Anglian Water

PR19 DRAFT DETERMINATION
SMART METERING COST ADJUSTMENT CLAIM

August 2019

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COST ADJUSTMENT CLAIM: SMART METERING

Name of claim	Smart Metering
Business plan tables where totex value of claim is reported	WS1
Price control the claim relates to	WN+
Total value of claim for AMP7	£42.387m
Total opex value of claim for AMP7	£0m
Total capex value of claim for AMP7	£42.387m
Depreciation on capex in 2020-25 (retail controls only)	N/A
Whole life totex of claim	£42.387m for AMP7 only
Materiality for relevant controls	1.9% of AMP7 Water Network Plus totex
DPC?	No

This cost adjustment claim reflects the increase in the number of meters we will be replacing in AMP7, over and above the number we would be replacing if we did not need to deliver our smart metering programme. We will roll out smart meters on a geographical basis to deliver the best value to support our WRMP ambitions. This results in replacing some meters before they have reached the end of their life in order to maximise future customer and environmental benefits. As this cost adjustment is for base replacement costs, we do not focus here on smart metering technology, the uplift cost for which is considered to be enhancement expenditure.

Test	Brief summary of evidence to support claim	Ofwat's DD deep dive position	Page
Need for cost adjustment	The costs of doing so are not reflected in Ofwat's assessment of botex requirements.	Pass	2
Management control	We have taken a proactive decision on the smart meter rollout to ensure supply demand balance. Wider rollout is necessary for the delivery of our WRMP ambitions. There is a strong driver to rollout smart metering from our customers.	N/A	2
Need for investment	Investment needed to ensure we can deliver the demand side reduction necessary to deliver our WRMP, ensure long term water resources resilience and protect the environment.	Pass	2
Best option for customers	Taking a geographical approach to the rollout rather than replacing meters on a reactive or proactive end-of-life basis, reduces the overall rollout costs per meter, ensures maximum utilisation of the smart meter fixed network, and maximises the potential benefits of customer based demand reductions.	Pass	4

Robustness and efficiency of costs	We have benchmarked our costs against the most comparable international comparisons for smart meter rollout, with third-party assurance from KPMG. We dispute Ofwat's DD cost comparisons approach.	Partial pass	5
Customer protection	Our customers are protected through the Smart Metering ODI mechanism.	Partial pass	5
Affordability	This investment will give customers greater control of their bills with granular consumption data.	Not assessed	6

1.1 Need for investment / adjustment

Ofwat previously provided a 'pass' assessment on this test area at DD in the metering enhancement deep dive.

Is there persuasive evidence that an investment is required?

GIven the acute stresses on water resources in our region, we need to reduce demand as set out in our Water Resources Management Plan. To help us to do this, we are rolling out smart meters across our region, to support our customer demand management programme and, and identify customer supply pipe leaks.. Rather than simply replacing meters on a reactive basis or when they reach the end of their life, we will following a systematic approach that ensures we get the best value from our fixed network and allows for a more targeted approach to demand management through behaviour change.

Delivering on an area-by-area basis necessitates replacing some dumb meters before they reach the end of their life, as historically meters have been installed on an individual basis (e.g. when an individual customer opts in to having a meter installed at their property). This therefore means that the number of meter replacements in AMP7 will exceed the level assumed from the average run-rate of meter replacements reflected in Ofwat's base models. The cost of the additional meter replacements is therefore not captured in modelled base costs.

This adjustment to base expenditure is required in order to deliver the 602,380 smart-for-dumb replacements (before end of life) highlighted in our smart metering enhancement case.

Where appropriate, is there evidence – assured by the customer challenge group (CCG) – that customers support the project?

The majority of customers have told us they would like the option of using more technology to manage their usage and accounts. Our Newmarket and Norwich trials have shown us that customers with smart meters feel very positive about them, because they enable them to save money, both through reducing personal use, as well as the benefit of being able to identify leaks at their own property.

