Actions to reduce energy consumption at municipal level include:

1. Thermomodernization of public buildings which consists of:
   - » insulation of walls, ceilings, roofs, floors,
   - » modernization of window and door joinery,
   - » modernization of central heating installations,
   - » exchange of coal-fired boilers to more ecological sources,
   - » the use of renewable energy sources.
2. Modernization of street lighting, traffic lights, for LED lamps or other energy-saving light sources
3. Subsidizing renewable energy sources
4. Modernization of used components in heat and power plants.

About project:

EFFECT4buildings project is implemented with the support from the EU funding Programme Interreg Baltic Sea Region (European Regional Development Fund) and Norwegian national funding. The aim of the project is to improve the capacity of public building managers in the Baltic Sea Region by providing them a comprehensive decision-making support toolbox with a set of financial instruments to unlock the investments and lower the risks of implementing energy efficiency measures in buildings owned by public stakeholders.

More information:
http://www.effect4buildings.se/

ABC ENERGY EFFICIENCY

WHAT ENERGY EFFICIENCY REALLY IS?

ENERGY EFFICIENCY IS NOTHING MORE THAN EFFICIENT USE OF ENERGY, SKILLFUL MANAGEMENT, AND INTELLIGENT USE OF ENERGY.

The scale of savings depending on the system increasing energy efficiency:

There are many partitions in the building that can be insulated. Each of them transmits heat differently, which can affect savings in various degrees. Let's look at examples:

- **Insulation**

- roof, ceiling under the attic: 5-15%
- walls: 10-20%
- ceiling above the basement: 2-5%

- **Windows modernization - about 10-15%**

On the market there are a lot of types of windows. Depending on whether windows will be selected: double- or triple-glazed, the savings would be different.

- **Modernization of heating system: 10-20%**

The scale of savings depends on the type of the heating system. After choosing system with the heat pump, investor can achieve savings of up to 75%. It is worth noting that insulating pipes is also important.

- **Installation of mechanical ventilation and recuperation: 30-50%**

Thanks to the recuperator in the installation, it is possible to recover heat from polluted air removed from the building and heat the fresh air flowing into the rooms. Despite increased capital expenditure, heat recovery reduces the cost of heating and increases energy efficiency.

- **Modernization of lighting systems: 70-90%**

LED lighting thanks to low energy consumption, generates very large savings. LED technology is the most cost-effective source of light, because the small LED shines with the power of very strong old type bulbs. In practice a 3.5W LED bulb shines as brightly as a classic 50W bulb. Energy consumption is more than 10 times lower, thus electricity charges can decrease by up to 80%. The level of savings depends on the particular case and method of use.

- **individual power plant installation - about 80%**

The best source of electricity is the own source of electricity. In the era of rising energy prices, it is worth thinking about generating electricity from the own installation based on renewable energy sources. An example is photovoltaic installation. It is best if the installation can cover the total electricity demand. Then it causes the biggest savings, and the bills are limited to standing charges

Problematic situations in the area of significant energy aspects are:

1. Excessive electricity and thermal consumption for the needs of the building

2. Unsatisfactory quality of electricity supply in communes and poviats

3. Excessive emissions to the environment

4.Threat to the functioning of a public building in the event of a long-term failure of the external electricity supply

5. Breaks in external fuel supplies

Problematic situations rarely occur in an individual way and are usually interrelated. One of them determines the appearance of the next. In the fight against problem situations, expanding the network of good practices can help.

ARGUMENTS FOR ENERGY-EFFICIENT INVESTMENTS:

- Ensuring energy security in the commune, including both access to energy types selected by the recipients and reliability of energy supply.
- Reduction of pollutant emissions
- Ensuring a socially acceptable level of energy prices
- Development of the local economy, among others, through the use of local energy resources
- Supporting competitiveness of enterprises in the commune
- Increasing the prestige of the commune compared to other communes
- Developing a network of good practices

The arguments show that the implementation of plans connected with energy efficiency are greatly profitable