

A step-by-step guide to buying a new home

Buyer's Guide



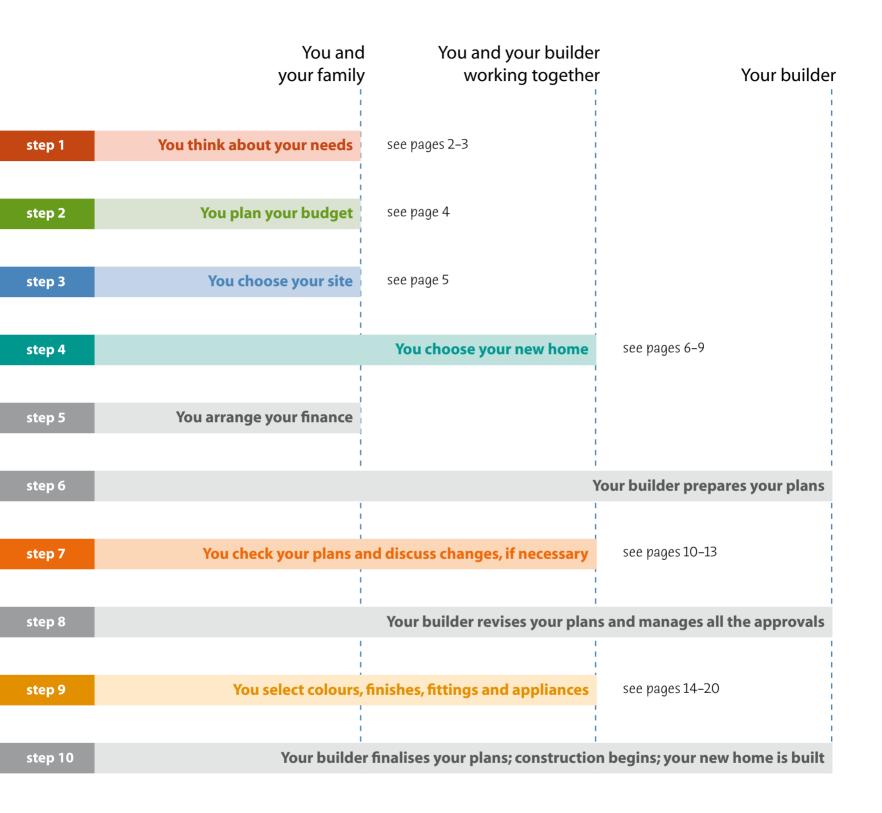
Bonus! Free checklist inside

Best value—now and into the future

Style and quality that lasts

Healthy, comfortable living

10 steps to your new home



Your new home is ready and you move in!

Which steps are covered in this Guide?

This Guide covers the steps shown in colour in this diagram. It discusses the choices that you'll need to make in relation to your new home (steps 1,2,3,4,7 and 9) but doesn't cover home finance, drawing up plans, development approval or construction (steps 5,6, 8 and 10—shown in grey).

Buyer's Guide

Buying a new home is an exciting process. This Guide will take you through the process of choosing a new home step-by-step, explaining what to look for and the important questions to ask.

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Back pocket:

Your New Home Checklist

You can also find this Buyer's Guide and checklist online at www.yourhome.gov.au.





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Getting started

Your home is important in so many ways

It's a place to relax, unwind and spend quality time with family and friends. It's probably also the biggest investment you'll make. Use this Guide to choose a home that will meet your needs, will be cheaper to run and will provide the best value for money—now and for a long time to come. Your family will thank you for it.

This Guide is designed for you, to take the stress out of choosing a home. You might only build once or twice in your life, so this is the opportunity to create exactly what you want in your new home. But it can be daunting too. There is so much to consider, from prices and layouts through to product and colour selections.

'Thinking through what we wanted first saved so much time once we started looking.'

The checklist that accompanies this Guide (on each right-hand page and repeated in the back pocket) is a useful reminder of features that can add value to your home and make it a more comfortable place to live. You can use it when you're comparing different homes and products. You might also want to use it as a reminder list when you're talking with sales staff and builders.

We hope this Guide will inspire you to find out more. There are links throughout to the wealth of information in the *Your Home Technical Manual* so you can find more about whatever interests you.

There are different ways you can go about purchasing your home. You can:

- purchase your land first, then choose a home to suit
- · choose your home first, then purchase your land
- choose a house and land package, or
- knock down your existing home and rebuild.

These are all really important decisions and the tips here will help you to make them wisely. From a design perspective it's better to choose your land first if you can, then choose a home to suit. Choosing a home and land package minimises some of the complications but it can limit some of your choices.

Whichever way you decide, aim for the best match you can get between your land and your home. Read on to find out how.

Using this Guide

Use this Guide to:

- think through your needs and create your 'wish list'
- compare different homes and products
- find the best value for money, now and for the future.

If you live in a tropical climate, design advice about some issues such as orientation and shading can vary from what's written here. See instead the State-specific information in the back pocket of this Guide or on the Your Home website at www.yourhome.gov.au.

You'll be amazed by how much good design can improve your lifestyle—and good design starts with finding the best match between your land and your home.





Start with a list

The process of buying a home can seem complicated. There are so many things to consider and sometimes it's hard to know where to start. To help you remember all the details and get the most out of the process, it's a good idea to start with a list.

Write down your 'must haves' so you know what your priorities are. Buying a home is an emotional process and sometimes it's easy to fall in love with a particular house feature or style, forgetting about what you originally decided you needed to suit your lifestyle and budget. Your 'must haves' may include things like number of bedrooms, good natural light, separate play area for the kids and a breezy, open feel.