Research from a segment of our online community living in Newmarket (where we have existing smart meter technology) confirmed that customers value the peace of mind a smart meter can give them both in keeping track of daily usage, and also to identify a leak on their property quickly. They felt that smart meters should be available to all customers, and that smart meters are no longer a futuristic gadget, but, along with other utility smart meters, are now necessary to help reduce water consumption.

1.2 Management control

Ofwat previously provided an 'N/A' assessment on this test area at DD in the metering enhancement deep dive.

Is the cost driven by factors beyond management control?

Yes. The ability to manage the supply demand balance is driven by factors beyond our control, principally changing climate, population change and environmental protection. Delivering the demand reductions through the full smart meter replacement programme is therefore vital to ensure long term water resources resilience in our region.

The solution is within our control and this one is the right one because it delivers the best value for customers, through maximising the benefits from the fixed data network, reducing rollout costs by replacing all meters in on a District Meter Zone (DMZ) by District Meter Zone basis and facilitating a geographically targeted demand management strategy

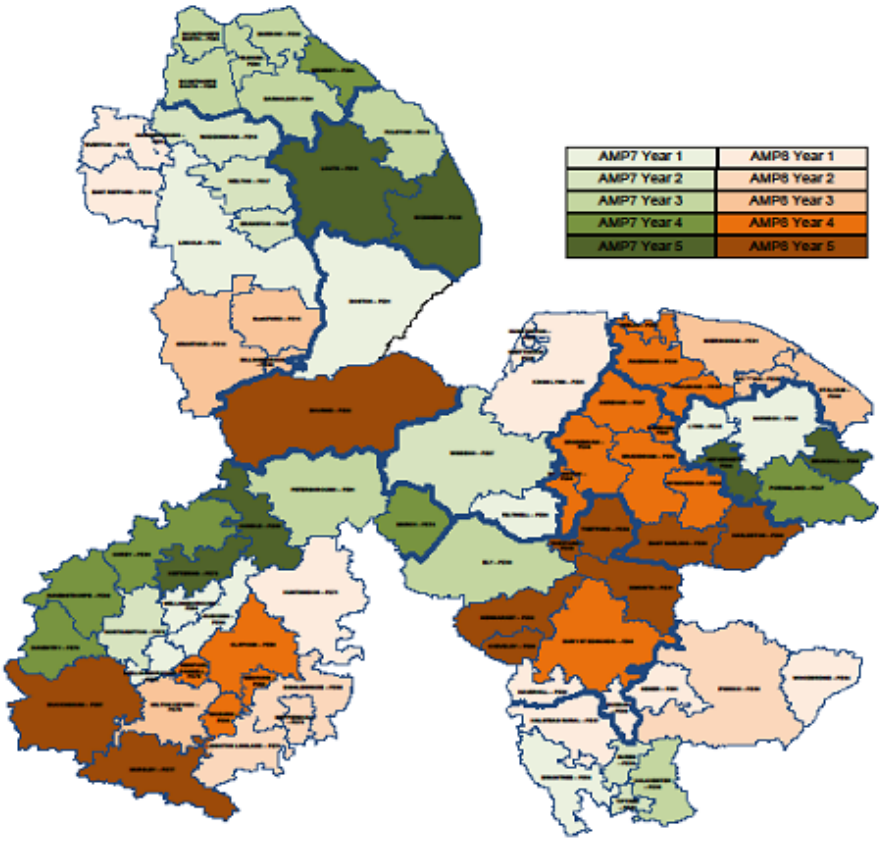
The need to replace over one million dumb meters with smart meters by the end of AMP8 is driven by our WRMP ambitions. We are confident that smart meter installations will help to drive down demand by ensuring customers can identify leaks on their properties and by making customers more aware of their water use.

Is there persuasive evidence that the company has taken all reasonable steps to control the cost?

