# SAVENERGY \* \* \* \* \* \* SAVENONEY the benefits of an energy efficient home



# STAR RATINGS

Your guide to ongoing power savings.



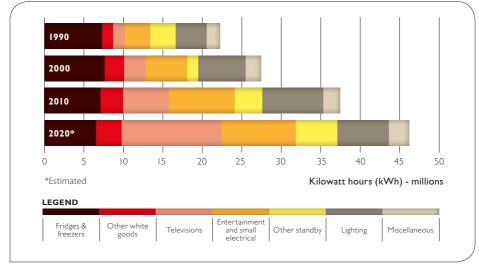


Star rating schemes allow us to compare the operating cost and environmental performance of similar products, whether they are fridges or houses. This allows us to make better choices and see the potential ongoing future costs and greenhouse gas impacts our decisions may have.

# HOME APPLIANCE ENERGY RATING LABEL

#### Household appliances - an increasing contributor to energy use

Major household appliances in Australia are a large source of energy use, and account for as much as 40 per cent of residential greenhouse gas emissions. The following chart shows how home appliances, particularly televisions, have contributed to increased energy use in Australian homes.



#### Annual Energy Consumption

Source: Energy Efficient Strategies (2008) - GRATTAN Institute 2011

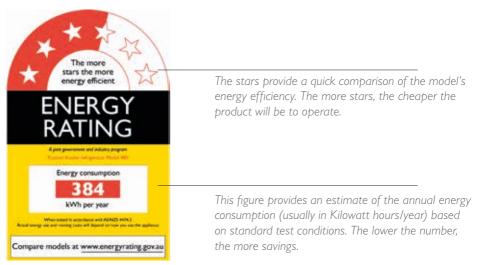
### Using the Energy Rating Label

The energy efficiency or operating cost of a new home appliance may not be your most important buying consideration but with electricity prices on the rise it should become a bigger priority. Energy efficiency is basically using less electricity and gas to produce the same level of performance, comfort and convenience.

While your checklist of requirements when buying an appliance may include price, features, brand and size, using the Energy Rating Label to help finalise your choice makes good sense.

The Energy Rating Label allows you to compare the energy efficiency between similar models with the same size and capacity and helps you to make a decision that will ultimately save you money on running costs and help reduce greenhouse gas emissions.

#### The Energy Rating Label has two key features to help you compare similar products:



Test conditions used to rate appliances try to replicate actual use. However, actual energy consumption will depend on how you use the appliance. The important point is that appliances are tested under the same conditions so that comparisons can easily be made between similar models.

While the annual energy consumption of 384 Kilowatt hours (kWh) per year on the label may not mean a great deal to you, to work out the estimated annual running cost simply multiply the Kilowatt hours/year figure by the energy tariff.

For example at around 25 cents per kWh, an appliance with the above consumption would cost 96 per year to run.

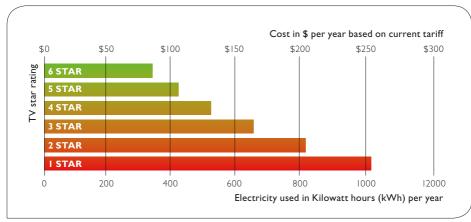
So the next time you are comparing products, you can determine and compare the estimated annual running costs if you know the current energy tariff. Tariff rates are subject to change. The latest rates are available from Aurora Energy, phone 1300 13 2003 or visit www.auroraenergy.com.au

### The difference in Star Ratings

Many of us tend to overlook appliance operating costs as they are hard to separate from our normal electricity bill. However, over the life of some appliances, these energy costs are often greater than the initial purchase cost.

By looking for models with higher star ratings in the size and type of product you are considering, you can make a large reduction in your costs over the years to come. For some products, lower star rated appliances can cost twice as much to operate as the most efficient model.

The energy use of a 106cm TV rated across the six star rating categories has been outlined below, highlighting the significant annual difference in energy savings that can be achieved across star ratings. The corresponding electricity costs have also been provided, using an energy tariff of around 25 cents per kWh. Tariff rates are subject to change. For the latest rates contact Aurora Energy on 1300 13 2003 or visit www.auroraenergy.com.au.



#### An example of energy savings on a 106cm (42 inch) TV over a year

So look for the energy rating label and save on your running costs for years to come. You will also help to reduce your impact on the environment.



### Who regulates the Energy Rating Label?

The appliance Energy Rating Label scheme is a joint initiative of the Federal, State and Territory governments.

The Star Rating of an appliance is measured under Australian Standards that define test procedures for measuring energy consumption and minimum energy performance criteria. Appliances must meet these criteria before they can be granted an Energy Rating Label.

Manufacturers who produce/import appliances for the Australian market are required to submit their products to an approved testing agency.

No Interest Loans Scheme (NILS) of Tasmania provides loans at no interest to eligible people for the purchase of new energy efficient appliances, including refrigerators. For more information call 1300 301 650 for the cost of a local call.

