

# Build & Reno 'must haves' for comfortable efficient homes

By Danielle King

We've all had the problem – I'd like to do 'x' but can't fund it just yet so I'll put it off until I've saved the money and do it later. That's fine when it comes to things like solar panels or that fantastic cooker you've always wanted. However some things simply don't lend themselves readily to retrofitting and are significantly more cost effective to do during the build or renovation process.



So here's our take on the 'must haves' when you next build or renovate. These items are very difficult and expensive to do later, and are key features to help make your home more comfortable and cost effective to live in. So try to include the following in your next project if you can...

**Orientation** - Given we're in a climate that generally requires more use of heaters than air conditioning, a significant proportion of a home's efficiency can come down to the orientation. Place areas you use the most on the north side and maximise solar access which helps keep the home warmer in winter. The general rule of thumb is living areas to the North, bedrooms to the East and South, garage to the West to protect the home from hot summer sun. While you're at it, aim for good north facing roof space to facilitate solar PV in the future. Each project will have its own requirements but aim to keep the living on the North or North West, with good solar access and you're half way there.

**Insulation** – The next best bang for your buck is to insulate to appropriate levels and ensure it's done properly. Ensure you include walls, floor and ceiling to keep that whole conditioned space protected from the external temperature variances.



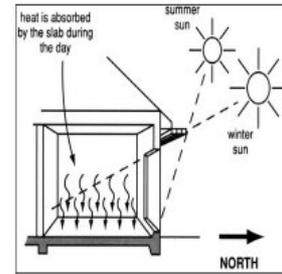
While you're at it, minimise holes in the ceiling (yes avoid the down lights), install closable exhaust fans and ensure all external doors and windows are draft proofed. This all goes towards protecting the building's thermal integrity. You'll be surprised how much it contributes to a comfortable home.

**Water & Wet areas** – Placing wet areas close together not only saves on pipe runs, it's much more efficient for hot water which can get to the tap at the right temperature faster, reducing waste. Insulating the hot water pipes will also help and is easily done when the walls are open.

If you can, install a rain water tank and use it for the laundry and toilet flushing. This will save water and money, particularly given that water is tipped to increase up to 300% in the near future it's a good way to get a head start on keeping water costs in control.



**Eaves** - These serve a great purpose which is often forgotten, to protect the walls and windows of the home from adverse weather, and the sun. Properly sized eaves can allow the sun in during winter months (helping warm the home) and shade the home in summer (helping to cool it).



**Zone heating** – Where you need to install active heating systems ensure it can be zoned at the very least to family/living and bedroom zones and ensure you can close the areas off. Why heat the whole home if you're in the family room most of the day?

There are many other things to consider that would be cheaper to do during the build phase, however these are the ones that are more difficult to do later and are the 'no brainer' features to ensure you include.

The build and renovation stage offers the best opportunity to get the most out of your home. It's worth considering getting a qualified sustainability assessor to do an energy efficiency and/or sustainability review of the plans prior to starting work to ensure you maximise the potential of your project. They can provide useful insights into the various types of hot water, heating and cooling options and advise on what is right for your situation. Some of us can even assist with choosing environmentally responsible and non-toxic products. Well worth the hour or 2 consulting fees!

However If you'd prefer to DIY, see the free 'Build & Reno must haves' checklist online at the [Green Moves](https://www.greenmoves.com.au) website (Resources section) for a high level guide.

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[www.greenmoves.com.au](https://www.greenmoves.com.au)