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# Anglian Water Case Study

Arqiva Smart Water Network 2019



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## Challenge

Established in Cambridgeshire in 1973, **Anglian Water** supplies water and water recycling services for more than six million business and household customers across the east of England. While the company only serves one corner of the country, it is, based on geographic reach, the largest water and water recycling services provider in England and Wales.

Despite its success, Anglian Water does face various challenges in delivering its services.

They are primarily:

- A lack of visibility in water usage and consumption data from individual households and businesses
- A reliance on customers to raise issues manually
- Delays in the identification of leaks both from supply pipes and in-home plumbing because of water meters only being read for billing up to twice a year

Not only do these obstacles affect service providers across the whole water industry, they also impact consumers with inaccurate bills and repair delays.

Overcoming the challenges is just one facet of Anglian Water's mission to become

one of the industry's most efficient and sustainable providers. The company's 'Innovation Shop Window' initiative involves making significant improvements to water services in a single real-world location – Newmarket, Suffolk – to help test the latest innovations and demonstrate what the industry's future might look like.

### Through this, it aims to:

-  Reduce the average water consumption of its customers from 150 litres to 80 litres per day
-  Eradicate leakage and bursting incidents
-  Reach a customer satisfaction level of 100 per cent
-  Become energy and carbon neutral
-  Eliminate the causes of pollution and flooding

As part of this drive to create a water company of the future, in 2016 Anglian Water chose Arqiva to deliver a **smart water metering** network in Newmarket, to be trialled over a four-year period up to 2020.

Furthermore, because of the successful delivery and early results of the trial in Newmarket Anglian went to market again in 2017 to establish a second trial in and around Norwich. The outcome of the competitive tender process was that Arqiva was selected by Anglian to also deliver this second trial. This second trial is for a three-year period up to 2020.





## Solution

The Newmarket project began in 2016 with Arqiva building the fixed network infrastructure needed to deliver Sensus' FlexNet powered smart metering solutions to households and businesses. Whilst we were building the network, Anglian commenced installing the smart water meters. Nearly 4,000 meters were installed and commissioned ahead of the network going live and when FlexNet was switched on more than 99.5% of the meters connected to the network at the first attempt. Approximately 6,400 new meters have now been installed in total in Newmarket.

The Norwich project began in 2017 with Anglian installing and commissioning smart water meters whilst we built and commissioned the fixed network. The network is now live and Anglian have installed approximately 11,000 new Sensus smart water meters in and around the Norwich area.

### Anglian Water and its customers in both Newmarket and Norwich are now benefiting in two main ways.

Our network allows the newly-installed smart meters to transmit hourly usage readings to Anglian Water (and customers are able to view their own data too), providing a better view of consumption in near-real-time. This in turn helps Anglian's team to quickly identify unusual usage patterns that could indicate leaks or breakages – technicians can then act proactively rather than rely on customers providing the information to Anglian.

While the primary function is to collect consumption information and alarms from meters, FlexNet's fixed network capability for two-way communication means Anglian Water can also remotely reconfigure the meters to deliver more frequent usage readings – again helping with the identification of leaks and other issues.



“ We procured Arqiva (and Sensus as a subcontractor) through EU compliant tender processes. We selected them because of the long-term commitment they made to the deployment and on-going monitoring of our fixed network trial, as well as their proven expertise in delivering large-scale networks. ”

**Paul Glass**  
Programme Manager, Anglian Water

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Smart metering has a key role to play in giving our customers access to information about their water use – helping them to understand how much water they are using, and therefore how to reduce their consumption and bills. In combination with our efforts on the wider network, this will help secure water supplies for the future.

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**Paul Glass**

Programme Manager, Anglian Water



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## Result

The network has already proved its effectiveness, helping to reduce the impact of leaks in customers' homes by [108,000 litres/day in Newmarket alone as at April 2018].

Based on data collected in June 2017, for example, Anglian identified water leaking at a rate of 820 litres per hour at an unmeasured customer's property. With no phone number on record, a technician could visit the location and help the customer to carry out the necessary repair work. Everything was back to normal within two weeks – much sooner than it would have been had the smart meter data not been available.

The following month, staff identified an 800 litre per hour leak at another customer's business. This turned out to be caused by urinals and toilets within the property constantly flushing. The issue was promptly fixed by the customer who worked with Anglian Water's technicians, resulting in usage dropping from 163m<sup>3</sup> per week during the leak to just 32m<sup>3</sup>.

These examples are in no way isolated either – the system is helping to solve similar leaks regularly, helping Anglian Water and its customers to save water, time, and money.



**Thank you for reading.**  
If you would like to find  
out more, let's talk.

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