Residential Efficiency Scorecard

Fact Sheet 6

Heating and Cooling improvements

Residential Efficiency Scorecard

The Scorecard is a home energy rating program.

An accredited assessor visits your home and looks at the building and fixed appliances. You receive a certificate with your home's energy star rating, comfort and appliance efficiency ratings.

Your Scorecard assessor gives you advice on making your home more comfortable. They make your next steps simple, so you don't miss out on energy bill savings.

To find out more about the Scorecard or to find an assessor, visit
www.victorianenergysaver.vic.gov.au/scorecard

Why heating and cooling systems are important

Heating and cooling systems can use a lot of energy and can make up much of your energy bill.

Modern heating and cooling systems are usually much more efficient than older systems. Use your Scorecard certificate to find out the best options for your heating and cooling.

Be prepared and you can replace your old system, be more comfortable and have lower energy bills.

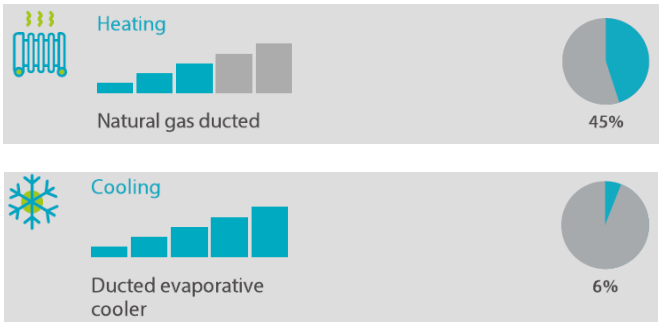
Don't forget your home's building shell. A good building shell makes your home more comfortable and lower cost to heat and cool. Look at Fact Sheet 5 to find out more about improving your home's building shell.

Using the Scorecard rating

First, look at your Scorecard certificate, the heating and cooling ratings are on the second page.

These ratings show how well your heating and cooling systems perform compared to the most efficient systems on the market. The more bars the better.

The example below shows a rating of three out of five bars. The cooling is very efficient with a rating of five out of five bars.



Focus on the larger pieces of pie to improve your home's star rating and get your energy bill down. The pie chart percentage shows how much these features contribute to the overall star rating for your house. This means you can easily decide what to target.

This example shows a home where 45% per cent of the overall star rating is driven by heating energy use and only 6% from cooling.

Taking action

Your Scorecard assessor helps you to understand the best options for your home. Look at the improvement options beside the pie charts. These show more efficient appliance options.

What do you heat or cool?

The more of your home that you heat or cool, the more important the efficiency of your appliances.

The more often you heat or cool, again, the more important the efficiency of your appliances.

Be aware, if you use portable plug in heaters or coolers these can be quite inefficient and costly to run. Plug in fans are low cost and can be a useful form of cooling.

The Scorecard assessment covers fixed appliances but also think about your mobile appliance use. Your Scorecard assessor can discuss whether your portable heaters or cooler use could be something to focus on.

If your home has no heating the Scorecard assessment assumes plug-in heating is used for the living area. This is because most homeowners will use some heating in cold weather. If your building shell is efficient or the climate is warm this won't impact on your rating significantly. If you live in a colder climate, heating your home using plug-in appliances can mean a big energy bill. So, this will show on the Scorecard certificate giving a lower star rating for the home.

Similarly, in tropical climates, the Scorecard assumes a minimum of one third of the home is cooled. If you don't have fixed cooling, the rating assumes you will be using an alternative form of cooling. This is because most homeowners do use some form of cooling.

Reverse-cycle heating and cooling

Reverse-cycle air conditioners can be very effective for both heating and cooling your home. You buy one appliance rather than two. Modern systems can be highly efficient and have additional features like air quality filters and de-humidifiers.

These air conditioners have a star rating for both heating and cooling. Look for an appliance with 4 stars or more.

You can also have the comfort of central air conditioning your home by using several units. This can be more efficient than installing a central heating or cooling device. With several units is easier to avoid the waste of heating or cooling unused rooms. Central systems also use ducts or pipes which can leak.

See www.energyrating.gov.au for a list of models and their ratings.

Evaporative cooling

Evaporative coolers can use much less energy than other air conditioners. Cooling is provided by water evaporation rather than a refrigeration process. These can be single room units or a central system.

Evaporative coolers are not very effective in humid weather and require windows to be left open to allow air flow. These coolers do not have a star rating.

Gas space heating

Modern gas space heaters can be efficient heaters for single room heating. These can be floor or wall mounted, gas faux fires and other designs.

Look for an appliance with a rating of 5 stars or more. Again, installing several systems may be more efficient than central heating.

See www.aga.asn.au/complete_product_directory for a list of models and their ratings.

Ducted heating and cooling

If you want to heat or cool most of the house, you can consider ducted systems. Ducted systems have a central appliance and the heated or cooled air is pumped along ducts to room vents. Choose a model with zones so you can avoid heating or cooling unused rooms.

Some electric, and most gas ducted reverse cycle systems have star ratings. Choose the highest star rating possible.

These systems can lose air from the ducts. Ductwork should be regularly checked by a tradesperson to ensure there are no leaks. If you have an older system, the ducting is unlikely to be insulated. Consider upgrading the ducting along with the heater.

Hydronic heating

Hydronic heating systems can be used to heat multiple rooms. Like ducted heating they use a central heating appliance. Fluid is circulated through radiator panels or pipes in the floor. Efficient heating appliances are available, however not all may be rated.

Hydronic systems need to be well designed and maintained or you can waste money. It is important to insulate circulation pipes and behind radiator panels. You can use in-wall insulation or a reflective surface behind the panel. This is particularly important for external walls. All radiator panels should have their own thermostat controls, so you can choose which rooms to heat.

For more information

Find out more about Scorecard and take look at the other fact sheets in this series www.victorianenergysaver.vic.gov.au/scorecard.