB 18.2 billion in the Russian Segment during 2015. We have kept the rouble-denominated target intact, but, due to the significant fluctuations in the rouble exchange rates, the euro-denominated result level will be volatile.

## Acquiring TGC-1's hydropower - Fortum's next step to growth

In December 2014, we announced our intention to increase Fortum's hydropower production capacity by 60% through the restructuring of TGC-1, a Russian Territorial Generating Company. TGC-1 owns and operates hydro and thermal power in north-western Russia and heat distribution

networks in St. Petersburg. Gazprom Energoholding owns 51.8% of the company's shares and Fortum 29.5%.

In the restructuring, Fortum and the Russian company Rosatom would own the hydropower production of TGC-1. Gazprom Energoholding would continue with the heat and thermal power operations of TGC-1. Through our present stake in TGC-1, Fortum's share of the new, hydropower-focused company would rise to more than 75%. Rosatom would become a minority holder in the company, with a less than 25% stake. The new company would be a subsidiary of Fortum. We are working to complete detailed structuring, practical arrangements and final commercial terms.

Provided that Fortum obtains more than 75% ownership in TGC-1's hydro assets, we are ready to participate with a minority stake (max. 15%) in Fennovoima's Finnish nuclear power project on the same terms and conditions as the other domestic companies currently participating in the project.

The restructuring of TGC-1 and a minority share in Fennovoima's nuclear power plant project are in line with Fortum's strategy, which is based on strong expertise in CO<sub>2</sub>-free hydro and nuclear power and in efficient combined heat and power production as well as operating in energy markets.

Increasing Fortum's hydropower capacity by 60% would also balance the company's production structure and Russian business operations. After the restructuring, 60% of the Russian operations would be combined heat and power production and condensing power production, and the remaining 40% would be hydropower. At the Fortum level, the share of hydropower would increase from the current one-third to over 40% of the total production mix.

## Hydropower balances the variability of wind and solar power

Emissions-free hydropower is a climate-neutral production form that can be used to reduce the energy sector's emissions. From the perspective of the entire energy system, hydropower offers the opportunity to balance the large variability of renewable energy sources, particularly solar and wind power.

**Hydropower balances fluctuations in both other renewable energy production and electricity consumption**

The values associated with electricity are energy content, capacity and the ability of the production forms to respond to consumption peaks. Despite the intermittency of renewable energy, there must be balance between production and consumption at all times in the electricity system. Maintaining the balance – particularly as the share of other renewable energy increases – requires flexibility; in this respect, hydropower meets this need very well. This is precisely why hydropower production is very attractive to Fortum.

Fortum's current hydropower production is centralised in Finland and Sweden. The company has 33 fully-owned or co-owned hydropower plants in Finland and 126 in Sweden. Their production capacity can be increased mostly through plant modernisations and by optimising the use of water systems.

In 2014, we continued our annual investments in hydropower capacity upgrades. For example, the refurbishment of the Imatra power plant's number-three unit, commissioned in 1929, re-established the plant as Finland's biggest hydropower plant in terms of capacity. When the refurbishment of the number-four unit is completed in 2015, the plant's capacity will further increase to 192 megawatts.

Therefore, it is important that we use this opportunity wisely and in good collaboration with authorities and stakeholder groups. Fortum takes the local environmental impacts of hydropower into consideration and is ready to work with stakeholders to find solutions.

**Russian heat reform brings more business**

The roadmap for Russia's heat sector reform was approved by the Russian Government in 2014. With the reform, the district heat pricing would be based only on a heat-only boiler price methodology. The reform would

encourage investments in energy-efficient production to reduce fuel consumption and in upgrading district heating networks to reduce heat loss.

The plan is to phase in new heat tariffs mostly by 2020, starting in 2015. The reform would start in the big cities with over 100,000 residents and in cities that have existing combined heat and power production.

Thanks to Fortum's production structure, we are able to utilise energy-efficient combined heat and power production in a competitive manner. There have not yet been any final decisions made on the implementation of heat reform, but it could offer Fortum's existing plants the opportunity to increase business in Russia.

**Combined heat and power production boosts resource efficiency**

Combined heat and power (CHP) production is the most efficient fuel-based energy production. The fuel efficiency of CHP production can be as high as 90%. CHP plants play a significant role in Fortum's energy production structure: CHP accounts for about one third of electricity production and about 90% of heat production.

In recent years, Fortum has built a lot of new biomass- and waste-based combined heat and power production capacity in Estonia, Lithuania, Latvia, Poland, Sweden and Finland.