Next write down your 'wish list'. Your 'wish list' should include extras that would be of great value or use to you, like shaded alfresco dining with good sunlight in winter, granite benchtops, solar hot water or a rainwater tank.

There are many places you can go for information and ideas, including home magazines, websites, display villages and home ideas centres. Talk to friends and learn from their experiences—what do they love about their home, and what would they change? Thinking through what you want first makes it much easier once you start talking to sales people and builders.

Your lists can help you to prioritise what you really need, while staying within your budget. They can also be really useful when you're talking with your builder.

Checklist: Getting started

Our family's 'must haves':
Our family's 'wish list':
Number of bedrooms:
Number of bathrooms:
Other important features for us:
Our budget range:
T:

Tips

Make sure your 'must have' list includes features that save on running costs and enhance resale value, like good insulation and an efficient hot water system (see page 14).

Think about how often your family might use a formal living or dining area before you add them to your 'must have' list.

Buying your first home

If this is your first home, talk to other people who've already built a home about what's worked for them. What do they like—what would they change? Which rooms are their favourite, and what is it that makes them so pleasant to spend time in? How does the amount of sunlight change the warmth and feel of different parts of the home? What are their favourite features? Would they change anything about the floor plan or the style?

Find out more

Your Home Technical Manual is an award-winning guide to housing, with over 60 factsheets full of handy tips and ideas, plus home design examples from around the country. It's available free online: www.yourhome.gov.au







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Planning your budget

Invest in the long term

For most people a home is much more than a place to live, it's a long-term investment. This is your opportunity to find a home that's not only good value upfront, but holds its value over time. Your decisions at this stage will have important consequences for your future, so you want to get it right.

When you start looking at homes, it's easy to focus on the short term—'what can I afford right now?' But when you think about it, ongoing costs are really important too. For example, an energy efficient home means lower energy bills, so you can use the savings to pay off your mortgage faster.

Times are changing rapidly and new issues need to be factored into smart investment decisions. This is sometimes called 'future proofing'—making sure that your investment will hold its value over time.

Protect your investment against rising energy, water and petrol costs by ensuring your home saves energy and water and is close to everything you need, including public transport. Choose long-lasting, durable materials that don't need a lot of maintenance.

These choices also have an impact on resale value. Regulations for new buildings are getting stricter all the time, and when you sell your home you want it to be able to compete with newer, more energy and water efficient homes.

Factor in all the costs

When you visit a display home village, the prices displayed are usually base house prices, from which point you can choose additional upgrades and features. It's often difficult to compare 'apples with apples' because what's offered as a standard inclusion by one home building company may not be offered by another.

Many home buyers say they wish they'd known about the hidden costs right from the start. To help with your budgeting, check with your builder about which of the following items are included in the price you've been quoted:

- council approval fees
- construction insurance premiums
- soil test by a qualified engineer
- connections to services
- excavation and drainage
- · driveways and landscaping
- legally required construction extras (e.g. scaffolding, security fencing)
- lighting
- floor finishes (e.g. carpet, tiles etc.)
- kitchen cabinets, benchtops, sinks and appliances
- curtains and blinds.

Make sure the cost of meeting State and local council regulations (such as extra insulation, rainwater tanks, etc.) has been factored into the quoted price.

Banks are aware of 'future proofing' too, which is why they are starting to offer 'green mortgages'. You can get a lower interest rate when you include 'green' features. This doesn't mean alternative materials like mud brick or straw bales. It just means a well designed, long-lasting home that saves precious resources ... and saves you money.

Find out about financial assistance such as rebates for items like hot water systems and rainwater tanks. Your local council should be able to advise you about the rebates available in your area. Take time to think about your budget—this is your chance to lock in features that hold their value and save you money, such as:

- quality design that uses space cleverly
- a comfortable home with a high star rating
- water and energy saving features.

Many of these features come at no extra cost, and those that do cost more upfront are usually quickly paid for by savings in energy, water and maintenance bills.







Choosing where to live

Location, location!

Location is so important. You have the opportunity to maximise your investment by choosing a block that's close to everything you need and well connected to public transport. Smart investors know this protects them from the effects of rising petrol prices and increased traffic congestion. Being able to walk or cycle to shops, schools and public transport not only makes life easier but healthier too. A better location might mean a smaller block—or even a different style of home—but maybe it's worth it when you think about everyday travel times and convenience.

Did you know that the way your home sits on your block can have an impact on your energy bills? When you're looking at different blocks consider how you could position a home so that it's naturally warm in winter and cool in summer. Blocks with their long side facing north can be ideal—this makes it easy to position a home so it will have a sunny northerly aspect. Blocks with their back facing north can also be good, making it easy to provide the back garden and living areas with a northerly aspect. It also pays to look for blocks with good access to cooling breezes, especially in warm climates.

No matter which way your block faces you can still get a good outcome—just as long as you choose a suitable home design. This is explained further on—see 'Find the perfect fit' next page.

Checklist: Choosing where to live

Suburbs or estates our family is considering:

Will we be close to everything we need—shops, schools, parks, public transport, etc?

Our location 'must haves':

Best location for us would be:

Will we be able to position a home on our block so it has good access to sun, ideally with the long side or back facing north (or close to north)?

Will any neighbouring buildings have an effect on our block's privacy, views or access to winter sun?

Best block for us:

Tip:

Check the bus and train routes near your preferred location—how long will it take to walk to the nearest bus stop or train station?



Spend less time stuck in traffic and more time enjoying life. Being able to walk or cycle to shops, schools, parks and public transport not only makes life easier but healthier too.

Find out more Your Home factsheets:

Choosing a site
Design for climate
Orientation

www.yourhome.gov.au

Where is north?

To find out you can use a street directory—the top of the page is always north. Most estate plans will include a north arrow.





