

KOPRIVNICA CROATIA

Information about the municipality

Location: Northern Croatia, county administrative center 85 km northeast from Zagreb

Altitude: 135 m

Inhabitants: 34,000

Expected development of the municipality:

Expansion of existing and establishment of new residential areas for family houses and blocks of flats; construction of education facilities. Constant improvement of sustainable mobility infrastructure.



Miniproject title

SCHOOL 21: SCHOOL IN LOW-ENERGY STANDARD, AS MOTIVATION FOR PORTFOLIO OF MUNICIPAL EE PROJECTS

SHORT DESCRIPTION

1. Project background & goal

As part of the program of educational infrastructure improvement, construction of a new elementary school is planned, in order to ensure possibility for its 460 pupils to attend school in only one shift. The school site is planned in the general urban plan in the future residential area with community facilities. Utilities needed by the school are planned within the school building site and the remaining future housing area will also be equipped with necessary facilities. The building will include technical solutions that provide energy efficiency (solar energy for hot water & heating, thermal insulation, rainwater harvesting etc.).

The school construction was to be co-financed by the Town of Koprivnica and the Ministry of Education, Science and Sport, however due to global crisis problems with funding occurred and therefore also delays in the implementation, which stopped at the conceptual design level. In the meantime, in order to bridge the timing & financing gap for the school project, the municipality engaged in a number of spin-off EE projects, motivated also by energy awareness raised during the INTENSE project.

2. Main project aspect/topic

- > School designed as low-energy building, including HVAC system based on utilization of renewables, high-quality building materials, and a system of rainwater harvesting
- > Pioneering technical solutions for EE construction

3. Main Energy Efficiency aspects

- > Energy efficiency of new buildings
- > Renewable energy sources

4. Miniproject activities

- > Consultations with local and German experts on technical details of existing school design
- > Changes in design so the school could be built in passive standard
- > Organising climate-related campaigns & Koprivnica Climate Week to sensitize population and get them to participate in municipality actions
- > Introducing municipal decision on reduced/zero fee for low-energy/passive construction
- > Municipality initiating and supporting the construction of the first low-energy multi-apartment building in Croatia – Šparna hiža (Saving House), the construction of which relies on state-subsidized investment, and purchase of apartments is negotiated at reduced bank loan rates
- > Municipality joins the Covenant of Mayors and signs the Energy Efficiency Charter, confirming its orientation to support private and municipal low-energy construction projects
- > Developing a catalogue of Koprivnica's energy efficiency projects for dissemination

5. Main challenges

Resolving a financing gap for School 21.

6. Key actors and their role

- > Town of Koprivnica & Ministry of Science, Education and Sports – joint co-financing of the school construction
- > Design office
- > Regional Energy Agency 'North' - technical and professional support
- > Ministry of Environment and National Environmental Fund – potential co-financing
- > Koprivnica Agency for Subsidized Housing, in charge of Saving House construction and marketing



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Responsibility for implementation: Koprivnica municipal authority

7. Main steering instrument(s) used by municipality

- > New General Urban Plan for the Town of Koprivnica, valid of November 2008
- > Building sites – vacant land, predominantly privately-owned
- > Municipal regulations, decisions, declarations – motivating, not prescriptive

8. Concrete miniproject results

- > Spin-off energy efficiency projects in the town - a package of further actions
- > Increased interest of citizens to build low energy

9. Added values/lessons for transfer and dissemination:

- > Support of town government and financial institutions in financing EE construction and investment – Local subsidies and fee reduction for EE building
- > Politicians' support to energy efficiency increases public interest to build low energy

AFTER INTENSE

10. Financing plan

- > Investment value (building ground, designs, construction, furnishing) of cca 9.670.000 Eur for the School 21 will be financed by Municipal government (57%) and the Ministry of Science, Education and Sport (43%).
- > Passive kindergarten construction is funded from the municipal budget, and the Saving House through a combination of subsidized state loans and private investment.

11. Expected result by end of the total project

- > New school and multi-apartment Saving House in Koprivnica built and operational in low-energy/passive house standard;
- > New EE construction projects in public and private sector initiated, with at least 6 more new multi-apartment Saving Houses and 20 low-energy private houses
- > Declaration on Passivity adopted, all future public facilities in Koprivnica being built in passive standard
- > Becoming an energy independent town by 2025

12. CO₂ reduction potential of the project:

Compared to traditional building model, low-energy model will save 68,53 t(CO₂) and reduce emission of CO₂ by 54%.

