

APPENDIX 6: Water-Saving Advice



Reducing water waste in your building means that we reduce the amount of water that has to be treated or that uses energy unnecessarily. Water that goes straight down the drain without being properly used is a waste and is costly to you as well as the environment.

It is estimated that adopting a systematic approach to water saving could cut your water use by up to 30%.

In addition to helping reduce costs, decreasing water consumption can help your business comply with current and future environmental legislation, reduce its carbon footprint, improve your company's environmental performance and generate positive PR.

Water fittings in commercial multi-occupancy buildings often experience more frequent use than in dwellings, which means that payback times following investment can be excellent. Investment in water recycling schemes is also more viable in business settings than domestic settings.

In commercial situations, major cost savings can be gained through installation of:

- Urinal controls or waterless urinals
- Efficient flush toilets
- Automatic or sensor taps



In addition to cost-savings from decreased water and energy bills, businesses investing in technologies and products that encourage sustainable water use may be eligible for tax savings through Enhanced Capital Allowance (ECA).

WATER SAVING TOP TIPS

GO OFF THE BOIL

Kettles use a lot of electricity, so try not to boil water you will not use: most kettles can boil as little as a mug full. This could save you around £7 a year on energy bills. If everyone in the UK did this, we could save enough electricity in a year to power the UK's street lights for one month.

DON'T BE A DRIP

A dripping tap can waste more than 5,500 litres of water a year, so make sure your taps are properly turned off and change washers promptly when taps start to drip.



MAKE IT GO FURTHER

Try to reuse unused water: for example, pour leftover glasses of water on houseplants and avoid wasting water from running taps while waiting for hot water

KEEP A LID ON IT

Putting a lid on a pan of boiling water will not only allow you to use a lower heat, but it will also keep more water in as steam condenses on the lid and drips back into the pan. This allows you to use less water in the first place.

Like any other heating system, if less heat escapes, less heat needs to be put in to keep the pan at the right temperature, so putting a lid on the pan saves electricity or gas, depending on the type of hob.

WATER-SAVING PRODUCTS

There are lots of ways you can waste less water in your home - using water-efficient products is an easy way to make a difference. With most of them, you will not even notice that you are using less water.

LOW-FLUSH AND DUAL-FLUSH TOILETS

About 30% of all water used in buildings is flushed down the toilet every day. Low-flush and dual-flush toilets are designed to reduce the volume of water used for flushing. These systems use up to six litres less water per flush than an old-fashioned toilet – saving over 16,000 litres of water per year (enough to fill seven red telephone boxes).



Dual Flush

TOILET RETROFIT AND DISPLACEMENT DEVICES

For a quick and easy way to waste less water with every flush without buying a new toilet, just install a dual-flush insert device. This can be easily retrofitted into your old cistern and will save up to 50% of water per flush. Or you could fit a hippo or a save-a-flush cistern displacement device which will save between one and three litres per flush. Both of these products are available free from many water companies.

LOWER FLOW TAPS

Taps with a low flow rate can be fitted to bathroom and kitchen sinks. Click point taps are better for kitchen sink taps; aerated or regulated flow taps are more suitable for a bathroom sink; but all work very well.

FLOW TAP AERATORS AND REGULATORS

If you are not replacing taps or shower units, you can still save water by fitting flow regulators to showers and aerators to taps. Flow devices are easy to install. They often contain precision-made holes, filters or flow aerators to regulate the flow of water without changing how it feels to you.

WATER LEAK DETECTION SYSTEMS

Water Leak Detection Systems deliver practical solutions to protect properties from the damage caused by burst and leaking water pipes, conserving precious water resources and saving money on water bills, by means of an automatic stop valve making them ideal for residential, commercial and public buildings.

Water Leak Detection Systems are used by office buildings, providing the assurance of protection against the damage caused by a water leak, but also by using the reporting system the analysis of water usage and the ability to make savings. Maintaining system efficiency is virtually impossible unless there are indicators strategically installed to highlight changes in consumption.



- Ensure that pipe work leading from the boiler/hot water cylinder is adequately insulated to avoid unwanted heat loss.
- Improve insulation on the HWS storage by the addition of extra jackets.
- Consider investigating the feasibility of supplying the hot water cylinder from the boiler. Considerations should include practicalities and financial benefits.

SOLAR WATER HEATING

Water can be heated by the sun using solar hot water panels. Heat is exchanged between the hot fluid in the panels and the water which is to be used. This can be done using a coil in a hot water tank. This heat can be used outright, or to supplement an existing hot water system.

The panels should be installed in an area that is not shaded. If possible, the panels should be facing South or South West if most hot water is used in the evening, and should be tilted at 30°.

Renewable technologies such as solar water panels or photovoltaics are expensive. However, with the right set up, solar water panels can be very effective on buildings in this country. It is usually necessary to alter the hot water pipe work and tank in order to integrate the panels properly. This means that if the pipes and tank in your building are due to be altered anyway, it would make sense to include solar water heating into your new arrangement. The same applies to the following two water reuse options.

More information on renewable technologies can be found on the [NEP website](#).

RAIN WATER HARVESTING

Rain water that falls on the roof of your building can be used instead of tap water in some areas. Rain water cannot be used everywhere, it cannot be drunk or used in cooking; however it is suitable for toilet flushes or use in cleaning.

A tank would need to be installed in the building, which can be quite large. Rain water is then collected, usually from a roof, and drained into the tank. There are some filters in the system which will keep the water cleaner.

GREY WATER

Water that has been used once for cleaner purposes, such as in showers or basins, can be used again. There are some neat examples of grey water usage, including toilets which fill their cisterns from water that has drained out of the hand wash basin.

Grey water can be collected and stored in a building, in a similar way to rain water. It can only be used for toilet flushing, watering decorative gardens, and some similar uses. It cannot be used on edible crops, in a kitchen, or for personal washing.

