

Written evidence submitted by Anglian Water (PEG0190)

Anglian Water is the country's largest water and water recycling company by geographical area, serving over 6 million customers in the east of England. The region we serve is water-stressed, high growth, and already experiencing the impacts of climate change.

Priorities for a green recovery

The water industry has the potential to play an important role in securing a green recovery to Covid-19. The industry is leading the way with [a sector-wide commitment to achieve net zero emissions by 2030](#), measures to reinforce [the environmental and social purpose](#) of water companies, and exploring [greater use of green finance to fund critical infrastructure](#).

We welcome the Chancellor's announcement creating the Green Homes Grant Scheme, and a parallel retrofit programme for public sector buildings. Our central message to policymakers is that **improvements in both energy and water efficiency in homes and buildings are urgently needed, and go hand-in-hand.** Water efficiency measures need to be included in any retrofit programme because heating water in the home (eg. for showers and hot taps) is the second largest source of household emissions, accounting for 17% of home energy use. The government should include fitting the most efficient taps and showerheads within the scope of both schemes, and work in partnership with water companies to fix internal leaks where they are found by installers.

Building regulations also need to be improved so that new homes are built to the highest water and energy efficiency standards. In conjunction with this, **there is an overwhelming case to introduce mandatory water efficiency product labelling with minimum product standards** for taps, shower heads, dishwashers and washing machines. The evidence shows the above combination of measures to be by far the most cost-effective way of reducing water use, and would save households more than £26 billion in future energy bills.

A Green Recovery delivered by companies with a purpose

Water companies occupy a privileged position in society as private sector providers of essential public services, and this level of responsibility means only the highest standards of good corporate governance will do. That is why every water company CEO in England signed a [Public Interest Commitment](#) in April last year, which included a pledge to "champion measures through which water companies can enshrine what it means to operate in the public interest within their business purpose, in line with best practice among leading socially-responsible businesses."

Anglian Water was the first company to act on this commitment and took the fundamental step last summer of enshrining a statement of purpose into our Articles of Association.



This important development was featured in the British Academy's [Principles for Purposeful Business](#) report launched last November. We believe our 'profit with a purpose' model has much wider application in response to Covid-19, as it requires our Board to act in the long-term best interests of our customers, employees, suppliers and the natural environment, alongside delivering fair and sustainable returns to shareholders. The right ownership model for the water industry has been a topic of some debate in recent years, and we believe our approach means companies are compelled act in the public interest whilst protecting the taxpayer from the risks and public debt associated with complex (and rapidly increasing) infrastructure needs, allowing public funds to be better spent elsewhere.

Our purpose, which is [to bring social and environmental prosperity to the region we serve](#), is shaping our response to Covid-19. For example, **we remain absolutely committed to the following social and environmental goals and we would like to accelerate their delivery if supported by the government and our regulators:**

- **Achieve net zero emissions by 2030.** The water industry was the first sector to make such a commitment. There is the potential to accelerate our investment in energy efficiency and low carbon infrastructure, and our transition to electric vehicles. We are asking the government to approve our Water Industry National Environment Programme early, to bring forward an extra £300 million investment in nature. Projects in our WINEP include dozens of low carbon, natural capital solutions to resolve environmental challenges.
- **Keep bills affordable.** Household water bills are roughly the same in real terms as they were twenty years ago, and are set to fall further by 2025. In response to Covid-19, there is significant scope to increase water company investment and still reduce bills.
- **Reduce leakage by half by 2050,** as recommended by the National Infrastructure Commission. Anglian Water already has the lowest leakage in the country and we are set to push the frontier even further by 2025. We have just announced a £180 million contract to install 760,000 smart water meters in our region, which will help us cut leakage further and save customers money in their water bills. In response to Covid-19 we would like to accelerate phase 2 of our smart meter rollout to bring forward its delivery by five years.
- **Improve social mobility and early career opportunities.** 5% of our workforce is on an apprenticeship scheme with more starting this September. In response to Covid-19 we have created an employee hardship fund, honoured all job offers, and furloughed no staff. The options above would mean more green jobs being created in the water industry, including in our supply base and in local rivers and wildlife trusts, who we work with in partnership to deliver our environmental programme.

