## Sustainability report 2023

# ECOLIV°



Eco modular homes Thoughtful design meets sustainable living

Inspired by the Australian landscape and lifestyle, our modular homes offer sophisticated design and sustainable living.

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Our goal is to be a regenerative building company, supporting a healthy planet, resilient local ecosystems and a thriving local community.



## About us

Established in 2008, Ecoliv was founded on the principles of sustainable building design and modular prefabricated construction that supports the comfort and wellbeing of occupants, delivers long-term energy efficiency, and protects the natural environment for future generations.

Australian made and locally manufactured, Ecoliv Buildings use renewable, and sustainable building materials along with limiting wastage during the construction process via prefabrication to address the needs of the present without compromising the future. Each design takes advantage of the site and surrounding environment to maximize energy efficiency, utilize natural resources and sustainable materials.

With a background in building design, Ecoliv founder and director Ashley Beaumont had seen too many poorly planned mega-mansions built with little consideration for environmental impacts, energy efficiency, health and wellbeing.

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Ashley Beaumont Director

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## **Our sustainability statement**

At Ecoliv, we believe that our customers' homes and our workplace can add more to the environment than they take, enrich peoples' lives and inspire others to do the same.

As Australia's 'go to' sustainable housing solutions provider, our goal is to be a regenerative business. This means pushing the boundaries to restore and renew the environment and provide benefits to people. We aim to make sustainability the norm in the homes we build and how we build them, transforming the housing industry itself.

We are an Australian owned company with a dedicated local workforce. We are committed to developing a network of Australian business partners who share our values and support our need for materials which are produced ethically and sustainably.

We will share what we learn with the housing industry and inspire others to follow our lead. We will provide educational opportunities to the broader community and support local sustainability initiatives.

#### By 2030, we aim to:

- Provide solutions to a changing climate by storing more carbon than we emit and including climate change risks in the design of our buildings.
- Adopt the principle of circularity in the design and manufacture of our homes and keep materials at their highest value for as long as possible.
- Use materials which are produced ethically and responsibly with minimal environmental impacts and work with suppliers to develop innovative sustainable products.
- Engage our people in a safe, diverse and positive work environment with growing career opportunities.
- Contribute to our local communities by sourcing local suppliers and materials, supporting local community groups and sustainability education and inspiring change across the industry.