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Choosing your new home

Know the rules

First, it helps if you can find out the requirements for homes at your chosen location. You can do this by checking with your builder and with the local council. If you're buying into an estate there may also be additional requirements made by the developer that you need to follow. These requirements can cover a range of different things including types of building materials, façade style, fences and hot water systems, to name a few. Often these are called 'design guidelines' or 'covenants' for the estate.

'We discovered there's so much more to it than cost per square metre ... our home has character and spaces that work well for us.'

Choose the floor plan that works for you

Looking at builders' floor plans is where you can start to compare your 'must haves' and 'wish list' with what's on offer. You can make choices based on how many square metres you can get for your money, but smart investors know that there's much more to a good investment.

Think carefully about what you really need. It's tempting to want more area for your money but bigger isn't always better—you'll have less garden space and more house to heat, cool, light, clean and furnish. This adds to your costs now and into the future. Good design that doesn't waste space feels great to live in and holds its value better.

Find the perfect fit

Make sure the homes you're considering will fit well on your block. For example, check the width of the home frontage and any setback requirements (the distances you have to leave between your home and your site boundaries). Your builder should be able to help you here—and do the work for you!

Choosing a floor plan that faces the right way on your block will make your home more comfortable, and you won't need to spend as much on heating, cooling and lighting.

Smart tips

The north side is warmer in winter and the best place for rooms you use a lot, like living areas.

The west side gets hot in the afternoon and is best for rooms you don't use often, like bathrooms, garages and laundries. The **south side is the coolest** and good for
bedrooms in warmer
climates, as well as rooms
you don't use often.

The **east side gets morning sun** and is good for breakfast rooms, kitchens and bedrooms.

If you can't get an ideal position for every room, you can still have an energy saving home.

You'll just need to pay more attention to design and this might cost a little more. Good position on the block gives you a headstart and makes the rest easier, so lock it in if you can!





Here are some tips for positioning your living areas:

- If the front of your block faces south, place living areas at the rear of your home—an easy solution!
- If the front of your block faces east or west, place living areas at the rear of your home, facing onto the north side of your block.
- If the front of your block faces north, try
 placing your living areas at the front of your
 home and increasing your setback from the
 street with a private, spacious front garden.

If you have a sloping block, think about the kind of home that would make the best fit with minimum excavation and drainage costs. Discuss this with your builder and ask them to suggest a suitable home design.

Check with your builder that the position of your home will maintain privacy for you and your neighbours. Keep bedrooms away from noisy areas like driveways or neighbours' living areas. Now is also a good time to think about where you'll put cost saving features like an outdoor clothesline and water saving features like a rainwater tank.

Why north for living areas?

North is the best position for rooms you spend a lot of time in because north-facing rooms get sun for the longest part of the day. They are also the easiest to shade from unwanted sun. In summer when the sun is high, the right size eaves will shade north-facing rooms, while in winter when the sun is lower, sunlight will come in under the eaves.

If it looks like your living areas won't get good sunlight ask your builder if you can flip or rotate the plan for better positioning on the site, or make minor modifications to the plan.

Checklist: Choosing our new home

Homes our family is considering:	
Our preferred home:	
Is it a functional floor plan without wasted	
space and with plenty of storage?	
What would we change about this plan?	
Will our preferred home fit well on our block with	
living areas facing north (or close to north)?	

Tips:

Talk to your builder about making no cost or low cost changes—for example, can you flip or rotate the plan?

If you have a steeply sloping block, choose a split-level or raised floor design.

A home for life

You might be planning to live in this home for a long time so ask for features that will make your home a safe and easy place to live as you grow older, like entries and showers without steps.

These features make good sense anyway and come in handy when you have small children or elderly or less mobile visitors. They could also make your home attractive to a wider range of people when it comes time to sell.

Find out more

Your Home factsheets:

Orientation
Passive design introduction
The Adaptable House
Health and safety
www.yourhome.gov.au





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Choosing your new home

Aim for the stars

Your home's star rating indicates how comfortable it will be and how much you're likely to save on heating and cooling bills. The star rating scale goes up to 10 stars—the highest that can possibly be achieved. In many States new homes are required to be at least 5 stars (NSW requires BASIX scores instead of star ratings). Astute home buyers are beginning to ask for 6 stars or more—an indication of good, energy saving design.

The star rating for your home is focused on the building 'shell'—building materials, insulation, windows—as well as how your home is matched to your block. All the tips on this page will help you reach a good star rating. You can get a good star rating with almost any house style, but some styles work more easily than others.

'We paid extra for better insulation in the ceiling—it was worth every cent. We couldn't believe the difference ... we hardly use the heater anymore.'

Moving to a 5-star home can halve your heating and cooling costs. In a climate like Melbourne upgrading to a 7-star home can reduce heating and cooling costs by 75%! What's more, a high star rating can improve the resale price of your home.

Eaves work wonders

A roof with eaves is a cheap and effective way to help keep your home cool in summer. The eaves help shade walls and windows from high-angle summer sun. Eaves work particularly well on the north side, providing effective summer shading and letting in winter sun, without you having to do a thing. This happens because winter sun is at a lower angle than summer sun and comes in under the eaves. Eaves can also help with waterproofing and can stop paint from cracking and fading in the sun. If you choose a style without eaves, just be aware that you'll want to include additions like adjustable window shutters to keep your home comfortable.

Glass has an impact on bills

Glass is the 'path of least resistance' for losing or letting in heat, so don't go overboard on it. If you do, your home may feel like a sauna in summer and an igloo in winter.

Home building contributes to some of Australia's biggest environmental problems and building regulations are changing fast as we find smarter ways to build. The regulations may vary depending on where you live but one thing is certain: homes of the future will need to get better and better at saving resources.