The attached note provides further detail on these measures together with other options that would help fulfil our shared ambition to see a green recovery. I would welcome the opportunity to discuss these proposals in further detail if that would be of interest.

Proposals to support a green recovery

Anglian Water Services Ltd.

1. Combined energy and water efficiency retrofit programmes

Policy rationale:

Reducing water consumption reduces energy use and carbon emissions.

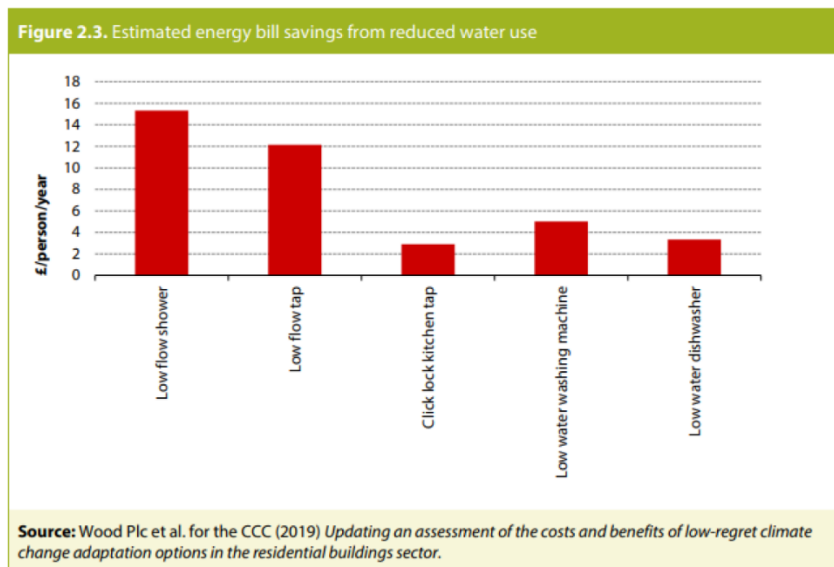
Water companies have collectively committed to achieve net zero greenhouse gas emissions by 2030.

However, almost 90% of carbon emissions associated with the public water supply [result from water use in the home](#). Heating water (for showers and hot taps, dishwashers, washing machines etc) is the largest

source of carbon emissions in the home after space heating¹. According to government figures, each home emits [18.6 tonnes of CO₂](#) a year through water heating. Reducing water consumption in the home is a quick win with products now on the market that deliver the same performance and customer experience whilst using much less water.

Reducing water consumption saves households money through lower water *and* energy bills

More efficient taps, showerheads, dishwashers and washing machines will have knock on impacts for metered water and energy consumption. The chart² below demonstrates the energy bill savings that can be made from installing water efficient fittings and appliances.



Both the new Green Home Grants Scheme and its equivalent for public sector buildings, announced by the Chancellor in his ‘Summer Economic Update’, should support the retrofitting of water efficient taps, showers, and other water saving devices. When onsite, installers should also be asked to perform simple checks to spot leaking toilets and other internal water losses, and either fix these as part of the service, or work in partnership with the local water company to resolve them.

2. Introduce a mandatory water efficiency labelling scheme with minimum product standards

Policy rationale:

Immediate action is needed by government to protect the country against future water scarcity, and to increase the nation’s resilience to drought. The National Infrastructure Commission’s recent report, [Preparing for a drier future](#), found the benefits of drought resilience to be far greater than the costs involved.

The NIC estimate that 1,000MI/day can be saved through water efficiency measures – washing machines and toilets using less water, and increasing the number of water reuse schemes³. Policy intervention to promote these sorts of initiatives will help reduce the likelihood of the £1.3billion of lost economic activity per day that a severe drought would cause⁴.

Costs/benefits:

¹ Committee on Climate Change (2019), [UK Housing: Fit for the future?](#), p60.

