

net-zero energy use & emissions

Features	Benefits
Windows to kitchen and bathrooms	Reduce need for lighting and mechanical ventilation
4.56kW grid connected photovoltaic system (24 panels)	Generates electricity from the sun thus reducing electricity drawn from the mains that use coal for generating electricity
Gas boosted solar hot water	Reduces greenhouse gas emissions when compared with a typical electric storage system and even an electric boosted solar hot water system
Gas cook top	Reduces greenhouse gas emissions when compared with electricity (gas emits 1/6 the emissions of electricity)
Dedicated fluorescent/LED lighting (i.e. lighting system will not accept incandescent or halogen lamps)	Reduces electricity use and also generates less heat
Appropriately sized and very efficient non ducted split air conditioning (3 wall mounted units)	Reduces electricity use significantly and only heats/cools individual areas as required
Energy efficient appliances	Reduce electricity use which also reduces the size of the photovoltaic system required
Energy monitor	Monitors and displays PV output, electricity use and cost, and environmental impact produced thereby influencing user behaviour
Sheltered outdoor clothes drying area	Reduces dependence on a clothes dryer during wet weather thus reducing greenhouse gas emissions
Draft stop to exhaust fan in laundry	Minimises air leakages through the exhaust opening

waste minimisation

Features	Benefits
On site grey water recycling unit connected to garden, laundry and toilet	Greywater diverted from being disposed of and instead reused as water supply source
On site organic waste recycling and productive gardens	Minimises household waste sent to landfill and instead uses it as a free and useful resource in the garden
Waste sorter bins under sink	Organic waste and recyclables can be easily sorted. Organic waste linked to productive gardens

asthma friendly

Features	Benefits
Open plan living with good light and ventilation	Minimises growth of mould that can trigger allergies
Tiled flooring throughout	Reduces settling of dust and dust mites
Asthma friendly landscaping	Minimising pollen that can trigger allergies
Eaves vents	Ventilate the roof space to prevent growth of mould which can trigger allergies

net-zero emissions home

| All the facts



8 star thermal performance

Features	Benefits
Optimum orientation with living rooms facing north	Provides good solar access in winter
Good cross flow ventilation	Cools house in summer
Shading to north facing windows (eaves, pergola)	Avoids house from overheating in summer
Optimised glass area and minimal glass to south, east and west	Reduces heat losses in winter and heat gains in summer
Thermal mass (reverse brick veneer construction)	Bricks inside and light weight cladding outside help keep the thermal mass shaded thereby increasing its contribution to temperature stabilisation inside the home
Thermal mass (concrete floor and tiles)	Helps stabilise temperature fluctuations thereby maintain comfort
Light coloured metal roof	Keeps roof cavity cooler so indoor is cooler and also air conditioner works more efficiently
Increased insulation (R6.0 to ceilings, high density R2.7 in wall with foil wrap, roof insulation)	Keeps indoor warmer in summer and cooler in winter
Performance glazing (Low-E double glazing) and Low-E single glazing	Reduces heat gain in summer and heat loss in winter
Ceiling fans to living area, bedrooms and alfresco	Help keep cool in summer and also circulate warm air in winter

economic

Features	Benefits
Smaller home with improved space efficiency, liveability and aesthetics	Keeps total cost of home affordable
Smaller and narrower home requiring a smaller and narrower lot	Maintains house to lot size appropriate and keeps total cost of land and house affordable
Standard elements in construction (such as doors and windows)	Keeps lead times and costs down
Reduced operational energy/water use and improved health and well being	Cost savings for occupants over time
Range of upgrade options	Offers different levels of upgrades to suit tastes and affordability levels of customers
Design and materials within comfort zone of customers	Easily marketable to mainstream housing market