It pays to think about this now!

About star ratings

In the Australian Capital Territory, Victoria, South Australia and Western Australia all new homes are required to achieve 5 stars. Some of these States also have additional energy and water saving requirements. In New South Wales new homes need to comply with the energy and water targets in BASIX. In Queensland, new homes must meet regulations for hot water systems, lighting and water savings.





The way the sun moves across the sky means that some places are better for glass than others—glass facing north is ideal because you get lots of winter sun and all you need are eaves to shade it in summer. Glass facing east or west can overheat in summer and needs adjustable shading like shutters or louvres. Deep shade pergolas can also work well in some cases. Glass facing south doesn't get much sun and could make your home feel cold in winter.

If you live in a cooler climate, consider double glazing to keep your home more comfortable. Curtains with pelmets also help to keep warmth in. Windows that can open up wide make it easy to capture cooling breezes in summer. Flyscreens, security grilles and windows that lock when partly open allow you to let breezes in whenever you need to. For more information on choosing glass to suit your needs, see the *Your Home* Glazing factsheets.

Insulation is a wise investment

Although you don't see it, you'll feel the impact of good insulation every day. Your home will be quieter and more comfortable plus you'll save money on energy bills. Ask about what's included in your price, and, if necessary, talk to your builder about increasing the amount of insulation in your home.

The right level of insulation for your home depends on your climate but generally the more the better. Make sure you have reflective insulation (like shiny foil sarking that goes under the roof) as well as bulk insulation like batts. The higher the 'R value' the better the insulation. Make sure you also have good draft proofing, including weather seals on windows and external doors.

Checklist: Choosing our new home

The star rating of our home will be: (Will we score 6 stars or more?)

Is there good insulation under roofs, in ceilings and in walls? Do we need floor insulation?

Do our windows predominantly face north?

Are our north-facing windows shaded by eaves or overhangs?

Are our east and west-facing windows shaded by adjustable shutters?

Do we need to consider double glazing? Where?

Will we use curtains with pelmets to help keep in heat? Where?

Comments, things we'd like to change about our home design:

Tips:

Consider adding extra doors to close off rooms for ease of heating and cooling—this will also reduce your electricity costs.

Ask your builder whether your ceilings will be high enough to accommodate fans—this can help save on cooling costs.

If you have views to the west, east or south, use small picture windows to capture the view while minimising unwanted heat loss or gain.

Make sure your eaves are wide enough to provide good shade—the *Your Home* Shading factsheet explains how to size eaves correctly.

Did you know?

In the Australian Capital Territory all homes for sale must provide information to prospective buyers about their energy efficiency.

Choosing a dark roof colour could make your home overheat in summer as dark materials absorb heat more readily.

Find out more

Your Home factsheets:

Design for climate
Orientation
Passive solar heating
Passive cooling
Glazing overview

Shading
Insulation overview
Insulation installation
Rating tools
www.yourhome.gov.au





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Working with your builder

Your living areas

Here's your chance to create your ideal living space, somewhere you can relax, entertain and spend quality time with family and friends. This is the most lived-in part of your home so it deserves some extra-special attention.

It's a good idea to face your living areas north or close to north if you can. This way you'll get loads of winter sun and easy shade in summer if you have eaves. Anything within the range of 20 degrees west to 30 degrees east of north is good. In tropical climates you're best off facing living areas to capture cooling breezes.

Open plan living is popular and can create a wonderful flow of space. But when living areas are too open, especially if they have mezzanines or high ceilings, they can be difficult (and expensive) to heat and cool. They can also be noisy. Some designs give you the flexibility to open up or divide up the space as you need. Clever design of space is crucial in a living area. It's the feeling of spaciousness rather than the amount of space that matters most—and how well the spaces function. Look for practical, well designed areas that use space cleverly and don't waste it—after all, you're paying for it! You could also talk to your builder about modifications that allow you to use space flexibly, like room dividers or sliding partitions. This way you can also adapt space to suit your family's changing needs.

To keep living areas cool in summer make sure you have windows or openings on more than one side of the living area. This allows cooling breezes to flow through. High windows or skylights work well to get rid of hot air as it rises. Just make sure they can be closed in winter and the frames have good weather seals. Double glazing will also help to keep heat in during winter—handy in cooler climates.

'We put in two extra doors, making our living areas easier to heat and cool. This also helps keep the house quiet when the baby is sleeping.'



You can use outdoor space as an extension of your living room, effectively getting more space for free!

If you have young children, design kitchens and living areas to overlook play areas.





Your kitchen

Kitchens are said to be the heart of the home, where everything happens. It's often the kitchen and living areas that people fall in love with and that's important if you're thinking about resale value. A well designed, functional kitchen can really add value to your home.

A good kitchen gives you room to move but is compact enough to allow easy reach between different activities, like preparing food, cooking and rinsing. It's a good idea to leave generous bench space between the sink and the cooktop as this tends to be the most useful space for food preparation. Locate dishwashers close to sinks to allow easy loading—this also concentrates your plumbing needs in one place and saves money. Multi-bin sorters under kitchen sinks are a great idea—you can separate your rubbish for recycling straight away.

Did you know that the fridge typically uses more energy in a year than any other appliance? It's responsible for about 13% of the average family's electricity bill. It pays to buy an efficient and appropriately sized fridge—see page 17 on appliances for some handy hints. Make sure kitchen cabinets allow a decent air gap around the fridge (especially at the back) as it needs good ventilation to work efficiently.

