Fairness on Tap

calling for fairer water bills

MAKING THE CASE FOR METERING

About Fairness on Tap

Fairness on Tap is a coalition of organisations calling for a fair deal for water - for customers and the environment. We include:

- Angling Trust
- Association of Rivers Trusts
- Buglife
- Chartered Institute of Water and Environmental Management (CIWEM)
- Great British Refurb
- Green Alliance
- National Trust
- RSPB
- Salmon and Trout Association
- Society of British Water and Wastewater Industries (SBWWI)
- Unison
- Waterwise
- Wildfowl and Wetlands Trust
- Wildlife Trusts
- WWF-UK

We are calling for the government to set out a strategy to install water meters in at least the 80% of England where there is greatest pressure on the freshwater environment and people's pockets, by 2020. This must be supported by fair tariffs to make water bills affordable for everyone and help to reduce water waste and protect the freshwater environment.

This report was written by Vicky Garner (Campaign Manager, Fairness on Tap), Rose Timlett (WWF-UK) and Nicci Russell (Waterwise). We would like to thank all those who helped contribute to this report, providing information and insight as part of our Fairness on Tap discussions. In particular we would like to thank all the families who have shared information on their experience of water metering and have volunteered to be included as case studies, as well as Anglian Water, Southern Water, South West Water, Age UK, the Women's Institute and the Citizens Advice Bureau.

For more information on Fairness on Tap visit www.fairnessontap.org.uk

Because of the different regulatory and political context in Northern Ireland, Scotland and Wales, this document relates to England only.

June 2011.

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Foreword

Water charging in England and Wales was designed two decades ago and urgently needs to be brought up to date. Current water consumption is not within sustainable limits, wastage is high, our natural environment is under significant stress and millions of customers struggle to pay their water bills - all problems set to get worse with climate change and rising population. Today's system, based on 1974 rateable values, does not reflect water use nor does it protect many low-income families from unaffordable bills. We simply can't afford to turn a blind eye and carry on, business as usual.

While there are a huge variety of opinions making up the water metering debate, it seems that everyone – water companies, environmental, social and consumer organisations, regulators and government – agrees that if we were starting from scratch we'd create a water charging system based on metering.

The Fairness on Tap coalition believes that we need to move to a fairer charging system based on water metering supported by social tariffs, good customer service and help with water efficiency. This would ensure that water is affordable for all and encourage reduction in water demand, reducing the stress on our environment in the process.

Water metering has long been on the agenda of environmental organisations. We think it is the obvious backbone for a fair and sustainable water charging system. However, organisations concerned with the welfare of individuals and families rightly raise concerns about affordability. The fact is, there is a cost to metering. It is also true that - for some - paying for water on the basis of what they use will cost them more than under the present system, where low water users subsidise the bills of households who use lots of water. And since a sprinkler can use more water in an hour than a family of four uses in a day, water efficiency can bring down bills significantly. It also has spin-off benefits for household energy consumption – a third of the average gas bill goes on heating water in homes.

Water metering does not need to make water unaffordable to anybody. There is a cost to putting in a meter, but those costs come down if they are installed systematically (by requiring every household to have a meter on a compulsory basis). And, over the medium and longer term, using meters to help reduce demand for water will be far less costly then building expensive new resources. There are those on low incomes who will undoubtedly need help paying their bills, but by putting in place the right system of tariffs, well-thought-out, well-targeted and combined with help to waste less water, we can properly address these concerns too.

The new approach that we are advocating is squarely in line with the independent Walker Review and a cross-party Committee of MPs, who have recommended that the government set out a path to higher levels of metering, as the central pillar of a more comprehensive, robust and fair water charging system.

It's clear to us that the main barrier to metering today is not based on fact, but on misconceptions and fear. During the course of our Fairness on Tap discussions we have found that the water metering debate is blighted by scare stories - by worries that metering is just another way for water companies to make money or that affordability measures won't

really work. These cloud the issue, making it harder to see the value of metering in delivering value for money, fairness, affordability and the all-important water in our taps. This is exactly why it's time to open up the debate and - working with the evidence - build a water charging system that delivers for customers and the environment.

Jacob Tompkins
Managing Director, Waterwise

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Chief Executive, WWF-UK

Fairness on Tap: 3 steps to sustainable, affordable water

The current system of charging for water in England and Wales isn't working. It doesn't encourage efficient and sustainable use of water and it isn't supporting those who need help paying their bills.

One third of households in England and Wales pay by meter. Water company investment plans suggest this will rise to 50% by 2015. Under the current approach 80% of households in England and Wales will have a meter by 2030, as households choose to opt for a meter. A strategy to install meters systematically, rather than one-by-one, has the potential to reduce installation costs by up to 50% (saving £1.5 billion).

