



[www.blueprintforwater.org.uk](http://www.blueprintforwater.org.uk)

## **Blueprint for Water response to the consultation on the second version of the Smart Metering Equipment Technical Specifications**

### **Overview**

Building on Ministerial commitments and ambitions, the Blueprint for Water coalition urges the Department of Energy and Climate Change (DECC) to ensure that potential synergies and savings from linking smart water meters with smart energy meters are not closed down through decisions made on the Wide Area Network (WAN)/ Home Area Network (HAN).

As set out in the Government's Water White Paper, *Water for Life*, 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, half of the homes in England and Wales will be metered for water by 2015. This includes a significant proportion of AMR (Automatic Meter Readers) meters. Ministers in the Department for Environment, Food and Rural Affairs (Defra) have consistently stated that metering can have advantages for customers and help tackle affordability. In addition, *Water for Life* notes that smart water meters allow 'more accurate billing and greater control over consumption and better understanding patterns of demand and levels of leakage'.<sup>1</sup> They also enable customers to view real-time use, which they can use 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 with climate change, Ministers have been clear that '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 (an incentive that is magnified through smart metering<sup>2</sup>).

The 2009 independent Walker Review, 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. This 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**

As stated in the consultation paper, a key objective of the smart metering solution is that equipment in consumer premises is fully interoperable; we believe that this should be the case for water usage as well as energy and gas.

Water companies use radio to connect to their existing meters, principally using 434 or 868MHz. If the WAN/HAN is designed to accept 434, 868 or variable radio frequencies, then interoperability could be achieved. If the WAN/ HAN is not designed to accept these frequencies water companies will not be able to integrate the 80% of meters that are located outside the home (under footpaths) into the network; for meters inside the home, water companies will either have to replace modules

<sup>1</sup> Defra (2011) *Water for Life*, p.51

<sup>2</sup> Defra (2011) *Water for Life*, p.4

on their meters and/ or install other infrastructure in the home to act as a 'bridge'. In either case, costs of interoperability would rise.

In addition, the use of radio is one of the major costs of water metering programmes currently in operation. If there was an option to connect individual water meters directly to the data and communications company this would be more cost-effective, and would also allow for the collection of end-point data without the need to install other infrastructure, such as repeaters and data concentrators.

We advocate that, at a minimum, Government adopt the dual band communications hub option for deploying wireless solutions, and not the 2.4GHz default or the market-led option. Even though a dual band communications hub is slightly more expensive than the 2.4GHz option, this will save customers money in the future when customers convert to smart water metering. From the point of view of interoperability we would support the option of a communications hub supporting multiple meters, and for this to include water meters as well as energy meters.

### **Zigbee**

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. We would therefore not agree with the proposal to adopt Zigbee as the HAN application layer standards for Britain.

### **Conclusion**

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

### **Blueprint for Water coalition**

The Blueprint for Water coalition ([www.blueprintforwater.org.uk](http://www.blueprintforwater.org.uk)) is a unique coalition of environmental, water efficiency, and fishing and angling organisations that is calling on the Government and its agencies to set out the necessary steps to achieve "sustainable water" by 2015. The Blueprint for Water is a campaign of Wildlife and Countryside Link.

This briefing is supported by the following seven organisations:

- Amphibian and Reptile Conservation
- Angling Trust
- Buglife – The Invertebrate Conservation Trust
- Salmon & Trout Association
- Waterwise
- Wildfowl and Wetland Trust
- WWF-UK

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