sustainable materials

Features	Benefits
Ecomax 1 concrete	Has 20% of cement (very high emitter of green house gas emissions in production) replaced with flyash (waste by-product of thermal power plants) and is stronger than normal concrete
Glasswool insulation	Uses lesser energy to produce than polyester insulation and has approximately 80% recycled glass content
Door frames and jambs in finger jointed pine	Pine is a fast growing timber and is usually available locally
Low VOC glues and sealants	These have reduced VOCs that are harmful to health of workers and occupants
Slab membrane (water proofing) made from 100% recycled plastic	Ensures less plastic goes to landfills
Austral light weight boxer bricks	25% lighter bricks that emit lesser greenhouse gas emissions during manufacture, have recycled content and can be reused/ recycled and are easier to handle and construct
Architraves and skirtings made of timber rather than MDF	Do not produce any VOCs that have adverse impact on health of workers and occupants
Low VOC exterior and interior paints (i.e. water based rather than solvent based)	These reduce adverse impact on health of workers and occupants
Decking with ModWood – a composite recycled plastic and timber product	Comprises about 90% of recycled (plastic milk bottles) and reclaimed material (pine waste)
Pest control with Trithor	This is a physical barrier to prevent termites rather than the chemical system that is harmful to the environment and to people

net-zero water use

Features	Benefits
10,000L underground rainwater tanks connected to garden, all potable water and hot water	Makes use of readily available and free source of water
On site grey water recycling unit connected to garden, laundry and toilet	Reliable alternative source of water supply that would otherwise go down the drain
Water efficient shower fixtures (6 star basin tap, 4 star kitchen mixer, 3 star showerhead)	Reduces consumption of mains water for indoor use
Hot water diverter	Saves cold water sitting in hot water pipes by diverting it to the rainwater tank

good neighbour

Features	Benefits
Translucent garage door	Reduces the bulk and dominance of the garage
B2 / Study to front	Improves passive surveillance of street

adaptable housing

Features	Benefits
Level access to entry door, outdoor living areas and garage internal access	Minimises the risk of trips and falls for elderly occupants and visitors providing easy access
Universal garage – 3.8m wide and 6.0m long with higher garage door and side mounted motor	Allows mobility of the elderly which enables them to be actively involved in the community
Well sized front covered porch	Provides a secure and sheltered transition zone when entering or leaving the home
Kitchen design and layout compliant with adaptable code	Circulation space, work surface areas and heights allow for full wheelchair access and use
Bathroom design compliant with adaptable code	Circulation space, manoeuvring space and fittings allows for full wheelchair access and use
Large stacker doors to garage internal wall	Helps open up the garage and connect it to the rest of the house thereby increasing flexibility of use as an entertaining area
Translucent garage door	Brings adequate light into the garage thereby increasing flexibility of use as an entertaining/workshop area
Wider external (920mm) and internal (870mm) doors	Allows comfortable manoeuvring space through doorways
Spacious and open planned living areas	Allows elderly occupants to participate easily in recreation and social interaction
Bedroom 1 designed to universal size	Space and furniture layout allows occupants that are elderly or with disabilities to manoeuvre easily
Wall strengthening around toilet and shower with grab rails around toilet	Allows easy use of bathroom facilities by the elderly or disabled
Adaptable toilet	Allows ease of use of toilet by the elderly or disabled
Lower height of kitchen benches and 1.5m between benches	Allows adequate circulation space in kitchen for wheelchair movement and heights appropriate for wheelchair users
R10 rated slip resistant floor finish to bathroom, kitchen and garage	To minimise risk of slip and fall of elderly occupants
Slab step down to wet areas and garage	Allows floor levels to be flush thereby facilitating barrier free access to essential facilities
Spacious laundry area (in garage)	Allows min 1.55m circulation space for wheelchair access
Door handles, switches, taps at easy reach heights and distances	Allow easy reach and easily operable for people in wheelchairs

lifestyle

Features	Benefits
Clean open plan design	Maximises light and space and airiness
Good indoor-outdoor connection	Provides good visual and physical access to outdoor areas – courtyard for winter and alfresco for summer use
All living and sleeping areas with good aspect	Good solar access to in winter and lot of light to all main rooms
Productive garden	Keeps the occupants engaged with the landscape, provides healthy food and reduces food bills