At present, water charging is based on property rateable values, with allowances for people to opt for water meters if they wish. In addition, water companies in water stressed areas can apply to install meters on a compulsory basis in areas where they can demonstrate that metering is the most cost-effective approach to meeting water demand. While some companies, including Anglian Water, Southern Water, South West Water and Veolia Southeast have or are planning near-universal or very high levels of metering by 2015, there are still some companies with much lower levels. (It is worth noting that some companies, such as Thames Water and Veolia Central, included enhanced metering programmes in their draft 2010-2015 business plans, but these were not approved by Ofwat in their final determination.[1])

The rateable value system was designed to be progressive - those on lower incomes paying less for their water than those on higher incomes. However, it is now out of date - with significant consequences. The central assumption has become increasingly tenuous and there is now little correlation between the rateable value of a property and household income. As a result many low-income households face higher bills because they live in a high-rateable value property and many high-income households pay lower bills as they live in a low-rateable value property.[2]

"For each low-income household that benefits from being in the lowest rateable value band, almost twice as many middle-and higher-income households get that same benefit – so only about 30% of the help accorded to the lowest rateable value band is going to the poorest households... Almost 40% of low-income households live in the top six rateable value bands. As a result [many will] be cross-subsidising other households on higher incomes in lower rateable value properties".
The Walker Review

The rateable value charging structure does deliver some financial relief to some of those who need it, but it is not very well-targeted. [3] There are around £600 million of transfers (cross-subsidies) between rateable value bill payers each year – only £180 million of this is going to low-income households (with some of that coming from other low-income households). [4] The remaining £420 million is subsidising those who don't need help paying bills, and some of this is comes from those who themselves need help. [5]

Affordability of water bills is already an issue for some households in England, and more so in those regions where bills are high. The South West Water region has the highest water bills in the country. Here, 200,000 people are in water poverty (defined as spending more than 3% of

income on water and sewerage bills); however, water poverty is a national issue – for example in the Thames Water region over one million people are in water poverty.[6]

The current system is also in transition. Just over one third of homes in England and Wales pay for water using a meter; by 2015 it will be half.[7] Water metering is highest where water is scarce or the price of water is high –in the east, southeast and southwest of England. As more people opt to have a meter installed, a two-tiered system develops, with people on a meter paying less than those paying by rateable value (as bills are 'rebalanced'). As customers switch to meters, the existing cross-subsidies unravel as fewer and fewer unmetered customers are left to subsidise the bills of the remaining larger unmetered users. The average metered bill in England and Wales was £312 for 2009/10, compared to £367 for the average unmetered bill.[8] The disparity is higher in areas with high metering rates – e.g. in the South West Water area, the average metered bill is £401 compared to the average unmetered bill of £723.[9] As people opt for meters, households who continue to pay bills based on rateable value charging will shoulder a growing proportion of price increases.[10]

As the costs of water rise and more people opt for meters, the affordability issue needs to be tackled because affordability support within the existing charging structures becomes increasingly unfit for purpose. There is a clear need to address this through a comprehensive, strategic approach to metering, supported by government.

In 2009, the government published *The Independent Review of Charging for Household Water and Sewerage Services* (the Walker Review). It raised *"significant and growing concerns over the current mixed charging system",* identified that *"Rateable Value no longer targets those who need help with their bills"* and highlighted "*the current system also does not incentivise the efficient use of water".* [11] It concluded that charging by volume of water used – using water meters – was the fairest way to pay.

Fairness on Tap urges the government to set out a strategy to install water meters for all over time and in at least the 80% of England where there is the greatest pressure on the freshwater environment and people's pockets by 2020 at the latest.

The Fairness on Tap coalition is calling for metering as part of a fairer system of water charging. We believe that there are three essential steps to sustainable, affordable water: metering; a national policy on social tariffs to ensure water is affordable for all; and help to save water and cut bills.

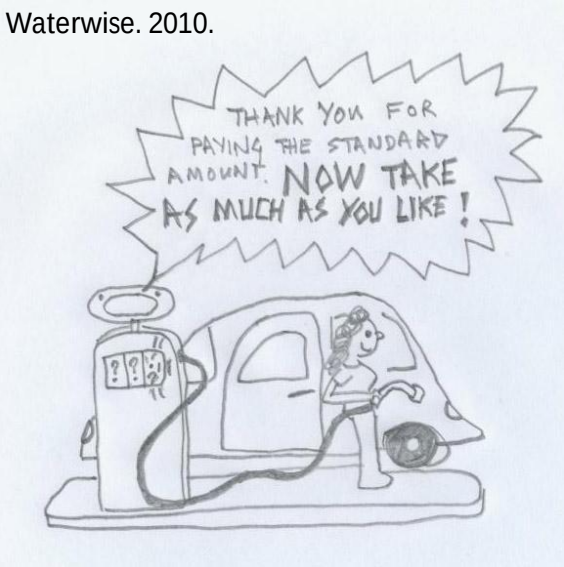
STEP 1: METERING

The fairest way to pay for water is to each pay for what we actually use. Doing it this way means we don't have to pay for someone else wasting water and we are in control of our bill. Research shows that customers think it quite wrong that two neighbours in identical homes pay the same if one is a single person household and the other is a family of four using much more water.[12] It also means we can all get a better handle on the amount of water we use day to day, which - as water resources get scarcer and the population grows - is becoming increasingly important.