# Our strategy roadmap

Focus area	Includes	Targets	Immediate initiatives 1-2 years	Intermediate initiatives 3-5 years	Long term initiatives 6-10 years
Climate action Minimising the contribution of our operations and homes to climate change	<ul> <li>Energy efficiency</li> <li>Renewable energy generation</li> <li>Low embodied carbon materials</li> <li>Water resilience</li> <li>Local vegetation</li> </ul>	<ul> <li>All homes meet Climate Active Upfront Carbon for Buildings Certification and Green Star Climate Positive Pathway</li> <li>Maintain a market position of at least one star above regulatory requirements</li> <li>Generate more renewable energy than we consume</li> <li>Scope 1&amp;2 reduction targets identified by Pangolin</li> <li>Future target: Scope 3 reductions - to be set</li> </ul>	<ul> <li>Updating home designs to achieve 8 Stars</li> <li>Submit a home under new Climate Active Upfront Carbon Certification</li> <li>Work with Pangolin to set targets and actions for further reductions</li> <li>Investigate ability for homes to be net exporters of energy</li> <li>Confirm offset criteria for future purchases</li> </ul>	<ul> <li>Completion of off-grid construction facility</li> <li>Work with suppliers to collect Scope 3 data</li> <li>Use data to set Scope 3 reduction target</li> <li>Reduce Scope 3 / embodied energy by working with suppliers to change their practices or switching suppliers</li> <li>Support a local conservation project</li> <li>Introduce grey water systems into our designs</li> <li>Identify innovative sewerage alternatives for off-grid customers</li> </ul>	<ul> <li>9 and 10 Star homes</li> <li>Working with carbon neutral certified suppliers</li> <li>Batteries and greywater systems included in homes</li> <li>Customer education on how to operate home efficiently</li> <li>Electric or hydrogen freight vehicles</li> </ul>
Waste minimisation & circularity Preventing waste and maximising material reuse from our operations to end of life	<ul> <li>Prefabrication</li> <li>Waste avoidance</li> <li>Onsite waste segregation &amp; management</li> <li>Recycling</li> <li>Design for deconstruction</li> </ul>	<ul> <li>Zero waste to landfill from construction and installation</li> <li>95% reuse and recycling of decommissioned homes</li> <li>Future target: eTool LCA module C and D improvements - to be set</li> </ul>	<ul> <li>Transparency of waste generated</li> <li>Improve segregation and identification of uses for all waste types</li> <li>Measure waste streams by volume</li> <li>Review eTool LCA module C and D performance for potentia improvements</li> </ul>	<ul> <li>Work with suppliers to reduce packaging e.g. of appliances and apply APCO Guidelines</li> <li>Identify and eliminate problem materials</li> <li>Use Cradle2Cradle criteria to renew home designs to maximise reuse and recycling of materials at end of life</li> </ul>	<ul> <li>Monitor an Ecoliv design at end of life or refurbishment</li> </ul>
Materials & sourcing Conscious selection of materials and suppliers to minimise environmental impacts and ethical concerns	<ul> <li>Renewable materials</li> <li>Sustainably harvested</li> <li>Supplier assessment</li> <li>Collaborative supplier network</li> <li>Innovative products</li> <li>Life cycle environmental impact</li> </ul>	<ul> <li>100% transparency of Tier 2</li> <li>100% of wood products are FSC or PEFC certified</li> <li>85.7% of materials and products that have an environmental (e.g. Responsible Steel) or social/ethical (SA8000) certification</li> </ul>	<ul> <li>Request information from all key suppliers on their ESG risks and practices including modern slavery, WHS, and environment</li> <li>Request LCA / EPDs for products to identify lower impact options</li> </ul>	<ul> <li>Work with suppliers to seek ESG information on their own suppliers (Tier 2) and provide transparency to Ecoliv</li> <li>Review existing environmental / social certifications of products and materials and set targets</li> </ul>	<ul> <li>Publish supplier criteria and information collected</li> <li>Move away from any suppliers not meeting transparency and ethical standards</li> </ul>
Our people Providing a safe, positive work environment and career opportunities	<ul> <li>Worker health &amp; safety</li> <li>Diversity &amp; inclusion</li> <li>Employee entitlements / HR</li> <li>Employee engagement</li> <li>Job creation</li> </ul>	<ul> <li>Zero lost time injuries</li> <li>6 new employees short term, 14 new employees long term</li> </ul>	<ul> <li>Team building events</li> <li>Sustainability training relevant to specific roles</li> <li>Investigate Indigenous reconciliation approaches and contacts</li> </ul>	<ul> <li>Engage with local Boon Wurrung traditional custodians and develop Indigenous reconciliation strategy</li> <li>Employee wellness program</li> </ul>	
Our community Supporting the resilience and vibrancy of our community	<ul> <li>Locally sourced materials</li> <li>Locally owned business</li> <li>Community donations and event space</li> <li>Sustainability education</li> </ul>	<ul> <li>100% Australian made products and Australian owned suppliers</li> </ul>	<ul> <li>Identify materials or products that have potential to be sourced more locally, e.g. emerging suppliers that could be supported</li> <li>Sponsor a local club, charity or event</li> </ul>	<ul> <li>Invite community groups to use Ecoliv site for artisan studios, markets, gardens</li> <li>Sustainable Living Centre display village</li> </ul>	<ul> <li>Sustainable Learning Hub</li> <li>Investigate opportunities and partnerships to contribute to social housing</li> </ul>

## **Emissions reduction**

#### Climate change and transition to a Net Zero emissions economy

Ecoliv Buildings is committed to continually improving processes to minimize and where possible eliminate environmental risks to achieve our path to net zero emissions. Ecoliv Buildings is planning to reduce its most significant emissions sources by implementing the following emissions reduction strategy:

- Support global transition to net zero emissions by 2050 by reducing our operational footprint and investing in technologies and practices that enable us to achieve emissions reduction targets.
- Establish consistent transparent Sustainability Reporting for the company and make reports publicly available by 30 June 2023.
- Create a five-year climate action and emission reduction plan by 30 June 2023.

## 1. Construction & material service reductions

Reduce construction services materials emissions to 5% by 2024 compared to the base year (CY2021).

Recognise that the operational efficiency of homes has a significant effect on the consumption of resources which can have negative impacts on energy, water, air and land. Our objective is to elevate the design and construction methodology to further improve a holistic approach to passive solar design and energy efficiency to mitigate the effect buildings have on the environment.

Identify and research new technology and advancements in building construction methods and materials to minimise environmental impacts.

Engage with key stakeholders and material suppliers to identify supply chain emissions and set reduction targets.

#### 2. Operational reductions

Reduce total emissions related to ICT services and equipment, Office equipment & supplies to 5% by 2024 compared to the base year (CY2021).

