PROBLEM

In Nørre Jernløse, Denmark, if a customer is not aware that a water pipe on their property is leaking, then they don't know to fix it. This can become an expensive matter, with customers receiving bills of 30,000-80,000DKK (4,000-11,000EUR).

In order to avoid this risk, the utility company in Denmark would like to install new residential water meters, which can be remotely read and are able to alert the owner of the property to the leak.

SOLUTION

The solution proposed was our E-Series® meters in connection with the Orion cellular endpoints, and Beacon AMA (Advanced Metering Analytics) Software. The daily water consumption can be monitored and a limit value can be set. If the limit value is exceeded, the consumer can be informed via a customer facing smartphone app called EyeOnWater, or via a text message or email. In addition, the utility company receives an overall evaluation of the water consumption once a day, so that an unusually large increase can be detected at an early stage.

What sets the Badger Meter solution apart from other smart network water meters is the use of the cellular mobile phone network to communicate. This means that there is no need for the water utility company to invest in the expensive infrastructure required for solutions such as fixed radio or private LoRa Networks. The meters turn on and connect to the cellular network as soon as they are installed – a truly plug and play solution.

The new meters also mean that the annual consumption information is automatically sent to the company responsible for billing. Some consumers are very happy that they no longer have to read the meter themselves. However, the meters can still be read manually if required or desired.

The utility company in Denmark have initially installed new meters into 21 properties, as a trial. This is to prove that the signal from the cellular endpoint can connect to the network. As the endpoint is M2M and only sends a small packet of data, it does not require the same strength of connection as if you were trying to make a phone call, however If the signal is not strong enough, the endpoint can be detached from the meter set higher up in a pit or chamber.

After several years of operation in the USA, the system is now available in the European market. In Denmark the solution is distributed by our local partner V. Løwener A/S, and they have been very successful in securing more trials like this nationally.