Metering means we pay for what we use, giving us more control over our bills.

On average, meters result in water savings of 25 litres per person per day (due to reduced leakage and consumption).

Waterwise. 2010.



By metering the water we use, not only can we keep track of what we are using and discover ways to reduce waste and our bill, we can also spot when we have a leak in the house.

Improving our understanding of both water consumption and the water network will allow water companies to understand when and where water is used. This will help them to better plan supply to homes and businesses and identify leaks and waste in the system. Metering will also enable companies to take more targeted action to cut waste, by targeting support at those households who use the most water, or have leaky appliances in their homes.

The national water metering trials conducted in the '90's suggested that on average a home with a meter will use 10 – 15% less water than a home without, with up to 30% reduction at peak summer times.[13] These figures have been supported by studies undertaken by Southern Water (which currently has 40% of customers on meters and plans to increase this to 92% by 2015) and South West Water.[14] More efficient use of water means less water is taken out of the environment, bringing environmental improvements to the one third of river catchments which are at risk from over-abstraction.[15] By using water more efficiently (helped by switching to a metered supply), we help avoid the need for costly capital investment in new water resource development to meet the demands of a growing population – and help manage these demands.

During the driest months, when demand for water is at its highest, meters can help deliver greater water savings: in the national trials households with meters did more to reduce discretionary use at peak times, resulting in 30% savings.[16] Reducing peak consumption also reduces the likelihood of restrictions in the driest months: in turn helping secure supply for essentials such as healthcare, and for economic growth.

It is inconceivable that for goods such as fuel and food we could pay a set amount and use as much as we like. Metering provides people with an incentive to be efficient with water use and prevent waste. Without meters, we all pay for the excesses of a few water wasters.

"There are two of us, living in a 3 bedroom property. Having a meter has made us more aware of our consumption and it has also helped us save a considerable amount of money, over £200 a year. I put the timer on if I have to water the garden, but have also installed a water butt and therefore have saved quite a lot. We use a bucket to wash the car, and only the hose to swill off afterwards. We save a couple of jugs of water as we turn on the hot tap and it initially runs cold, which is used for the iron, watering indoor plants, steamer etc. We have more showers and fewer baths, but otherwise our habits haven't really changed. Like electricity and gas, we are now aware that consumption costs, but don't intend to flush the loo less, or actually cut back on water usage. Yes we were dubious about changing, but I'd used the guide on the website, which seemed feasible, and knowing that we had a 12 month trial decided to go for it. We switched when we realised that with only two of us living in a three bed detached, fairly high rated property we were bound to gain, and this we have done."

Paying by meter is the fairest way to pay for water. This is a view shared by the Fairness on Tap coalition, Defra,[17] the Consumer Council for Water[18] and the Walker Review and supported by customer surveys:

- 57% of respondents supported metering as being the fairest basis to charge – Consumer Council for Water / Ofwat research, 2008.
- 77% of customers were or would be happy to be charged for the water used as measured by a meter – Southern Water research, 2010.

"*Before I had a water meter fitted, I was not bothered how many baths I had or how much water I wasted, especially as my water bill was so dear! I decided to get a meter fitted as I had nothing to lose- I could get it removed within a year if it ended up being too expensive. Now, I am careful with my water, for example I don't run the tap constantly when brushing my teeth and I have more showers then baths. I teach the children to be careful too with their water wastage. It has saved me so much money, despite being a 7 person household!"* **Southern Water customer, saving over £30 a month since switching to a meter.**

Aside from the financial incentives of paying for what we use, there are a number of reasons why meters can help save water. Many of us are unaware of our household water consumption and this is one of the primary causes of domestic water wastage. In a Southern Water survey, 62% of metered customers said that they were more careful with the way they use water since having a meter installed.[19] In a national survey, people with meters were much more likely to say that they pay attention to how much water they used at home, than unmetered households.[20] In another survey, people said that they want and need to be equipped with the right information and effective technology to enable them to monitor and ultimately limit water consumption[21] - that's where meters come in.

