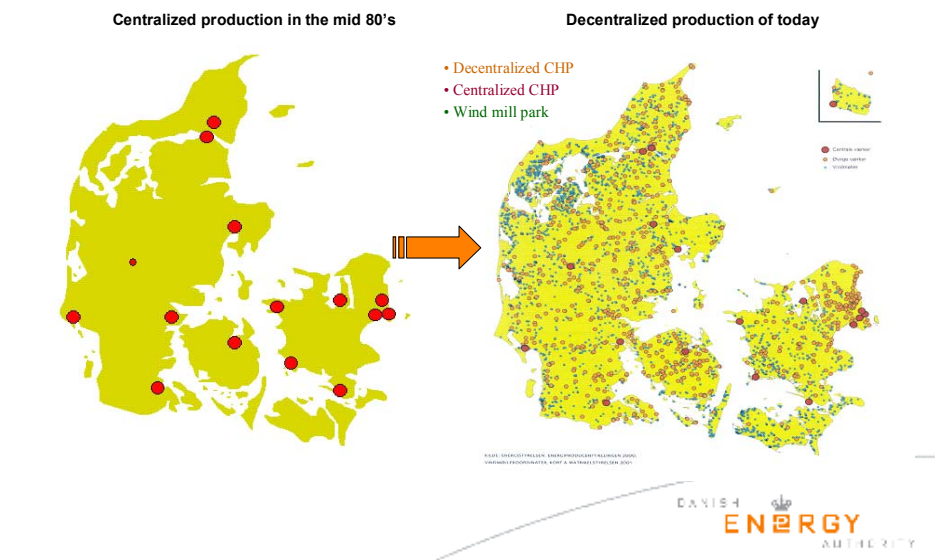


Combined Heat and Power production in Denmark

Development of CHP in Denmark



- Today all cities and most towns in Denmark are supplied with district heating.
- As much as 55 pct. of all electricity produced in Denmark is from CHP's. No other EU country has such a large share.
- The CHP's are localised all over Denmark. The plants are small-scale and large-scale and owned by municipalities, industries and energy companies. This diversification of location, scale and ownership has strengthened the national security of supply. Denmark has a robust supply structure.
- CHP offers important economic and environmental benefits. About 30 pct. of the fuel is saved compared to a situation, where heat and electricity were supplied by separate productions. Denmark is in the international forefront with regard to modern CHP's with a net efficiency ratio of 90-98 pct.
- Denmark has one of the worlds the most efficient coal fired CHP. Similarly, Denmark has developed the worlds most efficient straw fired CHP, which is also exported worldwide.
- The most efficient coal based power plant in Denmark (if the surplus heat is not exploited) has an efficiency ratio of 47 pct. Thus the power plant belongs to the global elite. The average efficiency ratio of a coal fired power plants in USA ranges at 30-some pct.
- 60 pct. of the total demand for heating of buildings and supply of hot water is covered by district heating. A remarkable market share compared to other countries.

- The obvious question is, what the consumers pay for the district heat. The annual statistics document that the consumers have benefited greatly from district heating. In fact, 9 out of 10 families pay less for their district heat compared to heat from individual supply from oil or gas.
- The use of cleaner fuels also matters. The fuels have for decades been diversified – ranging from coal and natural gas to waste and biomass. It is estimated that CHP and district heating has reduced total national CO₂-emission by 8-11 mill. tonnes per year – the Danish CO₂-emission totalled 53 mill. tonnes by 2004.
- Denmark is actively involved in several projects on capture and storage of CO₂. Most notably the CASTOR project, which is recognised by CSLF - Carbon Sequestration Leadership Forum. A pilot plant for capture of CO₂ from the existing Danish coal fired powerplant "Esbjergværket" has been in operation since March 2006.

Highest share of electricity from co-generation in EU (Year 2000)