Fortum's co-owned TSE Turun Seudun Energiantuotanto Oy is currently building a new multifuel power plant in Naantali. Additionally, a new biopower plant is currently under construction in Stockholm, and upon completion will be one of the biggest in Europe. The plant is being built by Fortum Värme, which is Fortum's and the city of Stockholm's joint venture. The value of the investment is about EUR 500 million. The amount of heat and electricity produced by the plant will be equivalent to the annual heat consumption of about 190,000 medium-sized apartments. The plant will significantly reduce the district heating-related CO<sub>2</sub> emissions in Stockholm.

**Emissions-free energy with nuclear power**

Nuclear power accounts for about one third of Fortum's electricity production and plays a significant role in reducing carbon emissions. Fortum also has long experience in the

responsible use of nuclear power, and the company's expertise is globally recognised. Nuclear power is needed to mitigate climate change, and its efficiency can be further improved significantly in combined heat and power production.

The Loviisa nuclear power plant in Finland operated by Fortum had a good production year, and the plant's load factor of 90.9% was excellent by international standards. Safety is a top priority in nuclear power plant operations, and Fortum continuously invests in improvements to safety.

In 2014, investments to improve safety included a new air cooling system. The investment will ensure removal of residual heat in the plant units in improbable extreme situations in which seawater for some reason becomes unavailable for its normal cooling function. During 2015-2018 several other significant investment and modernisation projects will be implemented at Loviisa. These projects, such as the modernisation of automation, secure reliable and profitable electricity production at the plants to the end of the operating licenses, i.e. to 2027 and 2030.

A significant nuclear power sector issue for Fortum in 2015 is the progression of the Russian TGC-1 restructuring and the related possible participation in the Finnish Fennovoima nuclear power project.

**Organisational reform to support strategic change**

As part of Fortum's strategic change, we broadened the Group's management team in March 2014. The divestment of the electricity distribution business puts Fortum in a new situation in which the company has significant business divestments and investment programmes under way while simultaneously preparing for growth. In light of this, we strengthened the Executive Management Team with competencies related to strategy, mergers and acquisitions, and corporate relations.

The 2013-2014 efficiency programme was successfully completed, but there is still internal development potential within Fortum. With the organisational change, we strengthened the opportunities to leverage synergies between the businesses. The Chief Operating Officer (COO) model offers excellent opportunities to continue this development.

The renewal also gave the Management Team

members the opportunity to expand their own know-how and experience to the benefit of the company, the Executive Management Team work, and themselves.

## Occupational safety is important

As in the previous year, the occupational safety of Fortum's own employees remained very good. Measured by the Total Recordable Injury Frequency indicator, it was a record-best year. However, we cannot be satisfied with this because it was a very bleak year for contractor safety.

Five accidents leading to the deaths of contractor employees occurred during the year, four in Sweden and one in Russia. My deepest condolences to the families and co-workers of the victims.

Our goal is to prevent all serious injuries; we cannot tolerate non-compliance when it comes to safety practices. Immediate corrective measures involved an inspection of all Fortum's construction sites and the most significant ongoing maintenance work, especially that involving hoisting work and work performed at heights. Additionally, the work safety guidelines and practices were updated, and the safety practices for construction projects were improved. All key individuals will receive training on these guidelines in 2015 in an effort to reduce serious injuries by half.

## We improve energy efficiency

At the end of 2014, Fortum's Board of Directors approved a new long-term energy efficiency target. We aim to achieve an annual energy savings of over 1,400 gigawatt-hours by 2020 compared to 2012. The saving would be equivalent to the annual heating energy need of more than 75,000 households, or the annual production of more than two hundred 2.5-megawatt wind power plants. The new target replaces the previous target that measured the combustion efficiency of fossil fuels.

## Ready to seize opportunities in the changing energy markets

Fortum has a very strong competitive position, whether measured by CO<sub>2</sub>-free production, know-how, production structure, capacity flexibility, cost structure, sustainable operations or occupational safety.

Fortum's strategy provides a clear view of the future direction of development – both in the short term and the long term. It enables value creation, stronger earnings per share, and a good premise for producing stable, sustainable and over time increasing dividends.

## Thank you for the good collaboration

When the Annual Report is published, I have already retired. It has been a great pleasure to participate in Fortum's step-by-step development from a national energy company to a significant player in the Nordic countries and Europe. Strategically, Fortum is right now in a very interesting and exceptionally competitive position in the sector. For this reason, I would be pleased to continue working on behalf of Fortum as a member of the Board – if the spring 2015 Annual General Meeting so decides.

I want to extend my sincere thanks to all Fortum personnel in all our operating countries for the work in 2014 and good collaboration. I would also like to thank our customers and shareholders for your trust. A special thank you to Chairman of the Board Sari Baldauf and to the whole Board of Directors for your support in advancing Fortum's interests. Thank you also to Chief Financial Officer Timo Karttinen, who has assumed the responsibility for the duties of the interim President and CEO.

I wish the best of success to Fortum, its owners, customers, collaboration partners and personnel.

*Tapio Kuula*