Customer research shows that households want to use water more efficiently and are prepared to make changes to do so – but they need the right tools.[22] To realise the full potential for water efficiency gains metering must be part of a package that also includes advice to householders on how they can reduce water (and energy) wastage and other help – such as low-cost adjustments to make taps, toilets and showers water-efficient.[23] In combination these can deliver greater water savings - savings which reduce day-to-day water use with little change in routine.

"We are a family of four living in Cornwall. Before we had a meter fitted we paid £745 a year for our water and now we pay around £227 a year! We are careful with the water we use, the children are very aware of wasting water and they know we pay for what we use. The children share a bath and me and my husband tend to shower. None of us leave the tap running when we're cleaning our teeth! We don't have any water saving devices – our toilet is a modern one so it doesn't need a hippo but I have just ordered something for the taps!" **Family living in a 3 bedroom property, South West Water region**

Meters and the information they provide should become the backbone of any future charging system. Paying for what we use is not only the fairest way to pay for water, it is also the only way to build the clear picture of patterns of water consumption which will be needed to move forward sustainably and to ensure that water is affordable for all in the long term. Meters

allow water companies to understand when and where water is used, helping them to better plan operations and investment and identify leaks and waste in the system.

Many water companies in England have significant metering programmes. Southern Water, for example, is planning to install water meters at no upfront cost to 92% of customers' homes, as it believes that this can reduce demand by enough to cover the water needed for population growth for the next 25 years at least, without any costly new reservoirs or treatments raising bills.[24] Anglian Water currently has 68% of its customers' homes metered and plans to increase this to 80% by 2015 (installing or replacing one million meters). The company supplies the same amount of water now as it did in 1989, which *"is largely due to our high meter penetration/leakage control and water efficiency"*. [25]

"Having the meter made me more aware that what I consume would affect my bill. I certainly have taken up some actions to reduce water use - whether that be not leaving the tap running or using a water butt to water the garden - as its more obvious now that the less water I use the more I can save on my bills. I save about £10 a month on my bill with a meter". **Couple, high-rateable value property, Anglian Water area.**

The Fairness on Tap coalition believes that water meters, installed as part of a package giving every household the chance to significantly reduce the amount of water they use and help to cut their water bill, are central to a fairer system of paying for the water we use as well as protecting the environment.

What do others say about water metering?

House of Commons Environment, Food and Rural Affairs Committee, January 2011: *"Metering has a key role to play in helping to reduce water demand. Such reduction is essential given increasing pressure on water resources in some parts of the country. The current approach of introducing metering in a piecemeal manner means that the charging system is under stress, with those on unmetered supplies bearing a progressively higher proportion of costs. A comprehensive, robust and fair charging system for the future is needed with higher levels of metering forming the central pillar....We recommend that the Water White Paper set out a clear strategy for implementation of metering and for variable tariffs to help spur water efficiency".*[26]

Anna Walker, *The Independent Review of Charging for Household Water and Sewerage Services,* June 2009: *"while the regulatory regime in the water industry has served customers well over the last twenty years, we now face considerable new challenges. Changes are needed to ensure we are ready to meet these. The charging system can play an important role in doing so....It is very important that the charging system should incentivise the efficient use of water to ensure we have a sustainable water supply…The report concludes that charging by volume of water used (which requires meters to be installed) is the fairest approach to charging... The currently largely optant system is a very expensive way to install meters...The report suggests that if it's recommendations are adopted, about 80 per cent of households in England will be metered by 2020".* [27]

Environment Agency, August 2009: *"The shift to wide scale metering is essential for the long term sustainability of water resources. Metering is the foundation for reducing per capita consumption which is critical for the accommodation of growth, environmental sustainability and adaptation /resilience to climate change....A fair charging system is one based on the principle of cost reflective charges."*[28]

STEP 2: TARIFFS TO ENSURE WATER IS AFFORDABLE FOR ALL

The Fairness on Tap coalition believes that everyone should be able to afford to pay for the water they need - metering must go hand in hand with tariffs to ensure that people who need help with their bills get that help.

The Flood and Water Management Act 2010 requires government to produce Ministerial guidance on water tariffs to support vulnerable customers. Setting out a strategic approach to significantly higher levels of metering, accompanied by a new system of tariffs to make charges fair and affordable, would be the most effective way to address affordability concerns: one cannot be implemented without the other.

