

# GAS CENTRALISED HOT WATER SYSTEMS IN MULTI-UNIT BUILDINGS

The hot water for your unit is supplied by a Gas Centralised Hot Water system (GCHWS) which is powered by natural gas. Having a GCHWS eliminates the need for individual hot water systems in each unit. The only equipment that is required in each unit for the GCHWS is a hot water sub-meter, which is read remotely via a master data logger. Developers use this option to save space in units and increase energy efficiency across the complex. A GCHWS may also have lower installation and maintenance costs.

A hydraulic designer consults with the building developer to design an adequate system that is capable of meeting the hot water needs of all residents. The building developer then supplies and installs the GCHWS.

On completion of the building construction, the ownership of the GCHWS becomes the responsibility of the Body Corporate or Owners Corporation, who assume all requirements for the maintenance and continued operation of this equipment.

## How does a Gas Centralised Hot Water System work?

Depending on the requirements of the building, one or more boilers maybe installed to heat water for each unit and, in some instances, for common areas such as bathrooms or gym facilities. The hot water is drawn from the boiler or boilers when any hot water tap is activated.

The diagram on the back of this fact sheet shows how a GCHWS works. Natural gas and cold water are metered and then supplied to the boiler, which heats the water. The hot water then moves through the hot water pipes to each unit, where a hot water sub-meter measures the amount of hot water entering the unit.

## How is my gas bill calculated?

The hot water sub-meter serial number and its corresponding apartment number are supplied to ActewAGL Distribution by the building developer or their agent prior to apartments being occupied. A master gas meter and a master water meter measures the total amount of gas used to heat the water in the boiler or boilers. To calculate your gas bill, the total amount of gas used to heat the water is divided by the total amount of water used. This calculation determines the amount of gas, in mega joules, used to heat each litre of water, which is known as

the common factor. The amount of hot water used is registered individually on the hot water sub-meter for each unit. Each hot water sub-meter sends the meter reading to a master data logger which is located outside the building. The master data logger allows ActewAGL to read your hot water meter without entering your unit. The amount registered on your hot water sub-meter is then multiplied by the common factor to calculate the total amount of gas that will be charged by your retailer on your gas bill.

## Why is my common factor high?

During the initial gas billing cycle of a new multi-unit building a default common factor, which represents a statistical average common factor value, is applied to compensate for low occupancy of the building. After the first billing cycle, the default common factor is replaced with the actual common factor. ActewAGL Distribution is effectively subsidising your gas supply while the default common factor is applied. If the occupancy of the building does not increase during the first billing cycle, you may experience an increase to your common factor in the second billing cycle when the subsidy expires.

There are other factors that influence the common factor for a centralised hot water system, including:

- average daily hot water usage per apartment
- occupancy rates in the building
- the amount of energy required to heat the water, which could be higher on colder days
- the amount of heat loss through pipes
- system maintenance, standby losses and efficiency
- heating augmentation, such as solar heating or co-generation.

## Find out more

For more information on your GCHWS please contact your Body Corporate or Owners Corporation.

For more information on the metering of your gas supply for hot water please contact ActewAGL on 6248 3555 and a member of our Customer Liaison team will be happy to assist you.

# Multi-unit building