Review our Environmental Stewardship policy to prioritise sustainable and resource efficient purchases and where possible purchase certified Carbon Neutral products and services.

Reduce the number of documents that are printed and purchasing certified Carbon Neutral office supplies and ICT equipment where available.

Staff Training regarding operational sources of emissions and development of strategies to minimise these emissions.

#### 3. Transportation reductions

Reduce the total emissions related to transportation (air land and sea travel) to 5% by 2024, compared to the base year (CY2021).

Review module delivery schedules and consider alternative route planning to reduce travel and fuel requirements. Installation of Electric car charging point at the construction facility to encourage transition to uptake of Electric vehicles.

When upgrading company vehicles opt for highly fuel efficient, hybrid or electric models.

Reducing our emissions from air and transportation by attending meetings via video conferencing rather than travelling. If air travel is unavoidable offsetting flights at point of purchase.

# Waste management initiative

#### Material waste

Building materials have an environmental impact at every step of the building process - extraction of raw materials, processing, manufacturing, transportation, construction and disposal at the end of a building's useful life.

Our objective is to address resource efficiency and waste prevention and management throughout the product life cycle to respond to the challenges of achieving low carbon emissions and minimising resource depletion.

Increase construction waste recycling by establishing and implementing an industry leading Waste Management system to encourage circular economies.

#### **Energy consumption**

Advocate for transition to 100% green power from 2024 via installation of Off grid solar power and battery storage to the construction facility

#### Approx tonnes of waste



# **UN Sustainability development goals alingment**

The Sustainable Development Goals (SDGs) are a collection of 17 global objectives adopted by the United Nations (UN) in 2015 to eradicate poverty, protect the planet and build a peaceful and prosperous world. Courtesy of the United Nations Sustainable Development Goals.



**6.4** By 2030, substantially increase water-use efficiency across all sectors and ensure sustainable withdrawals and supply of freshwater to address water scarcity and substantially reduce the number of people suffering from water scarcity



7.2 By 2030, increase substantially the share of renewable energy in the global energy mix7.3 By 2030, double the global rate of improvement in energy efficiency



8.3 Promote development-oriented policies that support productive activities, decent job creation, entrepreneurship, creativity and innovation, and encourage the formalization and growth of micro-, small- and medium-sized enterprises, including through access to financial services
8.8 Protect labour rights and promote safe and secure working environments for all workers, including migrant workers, in particular women migrants, and those in precarious employment



12.2 By 2030, achieve the sustainable management and efficient use of natural resources12.5 By 2030, substantially reduce waste generation through prevention, reduction, recycling and reuse12.8 By 2030, ensure that people everywhere have the relevant information and awareness for sustainable development and lifestyles in harmony with nature



**15.2** By 2030, promote the implementation of sustainable management of all types of forests, halt deforestation, restore degraded forests and substantially increase afforestation and reforestation globally

# **Our certifications**

Ecoliv is shaping the future of the construction industry by creating carbon positive prefabricated modular buildings. We encourage transformation of our industry into a force for positive change through our fundamental commitment to design and build sustainable homes that are good for people and the planet. Our commitment to positive change extends to taking responsibility for our social and environmental impact by obtaining independent certifications.

#### Life cycle design & assessment

The building and construction sector is responsible for a significant portion of global carbon emissions. In order to address the pressing issue of climate change, Ecoliv's sustainable homes take measures to avoid excess greenhouse gas emissions.

We have engaged eTool to undergo a Life Cycle Design & Assessment on multiple projects. This is a powerful way to quantify the sustainability of a building and ensure genuine building performance. Upon completion of a full LCA, reports are compiled to identify and quantify sustainability recommendations by their LCD engineers for the design.



## Greenhouse gas emissions avoided building with Ecoliv

Over its lifespan, it is expected an Ecoliv home<sup>\*</sup> will emit 159 tCO2e (tonnes of carbon dioxide equivalent) less than average or standard buildings providing the same functional

\*Based on EcoGeneration range 3 bedroom, 2 bathroom designs. Sources eTool LCA

This is equivalent to:

 952
 Trees planted

 952
 Cars taken off the road for 1 year

 1
 21
 Zero energy Australian homes for 1 year

 1
 21
 Balloons of CO2 gas removed from the atmosphere



## **Climate Active**

#### We're Climate Active

Climate change is one of the greatest challenges facing humanity today. But it's also an incredible opportunity to finally make progress. Climate Active certification is awarded to businesses and organisations that have credibly reached a state of achieving net zero emissions, otherwise known as carbon neutrality. We are serious about addressing climate change and are committed to sustainability, innovation, and industry leadership.

