



How to warm up the school building in winter

Situation

Investments into energy efficiency are good for the environment but also from an economic view. It is saving money in a long-term but the paying back period is often 10-15 years therefore it requires responsible decision-making and consensus among the different stakeholders.

The local school is housed in an old building with an old and inefficient heating system. The classrooms have large windows that do not close well. Energy generated by burning coal/fuel oil in a boiler room is used for heating. There is no cooling system provided for hot days. Lighting consumes a considerable part of the electricity used by the school.

Conflict of interests:

- The school administration, students and parents strive to improve conditions in the school building during the cold winter months.
- Companies specialized production, sale and installation of modern heating and cooling systems offer high prices for their goods and services, dictated by the increased level of consumers' demand.
- The power sources price is constantly going up due the external market pressure.
- The school is financially supported by the municipal budget, which has limited capacity.
- Banks tend to provide mostly short-term loans at unfavorable interest rates.
- Applying for European and national programs supporting energy efficiency improvement projects is accompanied by strong competition between individual applicants.

Possible solutions:

- There are a number of possibilities for increasing the energy efficiency of the school building regardless of its unenviable condition.

- European and national programs for energy efficiency provide the opportunity for free financing of projects related to the energy efficiency improvement.
- The area where the school is located is rich in (select one of the following options):
 - Warm groundwater
 - Significant amount of waste wood
 - Large amount of agricultural plant waste
 - Numerous hours of sunshine
 - Constant moderate winds
- There is an opportunity to provide preferential conditions by credit institutions and companies specializing in the production, sale and installation of modern heating and cooling systems

Varying viewpoints



Local authorities

Financial provision of the school's operation is our duty. The municipality's budget for this year is already fixed. Prices of power sources used for heating are from last year. To date, their price is drastically higher. If we do not receive assistance from the state, we will have to postpone taking any measures until next year.



Teacher

Creating favourable conditions in classrooms is an essential prerequisite for achieving better results in the learning process.



Parent

We cannot allow students to learn in cold and frosty. If they get sick often and miss school, it will not only be a problem for their health and quality education, but also for us, the parents, as we will have to be away from work.



Student council representatives

We can help with sealing the windows, periodic and optimal ventilation of the premises, rational use of lighting. The experts will surely tell us other ways to improve the heating in winter. But what should be done to cool the classrooms when it is very hot? Hot days start happening in both late spring and early fall...



Businessman

Our company tends to offer equipment at preferential prices. After all, we are parents, we also have students. And as for the work of installing the equipment – we can do it for free if parents and teachers join in and help us.



Expert in energy efficiency

The building is extremely outdated and energy efficiency in its current state cannot be talked about. There is a need to lay external insulation on the walls, replace the windows and lighting.



Renewable energy expert

The use of fossil fuels such as coal and fuel oil is inefficient both economically and from the point of view of protecting the environment and human health. The area has a wonderful opportunity for the utilization of renewable energy (choose one of the following options - warm groundwater; waste wood; agricultural plant waste; favorable sunshine; constant winds). Modern technologies and facilities enable the full use of the various renewable energy sources.



School principal

It is not easy at all at the present moment to make a definite decision regarding the improvement of the conditions in the building, especially during the cold months. The school can apply with an energy efficiency project, but the implementation of the project, if we win, can start in one to two years. If funds are not found at present we will have to consider reducing the duration and number of classes on the coldest days, and students and teachers will have to stand well dressed in class. Switching to online training for one or two weeks is an option, but not the best.