We are taking forward the rollout of smart meters on a DMZ basis rather than replacing all meters when they reach the end of their life because this provides the best long-term value for customers. It means smart meters are replaced for a whole area rather than on an individual, more scattered basis. Delivering on a geographical basis also means that we can install a fixed network across our region and install meters where the networks have been established. This will allow us to roll out smart meter installation such that as soon as a smart meter is installed at a property, customers can make use of the customer portal and app to access the granular data on their water use. We have also benchmarked our costs against national and international comparators. We highlight this in the 'Robustness and efficiency of costs' section.

The map below shows how we are taking forward the rollout on an area-by area basis.

Figure 1 Rollout of smart meters during AMP7 and AMP8



This cost-adjustment claim only applies to the base (dumb-for-dumb) replacement costs and not the smart meter uplift. This base expenditure is necessary to ensure that we can deliver the smart meter rollout on a geographical basis (the customer benefits of this are set out in the section below). This is a base cost adjustment rather than enhancement expenditure. Early replacement will ultimately lead to lower base costs in future AMPs as some meters that would have been replaced in AMP8 or AMP9, will have already been replaced in AMP7.

1.3 Best option for customers

Ofwat previously provided a 'pass' assessment on this test area at DD in the metering enhancement deep dive.

Does the proposal deliver outcomes that reflect customers' priorities, identified through customer engagement? Is there CCG assurance that the company has engaged with customers on the project and this engagement been taken account of? Did the company consider an appropriate range of options with a robust cost–benefit analysis before concluding that the proposed option should be pursued?

Without this additional base expenditure in AMP7, we would be reliant solely on replacing meters as they reach the end of their asset life. This would present two key issues. Firstly, the number of meters replaced with smart meters would not be sufficient to meet the demand-side needs of our WRMP. Secondly, it would result in meter replacements taking place on an individual property basis rather than a whole area basis. This would lead to:

- **A higher cost rollout.** Replacing meters on a whole area basis is more economical than replacing meters on a more scattered, individual property basis.
- **Lower utilisation of the fixed data network.** Rolling out smart metering on a geographical basis means we can also develop our fixed data network on a geographical basis, ensuring that when smart meters are installed in roll out areas, they can connect to this network and deliver customer benefits straight away. This approach also ensures that customers can get the best value out of the fixed network. Replacing only at end of life or when faulty would mean that: the fixed network would need to be in place for our entire region from the start of AMP7 increasing AMP7 fixed network costs by £45m; a significant underuse of fixed network capacity and; a higher fixed network cost per meter.
- **Customer engagement and targeting of water efficiency programmes.** A geographically targeted programme will mean that our engagement with customers on water efficiency in an area can be targeted based on whether that area is a smart meter rollout area or not. Furthermore, our customer engagement has shown that most of our customers support smart metering. Rolling out smart meters purely as they reach end-of-life would mean some customers waiting years for a smart meter where a neighbour has already had one installed. We believe this would lead to customer dissatisfaction. Our geographically based rollout mitigates this risk.

Is there persuasive evidence that the proposed solution represents the best value for customers in the long term, including evidence from customer engagement?

This solution represents the best value for customers in the long-term because it enables an efficient, proactive smart meter rollout on an area-by-area basis. Due to the avoided costs of meter replacements in future AMPs (when the meters included in this cost adjustment claim would be due to be replaced) there will be a subsequent reduction in meter replacement cost in future AMPs.

Has risk been assessed? Have flexible, lower risk solutions been assessed? Has the impact on natural capital and the environment been considered?

Investment in greater replacement than the average rate will help us to reduce demand for our limited water resources. The geographical rollout will help to drive further reductions through allowing targeted water efficiency messaging. Not delivering these dumb-for-smart replacements would risk being able to deliver our WRMP and the increased risk to resilience that this would place on our customers and the environment. These outcomes would necessitate additional supply-side solutions. For example, both of these options would increase the need for water abstraction from the environment, leading to greater stress on natural capital and the environment.

1.4 Robustness and efficiency of costs

Ofwat previously provided a 'partial pass' on this test area at DD in the metering enhancement deep dive.

