

2011

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Review

Heat Division in 2011

Fortum's Heat Division concentrates on combined heat and power (CHP) production and district heating. During the year, Heat continued its CHP investments according to the strategy and also developed and implemented new products for district heating.

KEY FIGURES

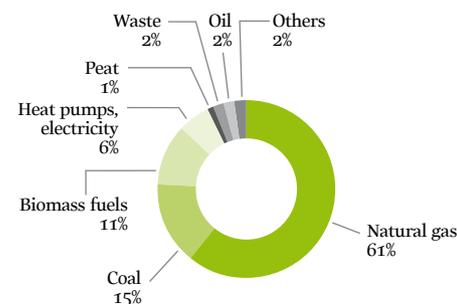
EUR million	2011	2010	Change %
Sales	1,737	1,770	-2
heat sales	1,238	1,269	-2
power sales	342	368	-7
other sales	157	133	18
Operating profit	380	303	25
Comparable operating profit	278	275	1
Comparable EBITDA	471	462	2
Net assets (at end of period)	4,191	4,182	0
Return on net assets, %	9.9	8.4	18
Comparable return on net assets, %	7.4	7.7	-4
Capital expenditure and gross investments in shares	329	305	8
Number of employees	2,504	2,394	5

Heat owns and operates 20 CHP plants in the Nordic countries, Baltics and Poland. The division has extensive experience in CHP production, waste-to-energy and district heating and cooling. Its customers are businesses and private consumers. In terms of volumes, and including also Fortum's operations in Russia, Fortum is the fourth largest heat producer in the world.

High availability

Heat Division's sales volumes in 2011 amounted to 22.6 (26.1) TWh and were mainly generated in the Nordic countries. During the same period, power sales volumes totalled 6.2 (6.5) TWh.

FORTUM'S EUROPEAN HEAT PRODUCTION BY SOURCE



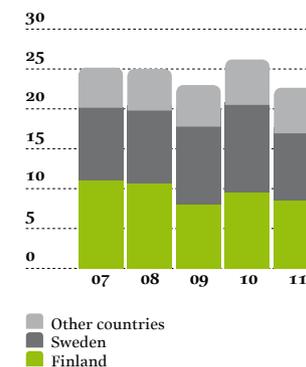
Implementation of the strategy

Fortum's strategy puts more emphasis on energy and resource-efficient CHP solutions. During the year, Heat made several investments and divestments to support this goal.

In 2011, Fortum decided to invest in two new biofuel-fired CHP plants in Jelgava, Latvia and Järvenpää, Finland. The Jelgava plant is the first biofuel plant of this scale in Latvia. Both Järvenpää and Jelgava plants will replace oil and gas production with biofuels and increase the use of local fuels. The simultaneous construction of the plants will also reduce CO₂ emissions and save costs.

The investments in waste-to-energy CHP plants also progressed. The con-

DIVISION'S DISTRICT HEATING AND INDUSTRIAL STEAM SALES BY AREA, TWh





Wrocław City Stadium in Poland connected to Fortum's district heating network.

struction of the Klaipeda CHP plant in Lithuania started. The plant is the first waste-fired CHP plant in the Baltic region and will replace the gas-fired production in Klaipeda. The construction of the new waste-to-energy CHP unit in Stockholm, Sweden, also progressed according to plan.

Additionally, Stockholm's old production line for city gas was closed and a new, more environmentally benign quality of gas was successfully introduced. In addition, the first station for commercial biogas fuel for cars was opened at the Arlanda airport in Stockholm.

In 2011, the Heat Division started a project to increase the district cooling capacity in Stockholm with high-capacity pipes from the existing rock storage for cooling to the city centre. The environmentally benign district cooling services were also introduced in Espoo, Finland.

Fortum announced the divestment of its small-scale heat operations, Fortum Energiaratkaisut Oy in Finland and Fortum Termest AS in Estonia in December 2011. The divestment was finalised in January 2012. An agreement regarding consolidating the energy production and distribution in Turku region to one co-

owned production company TSME (Turun Seudun Maakaasu ja Energiatuotanto Oy) was finalised at the end of the year.

New heat products for customers

In autumn 2011, Fortum launched new products for district heating customers in Sweden and Finland. Large customers and tenant-owner associations can now choose between different types of products rather than having only one option.

CHP – a sustainable energy solution using local renewable fuels

Energy- and resource-efficient CHP is competitive solution for future energy production. It can play a very important role in reducing the environmental load and in achieving greenhouse gas emissions reduction targets because it utilises up to 90% of the energy contained in the fuel.

Another advantage of CHP is the flexibility of using different kinds of fuels. Fuel flexibility enables optimisation of fuel selection from environmental and economical point of view. For example, it enables the use of local fuels, which reduces fuel transport distances and thus lessens the environmental load.

Research and development continuously supports Fortum's strategy by making CHP more efficient and sustainable. In 2011, the testing of olive pits in the fuel mix continued at the Värtan CHP plant in Stockholm, Sweden. Several other biofuels are also being investigated. In Finland, the testing of straw in the fuel-mix was conducted at the end of the year at the Naantali CHP plant.

Fortum is co-operating with Metso, UPM and VTT in a CHP-integrated pyrolysis project. In the start of the year in 2012, Fortum decided to invest about EUR 20 million in the commercialisation

of new technology by building a bio-oil plant connected to the Joensuu power plant in Finland. The integrated bio-oil plant, based on fast pyrolysis technology, is the first of its kind in the world on an industrial scale.

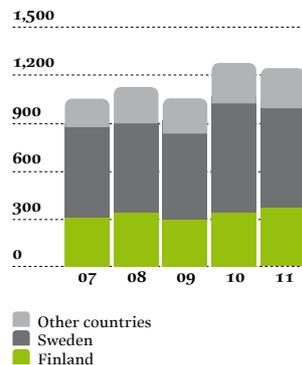
Sustainability and safety

Sustainability and safety are cornerstones of Fortum's strategy. An indicator of responsibility in these areas are the OHSAS 18001, ISO 9001 and ISO 14001 safety, quality and environmental certificates. The Heat Division currently has fully certified businesses in Finland, Sweden, Poland, Lithuania and Latvia. The operations are also partially certified in Estonia, where the certification process is ongoing and expected to be finalised at the end of 2012. The use of local renewable fuels and waste reduces CO₂-emissions and the environmental impact in the area. During the year, Fortum was awarded with silver in the Sustainability Index in Latvia.

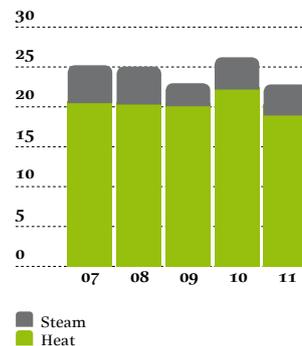
During 2011, Fortum joined The Haga Initiative in Sweden - a collaboration between companies in the forefront of climate mitigation. The Haga Initiative companies work to reduce carbon emissions from the business sector and highlight the climate issue by showing that ambitious climate strategies create business advantages and improve profitability.



DIVISION'S DISTRICT HEATING AND INDUSTRIAL STEAM SALES BY AREA, EUR MILLION



DIVISION'S DISTRICT HEATING AND INDUSTRIAL STEAM SALES, TWh





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