# HOUSE ENERGY RATINGS

### WHAT DOES A HOUSE ENERGY RATING MEASURE?

A House Energy Rating is an indication of the heating and cooling required to maintain thermal comfort of the home throughout the year. The more stars the better.

The Australian Building Codes Board introduced energy efficiency measures for houses into the Building Code of Australia (BCA) on I January 2003. Homes constructed since this time have been required to meet those energy efficiency requirements.

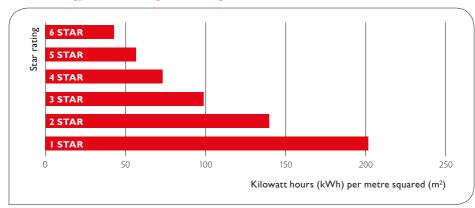
Tasmania has a minimum five star requirement for all new homes and dwellings.





A five star home is designed to use less energy for heating and cooling and so achieve lower energy bills, than say, for example, a two star rated home. The five star home will be more comfortable and affordable to live in.

As shown by the graph below, a one or two star rated house requires much more energy to achieve a comfortable living environment compared to a five or six star rated house. Living in a lower rated house can cost you more to maintain a comfortable temperature or alternatively it may limit the comfort you and your family enjoy as you try to keep energy costs down.



#### Annual energy load – heating and cooling



#### How is a home's energy star rating assessed?

Specialised approved computer software tools assess a range of information about a home, such as:

- A home's layout.
- The orientation of the building on the site where windows are placed and shading in relation to the sun.
- Construction materials.
- Wall, window and floor areas.
- Insulation levels.
- Window frames and glazing.
- Eave widths.
- The extent and type of floor coverings.
- The climatic conditions where the house is situated and how well the home suits the local climate.

The house energy rating does not currently include the efficiency of any appliances fitted or used within the house.

#### Who regulates the Home Energy Rating scheme?

While the Building Code of Australia (BCA) requires the minimum five star rating for new dwellings in Tasmania, the assessment requirements are regulated by the Nationwide House Energy Rating Scheme (NatHERS) administered by the Australian Government's Department of Climate Change and Energy Efficiency.

The Nationwide House Energy Rating Scheme performs two key tasks:

- Accredits the Home Energy Rating computer software tools that assess the thermal potential of a home and determines its star rating.
- Sets standards for professionals offering NatHERS ratings.

### NABERS – A STAR RATING SYSTEM FOR EXISTING BUILDINGS

The National Australian Built Environment Rating System (NABERS) is a national initiative rating homes, commercial offices and hotels on the basis of its operational impacts on the environment in categories such as energy, water, waste and indoor environment. The NABERS rating scale also uses a star rating scale of between one and six stars.

The vast majority of environmental impacts from buildings are due to the operation of existing buildings. The NABERS rating system is specifically tailored for existing premises and has a number of benefits, including:

- Providing a rating of the things that a building owner/operator can reasonably assume responsibility for, rather than items that were decided possibly by another party many years ago and cannot be easily changed.
- Basing performance on actual measured outcomes rather than on design parameters, complementing expert design tools and design-based ratings systems.

NABERS measures environmental performance against a range of impact categories, that include energy and greenhouse gas emissions, waste and water use. The relevance of these impact categories in a NABERS assessment will depend on what sort of premises is being rated. NABERS is structured this way because it is important for a rating system to recognise:

• The different realms of accountability and responsibility for commercial building owners, commercial tenants or home owners.



• The varying key environmental issues relevant to different building types.

If you would like to have a home or building assessed and get a star rating contact the Association of Building Sustainability Assessors Limited - www.absa.net.au – where you can get further information on how you can do this.

### Who regulates the NABERS Rating scheme?

The NABERS tool was originally developed by the Australian Department of Environment and Heritage (DEH). The NSW Office of Environment and Heritage was selected to proceed with the commercialisation of NABERS.



### BUYING OR RENTING? ASK IF IT HAS A STAR RATING

The next time you are comparing properties to purchase or rent ask if they have a Home Energy Rating. If so, you can quickly compare the potential ongoing costs and environmental performances of the properties.

There may also be investment advantages of owning a high star rated home. A home with a strong energy rating might deliver greater resale value as buyers come to recognise the longer-term benefits of lower energy living.

# Careful planning is critical to achieving a five star rated home.

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room x 12-9 NEW HOUSE BUILD PLANS

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# Other information available in the SAVEenergy SAVEmoney series:



# LOCATION, LOCATION, ENERGY EFFICIENCY

the benefits of buying or renting an energy efficient home.



GUIDE TO ENERGY EFFICIENCY TERMS helping you understand the jargon.



**CHANGE YOUR POWER HABITS** the little things can deliver big savings on power bills.

# For more information from the SAVEenergy SAVEmoney series:

**VISIT:** www.climatechange.tas.gov.au/ **PHONE:** 1300 13 55 13 to request a brochure