Checklist: Our living areas and kitchen

he living areas we need are:
Can our living areas be divided up as needed, or economical heating and cooling?
Vill our living areas get plenty of sunlight in winter?
Vill our living areas be shaded in summer?
Can windows be opened on more than one side of ving areas to let cooling breezes through?
Comments, things we'd like to change:
s our kitchen set out so there is easy reach between different activities
o our kitchen cupboards use low emission particle board and finishes
Comments, things we'd like to change:

Tips:

Think about including a multi-bin sorter and compost container when you're choosing your kitchen garbage system—this can make recycling much easier for the whole family.

A good kitchen is a healthy kitchen

This is about more than the food you eat! Most kitchen cabinets contain glues and varnishes which give off fumes, particularly when they are newly installed, that can cause breathing irritations and allergies. New 'low-emission' materials provide a much healthier alternative—ask your kitchen designer or see the *Your Home* Indoor air quality factsheet.

Find out more

Your Home factsheets:

Indoor air quality
White goods
Health and safety
The Adaptable House
www.yourhome.gov.au





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Working with your builder

Your bathrooms and laundry

Everybody loves a well designed bathroom. Here's an opportunity to add value to your home and save lots of water in bathrooms and laundries without having to compromise a thing. Your plumbing fixtures will last a long time so it pays to demand the best standard of water savings. When you come to sell your home you'll want it to be able to compete with newer, water efficient homes.

The 3-star showerhead shown above costs no extra and can save around \$100 in energy and water each year. A 4-star toilet saves the average household about 1,000–1,500 litres of water each year.

There's been a recent trend towards multiple bathrooms in new homes, but it's worth thinking about the extra costs and cleaning before you add bathroom number three to your 'wish list'!

You can save money on plumbing by choosing a plan that groups wet areas like the kitchen, laundry and bathrooms close together.

Having windows that open to ventilate bathrooms and laundries is cheaper and quieter than relying on an exhaust fan. Your rooms will have a light, airy feel and you'll save on electricity.

If you use predominantly light, neutral colours in permanent finishes like tiles, you can use colour accents in features that are easier to change, like painted walls. It's a good idea to choose slip-resistant floor tiles.

After you've locked in good savings with your water efficient fittings you might want to go further by using rainwater or treating water for reuse. See page 20 for more information.

	Average home	Water efficient home
Shower	9–10 L/minute	6–7 L/minute (3-star)
Toilet	7.5 L/flush	less than 4 L/flush (4-star)
Washing machine	140 L/wash	70 L/wash (4.5-star)
Dishwasher	20 L/wash	12 L/wash (4-star)

Look for the stars

The biggest water users inside a home are the:

- shower
- toilet
- washing machine.

Look for the water star label—the more stars, the better the water savings.



Find the best products

There are star ratings for energy as well as water. These websites can help you find the products with the best star ratings:

Water star ratings

• www.waterrating.gov.au

Energy star ratings

- www.energyrating.gov.au
- www.energyallstars.gov.au







Your bedrooms

The southern side of the house is the coolest and usually good for bedrooms. The eastern side gets morning sun and this can also be a nice aspect, though you'll need shading if you want to sleep in!

Avoid bedrooms facing west if you can as they heat up in the afternoon and can be uncomfortable on a summer night. Because heat rises, upper level bedrooms can get particularly hot. If you just can't avoid west-facing bedrooms don't worry—they can still be comfortable—you'll just need to pay better attention to shading and insulation.

Your home office

If you work from home a lot, try to provide your home office with a pleasant north-facing aspect—you'll want it to be comfortable all day.

'Getting the builder to make a few changes to the plan was the best thing we ever did.'

Checklist: Our bathrooms, laundry, bedrooms and home office

Will our bathrooms and laundry have a window for natural ventilation?

Have we chosen fixtures that will save water? For example, do our bathrooms and laundries have 3-star showerheads, 4-star toilets and 3+ star taps?

Comments, things we'd like to change:

Can we swap some rooms around so the bedrooms will be cooler in summer?

Comments, things we'd like to change:

Will we use the home office a lot?
Will it be a sunny, pleasant place to work?

Comments, things we'd like to change:

Tips:

Consider features that make your home safe and easy to live in as you get older.

Use the Top 3 water users calculator on the Your Home website to calculate your water savings: www.yourhome.gov.au.

Rate your home

You can use the NABERS website to check how much energy and water your household uses compared to similar Australian households.

www.nabers.com.au



Find out more

Your Home factsheets:

Reducing water demand Health and safety The Adaptable House Orientation Passive solar heating Passive cooling www.yourhome.gov.au





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Selecting heating & cooling

Don't get into hot water with your bills!

Did you know water heating is responsible for more than a quarter of the average home's energy bills and greenhouse gas emissions?

The first step is to use less hot water by installing water efficient showerheads and taps. It's a double saving—you'll save energy and water!

Choosing an efficient hot water system is your chance to save money and do your bit for the environment. It may cost you a little more upfront, but usually pays for itself within a few years through energy savings.

Choosing an efficient hot water system adds value to your home and can also help you meet local council or State regulations.

The best choice of hot water system depends on a few things, like how much water your household uses and whether you have a gas connection.

'We thought solar hot water would be expensive but it paid for itself in less than 5 years.'

Use the chart below to help you decide what type of hot water system to buy. Always look for the highest possible star rating.

- Best choice if you have a gas connection.
- Best choice if you can't connect to gas or you want to use 100% renewable electricity.
- Choose only if you can't get good access to sun.

Type of hot water system	No. of people in the household			
	1–2	3	4	5+
Solar gas		•	•	•
Solar electric	•	•	•	•
Electric heat pump	•	•	•	•
Gas instantaneous 5+ star	•	•	•	
Gas storage 5+ star			•	•

Get the most out of your efficient hot water system:

- Install a 3-star showerhead for big savings.
- Locate your hot water system close to where you'll use it, near the bathroom, laundry and kitchen.
- Use a shower timer to remind everyone in the household to save water.

