



## Upgraded Metering Frequently Asked Questions

### Updated June 2021

Strategy	
<p>Why are we installing upgraded meters?</p>	<p>Customers in our area use around 1400 megalitres of water a day (also known as MLD). Today we have a surplus of 144 MLD.</p> <p>But in the future, if we do nothing, because of climate change and an increase in population in our region, we're predicting we could have 146MLD less than we need each day.</p> <p>In other words, 1 in 10 of our customers could be without water on a hot sunny day.</p> <p>Smart metering is part of an integrated package with Leakage and Water Efficiency designed to help us save 129MLD of water by 2045.</p> <p>We're aiming to upgrade 650 meters each day during the AMP7 period.</p>
<p>What is an upgraded meter?</p>	<p>An upgraded meter is a meter that automatically sends us meter readings. To do this we'll also need a 'Fixed radio network' to transmit the data back to us.</p> <p>This means, there'll be a period between fitting the meter in the ground and being able to provide you with access to the data. When both the meter and radio infrastructure is installed and tested, we'll call this an Automated Metering Infrastructure (AMI) system with an AMI Smart meter.</p> <p><b>Endpoint/smart point/flexpoint</b> It's very difficult to successfully transmit a signal from the bottom of a Boundary Box to a remote mast. So, the system we're using has a radio transmitter called an Endpoint (also referred to as a smartpoint or flexpoint) that receives data wirelessly from the meter and then sends it to the mast.</p> <p>The new meters are very similar to what we already install, the difference being the radio unit or 'Endpoint' that in most cases is screwed to the lid of the Boundary Box.</p> <p><b>Different types of meters</b></p> <ol style="list-style-type: none"> <li>1. VR – Visual Read - what we currently call a 'Dumb' or 'mechanical' meters</li> <li>2. AMR – (Automatic Meter Reading) Driveby or walkby meters from Elster / Honeywell we've used since 2010 for internal fits</li> </ol>

	<p>3. AMI – (Advanced Metering Infrastructure) Smart Meters that transmit their data hourly via a fixed network (Masts) back to our data systems</p>
When and where are you rolling enhanced meters out?	Please refer to our website to find out when we're planning to come to each area to upgrade meters.
How have you selected and prioritised the rollout of areas?	<p>Our plan is to rollout smart meters geographically using our existing DMAs (District Metering Areas) as the way of grouping target properties.</p> <p>DMAs are grouped into larger areas known as Planning Zones (PZ). We worked with our Water Resources team in creating a list of PZs, with the most urgent ones being top.</p> <p>We used the following criteria to rank the PZs</p> <ul style="list-style-type: none"> <li>• Current levels of demand</li> <li>• Current levels of leakage</li> <li>• Future growth levels</li> <li>• Current and future water abstraction demands</li> </ul> <p>These criteria created a prioritised list which we will work through.</p>
How will we know an upgraded meter is being installed?	<p>The first areas are: <b>Boston, Lincoln, Wellingborough, Colchester and Norwich.</b></p> <p>We'll aim to provide you with scheduled updates as the roll-out progresses.</p> <p>In addition, we'll provide at least 22 Business days' notice in advance of when we plan to change the meters.</p>
Will every meter in each DMA be replaced at the same time? Or will it be spaced out?	<p>Screw in meter replacements will all be attempted at the same time irrespective of the age of the meter. Some may take longer to do, due to access and location but we will try and exchange them all.</p> <p>External installation that require excavation will be planned in for the same time. Internal installations will be booked in for a replacement once we have contacted the customer and made an appointment.</p> <p>We'll try to do these in line with the rest but again some may take longer to complete</p>
What's wrong with the old meter?	Nothing, the current meter still works correctly. We're moving to the new meters to realise the benefits of Smart meter data.
What make and model are the upgraded meters?	<p>We've selected Arqiva as our supplier, backed up by Sensus and Elster meters. These are the same meters we used on our trials.</p> <p>Please see our meter menu published on our wholesale website here: <a href="https://wholesale.anglianwater.co.uk/siteassets/resources/useful-documents/wholesale-nhh-meter-menu.pdf">https://wholesale.anglianwater.co.uk/siteassets/resources/useful-documents/wholesale-nhh-meter-menu.pdf</a></p>
What equipment would be required to read the AMR meters?	Our plan is to install upgraded meters in conjunction with the fixed radio network, area by area. The meter will therefore operate in AMR mode for a short period until the meter switches to AMI mode.

