



# REDUCE YOUR HOT WATER BILL

With winter upon us, here's an easy fix to save money on your next hot water bill.

**STORY:** GEOFF LODGE

**H**ot showers are an essential part of modern life and for less than \$50, homes that have a hot water storage system could reduce their water heating bill by about 25 per cent.

Poorly insulated pipes within 2 m of a hot water storage tank (and any fittings on the water tank that are warm to touch) will cool the stored water through a process called 'heat siphoning'.

As water cools in these pipes/fittings, heat from within the water column connected back into the tank will pass into the cool water.

This process is constant and over a 24-hour cycle will result in significant cooling of the stored water.

To fix this problem, simply insulate all pipes and fittings that are warm to touch within 2 m of the tank.

Best-practice insulation includes using a foam material coated with a reflective foil.

Lagging that doesn't have this foil coat can be covered by a foil tape, secured and sealed.

Aluminium foil can be used as a cheap alternative (shiny side out)

although may be prone to rodent or bird damage.

Foil is very effective in reducing heat loss from any surface due to it having a very low emissivity level and little heat will pass from its surface.

In contrast, a black surface such as black foam lagging, although a good insulator, is compromised by having a very high emissivity level, and heat will continually leak/emit from its surface.

The most common installation faults are using lagging that is not UV stable (if exposed to sunlight);

cut too short and exposing sections of pipe or fittings; not insulating the pressure release valve; and not completely sealing the lagging when it is split for easy install over pipes that are fully connected.

These shortfalls can be fixed with material costing less than \$50 and are easy to fix by most DIY property owners.

A job easily done during COVID-19 lockdowns.

***Geoff Lodge is Goulburn Valley Community Energy's chief executive.***