#### Sum of total emissions tCO2-e



## Carbon offsets retirement approad

#### In arrears

Total emissions footprint to offset for 584 this report

Total eligible offsets purchased and 584 retired for this report

Total eligible offsets banked0to use toward next year's report

#### **Co-benefits**

Co-benefits of the Midilli Hydroelectric Power Plant in Turkey, offset project chosen, include environmental, social and economic contributions.

The environmental benefits are related to the displacement of carbon intensive electricity generation by using renewable energy sources. This includes the reduction of another air pollutants such as SO2, NOx, or Particulate Matter. In terms of climate action, this project aims to contribute to an emission reduction of 63775 tonnes CO2e per year.

The social and economic co-benefits are related to the positive employment effect during the construction and installation period. This also impacted positively with job creation that requires high qualification and capacity building. Additionally, this project contributes to SDG 7 Affordable and Clean Energy and SDG 13 Climate Action.



## Greenfleet

#### We support Greenfleet

We take our commitment to the environment seriously. This is why we have partnered with Greenfleet, a leading environmental non-profit organisation and Australia's most trusted source of biodiverse carbon offsets to take practical climate action.

We are proud of the impact we are making. By offsetting the associated emissions from transporting our homes with Greenfleet, we are taking practical action against climate change and helping restore Australia's forests, creating crucial habitats for native wildlife and transform degraded land back to its natural state.



# **B** Corp

#### **B** Impact assessment

B Corp certification measures a company's entire social and environmental impact. And achieving B Corp certification confirms that Ecoliv is meeting high standards of verified performance, accountability, and transparency on factors from employee benefits and charitable giving to supply chain practices and input materials.

Based on the B Impact assessment, Ecoliv Buildings Pty Ltd earned an overall score of 109.3. The median score for ordinary businesses who complete the assessment is currently 50.9.

#### Governance 15.4

Governance evaluates a company's overall mission, engagement around its social/environmental impact, ethics, and transparency. This section also evaluates the ability of a company to protect their mission and formally consider stakeholders in decision making through their corporate structure (e.g. benefit corporation) or corporate governing documents.

Mission & Engagement	3.2
Ethics & Transparency	2.1
+ Mission Locked	10

#### Workers 28.6

Workers evaluates a company's contributions to its employees' financial security, health & safety, wellness, career development, and engagement & satisfaction. In addition, this section recognizes business models designed to benefit workers, such as companies that are at least 40% owned by non-executive employees and those that have workforce development programs to support individuals with barriers to employment.

Financial Security	
Health, Wellness, & Safety	8.0
Career Development	4.7
Engagement & Satisfaction	6.3



Overall B Impact Score	109.3
Qualifies for B Corp Certification	80
Median Score for Ordinary Businesses	50.9



#### Community 17.9

Community evaluates a company's engagement with and impact on the communities in which it operates, hires from, and sources from. Topics include diversity, equity & inclusion, economic impact, civic engagement, charitable giving, and supply chain management. In addition, this section recognizes business models that are designed to address specific communityoriented problems, such as poverty alleviation through fair trade sourcing or distribution via microenterprises, producer cooperative models, locally focused economic development, and formal charitable giving commitments.

Diversity, Equity, & Inclusion	4.6
Economic Impact	6.0
Civic Engagement & Giving	2.1
Supply Chain Management	2.0

#### **Environment 44.3**

Environment evaluates a company's overall environmental management practices as well as its impact on the air, climate, water, land, and biodiversity. This includes the direct impact of a company's operations and, when applicable its supply chain and distribution channels. This section also recognizes companies with environmentally innovative production processes and those that sell products or services that have a positive environmental impact. Some examples might include products and services that create renewable energy, reduce consumption or waste, conserve land or wildlife, provide less toxic alternatives to the market, or educate people about environmental problems.

Environmental Management	6.8
Air & Climate	6.3
Water	1.6
Land & Life	4.1
+ Training & Collaboration	3
+ Community	1.3
+ Safety	6
+ Certification	0.7
+ Materials & Codes	13.6

#### **Customers 3.0**

Customers evaluates a company's stewardship of its customers through the quality of its products and services, ethical marketing, data privacy and security, and feedback channels. In addition, this section recognizes products or services that are designed to address a particular social problem for or through its customers, such as health or educational products, arts & media products, serving underserved customers/clients, and services that improve the social impact of other businesses or organizations.

