

How to take the pressure off the cost of our water supply

September 25 2015, by John Gallagher



Credit: AI-generated image ([disclaimer](#))

For most people in the developed world, getting access to clean drinking water is as simple as turning on a tap. Would that paying for water were so simple. But when we think about the water we consume, few of us realise that as much as 80% of its cost is associated with electricity use – a figure that's as high in Britain as in drought-prone [California](#).

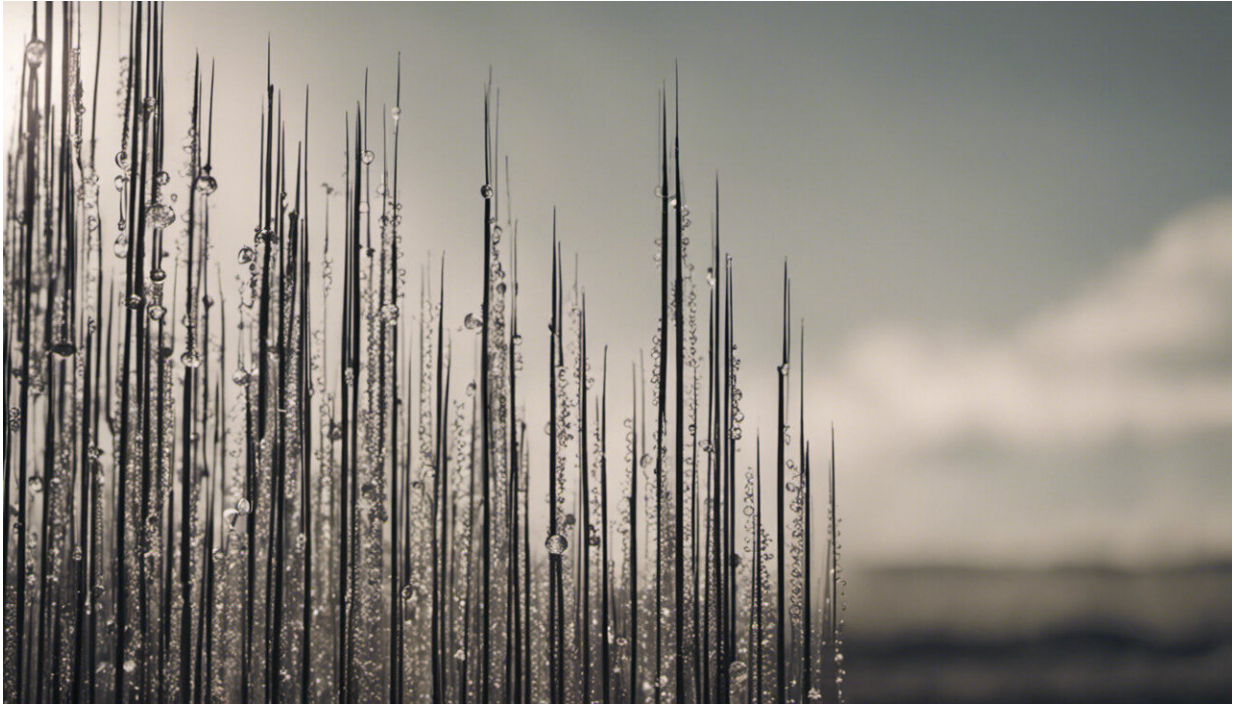
It is surprising, then, that the energy argument rarely features in discussions about preserving water. Yes, water is itself a valuable and vulnerable resource. But when we wash our clothes, have a shower or simply rinse a mug, we should also keep in mind that energy is going down the drain. Let's talk about our water future alongside our energy future.

In a [recent report](#) by the Consumer Council for Water, more than 60% of the 100,000 complaints received by water companies in the UK in 2014/15 were related to bills and charges. But how many people appreciate that the steady increase in the cost of water is because of rising electricity costs?

Water companies in the UK should take pride in their recent achievements. They have undertaken significant infrastructural upgrades, improved efficiencies in the treatment of water and waste water and have bolstered their renewable energy portfolios.

This increase in renewable energy contributions has been driven by water companies' commitment to reducing their greenhouse gas footprint by [80%](#), encouraging them to get more of their power from alternative sources.

Indeed, [renewable technologies](#) have the potential to provide enough homegrown power to make the sector self-sufficient. [Scottish Water](#) is leading the way in this, but it will still be a few years before savings can be passed on to consumers. Even then, can we guarantee that domestic users will ever benefit fully?



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Pipes under pressure

The prevailing attitude in the UK is that our fickle climate is far too wet for water shortages, but the truth is that we are running low on water where it is most needed. Our cities are growing as more and more people move from rural areas, but the rain doesn't necessarily follow them.

Our water networks, therefore, are under more pressure than ever to move water around the country to where demand is highest. In some cases, the pressure can be too much and this can cause leaks.

Fortunately, we have valves that can release the excess pressure safely. But pressure lost is also more energy wasted.

For water companies, investing in micro-hydropower for [energy](#)

[recovery](#) and increasing network efficiency are two of the ways forward. These [opportunities](#) can generate enough electricity to light thousands of homes, while at the same time keeping our water under a controlled pressure.

But we can also improve our ability to harvest rainwater and [re-use greywater](#), which could meet a substantial proportion of Britain's water needs and up to 94% of the demand in [Ireland](#). This would make countries far less dependent on their tapped supply.

Water companies and organisations such as [Waterwise](#) are already educating UK domestic consumers about why and how to make water savings. Together, they can make a big difference.

That last grain

When we discuss the future of the water sector, my colleague often quotes the Japanese saying "pursuing the last grain of rice in the lunchbox" – essentially to aim for perfection, and not to miss any of the little opportunities along the way.

It is a lesson that should be applied to our water supply, an area where "very good" shouldn't be good enough. It is tempting for water companies to chase the big, easy solutions, but they also need to focus on the micro opportunities. Only then, can they get close to perfection, and save us all a great deal in [water](#) – and [energy](#) – costs.

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