

Building smart



How to build a more efficient home







You can build a home that's comfortable and economical to run. All it takes are a few smart ideas...

Good home design combined with clever appliance choices can put around a thousand dollars back in your pocket each year. Some ideas won't cost you a cent; others cost a little more each year but soon pay themselves off.

Any upfront investments can be wrapped into your mortgage so you can enjoy lower bills from day one. Building smart ideas into your new home can be much cheaper than retrofitting later.

This guide outlines six of the best ways to build a more efficient home.

Six smart ideas

-  Consider the climate
-  Switch to solar
-  Sun power your shower
-  Select efficient appliances
-  Light up with LED
-  Catch the rain

"I want to make smart choices for my new home"



Consider the climate

Take advantage of the sun and breezes to reduce your air conditioning and heating bills.

Simple design tricks can draw breezes into your home, shade out summer heat or lock in winter warmth, making your new home feel good and saving you money.

Considering the climate in your home design can be easy. Just ask your builder to achieve seven stars under the Nationwide House Energy Rating Scheme (NatHERS). Most new homes must be 6 star-rated but bumping up to seven stars means savings. Look up the nearest capital city in the table below to estimate your yearly savings.

Talk to your builder about the following inexpensive ways to improve the comfort of your home.

- Face main living areas north or north-east to let in the winter sun.
- Shade windows and outdoor areas from the hot summer sun using eaves, awnings, pergolas or landscaping.
- If your summers are hot, keep west and east-facing windows small, with raised sills.
- Place opening windows on either side of your home to capture summer breezes.
- Use reflective and bulk insulation to reflect the sun in summer and hold in the heat in winter.
- Use doors to zone off main living spaces so you can heat or cool sections of the home.
- For more information on improving the comfort of your home, head to yourhome.gov.au

Estimated annual heating & cooling savings by upgrading from 6 to 7 stars*

City	Average 3 bedroom home	Average 4 bedroom home
Brisbane	\$70	\$95
Sydney	\$150	\$200
Canberra	\$710	\$950
Melbourne	\$460	\$600
Adelaide	\$215	\$280
Perth	\$100	\$135

*Figures are estimates only. Actual costs will always be dependent on individual consumption. Savings are not guaranteed and Lendlease makes no warranty that these savings are achievable.

"I want a comfortable home"



Switch to solar

Solar power is now more affordable than ever. Powering your home with this clean, renewable energy can dramatically cut your electricity costs.

A small 1.5kW system could be enough to cover your daytime energy needs, saving you approximately \$570 a year^{*}. Most Australian solar systems connect to the electricity network, so your electricity supply never dries up, even when the sun disappears. In some places you can even sell your excess solar energy back to the electricity network!

Download the easy-to-read Guide to Installing Solar PV on Households, produced by the Clean Energy Council, for step-by-step instructions on choosing and installing a solar system.

Available at solaraccreditation.com.au

"I want to harness energy from the sun"

Sun power your shower

Heat your hot water for free. Solar hot water with a natural gas boost is cheaper to run so it will pay off the initial investment. Upgrading from a straight, instantaneous gas system can save: \$170 per year^{*} for a 1-2 person home or \$280 per year^{*} for a 3-4 person home.

Australia's sunny weather means you'll normally have ample hot water but the gas can kick in on cooler days to bring the sun-warmed water, already stored in tanks, up to heat.



In Australia there are over 2.1 million installations of solar photovoltaic panels or solar hot water[#]. That is about one in every 5 households nationally[^].

[^] ABS 2011 Census quickstats censusdata.abs.gov.au
[#] ret.cleanenergyregulator.gov.au/REC-Registry/Data-reports

^{*} Figures are estimates only. Actual costs will always be dependent on individual consumption. Savings are not guaranteed and Lendlease makes no warranty that these savings are achievable.



Many residents already incorporate the smart ideas into their new homes

"We wanted to save money on our energy bills so we spent time reviewing the plans for our new home. First, we made sure we had good protection from the heat and cold. We also asked our builder to include a solar hot water system, LED lights and an efficient air-conditioner. Our rainwater tank was connected to the toilet and laundry."

"Now, our energy bills are 75% lower than what we were paying in our last home."

– Lendlease Yarrabilba Resident

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"I asked my builder for solar panels, a solar hot water system, LED lights, efficient appliances and a rainwater tank. I've seen a massive drop in my energy bills since I moved in. I'm now saving between \$100–\$150 a quarter."