"Volume-related water charges have a vital role to play in encouraging behaviour change, and they are the fairest way to pay. So we think that there is a strong case in principle for a faster transition to more widespread metering. Whatever the speed of the transition, the companies must make it acceptable to their customers. This should include safeguards to protect those vulnerable and low-income households whose bills would increase". **Ofwat. 2011.**

A move to near-universal metering will result in some customers paying less and some paying more for the water they use. Typically, small families, couples, pensioners and sole occupants (low water-using households) benefit from a switch to meters, while high water users pay more. This can mean that, for some low-income, high water-using households (typically larger households with children or those with high levels of essential water use because of medical reasons), water becomes unaffordable. We agree with the Consumer Council for Water, when it states: *"it is therefore essential that appropriate safeguards are in place before compulsory metering is undertaken to ensure that low income customers are protected..."*[29]

The Fairness on Tap coalition believes water is an essential of life - if it is unaffordable, it is unacceptable. No one would pretend that by having a water meter installed every single household will be paying lower bills. How we use water and the scarcity of water where we live will continue to affect the price we pay. But water meters (particularly smart meters) give us all the opportunity to use water wisely. With targeted, smarter tariffs, we can make sure those who need help paying for water get help.

Tariffs have an essential role to play in incentivising efficient use of water, reducing bills and ensuring that those who need help paying their bills can access help. We believe that the tariff package should include:

- Social tariffs to help ensure water is affordable
- Transitional tariffs to help people move to the new charging system
- Rising block tariffs to provide incentives for water efficiency.

Social tariffs to help ensure water is affordable

A social tariff could provide a discount to all metered households which are in water poverty – including the working poor as well as those claiming benefits. Information on water use and household income is essential to ensure that such a tariff is appropriately targeted. Consumer Council for Water research illustrated near-universal agreement that pensioners and people with disabilities should qualify for social tariffs and people on limited incomes may also need help.[30]

The Walker Review proposed that low-income households should get water at a price below the norm for their area, particularly those with high usage due to medical needs and those with children. It suggested that this be delivered through a closely-targeted package of tariffs based on caps and discounts on bills, and strict eligibility criteria.

WaterSure currently provides support to low-income metered customers (with three or more children or with high essential use for medical reasons) by capping water bills. It helps ~29,000 customers in England and Wales, funded by other water customers (on average adding less than £1 to bills). Some charitable trusts also assist customers experiencing difficulties and some water companies have introduced specific social tariffs (e.g. Wessex Water's Assist scheme).

Under the current level of transfers under rateable value charging, the water customer funds affordability measures. These transfers take place within water company regions (there are no cross-subsidies between company areas); if water customers were to pay for a social tariff on a regional basis, this could be seen as a continuation of the norm. The disadvantage to this approach would be apparent in areas where bills are high - in order to make a real difference the impact on the wider regional customer base would be significant.

An alternative would be to spread the affordability help across the water industry. This would involve a 'national pot' funded by water customers, enabling the bills of those qualifying to access it to be capped at a set level (such as the national average metered bill). This would address the vast regional differences in water bills, giving more assistance to those in areas where bills are high (in order to reduce their bills to the level of the cap) without impacting so extremely on other bill payers.

Some argue that it should be government's responsibility to pay for a social tariff (as the problem is part of general poverty, and support from the taxpayer would be on a progressive basis). In essence this means paying through the tax and benefits system. Walker proposed two possible packages along these lines: one for all low-income customers costing around £340 million per year, and; a narrower package at £110 million a year (small in contrast to government funding for the energy sector on fuel poverty).

Consumer Council for Water research: views from the customer's perspective[31]

This research indicated that if customers are to make a contribution to addressing increasing cost pressures through a small increase in bills, government and companies should also play their part. There was universal support for helping those on low incomes and a clear view about how such support should be delivered (a strong preference for use of social tariffs rather than the benefits system to ensure that support helped pay water bills). Customers think funding social tariffs organised and paid through government would offer some clear advantages – costs can be shared more widely, it can be done as one complete industry-wide scheme (which was felt to be fairer than having different rules in different places). A number of customers suggested that support should be linked to metering to ensure that anyone who benefits from lower bills is also encouraged to use water efficiently.

It is clear that there needs to be a package of measures to tackle the different aspects of affordability and that any support must be carefully targeted, using household water use and income as benchmarks. How exactly they are delivered is ultimately a choice for government, with vital input from customers. With the cost of debt recovery adding £12 to

every water bill paid in England, it is clear that well-targeted social tariffs can benefit everyone if they help minimise the number of those who can't pay (rather than won't pay) their water bill.[32] The government should publish a national policy on social tariffs to set out: who should get water at a price below the norm for their area; how much lower should the price be, and; how it should be paid for (who pays).

Transitional tariffs to help people move to the new charging system

Since some will feel the impact of switching to a metered supply more than others it is essential that the transition from unmetered to metered bill is as smooth as possible. Research shows that customers really welcome being told what their metered bill will be before they have to pay it so that they can budget and adjust their water use if they need to.[33] Southern Water has employed a transition tariff for this reason. Soon after a meter is installed information detailing specific water use and potential future consumption and costs are communicated clearly via a letter to the customer. This gives the customer choices, alerts them to a possible leak and allows them to take measures to reduce water waste and thereby reduce their bill and to be prepared for future bills. Upon receipt of this first communication all Southern Water customers have the option to switch to the transition tariff which is spread over a three-year period in order to ease the move from a bill based on rateable values to one based on a measured supply. As well as a transitional tariff, excellent customer service from the water company and easy-to-understand feedback on household consumption is vital during the transition. South East Water has also developed a transitional tariff to support its metering programme.