Did you know?

International experts predict that climate change will dramatically increase the cost of electricity, gas, petrol and water in the future. Get ahead by choosing a home that helps you save on these now and has the best resale features. In a few years, home purchasers are likely to expect highly energy efficient hot water systems as a standard feature.

Estimated 7-year running cost of hot water systems

Solar gas
Solar electric
Electric heat pump
Gas instantaneous
Gas storage
Off peak electric

high efficiency efficiency

high efficiency

high efficiency

high efficiency

minimum efficiency

minimum efficiency

5-star

5-star

3-star

single element

\$1,000

\$2,000
\$3,000







Keep warm and stay cool

Many of the tips in this Guide can help make your home naturally more comfortable year round so you won't need to spend much (or perhaps anything!) on heaters or air conditioners. If you do install heating or cooling you can save money while keeping comfortable by:

- using fans instead of air conditioners
- only heating or cooling the rooms you need and making sure the heating and cooling is 'zoned' so you can switch different areas on and off
- making sure the systems are the right size for your needs—oversized systems waste money in upfront costs and running costs, and
- making sure your heater or air conditioner has a high star rating.

Catch some sun

The term 'solar panels' can mean two different things: the collector panels on your solar hot water system, or photovoltaic (PV) panels that convert sunlight into electricity. They're both capturing the sun's energy—one to heat water and the other to make electricity.

Government rebates can help bring down the cost of both solar hot water and photovoltaic systems. If you're on a budget but want to make the most of solar energy, a solar hot water system is probably the best place to start. If you want green electricity but can't afford the upfront cost of a photovoltaic system, ask your electricity retailer about government accredited GreenPower. For a small additional cost you can purchase electricity from renewable sources like solar and wind.

Checklist: Our heating and cooling

Do we have a north-facing roof for solar hot water?

Do we have a gas connection?

Type of hot water system we're looking for:

Have we locked in good design features to avoid or reduce our heating and cooling needs?

Can we use fans or evaporative coolers instead of air conditioning?

Would a solar air heater work for us?

Does our gas heater have a high star rating?

How can we save further on heating and cooling?

Will we use electricity from renewable sources?

Tips:

Use the chart on page 14 to help choose your hot water system. Consider fans or evaporative coolers instead of air conditioning.

If you're planning to use gas heaters or air conditioners choose one with a high star rating.

If you're planning on central heating or air conditioning make sure it's zoned and not oversized.

The compressor unit of an air conditioner can be noisy so think carefully about where to locate it.

Summer running costs per year

6 ceiling fans \$18

Typical ducted air conditioner \$265

Based on 5 hours a day usage in summer, 6 fans at 50 W each, air conditioner at 4,500 W.

Evaporative coolers are an energy saving alternative to air conditioners. They work best in climates with relatively low humidity like Melbourne, Canberra, Adelaide and Perth.

Solar air heaters use the sun to warm air and circulate it back inside in winter. In summer, the fan pulls out hot air to keep the home cool.

Find out more

Your Home factsheets:

Heating and cooling
Hot water service
Solar hot water
Photovoltaic systems
www.yourhome.gov.au

Green electricity:

www.greenpower.gov.au www.greenelectricitywatch.org.au





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Selecting fittings & appliances

See the light

Lighting is responsible for 10% of the average family's electricity bills but in some homes this can be much higher. You could be wasting hundreds of dollars a year just lighting your home.

Of course, the cheapest solution is to maximise use of natural light. This is another good reason for following the design tips on pages 6–9 about placement of rooms and windows.

Choosing energy saving lighting is one of the easiest and most cost effective things you can do.
Compact fluorescent lights are a great choice because

they save energy and last longer—just remember to choose 'warm white' bulbs for a nice warm feel. Some LED lights save as much energy as compact fluorescents and can last three times longer or more. However, LED lights are still much more expensive at the moment. The technology is improving rapidly and LEDs are likely to be more cost competitive in future—so watch this space!

Low voltage halogen downlights use more energy than these efficient types. It's important to remember that low voltage doesn't mean low energy—so if you want to compare different types of bulbs look at the wattage. If you do choose halogens, use IRC (infrared coated) 35 W globes instead of 50 W globes.

Room lighting cost estimates

Options below provide similar light levels

	Standar	d bulbs	Downlights		
	1 x 15 W CFL	1 x 75 W incandescent	5 x 11 W CFL	4 x 35 W IRC halogen	4 x 50 W halogen
Lifetime hours	10,000	1,000	15,000	5,000	2,500
Purchase cost*	\$10	\$1	\$100	\$60	\$40
Running cost*	\$33	\$164	\$120	\$350	\$569
Total cost*	\$53	\$179	\$220	\$490	\$669
Greenhouse gas emissions*	219 kg	1,095 kg	803 kg	2,336 kg	3,796 kg

^{*} Over ten years

Purchase cost includes lamp cost and transformer for halogens. Operational costs and greenhouse gas emissions will vary with hours of usage, electricity rates and location. One standard bulb is compared with the minimum number of downlights required to light the average room.

'We changed our lighting plan when we found out how hot and uncomfortable it is sitting under halogen downlights.'

Did you know?

A kitchen lit by 10 halogen lights for five hours a night can add about \$140 a year to electricity bills.

As well as wasting energy, halogen downlights get very hot. Because of this you need to leave a gap between your ceiling insulation and the fitting, and this reduces the effectiveness of your insulation.

Compact fluorescent bulbs use about 20–25% of the energy of a traditional incandescent bulb and last 4–10 times longer.