Customer Stewardship

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# Community

#### **Flood relief**

Our team joined forces with Disaster Relief Australia's volunteer program to assist those affected by the floods in Maribynong, Victoria. Disaster Relief Australia (DRA) unites the skills and experiences of Australian Defence Force veterans, emergency responders and civilians to rapidly deploy disaster relief teams domestically and around the globe.

Proud to currently maintain a roster of thousands of volunteers able to rapidly deploy throughout Australia and the Pacific Rim. Integrating into existing emergency management arrangements where possible. Disaster Relief Australia can operate independently or as part of an integrated taskforce.

DRA provides Incident Management, damage and impact assessment, aerial damage assessment and mapping, work order management, spontaneous volunteer management, debris management & restoring access, expedient home repair and resilience & capacity building.



#### **Polished Man**

We are proud to be a 'Polished Business' and support the Polished Man fundraising and awareness campaign.

1 in 2 children experience violence each year and 1 in 3 women experience violence in their lifetime. Polished Man focus on prevention because they (and us) want to end the issue, not just treat it. One crucial and sustainable strategy for violence prevention is income and economic strengthening.

Polished Man provide funds to programs run by one of their beneficiaries, ygap, that aim to improve families' economic security which evidence has shown can reduce domestic and family violence. Funds raised go to the Australian Childhood Foundation, SAMSN, Hagar Australia and McAuley Community Services for Women.

By funding both trauma prevention and recovery programs, we are able to improve the lives of survivors now, while building a safer future for tomorrow. That's how we will end violence against women and children.



## Social housing

Steve Barber had a stroke 10 years ago, but little did he know his biggest battle was yet to come. An infection was attacking his spinal cord and spine resulting in a loss of feeling in his legs.

Two days before Christmas, Steve was advised it unlikely he would ever walk again – it was 2019. The social worker, occupational therapist and physiotherapist advised that Steve would not be able to go home – there were no viable modifications that could be achieved with the house.

Steve's life turned around when Phil Dressing from Vietnam Veterans Museum (where Steve had volunteered) and Paul Fry (from CYC where Steve had previously worked) joined forces.

They approached our director Ashley Beaumont to see if he could help out in any way. Ashley offered his design services free of charge and coordinated the Ecoliv team and local suppliers to assist in building a purpose built 1 bedroom studio, complying with universal/disability standards to cater for Steve's wheelchair.

The space an ode to what can be done when the community join forces.

"It was an emotional day, I'll never forget I drove up the ramp and burst into tears."

"Now I can do this journey in comfort knowing nothing is going to stop me,"

"I'm home!" Steve Barber



# Our suppliers

Material	Certification	About supplier
<b>Structural timber</b> Timberlink	FSC Responsible	Timberlink® is a leading producer of sustainably grown Australian Radiata Pine timber products and is at the forefront of integrated forestry and softwood manufacturing in Australia. Timberlink operates two regional large scale timber manufacturing facilities, one in Bell Bay, Tasmania, and the other in Tarpeena, South Australia; with both sites solely processing plantation grown Radiata Pine sawlogs. Our sawn timber products are primarily used in commercial and residential construction and industrial remanufacturing applications. Typical uses include house framing, pergolas, decks, landscaping, pallets and through use of our residue streams in packaging and paper. Timberlink has committed to reduce scope 1 and 2 greenhouse gas emissions by 53% by 2030.
<b>Structual timber</b> Wesbeam LVL (Laminated veneer lumber)	KONSTRUCTION	Wesbeam LVL is manufactured from the best-quality timber to ensure peak performance, strength and reliability. We also make sure the timber we use is harvested from sustainably-managed forest resources which is why all our LVL products come with full Responsible Wood (RW) Chain of Custody Certification. Administered under the Responsible Wood Certification Scheme, the RW Chain of Custody Certification is the only timber certification scheme that has an Australian Standard (AS4707). As noted on the Certificate, the Chain of Custody method used by Wesbeam is the Inventory Control & Accounting - Volume Credit system. This Australian Standard is a world-class forestry standard endorsed by the Programme for Endorsement of Forest Certification (PEFC) scheme, the world's biggest assessor of sustainable forest management. Wesbeam customers can be confident the raw material used to produce our LVL can be tracked every step of the way, from the sustainably-managed forests where the timber was grown through to its end use in an LVL product.
<b>Cladding</b> Weathertex	<image/>	<ul> <li>Weathertex is a family-owned Australian manufacturing cladding company, operating in NSW since 1939.</li> <li>All Weathertex products are made in Australia from, PEFC certified state forest or private hardwoods with no added silica, glues, resins or formaldehydes. Weathertex is guaranteed not to rot, split or crack for up to 25 years and has a better than ZERO carbon footprint. No toxic or polluting chemicals are required when making Weathertex products. The manufacturing process of all Weathertex products minimises waste by-products through resource recovery systems. This includes creating compost, using the offcut board as fuel, creating briquettes and using it as packaging.</li> <li>100% Natural: 97% timber and 3% natural wax</li> <li>Better than zero carbon footprint</li> <li>Termite resistant: all sugars and starches removed</li> <li>25 year Guarantee: not to rot, split or crack</li> </ul>
<b>Cladding</b> Colorbond	Responsible terest	COLORBOND® steel is durable and resilient to Australia's harsh climate and its long life helps conserve resources and energy that may otherwise be invested in products with a shorter life span. All COLORBOND® steel contains recycled content and the steel itself in COLORBOND® steel is 100% recyclable. In some cases it can be reused without reprocessing, again saving on energy and resource use. Roofing, walling, gutters and downpipes made from COLORBOND® steel may be used as part of a compliant system in bushfire prone areas, including in the most extreme, BAL-FZ (Bushfire Attack Level – Flame Zone)

