



Fortum Värme – sustainable energy solutions

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Fortum Värme – sustainable energy solutions

- Fortum Värme produces district heating, district cooling and electricity.
- The company has 9,500 district heating and cooling customers.
- The company has contributed to Stockholm being counted among the world's cleanest capital cities and that Stockholm was designated by the EU in 2010 as the world's first environmental capital – Green Capital.
- Fortum Värme is jointly owned by Fortum and City of Stockholm.
- Between the years 2010–2016, Fortum Värme invested SEK 7 billion in combined heat and power production in the Stockholm region.
- District heating in Stockholm will be entirely produced from renewable and recovered energy no later than 2030.



Facts about Fortum Värme

Key indicators 2015

Sales	6,175 MSEK
Operating profit	1,610 MSEK
Employees	approx. 700



Local sources provide efficient energy supply



1. Energy from sorted waste from companies and households

2. Waste heat in sewer water, district cooling returns and from server farms

3. Renewable biofuels from the forest industry and sun energy from the sea

Traceability and sustainability control

Establishing know how & competence:

- Members of WWF/GFTN since 2005
- Risk analysis on industry and regional level

Supplier requirements:

- Fortum Code of Conduct
- Sustainability criterias
(bio oils, wood fuels – adapted to RED, EUTR)

Control and assessments

- Pre-qualifications
- Self assessments & annual follow up
- Risk analysis and supplier audits

Increased verification:

- 3rd party control (CW/PEFC)
- Credibly certified (FSC)

Credibly Certified

3rd party verified for basic social and environmental criteria

Source verified

forest source 3rd party verified for basic social and environmental criteria

Source assessed

forest source evaluated for basic legality and traceability criteria

Limited knowledge of forrest source

Biomass use at Fortum Corp

- The biomass Fortum uses consist mainly of forest residue chips, chips from roundwood and industrial wood residues that originate from Finland, Russia, the Baltic countries and Poland.
- About 60% of the forest biomass used by Fortum in 2016 originated from certified, sustainably managed forests or from the sphere of the FSC Controlled Wood system. The share was over 80% in Finland.





GLOBAL
FOREST
& TRADE
NETWORK

**“GFTN participant Fortum Värme Europe's
first energy company to receive FSC CoC
certification”**

Next generation
energy company



FSC Chain of Custody Certification



Between the forest and the final consumer, forest products may undergo many stages of processing, transformation, manufacturing and distribution.

FSC Chain of Custody certification verifies that FSC certified material is identified or kept segregated from non-certified or non-controlled material through this chain.

100 percent biofuel in the new CHP plant in Värtan – 330 MW CFB, 140 Bar/560°C, 130 MW power, 200+80 MW heat

- 1,700 GWh heat and 750 GWh electricity per year – equals the annual heat consumption of about 190,000 apartments.
- Reduces CO₂-emissions in Stockholm by 126,000 tons per year and by 650,000 ton per year within the EU.
- Contributes to nearly 90 percent of district heat being produced with renewable or recycled energy.



CHP8 – Värtaverket

330 MW CFB, 140 Bar/560°C, 130 MW power, 200+80 MW heat



*Construction start Dec 2012
Comissioning Feb 2016
Investment ~500MEUR*

Underground fuel storage 55 000 m3s



A full-page background image of a dense forest. Sunlight filters through the tall, thin trees, creating a warm, golden glow. The ground is covered in fallen leaves and low-lying vegetation, also bathed in the warm light.

Thank you!