

Energy Efficiency Fact Sheet: Hot Water

Most commercial water heating is carried out in tanks ranging from 25L to 415L that use gas or electricity to heat and re-heat the stored water. A business that uses about 50L of hot water per day in a 50L electric storage heater can spend between \$200 and \$1000 per year just in this appliance. If you work together with an energy auditor and a licensed plumber or electrician, up to 50% of this cost can be saved through energy efficiency.

Quick and easy things to do

- 💡 **Switch off hot water systems when not in use.** Use a switchboard timer switch to turn off electric storage systems after hours for up to 60% energy savings. Timer switches can also be used to turn off appliances during the higher cost periods.
- 💡 **Switch to off-peak electric hot water.** If you are using electric water heaters, ask your electricity company to switch you to off-peak hot water. This is usually cost-effective when tank size and daily hot water usage is 160L or more.
- 💡 **Insulate hot water pipes.** Hot water systems waste energy in exposed water pipes. Insulating both hot and cold water pipes to 10mm thickness up to 2m away from the tank will lead to cost savings.
- 💡 **Reduce hot water temperature.** Most hot water systems are set at too high a temperature. Unless water is specifically required at higher temperatures, this can usually be reduced to 60-65°C. Install an adjustable thermostat if higher water temperatures are required periodically.
- 💡 **Reduce hot water usage.** If showers are used at your business, install low-flow showerheads and limit shower duration to 3-5 minutes. Install flow regulators on other hot water outlets such as taps and dishwashing attachments. If hot water is used for cleaning, fill buckets instead of using hoses.

Energy Savers



Hot water timer switches



Load shifting



10mm pipe insulation



Adjustable thermostat



Flow regulators

Investments in Energy Efficiency

- 💡 **Switch electric systems to gas or gas-boosted solar systems.** If gas is available in your area, upgrade to a gas or gas-boosted solar hot water system for up to 80% in energy cost savings. If gas is not available, install an electric-boosted solar system for up to 60% savings.
- 💡 **Switch storage systems to instant gas or electric systems.** Instant water heaters only heat water when it is needed, so there is no stand-by energy wastage. If hot water is used in several areas, multiple smaller units will use less energy than a single large unit with extra piping.
- 💡 **Switch electric storage systems to heat pumps.** Heat pumps remove heat from the surrounding air and transfer it to the water. Uses about one-third of the energy as electric storage tanks.
- 💡 **Bring water heaters and water outlets closer together if possible.** Minimising the distance hot water needs to travel will minimise heat losses and allow lower water temperatures to be used.
- 💡 **Upgrade to other energy efficient products.** An energy audit will determine which products are best for your business. Register for a free energy audit at 3eproject.org.au.

Did you know?

- 💡 Leaky hot water taps and pipes can waste up to 100kWh per month.
- 💡 The heat from discarded hot water can be used to preheat incoming cold water and reduce the heating cost.

“Many of our members shower after working out in the gym. We didn’t know their hot water was costing us nearly \$50 per week on electricity! We changed to a gas-boosted solar system and the hot water cost dropped by \$28 per week.”

- Thanh, Blacktown

Energy Savers



Gas-boosted solar HWS



Instant gas HWS



Instant electric HWS



Heat pump

For further information contact the 3E Project Team on 1800 242 845 or by email at info@3eproject.org.au