

# Pilot project at Sarajevo

## District Heating Power Plant shows that energy metering is the way to go

In Sarajevo, a comparison between installations with energy metering and installations without indicates, that energy metering helps increase energy efficiency while reducing energy consumption.



In Bosnia, as in other Eastern European countries, the transition from command economy to market economy has been problematic, especially for the energy sector. Until 1998, the energy sector was state-subsidized, meaning that energy virtually did not cost anything for the consumers. Since 1998 consumers have

paid almost real heating price, but due to increasing oil and gas prices, several countries now face a severe deficit in government finances, and lack the means to maintain and renovate existing power supply plants.

In the quest to untie this Gordian knot, many power plants have

tried to find alternative ways to reduce energy consumption. One of the pioneers is the Toplane Sarajevo District Heating System, which has implemented a ground-breaking energy metering pilot project. Toplane Sarajevo District Heating System is consisting of 125 boiler houses.



## Kamstrup

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CASE STORY

## A high-tech solution from Kamstrup

The automatic meter reading system chosen by Toplane Sarajevo District Heating System is a complete solution from Kamstrup. "Before implementing the project, we specified our technical requirements as well as other important requests, and invited tenders. Among those who responded, Kamstrup came up with the most favourable offer. They fulfilled all our technical requirements and, from an earlier pilot project, we knew Kamstrup and their products, so they were an obvious choice," Mirzo Hadhzialic comments.



The solution consists of an ultrasonic heat meter, MULTICAL® CDE, with a built-in radio module.

Its unique feature is that data from the meters is transmitted to a MULTITERM hand-held unit with an antenna.

This is located in a car that drives around the area, taking readings of the meters. This obviates the need for the meter reader to enter individual premises, thereby offering consumers a degree of convenience and privacy rarely seen.

"We have been delighted with Kamstrup's products. Their technical and quality standards are very high, and they fulfil all our expectations and regulations," says Mirzo Hadhzialic.



## A model for others

The metering project at Toplane Sarajevo District Heating System has become a model in Bosnia. A great deal of its success can be attributed to the thorough customer information process.

"Before the project, we sent brochures and leaflets to all our customers explaining the project and the advantages of metering. We also put a lot of information about the metering process in the media, highlighting the potential efforts and benefits. We think energy metering is to everybody's advantage – it saves our customers money, allows power plants to save money on fuel, and lessens the financial burden on the country as a whole. Because Bosnia lacks its own fossil fuels, we have to import gas from Russia. Lowering domestic energy use obviously reduces the amount we have to spend on imported fuel," Mirzo Hadhzialic concludes.

As a result of the pilot project, a recently adopted Law on Consumer Protection states that energy is to be paid according to actual consumption, rather than by square meter. Next year, Toplane Sarajevo District Heating System plans to start with real metering and billing based on energy consumption.



**Expected energy savings between 5 and 10%**

**Said Director of Development Mirzo Hadhzialic:**

*"We introduced the energy metering project to increase energy efficiency and reduce consumption. The aim was to see whether energy metering could minimize overall energy costs and allow for investment in the maintenance and upgrading of the heating system. It's a 3-year pilot project, implemented at buildings and business premises.*

*At present, our system is heating about 50,000 flats and 3,000 companies, and the supplied energy is charged per square meter of a building's floor area. As our installations are not adapted to energy metering, we have to do a lot of reconstruction before implementation. Last year, we installed close to 400 meters.*

*This year, we expect to install 350 more, with a further 1000 meters planned for next year. Using special software that can easily calculate possible savings compared with expected consumption and real consumption, we've already made analyses of the metering installations - and the results are good. Our expectations of final energy savings on the total level, meaning all customers, are between 5-10%, depending on the thermal condition of the buildings.*

*With more than 20% of GDP being spent on energy, this is a significant result. Our plan is to install cumulative meters in front of the buildings and divide the total energy building consumption proportionally on our customers (flats). Individual metering will be the next phase of this project."*