² Committee on Climate Change (2019), [UK Housing: Fit for the future?](#), p79.

³ National Infrastructure Commission (2018), [Preparing for a drier future](#).

⁴ Water UK (2016), [Long Term Water Resources Planning Framework 2015-2065 \(summary report\)](#), p.13.

Policy intervention to improve water efficiency will deliver economic benefits far in excess of costs, saving customers money in both their energy and water bills⁵. We estimate that reducing water consumption through simple efficiency measures can bring household water bills down by £40 a year⁶ for customers. Reducing water consumption will also help save money on energy bills, given around a fifth of household energy use arises from heating water in the home⁷.

Evidence shows the most cost-effective way to reduce water use is through a combination of mandatory water efficiency labelling and product standards for bathroom fittings and kitchen appliances, tied to tighter building regulations in new development. This policy package would achieve whole-life benefits in excess of £26 billion over the next 25 years by lowering water and energy bills, which is 60 times greater than the estimated policy costs.⁸

These measures would also reduce UK greenhouse gas emissions by 55 million tonnes CO₂e. It would increase the country's resilience to the more erratic patterns of rainfall expected with climate change, postponing investment in new carbon intensive infrastructure, like reservoirs and bulk transfer pipelines.

The increased consumer, manufacturing, and retailer awareness will help drive water efficiency in a similar way to the success of energy efficiency product labels and standards. Mandatory labelling and tighter product standards would also help achieve the goals within the Government's 25 Year Environment Plan, and implement Defra's proposals on reducing personal water consumption.

3. Tighten standards for water efficiency in all new housing, especially on public sector land

Policy rationale:

Weak standards mean water inefficient homes are still being built, adding to both water and energy bills for occupants, and requiring retrofit in years to come. Minimum standards for water efficiency need to be tightened in Part G of building regulations, and there is scope to go further where housing growth is particularly intense or occurs on public sector land.

For example, the public sector should play a leading role in demonstrating best practice in the delivery of housing with high environmental standards. Public authorities have a big part to play in the development of tens of thousands of new homes across the country. For example, the Ministry of Defence has a programme to dispose of excess land to support the delivery of 55,000 new homes as part of its [Better Defence Estate Strategy](#). The Anglian Water region alone is home to significant numbers of publicly-owned sites that have been, or are due to be, sold for housing projects. These include former military sites like MOD North Luffenham, RAF Alconbury and RAF Waterbeach. Each of these sites are being used to build whole new communities featuring thousands of new homes. Alongside realising the value of the land for public benefit, they also present a unique opportunity to deliver exemplary new homes that meet the highest standards of environmental sustainability.

The delivery of long-term social and environmental value should be the central goal when freeing up public land for new housing development. The government can achieve this by setting clear objectives for any development on public land that is sold. Such objectives should include achieving the most ambitious carbon reduction, energy efficiency and water efficiency targets that go much further than current building regulations require.

⁵ Energy Savings Trust: <https://energysavingtrust.org.uk/home-energy-efficiency/saving-water>

⁶ <https://www.anglianwater.co.uk/help-and-advice/save-water/>

⁷ <https://energysavingtrust.org.uk/blog/why-we-should-all-be-saving-water>

⁸ Energy Savings Trust (2019), [Independent review of the costs and benefits of water labelling options in the UK – Extension Project](#), p8/9.

As a minimum we would like to see the following:

- 1. New homes to be designed to use no more than 100 litres per person per day (l/p/d)** taking a 'fittings-based approach', whereby developers are required to install 'A' rated taps and showers according to the new water efficiency label proposed above. The current standard in building regulations is 125 l/p/d. Even the optional standard of 110 l/p/d that can be applied via local plans is not good enough in water-stressed parts of the country.

