



SHARE

Social Housing Action to
Reduce Energy Consumption



Case study 11



Individual metering of hot water reduces consumption by 15-30%

Metering of hot water consumption in flats has several advantages. The most important one is that the tenants' awareness of water consumption increases which in turn usually leads to reduced consumption. Current experience indicates typical savings of around 15-30%.

Individual metering of water means that water meters are installed on the received water pipes in each flat either on just the hot water pipes or both hot and cold water pipes.

If there are several water supply pipes in a flat there will have to be several meters installed which is more expensive.

Individual metering of water is usually only based on water consumption and the cost is calculated per cubic meter.

This approach works well in most cases as long as all the flats have similar conditions as regards the distance between the taps in the flats and the main water pipes.

If this is not the case the system can result in unequal costs – for example the tenants on the top floor may have to run a lot of cool water before it gets hot and the cool water is also metered as hot.

SHARE is an Intelligent Energy Europe Project working in eight European areas to develop energy efficiency and low carbon technologies in social housing. For more information about the SHARE project and for other case studies see the project website:

www.socialhousingaction.com

An alternative approach is to measure both the flow and the temperature and charge only for the water that exceeds a certain temperature level but this is more complicated and therefore also more expensive.

Another approach could be to compensate for poor circulation of hot water, for example by reducing the price per cubic meter.



As far the distribution of costs is concerned there are both flexible and fixed hot water costs that will have to be distributed among the flats. The flexible part is mainly energy for heating the water and it is this part that is most relevant to link to individual metering of consumption.

One should bear in mind that a certain amount of energy is used on heat loss for hot water supply, hot water circulation and towel driers heated with hot water. These losses may however be included in the fixed costs.



Economic aspects

The investment cost of installing a hot water meter is about €170. However a communication system for processing the meters' values is also necessary.

If a housing company is to introduce hot water metering it could be appropriate to also meter heating in flats as the same communication platform may be used for this.



It is very important to inform the tenants about the system before introducing it and also later on during the process and to get their consent.

Energy and water consumption is substantially reduced if tenants are reminded of it on regular basis.

The Swedish Union of Tenants can play an important part in helping to introduce the metering, and housing providers are recommended to engage their cooperation.

Contact Details

Name: Lena Eckerberg

Organisation: Energikontor Sydost

Telephone: +46 491 880 70

E-mail: lena.eckerberg@energikontor-so.com

Intelligent Energy  **Europe**

The sole responsibility for the content of this document lies with the authors. It does not represent the opinion of the European Communities. The European Commission is not responsible for any use that may be made of the information contained therein