	In general, the upgraded meters will not operate in AMR mode, however the meters can be visually read should they need to be
For larger meters, what if we already have AMR equipment installed on the meter?	<p>You will still be able to install a logger or AMR device (that requires a pulsed output) in smart meter areas.</p> <p>We currently plan to install a pulsed Radio Frequency (Pulse RF) to larger meters.</p> <p>If there is an existing retailer logger or AMR device installed on a meter, we will install an upgraded meter with a pulsed Radio Frequency (Pulse RF) to transmit data to AW data hub. We will also install a splitter cable to enable the retailer to re-connect their existing logger/AMR device.</p> <p>If you wish to install your own logger/AMR device after we have upgraded the meter, our normal 'installation of retailer equipment' process applies. Please refer to our Wholesale policy along with our terms and conditions here:</p> <p><a href="https://wholesale.anglianwater.co.uk/siteassets/resources/wholesale-logger.pdf">https://wholesale.anglianwater.co.uk/siteassets/resources/wholesale-logger.pdf</a></p>
What is the battery life expectancy on these meters?	The expected lifetime of the upgraded meters is 15 years from installation date under normal use.
When installing the meters is it sync to the masts?	If the network is in place in the area when the meter is installed, the meter will sync to the mast within 24 hours. There will be occasions where the meter is installed into an area where the network is not available.
For clarification, on meter replacements you will look to install an AMI capable meter regardless of whether within a current fixed network or not?	Our default option for 15mm, 20mm and 25mm are new AMI meters if installing in a Planning Zone that is part of the AMP7 programme, even if network isn't planned until year 3/ 4 the meter will be upgraded in readiness for network availability. For 30mm and over we are using a pulse-head linked solution with VR meters. If a meter replacement is not in a Planning Zone that is part of the AMP 7 programme, it will be replaced with a VR.
Are you looking to have 100% of NHH customers to be metered?	Over the entire programme (completion in AMP 8 or 9) our aspiration is to reach as close to 100% as is possible. We currently have one of the highest rates of visual read meter penetration across the sector.

<b>Process</b>	
What is the process for fitting an upgraded meter?	<p>In general, we plan to fit the upgraded meter in the same location as the existing meter.</p> <p><b>Appointment Making</b> Where we need to make customer appointments, we'll agree our approach with you as part of our retailer consultation.</p> <p><b>Fitting an external meter</b></p>

	<p>For meter sizes up to 25mm, we'll aim to install these <b>without</b> making an appointment with your NHH customer.</p> <p>The meter installation will typically take no more than 20 minutes and may require a short interruption to supply (around 5 minutes). We'll check with the customer before we do any work.</p> <p>For meter sizes greater than 25mm and where we would need to interrupt the supply to upgrade the meter, we'll make an appointment with your NHH customer to agree a suitable time.</p> <p>In this scenario we'll request customer contact details and ask for your support in carrying out the work within day-light hours.</p> <p>For meters greater than 40mm, we currently plan to install a pulsed Radio Frequency (Pulse RF) to the existing meter. Although this doesn't interrupt the supply, it would help us if this was done at a time of low water demand as we need to take a meter reading to pair the radio device to the meter.</p> <p><b>Fitting an internal meter</b> Where an existing meter is located internally, we'll need an appointment with your NHH customer to install an upgraded meter.</p> <p>Following installation of an upgraded meter, we'll update CMOS in line with Market codes.</p>
Will Retail Customers be charged for an upgraded meter?	No, the metering upgrade programme is funded as part of our Business Plan
Will Settlement be affected by installing an upgraded meter?	No, the current billing periods will remain the same, but we will be updating meter details to CMOS as part of normal market processes.
Can we request an upgraded meter on behalf of our NHH customer?	We're installing upgraded meters in line with our programme. Please see our webinar and website for programme rollout details. To maximise efficiency, we're working in specific geographic areas at a time. If your customer isn't located within our planned area, we may install an upgraded meter when a meter stops, however, without the Fixed radio network in place, the meter would not be AMI enabled
Can I move my meter as part of the upgrade?	We do offer a Meter relocation service as per our Wholesale Charges Scheme. . We may not be able to move meters as we install water meters in the best place to correctly capture usage
Will we be able to install our own logger on an upgraded meter?	<p>Yes. We'll still enable a logger to operate in smart meter areas.</p> <p>If you wish to install your own logger after we have upgraded the meter, our normal 'installation of retailer equipment' process and charge will apply. Please refer to our Wholesale policy along with our terms and conditions here:</p> <p><a href="https://wholesale.anglianwater.co.uk/siteassets/resources/wholesale-logger.pdf">https://wholesale.anglianwater.co.uk/siteassets/resources/wholesale-logger.pdf</a></p>

