



News release

28th January 2011

British-made gadget plugs water leakage across Scotland

An innovative new valve technology designed and manufactured in Britain is helping plug leaks in Scotland's water network.

The "Incertameter" is a metering gadget with a smart, low-cost design that is easy to install and highly effective once in place.

Scottish Water has already purchased over 150 units and put them into action in the central belt, Borders, Dumfries and Galloway, Lanarkshire and Tayside. A large programme of installations is planned for 2011, including the Western Isles.

To tackle leakage, Scotland's 47,000km-long water network is broken down into bite-sized areas to monitor leakage levels. On average these areas consist of around 1,000 properties and hundreds of kilometres of pipes.

Creating one of these metering areas traditionally requires an expensive and complex process which may result in water supply disruption for customers and traffic management issues.

However the smart design of the new gizmo results in an easy, cheap installation and excavations approximately a tenth of the size of a traditional meter, lowering environmental impact.

Previously it cost £6,000 to £20,000 to install leakage meters. The Incertameter does this for 20 to 30 per cent of the cost and the data from the meter can be collected using a vehicle up to 100 metres away.

Mike Wiltshire, Leakage Delivery Team Manager, Scottish Water, said: "It's a clever piece of technology. A lot of leakage work goes towards proving where there isn't leakage. The Incertameter eliminates 75 per cent or more of this wasted time, focusing leakage inspectors in the right area from the start.

"Once leakage is identified it takes time to pinpoint the location. The primary means of detecting leakage is through acoustics and sound – we listen for leaks using a

rubber cup on the end of a wooden stick or use acoustic sensors. It is often a challenge to understand the extent and cost of a leak even once it is located.

“The Incertameter shows where and how much water we are losing and removes a lot of laborious and time-consuming work. It can be installed under pressure – meaning that there is no disruption to our customers’ water supply.

“The Incertameter pinpointed an issue at our service reservoir at Little Denny, near Falkirk. The reservoir was using more water than it needed, indicating a leak in the network. The Incertameter helped us find the leak quickly and save around three million litres of water a day.”

Scottish Water’s Leakage Manager, Scott Gaffney, said: “Our focus on leakage continues apace. In 2009-2010 we again outperformed our regulatory target and on average, leakage has been reduced by 99 million litres of water a day across Scotland in the last year.

“This helps us keep customers charges low, reduces carbon emissions and reduces the strain on our assets and network to supply the customer demand for water all year round. The recent freeze event over the festive period was a great example of this – over 99% of our customers had their full water supply 24/7 and only a relatively small number of customers were affected.”

Incertameter is designed and produced by Vernon Morris, a Bury-based company specialising in innovative products for the water industry.

Phil Campbell, Commercial Director for Vernon Morris, said: “Incertameter is essentially a flow and pressure measuring technology which uses thermoplastics and the latest technology to produce precision data that saves water, time and money.

“Operating on a basic turbine principle, the ingenuity is in the execution of the installation and operation. It is quick, clean and easy to install and the battery lasts five years. It fires out new data every five minutes and also interfaces seamlessly with all existing leakage data collection systems. In addition it can take the punishment of working underground, where high water pressure and extreme conditions require hard-wearing kit.”