

Waterwise Response to DECC Consultation on the Smart Metering Implementation Programme

September 2012

Overview

Building on Ministerial commitments and ambitions, Waterwise urges to DECC to ensure that potential synergies and savings from linking smart water meters with smart energy meters are not closed down at this stage, through decisions made on the HAN/WAN.

As set out in the government's Water White Paper, published in December 2011, smart water meters are associated with customer benefits.

Only a third of homes in England and Wales are currently metered for water - making us almost unique in Europe - and less than one per cent in Scotland. Under current water company plans, by 2015 half of homes in England and Wales will be metered for water. This includes a significant proportion of AMR (Automatic Meter Readers) meters. Defra Ministers have consistently stated that metering can have advantages for customers and help tackle affordability. Smart water meters "allow more accurate billing, greater control over consumption and better understanding patterns of demand and levels of leakage" (Water White Paper, December 2011). They also enable customers to view real-time use, and use this to steer their behaviour.

Many areas of Britain are already water-stressed. Still more are over-abstracted. And with extremes of weather becoming ever more common under climate change, Ministers have been clear that we "if we do not act, the security of our water supplies could be compromised", and that metering provides a direct incentive to reduce water usage, with smart metering increasing this potential.

The independent Walker Review to government in 2009, which enjoyed cross-party support, recommended that Ofwat establish a group to advise on the costs and benefits of intelligent metering, and to take advantage of any synergies with the roll-out of smart electricity and gas meters. Waterwise sits on this group, as do the water industry and its regulators, alongside Ofgem and DECC.

The group is unanimous in its view that the potential benefits to customers and UK plc of ensuring compatibility of smart energy metering with the rollout of smart water meters in homes rests to a large extent on the compatibility and design of the WAN/HAN.

The WAN/HAN

The technical solution employed by water companies today is radio, and this is one of the major costs of a metering programme. Having the option to connect to the DCC could help overcome this by providing a low-cost method of connecting an individual meter to the established national network, and collecting end-point data without the need to install other infrastructure, such as repeaters and data concentrators.

However, this potential link is reliant on the compatibility and design of the WAN / HAN. Many water companies now install walk-by radio meters (many of which can be re-programmed to a fixed network mode) and some are trialling fixed networks to help improve the case for metering programmes, as submitted to Ofwat. The technologies today rely on radio (principally 868 or 434mhz) and companies cannot afford to have stranded assets – they are unlikely to have funding approved by the regulator to rip these out and replace them. In addition, 80% of meters are located in the footpath, resulting in the need to be able to transmit the data from outside into the home / DCC.

To overcome this, the industry believes it is necessary for the HAN / WAN to accept 868 and 434 (or variable radio signals) to avoid the need to replace modules on meters and / or install other infrastructure in the home to act as a 'bridge'. It is known that Zigbee (one connectivity option discussed as part of the energy solution) will not work for water as it does not penetrate objects or pass through moisture very well.

Conclusion

The decision taken now on HAN/WAN will have significant impact on the potential for smart water metering to be rolled-out across Britain in coming years – an important means of delivering the government's adaptation plans for making the available water go as far as we need it, in the context of the combined impacts of climate change and population growth.