Material	Certification	About supplier
Feature cladding & decking Silvertop ash	Responsible Responsible Responsible	Silvertop Ash grows along the east coast of Australia and is a hardwood that is suitable for home construction in bushfire prone areas. The natural durability rating of a timber species is a rating of the timber's natural resistance to attack by wood destroying fungi and wood destroying insects. The natural durability rating applies only to the heartwood of a timber species and the Silvertop has a rating of Class 2 with above ground durability of 25 years approximately.
Windows AWS		Established in 1995 Architectural Window Systems (AWS), is one of Australia's leading suppliers of aluminium window and door systems offering an extensive range of locally designed and manufactured aluminium window and door suites for residential and commercial applications. WERS is the Window Energy Rating Scheme for windows and doors in Australia. It uses a 10-star system to rate the annual energy impact on a home, based on its U value and Solar Heat Gain Coefficient (SHGC). Vantage Window and Door systems are extruded locally from Aluminium. Aluminium can be recycled indefinitely. Recycled aluminium accounts for one-third of global consumption. Even more encouraging, there is considerable scope for the recycled content of global production to be increased. In addition, studies have indicated that aluminium and timber windows typically last for more than 40 years, while PVC only has an optimum life of 25 years. The majority of aluminium billet used by AWS's extrusion company, INEX, in Dandenong, is sourced from Boyne Smelters Limited (BSL) located at Boyne Island.
<b>Insulation</b> Earthwool		Earthwool is part of the Knauf Group, which was originally founded way back in 1932. As a German, family-owned company and now they have several manufacturing facilities located across Australia. Earthwool is made using up to 80% recycled glass and has inherent thermal, acoustic and fire performance. Initiatives detailed in their For A Better World sustainability strategy are to reduce product CO2 by 15%, and send zero waste to landfill by 2025. Reducing virgin plastic use is a commitment of Knauf Insulation's circular economy journey: using 30% recycled plastic material in packaging aims to decrease by 25% the carbon footprint of the plastic packaging.
<b>Solar</b> LONGi		Founded in 2000, LONGi Green Energy Technology's mission is to "To make the best of solar energy to build a green world" "LONGi is developing solutions for large-scale power plants, for different industries and households with its innovation-focused development. Eventually, they will also supply "Green Power + Green Hydrogen" solutions for global zero-carbon development.
Heat pump hot water system Sanden		Sanden has been operating in Australia for over 35 years and is a Japanese-owned global business, which has earned a solid reputation as a leader in the field of heating and cooling technology. All Sanden stainless steel tanks are Australian- made, fully insulated for minimal heat loss and have been mains pressure rated. Sanden's Eco Plus Hot Water Heat Pump technology uses 0.84kW^^ of energy to generate 4.99kW of heat which is 80% less energy compared to traditional hot water systems. A Sanden Hot Water Heat Pump uses industry-leading technology found in refrigeration and air conditioning units, where energy is drawn in from the ambient atmosphere and transferred into heat. Using radically less electricity when compared to conventional hot water systems, this system will save you up to 80%* of your hot water energy costs,

year after year.