- 2. A requirement to achieve 'water neutrality' in areas of intensive new development, such as the Oxford-Cambridge Arc.** Water neutrality means taking no additional water from the environment to serve new homes, achieved by first minimising on-site water consumption including through water reuse/recycling, and then offsetting what remains through water efficiency retrofit programmes in local housing and other buildings. Focusing on water neutrality as the goal in new development would build new markets and supply chains in three areas that currently have little or no policy support from government:
 - *Stormwater harvesting:* This captures surface water runoff in a storage tank or pond (or sustainable drainage system) for non-potable reuse in the home, such as toilet flushing, or for watering gardens and public spaces.
 - *Rainwater harvesting:* This involves collecting rainwater from roofs that can be used to flush toilets or water gardens.
 - *Water recycling systems:* Capturing used water from the home and cleaning it for reuse, either at property- or development-level scale.

- 3. Implementation of high quality, multi-functional, sustainable drainage systems (SuDS)**
Creation of green spaces through SuDS can deliver water quality and flood risk benefits, as well as reduce demand on public sewers and drinking water supplies. However, good quality SuDS - that deliver a range of biodiversity, water quality and other benefits - are still the exception in new development.

The water industry has taken the lead in England to enable [SuDS included in new developments to be adopted](#), subject to them meeting certain quality standards. This proposal would be supported by removing the automatic right to connect new surface water drains to public sewers as was included but never commenced in the Flood and Water Management Act 2010. We also believe that planning authorities should be doing more to encourage the use of high-quality SuDS in new developments, given the multiple benefits they deliver, whilst highway authorities should adopt SuDS that serve the highway (very few currently offer this service).

4. Accelerate the Water Industry National Environmental Programme (WINEP)

Policy rationale:

There are currently hundreds of environmental improvement projects worth potentially in excess of £1 billion on hold, pending a decision by the Environment Secretary due in December 2021. These 'amber' schemes within the WINEP have already been approved by the Environment Agency and Ofwat, and seek to improve river water quality, increase supply resilience, reduce flood risk, and enhance the natural environment and biodiversity. Their delivery is currently contingent upon ministers signing-off new River Basin Management Plans (RBMPs), which is now being delayed because of the Covid-19 pandemic.

We urge the government to change the status of these schemes from 'amber' to 'green' now in order to bring forward the delivery of these projects, including the creation of dozens of new treatment wetlands (like [our flagship site at Ingoldisthorpe, Norfolk](#)) and innovative river restoration schemes. Funding is already in place for most water companies through the 2019 Price Review process, so giving these schemes the go ahead will not increase water bills in ours and other water company regions.

Natural capital solutions are at the heart of this programme. This provides an opportunity, in the run-up to COP26, to showcase the UK's leadership in green investment.

5. Emphasise whole life carbon management in the delivery of major infrastructure projects

Policy rationale:

New infrastructure is set to be a central component of the economic recovery from the pandemic. These new projects must be consistent with the UK's carbon budgets and net zero target for 2050 in both their construction and operation over their asset lifetimes.

We believe the best way to measure and assess the environmental credentials of infrastructure is through the Publicly Available Specification ([PAS](#)) 2080. PAS 2080 is the world's first specification for managing whole life carbon in infrastructure. It was one of the outputs of the UK's Infrastructure Carbon Review, developed jointly by UK government and industry.

Anglian Water has been measuring the embodied greenhouse gas emissions within its capital projects ('capital carbon') for many years, and in 2015 set a target to reduce capital carbon by 60% by 2020. We managed to achieve this by including whole-life carbon within the appraisal of investment options, and project governance, so that project leads and engineers are challenged to bring forward low carbon, maximum whole-life benefit options. In many cases this has led us to modify and extend the life of existing assets rather than replace them, and to adopt natural capital approaches where previously we might have used carbon-intensive steel, concrete and chemicals. Focusing on carbon has saved us money, reducing the costs of capital projects by more than 20%.

PAS 2080 provides a consistent framework for organisations to measure, manage and reduce carbon. It underpins the collaboration needed across the supply chain to deliver carbon savings. Therefore, **we believe government should ensure that, through its tendering processes, private sector partners delivering infrastructure and essential services should be PAS 2080-verified.** This would improve standards of carbon management, and potentially save taxpayers' money, and ensure the country builds back better and greener from Covid-19.

August 2020