

## **District Energy Climate Summit, Copenhagen, November 3. 2009.**

### **Speech from Klaus Bondam, Mayor of Copenhagen for Infrastructure and Environment.**

Ladies and gentlemen, welcome to Copenhagen. I hope you enjoyed the reception at the Town Hall last night. I'm glad to be given the chance to open this conference. District energy and climate changes are very important issues for Copenhagen and for our climate vision.

#### *District heating in Copenhagen*

In 1925 the first part of the district heating system in Copenhagen was established when the first power plant, Gothersgade Elværk, started to distribute heat. From 1993 it became obligatory for all household in Copenhagen to connect to the district heating system. 97 % of all households in Copenhagen are today supplied by district heating.

The district heat is based on surplus heat from power plants. About one third of the district heat in Copenhagen is today produced on CO2 neutral fuel for example wood pellets and straw, as well as incineration of waste.

#### *The Copenhagen Climate Plan*

We have recently presented a climate action plan for Copenhagen. The target is to reduce the CO2 emissions from Copenhagen by 20% by 2015 - and the long-term vision is to become CO2 neutral by 2025. The largest share of CO2 emissions in Copenhagen comes from energy consumption. So, the greatest reduction will come from greening the energy supply by:

1. convert fossil fuels to renewables and
2. use energy more efficiently

In the Climate Action Plan we have pointed out different initiatives to reach the 20% reduction by 2015. The initiatives are

- more biomass in the Combined Heat and Power plants
- wind turbines – both onshore and offshore
- geothermal heating
- improved energy efficiency in the network and the power plants

Greening the energy supply is economically beneficial. Investments are recovered, often quickly. Many of the initiatives will reduce energy costs for households, businesses and the Municipality itself.

Converting the energy production to renewable fuels requires cooperation with the energy producing companies. We don't, in the Municipality, own the power plants and we have no direct influence on the choice of fuel. A binding partnership is therefore essential to succeed.

In the Climate Action Plan we also have some initiatives concerning energy savings. We want to lead the way and reduce energy consumption in our own buildings - for example by implementing all energy saving projects with a pay back time of less than 10 years.

#### *Other CO2 reducing projects*

Besides the initiatives in the Climate Plan we have other CO2 reducing projects that are worth mentioning.

Today a part of the district heat in Copenhagen is based on steam which is more inefficient and energy consuming than water based heating. That's why we in Copenhagen have decided to convert the steam to water based district heating by 2025.

Another project is a small solar energy plant. We do not have solar energy in Copenhagen today because the waste incineration plants produce enough energy to cover the needs in the summer. But in order to obtain a sustainable energy supply in the future, solar energy can be an important and cheap solution. The purpose

with the new solar heating plant will therefore in the first instance be to obtain knowledge about solar heating and the interaction with the district heat system.

In the summer we sometimes have surplus heat from the waste incineration plants. Instead of discharging the heat into Øresund we can use the extra heat for cooling. Our first cooling project has started in central Copenhagen, at Kgs. Nytorv Square. The plant supplies for example the neighboring banks, department stores and hotels with district cooling. One of the study tours tomorrow will go there if you are interested in more facts about the project.

### *CO2 neutral by 2025*

To fulfill our vision to become CO2 neutral we need to increase our CO2 neutral energy supplies. And the increase in electricity from wind turbines requires a more flexible energy system. We will have to use even more biomass and solar energy, and we must use other technologies such as heat storage and heat pumps.

But Copenhagen will not be the only city asking for more biomass in the energy production. The demand for biomass is increasing in Europe. And this will continue as all countries must meet their goals of CO2 reduction. It is therefore important that the production of biomass is sustainable. Otherwise we can create new problems trying to solve the problems at hand.

Another problem concerning the increasing demand for biomass is that the price may go up. Today it is profitable to convert to biomass in Denmark but if the price goes up the energy producers will turn to coal and gas again. The importance of energy savings and other technologies as solar and geothermal energy is therefore paramount.

### *Summing up*

The world's cities are responsible for up to 75 percent of the world's CO2 emissions. Not many cities in the world have district heating and as we all in this room know

district heating is one of the most efficient ways to reduce CO2 emissions.

At the COP15 the City of Copenhagen have invited mayors from all over the world to participate in The Copenhagen Climate Summit for Mayors. The summit will put cities on top of the global climate agenda. Any solution to the climate crisis therefore, has to involve active participation from the cities. I hope the summit will send a strong signal to the heads of state that the cities are part of the problem as well as part of the solution.

Welcome again to Copenhagen and I hope you will have a good conference and a pleasant stay in Copenhagen.