



*In the beginning of the 1990s some Finnish municipalities started to invest in biomass heating systems for municipal buildings, such as schools and old-age homes (output <1MW). At the same time farmers established new form of rural enterprises, so called “heat entrepreneurs.” This means that they were supplying customers with heat produced from forest biomass. The mode of operation is such that the entrepreneur mainly carries the responsibility for looking after heating of municipal buildings, and biomass fuel supply.*

Heat entrepreneur or enterprise is a single entrepreneur, a cooperative, a limited liability company, or consortium, which carries out the operation and maintenance work at the heating plant and sells heat. The heating enterprise typically operates locally, and the main fuel is woody biomass. The fuel comes from the entrepreneur’s own forest or from local forest owners or wood processing industry. The heat entrepreneur operates the heating plant and earns an income based on the amount of produced heat.

Municipalities have the principal role in establishment of heat enterprises, since they own public buildings, such as schools and old-age homes that need heating. Municipalities can buy these services from local entrepreneurs. That way, the money previously spent on heating now circulates locally, promoting local livelihoods, and increases the amount of locally taxable incomes.

When choosing the form of heat entrepreneurship, the factors that have to be taken into account include the size of the building to be heated and the required investments.

The most common concept is one in which 1–3 entrepreneurs are responsible for heating local premises. In such cases, the size of the heating plants is usually 50–500 kWth. Heat entrepreneurs are usually forest-owning farmers. In small plants managed by heat entrepreneurs, the main fuel is usually wood chips. Most of the plants in Finland are managed by a single entrepreneur, and the typical boiler output is 75–370 kW.

A deliverable of Heat Wisely, public awareness raising project on biomass-based heating in the Western Balkans



There are also entrepreneur consortia with 2–4 members each. Most of the plants are school buildings and typical boiler output is 60–300 kWth. In these plants, more than 50% of wood fuel was produced from their own forests by own equipment.

Only in a small number of plants is heating carried out by a limited liability company that has invested in wood procurement equipment or a boiler plant.

In heating co-operative, the mode of operation is such that forest owners collaborate in the procurement and delivery of the fuel to the customer's premises. The cooperative's members also earn revenues in the form of interest paid on the invested capital and dividends paid out by the cooperative. The cooperative solution is appropriate when dealing with heating entities larger than single building, for example, district heating plants.

Source: Biomass Heat Entrepreneurship in Finland—E. Alakangas, VTT.

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