

Lilla Edet burns fuel correctly

Wood burning using antiquated technology was significantly more common in the municipality of Lilla Edet at the start of the 21st century than in the country as a whole. The solution was to provide grants for property owners to change over to environmentally sound solid fuel burning or to install solar heating. This has proved to be a successful measure to reduce carbon dioxide emissions in the municipality.

Fifty kilometres north of Gothenburg in the county of Västergötland is the municipality of Lilla Edet, with a population of around 13 000. As a result of environmental investments under the Local Investment Programme over the period 2000–2003, oil and electricity corresponding to the heating of around 8 700 detached houses has been replaced by renewable forms of energy in the municipality. Environmentally harmful emissions to air have decreased substantially. The project was intended to provide grants to individual property owners and non-profit organisations. The grants were to encourage beneficiaries to improve existing wood burning, replace oil and electricity with pellet burning and to install solar heating. The project also included switching oil and electricity in certain municipal properties to pellet burning or district heating. 340 property owners have received grants to deal with their heating systems. 36 solar heating systems were installed, and another 47 solar heating systems have subsequently received grants from the Climate Investment Programme (Klimp). A solar panel system is estimated to provide an annual addition to or replace other heating equivalent to 2 500 kWh/year.

POSITIVE ENVIRONMENTAL AND ECONOMIC IMPACTS

- Decrease of 2 540 tonnes CO₂/year
- The switch of electricity to renewable energy totals 2 251 MWh/year
- The switch from domestic oil to renewable energy totals 665 m³/year
- Other energy saving/efficiency improvement – mostly in the form of reduced consumption of wood and pellets 1 024 MWh/year

Photograph: Municipality of Lilla Edet



IMPLEMENTATION

The municipality sees a great environmental gain in the increased environmental awareness among property owners. All beneficiaries of grants have had to undergo training on solid fuel burning and climate impact. The property owners are highly satisfied with the new facilities. The project has taken a firm grip on emissions from biomass fuels in single-family houses.

ENCOURAGEMENT OF GREATER INVESTMENTS

The project has continued since 2004 through Klimp grants, and today 769 beneficiaries have improved and replaced their heating. The grant has encouraged the property owners in many cases to make greater investments in environmentally better systems than they would otherwise have done. However, the environmental effects appear to have gradually diminished during the grant period, probably because the worst systems were dealt with first and the standard has gradually risen for the systems entitled to grants. A drawback was that most of the grant applications were submitted at the end of the period, with the result that the workload for the municipality's administrative staff became very uneven.

The project has attracted attention in other municipalities that have since implemented similar projects. Local plumbing and heating companies have adopted the modern boiler and pellet technology. Operating costs for the property owners are generally lower as the new systems are more efficient and thus save fuel.

POTENTIAL AND FUTURE BENEFIT

Wood burning with inefficient combustion is a considerable environmental and health problem in large parts of the world. Grants combined with information and training can provide incentives to property owners to change over to environmentally friendly technology in this area.

WHY BEST PRACTICE

The support for environmentally approved systems for wood burning has not just resulted in reduced carbon dioxide emissions but has also had other positive environmental effects. The introduction of solar heating is also leading to a change-over from fossil to renewable energy. The project, including the work supported by Klimp grants, has led to a large number of property owners having taken environmental improvement measures. The project has led to dissemination effects as a result of other municipalities having taken similar measures and plumbing and heating companies having adopted new technology.

FOR FURTHER INFORMATION

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FACTS

LIP Lilla Edet 2000
Action 04. Environmentally correct
solid fuel burning and solar heating
Environmental investment: SEK 25.3m
Grant: SEK 7m

Further information on Best Practice
www.swedishepa.se/bestpractice
www.naturvardsverket.se/mir