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Material	Certification	About supplier
<b>Plasterboard</b> Boral Enviro plasterboard		Boral developed an environmentally preferred ENVIRO <sup>™</sup> plasterboard range incorporating proprietary Recycled Materials Technology (RMT). Key features of this Standard require a minimum 10% overall recycled content, operation and monitoring of environmental performance through an Environmental Management System, and the reduction of production and construction waste including the availability of recycling services.
<b>Timber flooring</b> Parmate Tasmanian Oak	GLOBAL FOREST ™ NETWORK EETWORK	Parmate flooring is produced from materials sourced from sustainably managed forests and are PEFC and FSC certified. All Australian species timber used has Chain of Custody certification and complies with the requirements of the European Union E1 standard in relation to Formaldehyde emissions from adhesives used during the manufacturing process. Parmate meets the requirements of the DIBt legislation with regard to the production processes. It has also been certified under the Green Label Singapore "Made from renewable sustainable materials" scheme.
<b>Joinery</b> Laminex		Laminex has been a proud Australian manufacturer for over 85 years. As one of Australia's largest manufacturers of wood products, Laminex supports responsible forest management and is committed to producing quality products from quality materials that are backed by globally recognised certifications. Laminex has been actively working for many years to reduce its carbon footprint, minimise waste and incorporate ethically-sourced materials into its laminates range. Our innovative recycling and reusing programs are cutting water usage and wood waste during production. Their manufacturing facilities hold their own PEFC certifications. This means all certified wood products from these facilities can be traced from plantation to final manufactured product. They have also have committed to achieving a 30% reduction in scope 1 (direct) and scope 2 (indirect) carbon emissions by 2030.
Benchtop Betta Stone	0	Betta Stone is an Australian Owned company based in Melbourne that is leading the way in the circular economy across Australia. By using 100% waste glass that is destined for landfill or storage and repurposing it, Betta Stone is tying off the loose ends of Australia's recycling industry all while stimulating the economy.
<b>Tapwear</b> Phoenix WELs water rating	WATER RATING	Phoenix Taps has been designing and manufacturing tapware in Australia for over 30 years. Their products are designed to save water and reduce energy bills with many achieving a 6 Star WELS rating. Sustainable principles are embedded in their processes to ensure they minimise waste and environmental impacts. They recycle all brass shavings and waste in own facility, and package product in recyclable packaging.

# Our environmental goals

# **Energy efficiency**

#### Solar power

Did you know that in just 60 minutes, earth receives enough sunlight to power us for an entire year? One of the best ways to harness this natural energy is through solar electricity.

Based on a 2.2kw solar power system, Ecoliv gives you the opportunity to significantly reduce your power bill. How significant is the saving? You can expect your utility bill to be reduced by about 51 per cent annually (or about \$740). The yearly environmental benefits of your solar system are equivalent to:



Solar power systems act as mini power stations, supplying you with electricity and sending any surplus back to the electricity grid. When power is fed back to the grid, your energy retailer will credit your account.

Better still, upgrade to an off-grid solar power and battery storage system and free yourself from power bills and electricity companies for life.

#### Passive solar design

Central to Ecoliv's resource-efficient and sustainable ethos is our commitment to passive solar design. Carefully considering the orientation of the home on your block to leverage passive solar design principles and taking advantage of natural sunlight and shade can make an enormous difference to artificial energy consumption.

Passive solar design considers orientation, shading, insulation, glazing, and sealing to work with the climate, not against it, and maintain a comfortable temperature in the home year round without the need for expensive heating and cooling.

## **Energy-efficient light globes**

Our LED downlights use 85 per cent less energy than halogen or incandescent lighting and have double the life span.

## Maximum star rated electrical appliances

Providing superior star rated appliances as standard inclusions, Ecoliv is committed to sustainable longevity in all our buildings.

#### Electricity usage meter

An invaluable tool for monitoring energy consumption, Ecoliv can include an electricity usage meter in our homes. Providing instant feedback on energy usage, cost and estimated CO2 emissions, this feature helps you to manage your energy usage.

### Heat pump Hot water system

Hot water systems can account for 25% of household CO2 emissions, so selecting an energy efficient system can have significant impact on the environment. Heat Pump hot water systems use industry-leading technology, where energy is drawn in from the ambient atmosphere and transferred into heat. The result is a system that requires radically less electricity to heat water when compared to conventional hot water systems. In fact, this system will save you up to 80% of your hot water energy costs, year after year and is equal to taking a car off the road in terms of carbon emission.

## Water

### Water tank configuration

With the average Australian family using around 1,300 litres of water in the home each day, water conservation is key to maintaining a resource-efficient, sustainable and cost-saving abode. Eliminating reliance on mains water, Ecoliv provide a 10,000 litre water tank in all new buildings located on a single site.

## Water saving plumbing fittings

Ecoliv incorporates optimal stars WELS rated plumbing fittings which control the flow of water, saving up to 14,500 litres of water in an average home each year.