Rising block tariffs to provide incentives for water efficiency

Any of us not on a meter could be paying for someone else's wasteful use of water. A water-efficient and a water-greedy neighbour in similar-sized properties without water meters will pay exactly the same water bill. This isn't fair, and it doesn't make sense. While the average person in the UK uses 150 litres of water every day, water company records show that some people use over 5 times that amount[34], which - without meters - everyone is paying for. It is likely that there are very significant cross-subsidies between 'low' water users and 'high' water users at peak times (in some areas water company investment in new resources is driven by a need to meet peak water demand, which means that households that use a lot of water at peak time are pushing up water bills for everyone).[35]

Some kind of rising block tariff - where basic (essential) usage is charged at a low cost with the unit cost escalating rapidly thereafter - is key to encourage less wasteful use of water and deliver affordable water efficiency. Rising block tariffs can be developed without household occupancy data (for example through benchmarks set on household consumption with a high threshold between the first and second blocks) – and can be accompanied by a concessionary scheme (for example for households who can show that they have a high number of occupants) and a social tariff to ensure that low-income households are not penalised.[36] To maximise the impact of water efficiency, rising block tariffs should be linked to water scarcity, so that higher charges are incurred when and where water is scarce. [37]

STEP 3: HELP TO SAVE WATER AND CUT BILLS

Alongside a commitment to metering and a fairer tariff system, the Fairness on Tap coalition is calling for government strategy to ensure that households get the advice, information, equipment and support they need to save water. Water-efficient kit can be easily installed in homes to reduce water consumption and help reduce water bills – but this kit must be easier to source, identify and install.

While paying for what we use gives an incentive to reduce waste, households must also be provided with an easy, convenient means to do so, along with information so that they can take control of their use and bills. To realise the full potential for water efficiency, metering must be part of a package which also includes advice to householders on how they can reduce water (and energy) wastage and practical help, such as a water efficiency retrofit at no additional cost and products to make taps, toilets and showers water-efficient. In combination these can deliver greater water savings, and reduce day-to-day water waste, while protecting essential use.

The average person uses 150 litres of water a day.[38] There is a government aspiration to reduce this to 130 litres per person per day by 2030.[39] The Blueprint for Water Coalition calls for a 20% cut, to around 120 litres.[40] For many households, this should be achievable. Waterwise's 'Evidence Base for Large-scale Water Efficiency in Homes' shows that a £30 investment on water efficiency kit - a water efficient showerhead, toilet device and tap inserts – can yield a saving of 41 litres per property per day and could save more than £40 per year on combined household metered water and energy bills.[41] However, to realise savings customers need to be provided with information and incentives to make water-efficient choices, advice about devices suitable for their appliances and help to install them and make behavioural savings. It is essential that water efficiency is at the heart of water regulation, to encourage and enable water companies to deliver the water efficiency support needed. More widespread availability and better labelling of water efficient white goods would give also customers the chance to make informed purchasing choices leading to significant water and financial savings.

Waterwise's 'Evidence Base' presents robust evidence that water efficiency retrofitting is most effective when implemented alongside a meter installation programme. For example, in 2008 Anglian Water carried out a joint meter installation and water efficiency retrofitting in Ipswich. This resulted in savings of 41 litres per property per day across 1000 homes – significantly higher than water efficiency retrofit projects carried out a significant period of time after meters have been installed (which yielded water savings of 29 litres per property per day). In addition, combining the delivery of water efficiency with a metering programme can reduce the cost of retrofitting water-efficient devices to toilets, taps and showers to £40 per property. [42]

Frequently Asked Questions

Some people's bills are going to go up on installation of a water meter, particularly large families who live in low rateable value homes. Some of these people will be on low incomes. How do we protect them?

Firstly, whenever a meter is installed the household should always be offered water efficiency advice, a water audit and a water efficiency kit to reduce water waste. This in itself will reduce the water bill (and help reduce the energy bill too).

By passing on clear information to customers about their water consumption soon after their meter is installed and giving them predictions regarding the level of future bills based on this level of consumption, water companies can ensure householders are not only prepared for future charges but can take steps to address water wastage. In addition, the transition to paying a water bill based on a fully metered charge can be made easier by offering a transitional (change-over) tariff. This can help deal with the affordability concerns of many.