Is there persuasive evidence that the cost estimates are robust and efficient?

In our September Plan and our April IAP Response, we highlighted cost comparison information taken from actual delivery costs for a number of smart meter rollouts worldwide. The costs of our smart meter rollout compare favourably with these comparators. These costs considered the full costs of replacement, the base replacement cost covered by this cost adjustment claim, and the smart meter premium and network costs covered by our enhancement case. The table below highlights the cost comparison between our rollout and the international comparisons. We have used 'in the round' costs (i.e. including smart uplift and network costs) rather than purely base replacement costs to allow like-for-like comparison with the international examples and to reflect the full meter replacement costs that this botex expenditure supports.

Location	Anglian Water	Yarra Valley	Valencia	Austin, TX
Number of replacements	1 million (in AMP7)	800,000	550,000	250,000
Unit cost per meter	£156[1]	£191	£120[2]	£240

1 sum of unit costs in line 3 (dumb exchanged for smart before end of life) and line 7 (fixed data network) in the meter installation costs table on page 65 of our April IAP Response – water data tables commentary

2 As raised in our April IAP response, this figure excludes network configuration costs which uses a SIM cards and is significantly different to our proposal. Our like-for-like unit cost is therefore £119 (rather than £156) as per line 3 on page 65 of our April IAP Response – water data tables commentary

In addition, we have compared our base cost of meter replacement with that in Northumbrian's metering enhancement case. Northumbrian is the most appropriate comparator because it too is planning to roll out smart metering extensively in AMP7. and its costs have been accepted in full by Ofwat at DD. To replace 309,832 for a base cost of £22.5m (£72.62 per meter). This compares with this cost adjustment claim to replace 602,380 meters for a base cost of £42.387m per meter (£70.37 per meter). An analysis comparing the uplift (i.e. enhancement) costs between ourselves and Northumbrian is provided in our smart metering enhancement section.

Is there high quality third party assurance for the robustness of the cost estimates?

We provided third party assurance for the robustness of our costs from KPMG. "We have reviewed Anglian Water's approach to developing their Smart Metering Programme both through reviewing documents and interviewing key project team members. Based on this, we consider that the business case has been prepared following a robust process, utilising both analysis and customer engagement. We consider this to be a challenging programme both in terms of delivery and against the high level cost benchmarks we have been able to obtain."

1.5 Customer protection

Ofwat previously provided a 'partial pass' assessment on this test area at DD in the metering enhancement deep dive.

Are customers protected if the investment is cancelled, delayed or reduced in scope?

If this investment is delayed, reduced or cancelled, this will inherently delay, reduce or cancel the delivery of 602,380 smart meter enhancements. We have a customer protection ODI mechanism in place to ensure the delivery of our smart meter rollout. Any non-delivery of this base expenditure will mean that enhancements cannot be delivered and we would therefore receive a penalty through the ODI mechanism. Given that this base expenditure is needed to ensure we meet our leakage and per capita consumption performance commitments, we would also risk incurring a penalty through the ODI mechanisms for each of these outcomes if we did not deliver this investment.

Are the customer benefits that relate to the claim linked to outcomes and to a suitable incentive in the company's business plan?

Yes – Smart metering, leakage and per capita consumption outcomes.

1.6 Affordability

Ofwat did not previously assess this test area at DD in the metering enhancement deep dive.

Has the impact on affordability been considered? For large investment schemes in particular, is there persuasive evidence that the investment does not raise bills higher than what is affordable?

This investment increases our base expenditure in AMP7 and we have carefully considered the costs and benefits of this investment taking into account the need for both long-term resilience and affordability in the long-term and we believe this investment benefits customers on both of these fronts. Customers will have greater control over their water usage and ultimately the level of their bill through access to daily consumption data through the customer portal and app. Our customer engagement highlights that the vast majority of our customers consider our expected bills in AMP7 to be affordable. We also have a range of schemes in place to support customers who struggle to pay their bills.

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