## Water-saving appliances

Research shows that around 10 per cent of the average home's water usage occurs in the kitchen, and the biggest culprit is the dishwasher. An appliance that saves us so much time yet can be a drain on our resources (energy and money), Ecoliv installs appliances that have earned a maximum energy and WELS rating.

## **Materials**

#### **Timber framing & trusses**

Ecoliv utilises plantation timber sourced from sustainable origins wherever possible. Natural and renewable, timber is the optimal framing and truss choice for our buildings, with research showing that its use can save up to 23 tonnes of carbon per home.

## **External cladding**

Ecoliv offers a range of sustainably sourced cladding products, all recognised for their durability, lightweight features and low maintenance qualities.

## Sealing

Sealing your home from drafts and air leakage is one of the simplest ways to control indoor temperatures and can reduce energy bills by up to 25%.

### Double glazed windows

Featuring double glazed windows in all our buildings, Ecoliv is proud to achieve WERS (Window Energy Rating System) of 5 Stars. Our windows and sliding doors are designed to achieve the best possible energy rating and thermal comfort yearround.

#### Insulation

Saving up to 50 per cent on heating and cooling costs, Ecoliv includes high-level roof, wall and floor insulation in each construction. Our glass wool insulation batts are manufactured using recycled glass bottles and sand. They are non-irritant and fully recyclable as well as thermally and acoustically efficient.

#### Joinery

Ecoliv joinery is made to strict Australian quality standards using wood fibre from sustainable forests. Our range is manufactured in factories that meet environmental and social regulations and has been independently certified by Good Environmental Choice Australia.

Our reconstituted stone benchtops utilise reclaimed material content. Stain, crack, scratch and heat resistant, this is the perfect choice for a sustainable maintenance-free surface.

## Air

### Low VOC paints

Ecoliv sources the highest quality low VOC outgassing paint for our interior surfaces.

### Low VOC timber products

Minimising the use of plywood, MDF and particleboard due to their formaldehyde content, Ecoliv reduces VOC's by ensuring all our manufactured timber products have a formaldehyde content of less than 1mg/litre.

#### Window placement

We strategically place windows, incorporating both passive and active internal air circulation systems in our buildings to encourage cross-ventilation, which results in significantly improved air quality.

## Waste

#### Waste reduction

The compact nature of each Ecoliv module allows us to minimise wasted space, resources and costs. Incorporating 900mm building material increments into every design, we're able to significantly reduce construction waste. We also utilise a lightweight footing system that is removable and recyclable, allowing site adaptability and minimal excavation.

Central to our construction process, reducing construction waste is key to all Ecoliv designs. We advocate this through the following methods:

Maximising use of 900mm building materials to minimise wastage.

Prefabrication of frames and trusses reduces wastage by up to 52%.

Recycling excess building materials where possible.

With 40 per cent of building and renovation waste going to landfill, our factory-built structures generate less waste overall.

When Ecoliv modules are delivered, strict onsite guidelines are adhered to, ensuring minimal waste and environmental disturbance.

Widespan joist and bearer footing system ensures minimal site impact with its lightweight and site adaptable properties.

## **Benefits of using timber**

#### Sustainable plantation timber

Ecoliv construction methods focus on timber sourced from Gippsland's renewable plantations. Using timber significantly reduces environmental impacts during construction, operation and eventual demolition. Here's why we prefer timber:

#### Natural

Timber is non-toxic, low in VOCs, is safe to handle and construct with.

#### Renewable

Timber is the most renewable and sustainable material on the planet which provides both environmental and performance benefits.

#### Recyclable

Timber can be recycled and repurposed over its life cycle until it naturally breaks down.

#### Low in embodied energy

It takes very little energy to convert trees into timber making it the lowest embodied energy of all building materials.

#### A store for carbon

Timber is made from carbon drawn from the atmosphere which would otherwise be adding to the Greenhouse effect.

#### Good insulator

Timber is a natural insulator and can reduce energy needs when used in floors, doors and windows.

#### Flexible

Its superior versatility and lightweight properties make timber easy to work with simple equipment which reduces energy consumption during construction.

# **Standards & indicators**

This is our first sustainability report and covers the period January - December 2022. Data presented in this report covers Ecoliv's operations, including our offices, display homes and manufacturing sites in Australia.

The determination of Ecoliv's material sustainability impacts is an iterative process informed through ongoing stakeholder engagement, internal discussions on due diligence as well as reviews of peers, customers and sustainability standards.

This continuous process of review and evaluation informs the goals of our sustainability policy, and the targets within our sustainability strategy which address the needs and priorities of our key stakeholders.





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## Join our community