However, there are some for whom the water bill will still represent an unrealistic proportion of their household income. It is of the utmost importance to clearly identify those groups who need help with their water bills and to develop social tariffs to help them.

These are ways to address the issue of affordability in today's water bills. Ultimately, by using water more efficiently, we will reduce the need for the development of new reservoirs, desalination plants and other capital-intensive new resources in order to meet future demand. In the longer term, this will benefit customers since potential costs can be avoided.

One thing that can happen when a meter is installed is a leak is revealed. Will the customer have to find the money to pay for the leaked water and for fixing the leak?

One quarter of water lost through leaks occurs within the boundary of a property. A meter can help identify these leaks – a huge opportunity to save a lot of water. The Walker Review suggested that metered charging can result in reduced customer supply pipe leakage of around 10 litres per person per day.

Water companies generally have some form of help available to customers when a leak is revealed. For example South West Water offers £100 towards the cost of fixing a leak on a household's service pipe and a leakage allowance towards the cost of the water clocked up on the meter as a result of the leak – both depending on the household fixing the leak is fixed within a set time. Other companies will repair the leak for free, such as Anglian Water under its 'Watertight Promise'.

However, at present, customer care varies significantly across England. During the course of this research, customers at a number of water companies have told us about situations being very badly handled by customer service representatives, causing worry and stress for householders. It is essential that customers receive clear, consistent, helpful and sympathetic advice under circumstances where a high metered water bill reveals a leak within a householders' property. At the moment this is not the universal experience.

Removing leaks from the system will ultimately save customers money but it is vital that there are mechanisms in place to help the customer at the time a leak is discovered.

Customers should never be alerted to a leak in the first instance in the form of a worryingly high bill - a system should be implemented as part of a strategic approach to metering so that this never comes to pass. Such a system should include:

- 'Smart' meters that record real-time consumption and frequent meter readings to alert water companies to potential leaks;
- Support at the time of meter installation showing customers how to check for leaks themselves;
- Warning letters or other customer engagement targeted at 'high' water-using households who may have leaks;
- Devices to help customers regularly read their meters;
- Leak alarms within the home, to alert customers to leaks;
- Information for customers about the level of their metered bill before they have to pay it;
- A transitional tariff so that newly metered customers can identify and fix leaks before moving to a completely metered bill, and;
- Water company assistance to help customers fix leaks when they have been identified.

Should water metering be rolled out only in those areas where the cost benefit case can be made for it?

The Walker Review estimated the costs of installing an 'optant' meter as about £220 per household. When combined with the additional ongoing costs of metered billing, the total cost is around £30 per year per household (although some of these costs may reduce over time). With systematic (compulsory) metering, average installation costs would fall to between £110 and £175 per property; assuming the same ongoing costs as with the optant approach, this translates into an annual average cost of between £22 and £26 per household. [43] However, the cost of systematic metering as estimated by the Walker Review is significantly above the costs reported by some water companies.[44] In addition, many companies anticipate savings in on-going costs for systematic metering, as opposed to an optant approach - for example, savings around meter reading and billing for a metered charging system, compared to running a mixed system (optant metered and rateable value).

The Walker Review estimated the benefits of metering to include:

- Reduced consumption of about 15 litres per person per day (13 cubic metres per household per year) on average; and
- Reduced customer supply leakage of around 10 litres per person per day (9 cubic metres per household per year).

The Walker Review concluded that benefits would outweigh costs where water is scarce.[45]

While cost-benefit analysis is useful, for it to have real meaning it is essential that the true costs and benefits of metering are factored in and an agreed methodology established. The environmental and social costs and benefits of taking more water from the environment need to be better accounted for (for example using an environmental shadow price).[46] According to the 'Blueprint for Water': *"current definitions of water scarcity reflect current water resources issues without assessing vulnerability to future issues or to the value and vulnerability of the water environment"*.[47] The cost-benefit case should also be set within a longer time frame to anticipate future resource issues. Using water more efficiently helps avoid the need for costly capital investment in new water resource developments to meet growing demand - keeping down everyone's bills.

What is actually best for the customer, long term, should also be considered. The water we use in our homes costs us on average less than £1 a day - significantly less than we pay for other utilities such as gas and electricity. The value of water in future will be higher than it is today as upward cost pressures increase as a result of climate change and population growth (and supply systems being designed to cope with peak rather than average demand) as well as the replacement of ageing assets. Yet this future scarcity and its likely impact aren't always fully reflected in the current assessment of costs and benefits.[48]

The current opt-in approach to metering is an expensive route to take. Those opting to have a meter early on - usually those who think they will benefit from having a meter - will likely reap those benefits. However, those remaining on an unmeasured bill will see bill increases far greater than those on meters. By failing to switch at the right time, potential winners on meters will not only fail to make savings, they will also end up paying larger bills. The fact is that - whatever the region - even if water is currently plentiful, there will be those who will win from switching to meters and, as those people switch, so the next lot of customers will benefit from switching. The optant approach will ultimately lead to universal metering given enough time, but this would not be the best value approach for customers: it would cost more overall than a more strategic approach to higher levels of metering. Finally, there are benefits in terms of messaging and communications moving everyone to meters as part of a national strategy.