The government is phasing out incandescent light globes—lighting of the future will be energy smart!





Choose appliances wisely

A smart choice is one that continues to save you money for the life of the appliance. The questions to ask are:

- What size do I need?
- Does it have a high star rating?

Star ratings are provided on all white goods to help you make the best choice. There are star ratings for both energy and water so a washing machine, for example, will have a star rating label for energy use and another for water use. The more stars, the more efficient the appliance is.

Choosing the right size for your needs is also important—a big 4-star fridge uses more energy than a small 4-star fridge. Look for the actual estimates of energy and water use, also provided on the label. This will give you a sense of the relative cost of running the appliance. The fridge uses the most energy each year and the washing machine uses the most water each year.

It's worth considering these issues for your other appliances too—they all contribute to your bills! If you're choosing home entertainment equipment it pays to compare energy use—both when in use and when in 'standby' mode. Some appliances have an 'ENERGY STAR' label (different to the white goods star rating) which shows they are efficient in 'standby' mode. Bigger television screens use more energy, and plasma screens tend to use more energy than LCD screens. Recent Australian research has found that, even when comparing televisions of similar screen size and type, some products use more than three times the energy of others. It's worth asking about energy use when making a purchase!

Checklist: Our fittings and appliances

Does our home design make good use of r	natural light?
Our lighting requirements:	
The costs of running our lighting per year:	
How we can save on lighting costs:	
The energy star rating of our fridge:	
The water star rating of our washing machi	ine:
Our other major energy-using appliances:	

Tips:

Work with your lighting consultant to choose energy saving lighting. Don't go overboard on downlights. Lighting a room with many energy saving downlights can still use more energy than a single inefficient light. Use the Lighting and White goods calculators on the Your Home website to work out how you can save on energy bills: www.yourhome.gov.au. Install an outdoor clothesline—let the sun dry your clothes for free instead of paying to run a dryer.

A medium-size 5-star fridge can save you at least \$650 in running costs over its lifetime, compared to a 2.5 star fridge of the same size. And that's based on current energy costs—it doesn't reflect the impact of future price rises!

A 5-star front-loading washing machine uses about 50 litres of water per wash compared to 140 litres per wash for a 1-star top-loader.

Find out more

Your Home factsheets:

White goods Lighting

www.yourhome.gov.au

Online calculators:

It's easy to work out how much you can save using the Your Home online calculators for Top 3 water users, Lighting and White goods:

www.yourhome.gov.au





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Selecting colours & finishes

Don't be floored

Carpet gives warmth to an interior and is best used in combination with other lower maintenance materials.

Tiled surfaces or polished concrete give a sleek modern look and work well in high-traffic areas. In some situations they help keep indoor temperatures comfortable by storing heat—find out more about this in the *Your Home* Thermal mass factsheet. Choose slip-resistant surfaces in wet areas such as bathrooms and laundries.

Timber and tiled surfaces are low maintenance and easy to clean. For allergy sufferers they're also a healthier alternative to carpet, which can trap dust and other allergy-causing particles. If you want the cosy feel that carpet provides, you could consider rugs that you can wash or air outside.

'When we painted our old place you could smell the paint for weeks. We're so glad we went with low emission paints this time.'

If you use timber, make sure it comes from certified sustainably managed forests. There are plenty of cost effective and stylish Australian timbers from these sources, so here's your chance to do the right thing by the environment without compromising on style.

You can get natural varnishes for timber floors, like tung oil or beeswax, that look great and don't give off low level toxic fumes like standard polyeurethane finishes do. Ask your builder if they can use a natural product for your floors.

Colour your world

Ideally interior paint colours should be the last thing you choose after cabinets, carpets and floor tiles. This is because there are so many paint colours to choose from, but far less selection with other finishes.

White paints have different bases—yellow, pink, fawn and grey—and it's important you follow the 'family colour' throughout, so that your paint selection has the same base as your tiles and cabinets. Your interiors consultant will be able to help with this.

Using light-coloured interior paints improves daylight levels inside your home. As well as creating a light and airy feel you're unlikely to need lights on during the day, which saves money.

Sleek contemporary kitchens are achieved with plain cabinet doors without panelling. White laminates



Smart tips

- Use natural paints in nurseries and bedrooms of allergy sufferers.
- Use low emission paints for all lightcoloured surfaces, and use natural paints for darker coloured feature walls—the most cost effective way to minimise emissions!
- Good natural ventilation in your home helps reduce the effect of paint fumes.

Important to know: Adding colour pigments to a low emission light-coloured paint base usually increases the emissions—check with your builder or paint supplier.





and timbers go well with this look. If you prefer the traditional look, this can be achieved with warm colours and panelling on cupboard doors. Remember that bright, dominating colours in permanent kitchen fixtures can be expensive to change if you tire of the colour. Think about using wall paints or decorative display pieces instead—they can also provide any bright accents you may want.

Your exterior colour scheme can actually have an impact on indoor comfort! Light-coloured walls and roofs reflect heat and can help to keep your home cool in summer. The roof colour makes the most difference, as roofs usually get more direct sun than any other part of the house.

Some paints are healthier than others

Regular paints give off low level toxic fumes that can cause breathing irritations and headaches. Painted surfaces can continue 'off gassing' fumes for months after painting. The good news is that many paint companies now offer healthier low emission products for the same cost. (These are also known as 'low VOC' products—see below.)

If you want to avoid paint fumes altogether, look for paints that contain all-natural ingredients. These do cost a bit extra but are worth it if you have allergies or young children.

Checklist: Our colours and finishes

The types of flooring in our home:
The timbers used in our home:
The paints and varnishes used in our home:
Examples of colour schemes that we like:
<u> </u>
Have we specified materials that are either
low emission or natural products?

