

The Efficient Home Checklist

What to look for in a home

Energy efficient, sustainable options



How to use this Checklist

This short checklist has been created to help you identify some of the key resource efficiency items in a home (think energy, water and cost efficient to run), so that you know what to look for and what to ask about. Further information on key items can be found on page 2 and are highlighted in **red** below.

Take this with you when you look at homes and check off the relevant items as you go. Use the 'Cost' column to note if any retrofit item would be high or low cost to do. The more of these features the home has, the more resource efficient it should be.

| The General Building | Got it? Yes/No | Option to Retrofit? Yes/No | Cost? High or Low |
|--|-------------------|-------------------------------|----------------------|
| <i>Is there.....</i> | | | |
| A Star Rating for this house? If so what is it? | | n/a | |
| External shading on North and West facing windows & walls? | | | |
| Solar PV electricity generation? If so, what size? | | | |
| Any unshaded north facing roof space (<i>potential for future solar</i>) | | | |
| Double glazed windows (at least in main living area)? | | | |
| Windows that can be opened for natural ventilation? | | | |
| Draft seals on all external doors and windows? | | | |
| Good insulation in the ceiling? (<i>you'll need to ask</i>) | | | |
| | | | |
| <i>What is the...</i> | | | |
| Hot water system? (refer notes over page) | | | |
| Heating system? (refer notes over page) | | | |
| Cooling system? Shading & fans are better than air conditioners | | | |

| Kitchen & Family Living areas | Got it? Yes/No | Option to Retrofit? Yes/No | Cost? High or Low |
|---|-------------------|-------------------------------|----------------------|
| <i>Is there ...</i> | | | |
| North facing living areas (that could be shaded in summer)? | | | |
| Good natural lighting? | | | |
| Low energy lighting in the area? | | | |
| Water efficient taps? | | | |
| Water and energy efficient appliances? (check star ratings) | | | |
| Energy efficient cooking facilities? (gas is cheaper than electric) | | | |

| Outdoor area | Got it? Yes/No | Option to Retrofit? Yes/No | Cost? High or Low |
|---|-------------------|-------------------------------|----------------------|
| <i>Is there ...</i> | | | |
| An external clothes line? | | | |
| Room for herb pots or a veggie garden? | | | |
| Any productive fruit trees? | | | |
| Any rain water tanks and/or grey water recycling units? | | | |

| What's close | Walk? Yes/No | Bike? Yes/No | Need to Drive? Yes/No |
|---|-----------------|-----------------|--------------------------|
| <i>Can you walk or bike ride to ...</i> | | | |
| Local public transport? | | | |
| Local shops and cafes? | | | |
| Amenities that you use often? (schools, community centres etc.) | | | |

Background Information

Why the red bits are important.



Items noted in **red** can significantly affect the running cost of a home.

Star Ratings

These provide information on the expected thermal performance of a home and relate to the building envelope (floor, walls, windows and roof) only, it does not take into account any other features of the home (eg: any solar power, heating systems, hot water, lighting etc.).

Any home built since 2003 should have a star rating of at least 5 Stars, homes built since May 2012 should be 6 Star or higher. Older homes are unlikely to be rated and generally perform at around 1 Star which is very inefficient. The difference is in the amount of energy required to heat and cool the home to keep it comfortable (referred to as 'active' heating or cooling). For example:

0–1 star rated home – estimated annual cost to heat/cool is around \$ 4,080 pa

5 star rated home – estimated annual cost to heat/cool is around \$ 1,344 pa

6 star rated home – estimated annual cost to heat/cool is around \$ 1,056 pa

If you're building, consider:

8 star rated homes estimated annual cost to heat/cool is around \$ 528 pa

10 star rated home is considered to be thermally comfortable without the need for active heating or cooling. Estimated annual cost to heat/cool \$ 0.

Good insulation in the ceiling

If the home is star rated as noted above, the ceiling (and external walls) should be well insulated. If the home is older ask the owner how old the insulation in the ceiling is (if any). Insulation that is older than 20 years is likely to need replacing. Insulation can reduce your heating and cooling costs by up to 55% and is a worthwhile investment.

Heating System

The type of heating system in the home can affect the running costs by up to 50%. Electric under floor heating is the most expensive to run. Highly efficient zoned heating is the most cost effective. In our view, gas boosted solar (or gas fired) zoned hydronic heating is the best, closely followed by a highly efficient zoned ducted gas system or reverse cycle (inverter type) electric units in each room. Pellet fires and some wood burners are also extremely effective and would be suitable in certain situations.

Hot Water

Gas boosted solar is the cheapest to run, costing on average \$115 pa, efficient gas is the next cheapest to run at \$317 pa, off peak electric costs from \$ 807 upwards while electric peak costs from \$1,296 pa. Estimates from Sustainability Victoria and based on usage of 260 litres/day.

North facing living areas

If a home has north facing living areas, you generally have good natural lighting and access to passive solar heating which can help you to reduce heating costs during winter. For each square meter of glass the sun directly hits, it radiates in around 35% more which provides heat to your room. Think car parked out in the sun on a cool day – warm when you get in isn't it! It's the same for a home.

Good natural lighting

Natural light is not only good for our health; it saves on electricity by not having to turn lights on. It can usually be easily accessed through windows, glazed doors, solar tubes and sky lights. If there are dark areas in the home, often hall-ways, bathrooms, toilets, kitchens and laundry's, see if it's possible to incorporate some natural light. The right solution will depend on the home.

Like more help?

If you've found the home of your dreams and would like a qualified assessor to do a more detailed pre-purchase property review for you just give us a call on 1300 898 742 or go to

www.greenmoves.com.au

Information Source: Sustainability Victoria, Natethers.gov.au website and the ACT Canberra Study 2006, Energy Efficiency Report on the effect of star ratings on homes.

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