"Adding sustainable features made the most of my investment in a new home."

– Lendlease Yarrabilba Resident

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If you are looking for more information, the Australian Government "Your Home" website is a great resource. Visit yourhome.gov.au



"I want appliances that are good value for money"

Select efficient appliances

Energy stars make choosing appliances easy. The more stars, the more efficient the system. Compare labels to find the most energy efficient appliance.

Whether you're buying a refrigerator, dishwasher, television or air conditioning system, paying a bit more now saves you money in the long term. Upgrading a large split-system air conditioning unit from 1.5 stars to 2.5 stars, for example, could save you approximately \$50–\$165 per year.*

To read more about energy ratings, or to compare products and energy savings visit energyrating.gov.au

Recommended star rating for air conditioning units

Air conditioner size#	Heating star rating	Cooling star rating
Small	4.5 stars or greater	4 stars or greater
Medium	3.5 stars or greater	2.5 stars or greater
Large	2.5 stars or greater	2.5 stars or greater

Light up with LED

Light up your home and lighten your bill. Lighting consumes up to 15% of the average household electricity budget^ so swap to LED lighting for savings. LED globes use 75% less energy than a halogen bulb and can last 5 times longer.^

Upgrading to LEDs from 35W halogen downlights saves approximately \$240 per year*, while upgrading from compact fluorescent globes saves approximately \$55 per year* in electricity costs alone.

Clever lighting tips:

- Design your new home to not need electric lighting during the day.
- Use skylights and north facing windows to let in daylight.
- Only install the number of lights you need for adequate lighting, LED globes can be brighter and require less fittings.
- Check your lights are zoned so you can turn off lights that are not required.
- Use dimmers to reduce your energy consumption.

^ yourhome.gov.au/energy/lighting

* Figures are estimates only. Actual costs will always be dependent on individual consumption. Savings are not guaranteed and Lendlease makes no warranty that these savings are achievable.

'Small' less than 4kW, 'medium' 4-6kW and 'large' greater than 6kW.

Catch the rain

As Australia is prone to droughts, you can drought-proof your garden with a rainwater tank.

Save money on water bills by also using your rainwater to flush the toilets, wash your clothes, clean cars or top up the swimming pool. Tanks come in all shapes and sizes, so talk to your builder about the best tank for your household.

Choose the right sized tank for you: ^

Approximate tank sizes for a four person household with water connection and evenly spread rainfall.

- Water small garden (2,000L–3,000L).
- Toilet flushing, clothes washing and small garden (3,000L–5,000L).
- Whole of house water supply (5,000L–20,000L).



One in four households have a rainwater tank*

^yourhome.gov.au/water/rainwater

*abs.gov.au/ausstats/abs@.nsf/Lookup/4602.0.55.003main+features4Mar%202013

“About one in four households has a rainwater tank*”



For more information on rainwater tanks, visit [savewater.com.au](https://www.savewater.com.au)



"I want to ask the right questions now, so I don't miss opportunities"

Research the smart ideas you like best. Spend time working out what you need and what you can afford before construction begins. Getting it right the first time means you won't have to spend money down the track on renovations or expensive upgrades.

Use the checklist below to start a conversation with your builder. Their experience could prove useful in refining your ideas and tailoring them to your home.

Questions for your builder

- ☐ Can my home achieve 7 stars (NatHERS)*?
- ☐ Can I include a 1.5kW solar panel system on my roof?
- ☐ Can I include a solar hot water system, boosted with instantaneous natural gas?
- ☐ Can I include an air conditioner with an energy rating of at least 2.5 stars?
- ☐ Can I include LED lights?
- ☐ Can I include ceiling fans?
- ☐ Can I include a 5,000L rainwater tank and use it for washing and the toilets?



*Nationwide House Energy Rating Scheme



Creating the best places

For over 50 years, Lendlease has been dedicated to creating the best communities in Australia. Aspirational addresses that foster a true sense of belonging, where people feel connected and genuinely welcomed.

Places that are truly beautiful and set about to enrich the lives of our residents, as well as those for generations to come.

Our holistic urban design approach is to encourage environments that foster opportunities. Where you can choose the way you live, the way you work, the way you learn. No matter where they are situated, every Lendlease community encourages a healthy and sustainable lifestyle where people are proud to call home.