

Local Success Stories	
Country	Croatia

#	Name of Example	Location
1	Procurement and installation of heat meters and heat cost allocators in multi-housing buildings – 2009/2010	City of Vukovar

The Initiative

The initiative to launch the project came from the district heating distributor in the city of Vukovar, the company Tehnostan d.o.o, owned by the City of Vukovar. It was based on the frequent individual and group demands of customers who reside in multi-housing buildings of the City of Vukovar due to their serious financial situation as consumers of district heat.

The Initiator of the project and also its funder is the City of Vukovar and its executive and representative body, in collaboration with Administrative and Technical services responsible for Municipal Services and Urban Design.

The project goal is to install heat meters and heat cost allocators in multi-housing buildings in the city of Vukovar, in order to stimulate the apartment users to rational consumption of heat.

The contract between the City of Vukovar and equipment supplier was only recently signed and the installation of heat meters and heat cost allocators in the apartments is expected shortly.

Nature of the impact

Upon completion of this demand side management project, 950 apartments will be equipped with an individual heat meter, while the 1661 apartments will have installed devices for the distribution of heat costs (heat cost allocators).

This will enable tenants' independent decisions on heat consumption and the cost of heat.

Not only will this project allow consumers to have direct impact on their own consumption and heat costs, but it will also fulfil a goal of raising awareness on the energy efficiency issues in the local community by further implementing its mission to educate consumers on rational and responsible behaviour.

The implementation of this project will also increase the satisfaction of the district heating customers.

The expected impact on the level of the City of Vukovar is the fuel savings and increased environmental protection through reduction of greenhouse gases.

Main Barriers

The main difficulty with which the City of Vukovar, through its Administrative and Professional Services responsible for Municipal Services and Urban Design, met is the implementation of the competition to select the winning bidder for the delivery and installation of the equipment. Given the mandatory application of the Public Procurement Act, and it's very challenging selection process of the winning bidder as well as the complexity of the tender subject (technical specifications of the equipment), the most favourable bidder for delivery and installation of equipment was selected only in the third competition. The entire process took almost a year, which caused a lot of disappointment in district heating consumers mainly because the general public was unaware of these problems.

PART 3. LOCAL SUCCESS STORIES		
Country		Croatia
#	Name of Example	Location
2	Renovation of heating system in two residential buildings	City of Sisak, Gundulićeva 2-4 and 3-11

The Initiative

Initiative: Sisak Stan d.o.o. (Building management company) and tenants started with the initiative of connection to the district heating system. The main references for the initiation of this heating renovation project (in Gundulićeva street 2-4 and 3-11) were new buildings that were built in the City of Sisak in 2007 and 2008. These were connected to district heating network and had substations in apartments, and showed outstanding energy performance and immense consumer comfort.

Situation: 2 residential buildings in the City of Sisak, Gundulićeva street no. 2-4 and no. 3-11 (altogether 97 apartments) built during the period 1960-1963. The buildings had individual solid fuel stoves for heating (no connection to any kind of heating system and no in-house central heating installations).

Result: 2 residential buildings with 97 apartments will be connected to DH pipeline during this year. Tenants will have a compact station in the basement and a substation and radiators in each flat.

Financing:

- **Tenants:** 80 percent of the overall investment
- **Environmental protection and energy efficiency Fund:** Sisak Stan d.o.o. registered this project as an energy efficiency project to the Fund and received a subsidy for the secondary side installations
- **Local municipality:** City of Sisak, as a local community, gave a small subsidy for the primary side installations
- **DH supplier:** HEP Toplinarstvo d.o.o, as a local heat supplier in the city of Sisak, gave a connection to the district heating network free of charge

Nature of the impact

Upon completion of the project tenants will have highly efficient heating systems, with no maintenance, with high security of supply which is very friendly to environment. The improvement will also be in economical and controlled heat consumption and in increased comfort of living.

Regarding the low performance of the previous heating systems which were expensive and non comfortable, the new system and its benefits are incomparable.

From the perspective of the DH supplier, new customers relate to the increase in network efficiency which consequently leads to higher revenues.

From the environmental protection perspective, this project however small, will lead to reduction of greenhouse gases and the building surroundings, due to termination of fuel manipulation will become cleaner.

Technological actuality of the project involves the installation of the state-of-art heating system with a maximum possibility of heat consumption regulation, opportunities for heat savings and metering of used heat. At the time of expensive energy, this is a very important feature of the project.

Main Barriers

Major obstacle is the size of the investment as this presents a significant investment for individual tenants, since the majority of financing bear the tenants themselves. Secondly a large number of tenants presents a barrier too since they all have to be convinced of the benefits of the project and in the final phase of the project an individual contract between each tenant/apartment owner and the district heating supplier needs to be signed.