

Pellets cheap for house owners in Kristianstad

The municipality of Kristianstad helped single-family house owners to convert their oil-fired boilers to pellet operation. As well as the environmental benefits of replacing a fossil fuel with one that is renewable, the measure meant that single-family house owners reduced their operating costs by half.

In 2001 the municipality received grants from the Local Investment Programme (LIP) to replace oil with pellets for the heating of a number of single-family houses in places where it is impractical to install district heating. As well as inducing the property owners to switch over to more environmentally friendly heating, the transition was also intended to provide economic gains for the house owners.

POSITIVE ENVIRONMENTAL AND ECONOMIC IMPACTS

- Pellets replaced 600 m³/year of oil. 6 000 MWh/year that had previously been produced with oil is now produced with pellets.
- Carbon dioxide emissions decreased by 1 620 tonnes/year.
- Emissions of nitrogen oxides decreased by 400 kg/year.
- Emissions of sulphur dioxide decreased by 600 kg/year.
- The operating cost for the house owners is around half the cost in the case of electric or oil heating.

Photograph: iStockphoto.com/JillKylie



IMPLEMENTATION

Single-family house owners received grants to convert their boilers from oil to pellets. Grants were provided for the installation of pellet burners, feed equipment and stores, an environmentally approved pellet-fired boiler and accumulator equipment which is also prepared for use with solar collectors. Natural ventilation valves were also fitted to balance the flow in the boil in very windy conditions. However, emissions of volatile organic compounds increased as a result of the project.

The municipality engaged a chimneysweep to measure the efficiency for each conversion. This led in some cases to the conversion having to be modified, which in turn provided the contractors with valuable experience. The municipality's energy advisers had a good dialogue with the house owners. Some house owners, for example, took the opportunity to install additional insulation or install solar panels so that they did not need to run the pellet-fired boiler in the summer.

The project was marketed in conjunction with trade fairs, house-owner meetings, through the municipality's own magazine and website, in other media and by the energy adviser.

POTENTIAL AND FUTURE BENEFIT

The use of renewable biofuels is positive as they replace fossil fuels. Conversions of oil-fired boilers in smaller residential buildings and workplace buildings to biofuel operation are a large global market. Pellets do not need to be transported as far as oil, although they are partly sourced from other European countries.

WHY BEST PRACTICE

The project provided valuable experiences for house owners, the municipality and the companies that installed the pellet-fired boilers. The number of contractors who sell burners, installations and pellets has increased sharply as a result of the project.

FOR FURTHER INFORMATION

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Contractors/providers
Several suppliers supplied pellet-fired boilers, including Ecotec, Pellx, Viking Bio and Värmebaronen.
Mafa in Ängelholm manufactured silos for pellet storage.

The project on the Internet:
www.kristianstad.se
The project on the Internet:
www.tekniskaverken.se
For further information on Best Practice
www.swedishepa.se/bestpractice
www.naturvardsverket.se/mir

FACTS
LIP Kristianstad 2001
Action 11 a
Environmental investment: SEK 5.6m
Grant: SEK 1.7m

