

Affordable tips for building a sustainable home

No-cost and low-cost checklist

Before purchasing the land

- ☐ **Buy wisely:** Choose land with an orientation that lets you position large living room windows facing north. Ideally, have north at the rear overlooking your garden, but north and large living room windows can work on the side of your home, depending on the lot shape and surrounding views. This maximizes natural light and winter warmth from the sun.

When talking to your salesperson/builder and before submitting plans to council

- ☐ **Consider a smaller home:** A smaller footprint lowers construction costs per square metre, reduces heating and cooling costs, and makes your home more energy-efficient. Quicker to clean too!
- ☐ **Adjust floor plan:** Builders typically don't charge extra to flip the floor plan if necessary to allow large living room windows to face north.
- ☐ **Maximise north-facing windows:** Position the largest windows to face north while minimising those on the east, west, and south sides.
- ☐ **Add shade:** Use external awnings or deciduous trees to shade windows in summer while allowing winter sunlight to warm your home.
- ☐ **Eaves depth:** Ensure eaves are correct depth to allow winter sunlight to enter north-facing windows when it's lower in the sky, while blocking the higher summer sun.
- ☐ **Avoid overshadowing:** Position your house on the site plan to prevent shading from tall buildings, large evergreen trees, or full-length covered pergolas on the north side. Covered pergolas can be angled upwards to allow winter sunlight.
- ☐ **Flooring selections:** Choose concrete or tile flooring in north-facing living rooms to absorb and release heat, keeping your home warmer in winter and cooler in summer, and lowering energy costs.
- ☐ **Roof design:** Ensure the roof has a strong north-facing surface, clear of obstructions, for future solar panels.
- ☐ **Ventilation:** Position windows for cross ventilation to improve comfort, regulate temperature, and reduce air conditioning needs, saving energy.
- ☐ **Ceiling fans:** Add ceiling fans to the electrical plan for all bedrooms and living areas to reduce reliance on air conditioning, and lower your cooling running costs.
- ☐ **Zoning:** Add doors in hallways to create zones, allowing for targeted heating and cooling, which improves energy efficiency and reduces heating and cooling costs.
- ☐ **Energy efficiency:** Consider an all-electric home (no gas), specify energy-efficient appliances (e.g. stove, oven, cook top, extractor fan) and include LED lights, motion sensors, and dimmers on your electrical plan to reduce energy usage and costs.
- ☐ **Water efficiency:** Reduce your water bill by choosing dual flush toilets and low flow taps, mixers and shower heads.

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- ☐ **Roof colour:** Opt for a white or light-coloured roof to reflect heat and keep your home cooler in summer.
- ☐ **Low-VOC paint and varnishes:** Specify low volatile organic compound (VOC) paints and varnishes to reduce toxins in your home.
- ☐ **Sustainable materials:** Specify Forest Stewardship Council (FSC) certified or recycled timber to ensure responsible sourcing and reduce environmental impact, promoting sustainability and protecting forests for future generations.
- ☐ **Water efficiency:** Plumbing that reuses greywater from your bathrooms and laundry for the garden if possible (check with the council about local rules that apply). [Greywater](#) | [SA Health](#)

During construction

- ☐ **Check insulation:** Borrow a thermal imaging camera from the library to find, and have fixed, any insulation gaps, during the defects stage.

After handover

- ☐ **Waterwise plants:** Select drought-resistant plants for your garden.
- ☐ **Appliance purchases:** Choose washing machines, dishwashers, and dryers that have high energy and water efficiency ratings.

High-impact Options Requiring Some Investment

- ☐ **Install a heat pump hot water system:** Uses up to 70 per cent less energy than traditional electric or gas heaters. [Find out more here.](#)
- ☐ **Upgrade insulation:** Levels needed vary with wall materials, ceiling heights and other factors so it's important to talk to your builder about your particular design, however, generally, in our region, boosting insulation would mean R values of 2.5 and over in the external walls, above 4 in the ceiling, and a 1.5 roof blanket (examples [Free home designs](#) | [YourHome](#)).
- ☐ **Choose double-glazed uPVC windows:** Enhances temperature control and lowers energy bills while reducing outside noise for a quieter home.
- ☐ **Incorporate solar energy:** Can cut electricity costs by generating renewable energy. Adding a battery can boost savings and reduces reliance on the grid.
- ☐ **Upsize Rainwater Tanks:** This will allow you to use more natural rainwater over the year, especially if you increase the uses you plumb to. [More information here.](#)