

Innovative pellet heating for single-family houses in Sala

Sala-Heby Energi replaced oil with pellets in a number of single-family houses in the municipality through an innovative and customer-focused project in 1998–2000. Oil consumption decreased by 159 m³/year as a result of the project. As a result of continued projects, the saving in 2009 was close to 1 000 m³/year.

As part of its long-term plan to replace electric and oil heating with biomass fuel, the municipality of Sala applied for and received grants from the Local Investment Programme (LIP) for a measure by which pellet burners were fitted to existing oil-fired boilers in single-family houses in 1998–2000.

The project is a good example of innovative projects being capable of providing good gains in the long term even if they are in themselves problematic to implement.

POSITIVE ENVIRONMENTAL AND ECONOMIC IMPACTS

- Carbon dioxide emissions decreased by 430 tonnes/year.
- Renewable energy replaced 159 m³ oil/year.
- The switch from oil to biofuel reduces the risk of emissions from the oil tank and in filling.
- Customers gain access to heating at a cost that is roughly half that of electric or oil-fired heating.
- The measure has led to other projects where pellets have replaced electric and oil-fired heating, so that the total saving on oil through to the end of 2008 is just under 1 000 m³/year.

Photograph: Emil Fröbom/Sala-Heby Energi AB



IMPLEMENTATION

Sala-Heby Energi (SHE) offered customers who could not be connected to the district heating network the option of having the oil burner in their boiler replaced by a pellet burner. A pellet holder (“pellet pocket”), an approximately 6 m³ large space with an opening through the external wall of the house, was also installed. Pellet trucks top up the pellets through this opening, and the pellets are then automatically fed into the burner. The house owners themselves deal with the ash, and it is often used in the owner’s own garden.

To make it more attractive to convert, SHE wanted the burners not to require more maintenance from the customers than an oil burner. A solution was therefore chosen in which the customers rented the installation while SHE was responsible for the investment, servicing and maintenance and delivered fuel.

POTENTIAL AND FUTURE BENEFIT

Replacing fossil fuels with biomass has positive climate effects. To reach the detached house market, it is important that good system solutions are developed that make it simple for property owners to look after the systems. Innovative service concepts and good information efforts can result in faster market acceptance of this type of system.

WHY BEST PRACTICE

The project has contributed to developing biomass fuel systems in smaller properties, which has given SHE greater knowledge of pellet burners and the related infrastructure. The project has also led to continued commitments to biomass fuel in Sala and Heby.

FOR FURTHER INFORMATION

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Contractors/providers

The pellet burners were supplied by Janfire. SHE has also used burners from other suppliers in later projects.
Staff from SHE did most of the other work.
The pellet pockets were made by local building contractors.

The project on the Internet:

www.sheab.se

For further information on Best Practice

www.swedishepa.se/bestpractice
www.naturvardsverket.se/mir

FACTS

LIP Sala 1998
Action 3
Environmental investment: SEK 3.4m
Grant: SEK 324 000

