

# Rokiškis – LT



→ Good practice example

## Pilot action community: Rokiškis– Lithuania

### Type of energy consumption:

heat energy  hot domestic water  electricity  water

### Use of renewable energy resources (potential or actual):

biomass  wind energy  geothermal energy  solar energy  hydroelectric power station

### Rational use of energy:

sustainable building systems, low energy housing  building thermal modernisation  modernisation and upgrading of the heating systems  modernisation of lighting  balanced/sustainable transport

The main goal of modernizing the heating systems was to reduce the negative environmental impact and to ensure the reliable provision of the heat energy to the households. The gradual replacement of the fuel oil with less polluting fuels such as biomass as well as the building of the biomass boiler and condensing economiser provided with the more efficient use of energy and created the positive environmental impact.

## → Community

### Short description containing:

**Geographical position** Eastern part of Republic of Lithuania

**Main profile of activity in the region** food industry as well as agriculture

**Number of inhabitants** 16 746

### Energy data:

**Energy supply** 123 multi-storey houses with 4 528 flats

**Energy consumption** 115 884 MWh

**Type of fuel (for heat energy)** wood chips (36 794 t), sawdust (11 039 t), heavy fuel oil 8% (783 t)

### Climatic data: (selected data important for the described case)

**Average yearly temperature** 7 °C

**Mean wind speed** 4.0 m/s

**Average of heating days per year** 184 days

**Hours of sunshine per year** 1 700

## → Context

The Rokiskis District Heating plant supplies the heating to the households of the town of Rokiskis. In order to upgrade the heating systems there were several important investments made. First, in the year 2001, 2003 and 2007 the steam boilers were modernized and adjusted to be used for wood chips fuel. Moreover the overall system of the wood chips provision and storage was extended. Therefore the balanced provision of heating was ensured. Second, in the year 2007 the 5MW capacity condensing economiser was installed which has lead to the economy of fuel, and cleaning of the hard substances form the combustion process. Third, the new steam/water heat boilers were installed. This provided with the opportunity to transmit the heat produced in the biofuel boilers to the thermo water.



## → Cost and benefits

### Economical

Overall investments to the heating plant of the Rokiskis town amounts for 4.4 million Lt of which 2.1 million Lt were granted from the EU structural funds.

### Environmental

The upgrading of the heating systems helps to reduce the use of heavy fuel oil by 2 997 t/year which makes only 8% in the total fuel balance. It also increases the amount of energy produced using the renewable resources by 24 135 MWh/ year and reduces the CO<sub>2</sub> emissions by 9 139 t/year and SO<sub>2</sub> emissions by 125t/year.



## Further information

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