How will we know when the meter is in AMI mode?	Following installation of an upgraded meter, we'll update CMOS in line with Market codes.
Can a 3rd party logger be installed to these assets?	For meters that are 15,20 and 25 mm will be replaced with a smart meter, however if the existing meter is already logged, depending on age and condition, it will either be replaced with a visual read meter and a pulse head or left in situ.
What would happen if a new digital meter is fitted for smaller meters but does not connect to the fixed network?	We do see occasional failure on connection. We carry out remedial works that have a very high-resolution rate. Where we cannot achieve connection we are still defining our plan for meters 'out of coverage' which would also cover this eventuality, but the final option would be to retain a VR meter. We expect this issue to arise in 3% of our total smart metering programme
Can your AMR meters be logged?	<p>You will still be able to install a logger or AMR device (that requires a pulsed output) in smart meter areas. We currently plan to install a pulsed Radio Frequency (Pulse RF) to larger meters. If there is an existing retailer logger or AMR device installed on a meter, we will install an upgraded meter with a pulsed Radio Frequency (Pulse RF) to transmit data to AW data hub. We will also install a splitter cable to enable the retailer to re-connect their existing logger/AMR device. If you wish to install your own logger/AMR device after we have upgraded the meter, our normal 'installation of retailer equipment' process applies. Please refer to our Wholesale logger policy along with our terms and conditions.</p> <p><a href="https://wholesale.anglianwater.co.uk/siteassets/resources/wholesale-logger.pdf">https://wholesale.anglianwater.co.uk/siteassets/resources/wholesale-logger.pdf</a></p> <p>Ultimately, if a Retailer/ customer wishes to install a logger on a meter, we will facilitate this.</p>
Whilst not applicable to most smaller meters, data on 25mm meters may be very valuable. If you install an "upgrade" meter and the network won't be available for some years, are additional loggers able to be installed to those meters?	See above
I have 2 examples so far of loggers removed for a smart meter with no network coverage (not necessarily yours). This is a backwards step for those end customers. We would	Our installation team have been instructed not to remove loggers - we would employ our pulse RF solution instead. For any occurrences in our area please report any examples via our Wholesale Service Centre where AW will appropriately rectify.-

be happy to be consulted on how to overcome this?	
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Data	
How will we access the Smart meter data?	We'll be asking for your feedback on how we provide data to you as part of our consultation in September 2020.
is the information live or in real time?	The data is updated every 24 hours showing usage from the previous day, rather than real time.
Will we (retailers) be required to visually read the upgraded meter?	If the NHH customer is within the planned areas and the network is available, you won't need to visually read the meter, as it will be in AMI mode. However, all upgraded meters can be visually read at any time.
How are you using the NHH data?	<p>We'll analyse the trends and patterns of water usage to build up a picture of water use at local and regional level. We do this to help us manage our network and water supplies more efficiently and help plan future investment.</p> <p>The objectives of the metering upgrade programme are also to help drive water efficiency and demand side management, including leakage detection.</p> <p>We'll be working with you collaboratively to maximise the benefits of smart meter data. We'll ask for your views on how best to achieve this as part of our consultation in September 2020.</p>
Is there a charge to access the smart meter data?	Providing standard data (which we intend to be hourly) won't be chargeable. However, based on feedback from the Consultation we'll review our potential enhanced service offering.
How do I know if my NHH customer's meter is smart and I can access the data?	Following installation of an upgraded meter, we will update CMOS in line with Market codes. We expect this to be similar to how we provide logger or meter read data. However, we're asking your view on this as part of the consultation.
Do our NHH customers have direct access to the data?	We won't be providing direct access to the data for NHH customers. However, if we receive a Data Subject Access Request (DSAR), we're required to respond in line with GDPR.
What format will the data be in?	Our preferred approach is to provide this in a format like the meter reading files but we'll be consulting with you on this.
Can our customers have a lower price if they use water off peak?	Unfortunately, not. If there's high or low demand for water, it still costs the same to treat it and maintain the water supply. Water supply is different from energy where the customer demand for electricity means power stations need to increase output immediately at busy times to meet demand. Water is pumped and then supplied from local water towers and supply reservoirs; we pump water during the day to make sure enough is available locally for the peak demand times.
Is Smart meter data classed as personal data?	Standard data (hourly) will be provided in accordance the Wholesale Contract under the basis for 'legitimate interest'. Retailers will need to consider and update their privacy notice and GDPR policy on how the data is used. Each data purpose, (such as Billing, Research and