If we agree that a social tariff should be mandated and funded through water bills, aren't we just going to end up with people on low incomes funding help for those on lower incomes?

The key to developing a social tariff is to have access to the right information to target it effectively. Information on water consumption provided by a water meter is the first step. Water companies can use this along with local information on household income to proactively target assistance at households with a higher likelihood of need, as well as well as having assistance available on request. If the current level of help funded through customer bills under the rateable value system was transferred to a new charging system - but targeted at those actually needing help and funded by those who didn't - a far more effective system of help would be created.

The water companies are telling us to be more efficient with water but what about putting their own houses in order first? Loads of water leaks from their pipes!

Just under a quarter (22%) of all water put into public supply is lost through leaks. [49] Water Companies are set annual leakage targets by the regulator Ofwat at the 'sustainable economic level of leakage'. Despite progress made by the water companies in bringing down leakage over the last 14 years, in 2010 six companies failed to meet their leakage targets.[50] This was largely attributed to the cold weather and frozen pipes at the end of the year. There are financial penalties for failing to meet targets to be paid out of company' pockets.

Fixing leaks costs money. However, it is essential that companies continue to strive to meet targets and exceed them where there is an economic case to do so (as part of the Water Resource Planning options assessment). According to WWF: *"while some companies include future levels of leakage as one of the options [in Water Resource Planning], others*

pre-determine their 'economic level of leakage' and do not consider [leakage reduction] as an option to meet the supply and demand balance. This may result in leakage not being reduced, even when it might be the cheapest option to address a supply-demand shortfall. We recommend that...leakage over and above the 'economic level of leakage' [should be] pursued where this is the most cost-beneficial approach to meeting demand."[51]

Since a third of leakage occurs within the boundaries of a customers' property (in the home or in supply pipes), meters play a role in reducing overall leakage. For example, Southern Water estimates that its metering programme will help reduce leakage to below 13%.[52]

Won't water companies hike up the price of water once we've all moved to a meter?

The regulator Ofwat sets prices for the water companies so that they can recover acceptable costs and make a reasonable profit for shareholders. It is their job to ensure that water prices are kept in check and this applies for metered charges as it does for unmetered bills.

What type of meter should be installed?

The majority of the 10 million or so meters already in place are 'dumb' meters - they clock up water use as water passes over a mechanism and need to be read manually. They don't store information so each meter read is a 'snap shot' of cumulative consumption taken on a particular day. In contrast 'smart' AMR (automated meter reading) meters record time-series data, allowing water companies and customers to monitor daily consumption over a period using data obtained from a single meter reading. This allows better detection of leaks and a better understanding of water use, which is essential to develop a sophisticated package of tariffs and targeted water efficiency support. Smart meters are also compatible with in-home display devices, to help customers understand and respond to their water consumption. There are potentially huge advantages in linking water metering installation to the roll out of smart energy metering, which the government is planning to deliver by 2020. A strategy to install smart water meters on a similar timescale would help collaboration between water and energy companies and offer opportunities for huge savings through combined delivery.

Why do we need to save water?

Current water consumption is not within sustainable limits: one third of our river catchments are at risk of damage from water abstraction, a problem which is set to get worse with climate change and rising population.[53] Water is likely to become an increasingly scarce resource, while demand is likely to grow, so there is a need to cut demand now so we are best placed to cope in future.[54] Using water more efficiently also has spin-off benefits for household energy consumption. About a third of the average UK gas bill goes on heating water for washing dishes and clothes, bathing, showering and cleaning – about £200 a year.[55] Heating water in homes for cooking, personal washing and cleaning produces 5% of the UK's greenhouse gas emissions and a quarter of CO_2 emissions from homes – it is the second biggest use of energy in homes, after space heating, and before gadgets and appliances.[56] Wasting less hot water in homes – through more efficient fixtures and fittings and more efficient use of hot water from taps and showers – can immediately impact on carbon targets.

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Fairness on Tap

calling for fairer water bills

The Fairness on Tap coalition is calling for a fair deal for water – for customers and the environment. We believe government should set out a strategy to install water meters in at least the 80% of England where there is greatest pressure on the freshwater environment and people's pockets by 2020. This must be supported by fair tariffs to make water bills affordable for everyone and help to reduce water waste and protect the freshwater environment.

For more information go to *www.fairnessontap.org.uk*