

## Overview of National DHC Market

Country

Finland

### Summary of the National DH market

#### Key numbers for DH in Finland year 2008

DH sales (incl. taxes) 1,51 milliard €

Sold DH energy 29,3 TWh

Sold DC energy (incl. taxes) 75,8 GWh

Average price of DH (incl. taxes) 5,17 c/kWh

Inhabitants in DH apartments 2,61 mill.

Market share of DH 49 %

CHP accounts for 36.1 % of the electricity production of Finland.

The Finnish DH market is mature and DH will continue to be market leader both in existing building stock and in new buildings. The annual addition is currently 5,000 to 6,000 new customers. However, the total volume of delivered DH is not growing due to milder winters. Taking into account the temperature correction, the annual increase in the DH volume is 2-3%. DC is still new in Finland. However, the growth rate of DC is the fastest in the EU. There are no national targets for DHC.

The main reason for the popularity of DH is its cost-effectiveness especially in connection with CHP. Also the utilities developed DH products such as turnkey solutions for necessary installations for new customers. Some of the driving forces and opportunities come from the global and EU obligations of the emissions reduction, energy efficiency and renewable targets, ageing population and migration to towns and cities. The modification on the building code will mean that the energy efficiency requirements of buildings will be based on the primary energy use, which will also benefit DH.

DHC has to be cost-effective in order to exist in any given area. All the areas with substantial heat load have already a CHP plant. However, additional smaller size CHP plants (<10 MWe) could be built in 40-50 places, after the technology developed enough to enable a feasible operation of such plants.

There is no specific legislation or regulation covering DHC or CHP. Some relevant examples of legislative concerning DHC and CHP include:

- Competition legislation
- Electricity Market Act (1995, amended 2004)
- Energy taxes

Not directly relevant regulation but in some cases concerning DHC are for example

- The Land Use and Building Act
- Government energy grants to improve the energy economy of residential buildings
- Investment grants for energy if applicable for power plants and boiler plants, the conditions are that
  1. plant is not included in EU emissions trading AND
  2. new technology is used OR
  3. use of renewable energy sources

Additional information on CHP in Finland <http://www.iea.org/G8/CHP/profiles/Finland.pdf>