Tips:

Make sure timber used in your home comes from certified sustainably managed forests—ask your builder to get assurances from suppliers.

Consider alternative options like bamboo or recycled timber flooring—these are stylish, durable and environmentally friendly.

Check that cupboards, floor finishes, paints and varnishes are either natural or low emission products.

It's not just paints and varnishes that can give off low level toxic fumes so can many common materials like carpets and kitchen cabinets.

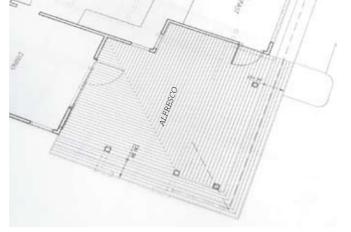
This is due to the presence of 'volatile organic compounds' (VOCs). The good news is that many healthier no or low VOC alternatives are available.

Find out more

Your Home factsheets:

Material use introduction Indoor air quality Thermal mass

www.yourhome.gov.au





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Designing your outdoor living

Go for the great outdoors

Your garden and outdoor areas are an extension of your home. The best living spaces are those which flow from inside to outside so you can make the most of alfresco living. You can use clever landscape design to:

- channel cooling breezes into your home, and
- shelter indoor and outdoor areas from winds.

Planting is one of the best ways to provide shade:

- deciduous plants and vine-covered pergolas work well on the north side because they provide summer shade and let in winter sun
- evergreen plants work well wherever permanent shade is required, such as westfacing walls in warmer climates.

Many homes now incorporate rainwater tanks. To get the most out of your tank make sure you choose a reasonable size—3,000 litres or more is ideal—and connect it to indoor uses like the toilet and the washing machine. If your tank is only connected to the garden it will be much less useful.

Domestic water recycling systems are also becoming more popular, collecting and treating wastewater (from the shower, laundry etc.) for reuse in the garden or within the home. Regulations vary so check first with your local council, then make sure you seek expert advice on choosing and maintaining your system. If you're reusing laundry water on the garden you'll need to use special detergents and powders.

Checklist: Our outdoor living

Will our alfresco areas get sun in winter and be cool and shady in summer?

Will we use local native plants, drought-resistant plants and mulch in our garden, to save water?

Will we grow our own vegetables and herbs?

Comments, things we'd like to change:

How many litres will our rainwater tank hold?

What will our rainwater tank be plumbed in to?

Will we reuse our wastewater? If so, where will we collect it from and where will we use it?

Tips:

If you don't want one big rainwater tank you could try a series of smaller, connected tanks.

If you have a pool, use a pool cover to reduce evaporation.

When planting trees take care to place them so their roots won't damage walls or footings.

Choose 'permeable' paving that allows rain to soak through or between pavers.

There are many different choices of rainwater tanks, including clever designs for tight spaces.

Depending on where you live, up to 50% of the average home's water is used for the garden. You can save a lot of water by choosing local native plants and groundcovers, which suit Australia's dry conditions. They also look great and attract native birds.



Find out more
Your Home factsheets:

Sustainable landscape
Outdoor water use
Wastewater reuse
www.yourhome.gov.au

For water and energy saving calculators, copies of this Buyer's Guide and copies of the Your New Home Checklist visit **www.yourhome.gov.au**

Published by Investa Property Group Level 6 Deutsche Bank Place; 126 Phillip Street Sydney NSW 2000 Australia www.investa.com.au

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National Library of Australia Cataloguing-in-Publication data:

Your home buyer's guide: a step-by-step guide to buying a new home

ISBN 9780980421408 (pbk)

1. House buying - Australia. 2. Home ownership - Australia. I. Investa Property Group. II. University of Technology, Sydney. Institute for Sustainable Futures.

III. Royal Melbourne Institute of Technology. Centre for Design.

643.120994

Disclaimer

This document has been prepared as a guide only and is unlikely to contain all the information that prospective home buyers may expect or require in order to make informed decisions on home building choices. The data is to the best of the authors' knowledge accurate as at the date of publication but may vary from time to time and with location. Prospective buyers should therefore rely on their own enquiries and obtain appropriate expert advice as part of their decision-making process.

Acknowledgements

The following organisations collaborated on the production of this Guide:
Australian Greenhouse Office, Department of the Environment and Water Resources;
Department of Environment and Climate Change NSW; Queensland Government Environmental Protection Agency;
The Building Commission, Victoria; Sustainability Victoria; Landcom; Department for Planning and Infrastructure,
Government of Western Australia; Western Australian Planning Commission; Institute of Sustainable Futures at UTS;
Centre for Design, RMIT University; More Communication Design; Clarendon Residential Group; Investa Property Group.

Printed on recycled paper using vegetable-based inks.

More information online: www.yourhome.gov.au

Australian Greenhouse Office, Department of the Environment and Water Resources www.yourhome.gov.au

Department of Environment and Climate Change NSW www.environment.nsw.gov.au www.livingthing.net.au

Landcom www.landcom.nsw.gov.au

The Building Commission www.buildingcommission.com.au

Sustainability Victoria www.sustainability.vic.gov.au

Queensland Government Environmental Protection Agency www.epa.qld.gov.au www.climatesmart.qld.gov.au

Department for Planning and Infrastructure, Western Australia www.dpi.wa.gov.au

Western Australian Planning Commission www.wapc.wa.gov.au

Institute for Sustainable Futures, University of Technology Sydney www.isf.uts.edu.au

Centre for Design, RMIT University www.cfd.rmit.edu.au

Clarendon Residential Group www.clarendonhomes.com.au



Australian Government

Department of the Environment and Water Resources Australian Greenhouse Office