	analytics, or reporting) will need a Privacy Impact Assessment (PIA), to be carried out.
How does my customer know if they are using more water than other similar business types?	Working with your customers you'll be able to analyse their consumption and develop benchmark figures for similar business types using published data and your own efficiency tools. We would welcome the opportunity to work together to maximise the benefits in this area
How will it work for the really rural areas? The ones with limited phone signal etc, will they still need a visual read?	<p>We believe 97% of our region will have coverage from the masts. The Arqiva network is not linked to the mobile phone system, other than that it shares some mast structures, so we'll often have smart meter coverage even if there is no mobile phone signal.</p> <p>There will always be some areas where we cannot reach our customers though. In those areas we'll look at other technologies to try and collect the data.</p> <p>Where this isn't possible, meters will continue to need to be read like they are today</p>
Are you exploring the data going directly into CMOS mid to long term?	This is an option that we will explore, and we will be seeking your view on this as part of the consultation.
Currently data is received from your loggers for your customers on MDD tariff - will the data be in the same format?	We expect this to be similar to how we provide logger or meter read data. However, we will be asking your view on this as part of the consultation
Can the data be accessed through a connected SFTP protocol?	It is not yet defined how the data will look and what output it will be however, we will be asking your view on this as part of the consultation
Will meter read data be provided free of charge to retailers?	Yes, standard meter data (hourly or daily, subject to GDPR) will be provided at no charge to retailers
What options will the end customer have to access their own meter read records?	Our standard service offering currently is that we will be providing smart data direct to the retailer through our RDE (Retailer Data Exchange) technology for them to share with their business customers as appropriate. If an end user wanted to access any of their available smart data directly, this would have to be done through a full DSAR (Data Subject Access Request).
What happens if you're not the retailer for that particular customer for their entire portfolio but are performing a data project for them - can you obtain the data with a LOS?	In this instance you would have to obtain the relevant data direct from the Retailer who has commissioned the project Please note that historic data up to 45 days will be available through the RDE.
Are you exploring whether the data from the AMI meters could be used to provide point in time "wholesaler	This question was considered as part of our retailer consultation. The feedback was mixed on whether we should be considering this or not, but there was sufficient interest for it to be included as part of our roadmap for future consideration and investigation. We have some existing functionality that we hope to repurpose to be able to

<p>provided" meter reads into CMOS?</p>	<p>provide this option. We believe that AMI meters offer significant opportunity for the NHH Market.</p>
<p>On feeding back to my technical team, they asked if the smart meter type you are using are the kind which have 2 operational modes. The first is for 1 hour data, which is what you are proposing to share, and the other is for leak detection and nightline which has much better granularity. Our customers receive logger data based on 15 minute granularity. We deliver an effective monitoring service on this basis – only having one hour data would undermine both the service the customer currently receives, and also the objective of water efficiency which is the foundation of the smart metering programme. Is it possible that we receive the data from the second operational mode so that high granularity data, which is owned by the customer, is available to our portal?</p>	<p>Our chosen smart meters do have both 60 and 15 minute modes. We are currently only able to process 60 minute granularity data, with 15 minute functionality identified as a later step in in our SMDI (Smart Meter Data Infrastructure) build development. In our trials we have identified that hourly data is sufficient for customer side leakage identification. We did trial on a small number of properties the use of 15 minute data and found that there was very little advantage in understanding continuous flows other than quantification to sub 1 litre per hour accuracy. We appreciate that there will be certain times where a logger installation may be more suitable. Where this is the case we remain happy to enable this either through a pulsed output unit or through the installation of a VR meter.</p>