

# jumping off-grid

In the heart of Tasmania's conservation bushland, this woody pavilion-style home shows how to maximise energy and water generation for low-cost living.

Story: Annie Reid

It's an unusual name, but a fitting title for this talented Tasmanian building company, which creates special projects with a sustainable focus.

Translated as 'schmick' or 'something exceptional' in native American slang, the word Skookom resonated with owner Ian Simondson, who founded the company in 2009 after moving to Tasmania with his partner Elise in 2000 to raise his family and create an impact.

'When we travelled Australia, Tasmania was the first place we came to. It was clear this was the place for us,' Ian recalls.

Skookom's latest work, a custom-built home that runs completely off-the-grid, has just won the 2017 HIA Australian GreenSmart Energy Efficiency award.



The house is a stunning addition to the fabric of its surrounding landscape; a spectacular 80ha site located in Kettering, south of Hobart, overlooking Bruny Island.

Broken into two pavilions separated by an airlock, it sits on the ground with a visually minimal effect. It has a wing for guests, comprising two bedrooms, one bathroom and a kitchenette, while the other gives over for living and the main bedroom, with a sun-soaked central courtyard and a north-facing orientation to capture sunlight through large windows.

A double skin of insulation maximises efficiency, while ventilation within the walls and roofs allows the home to breathe. External blinds and large eaves help to moderate the temperature in

## Project details

**BUILDER:** Skookom, TAS

**MATERIALS:**

**Roof:** Colorbond in Sea Mist

**Cladding:** Stringybark and Blue Gum trees (felled/milled onsite); Cutek CD50 oil in Black Ash for durability

**Insulation:** R2.5 and R4.0 batts from Fletcher Insulation

**Floors:** polished concrete (top surface seeded with white and bronze gravel)

**Doors:** Tasmanian Oak, clear coat of Livos oil, from AJB Furniture & Joinery

**Windows and glazed doors:** Eurotrend, Margate

**Paint:** Dulux Antique White

**Lighting:** LED lighting from Casa Monde

**Bathroom tiles:** Alto Nero, 300x600mm from Beaumont Tiles

**Toilets:** composting toilet by Clivus Multrum (greatly lowers water usage)

**Water tanks:** Colorbond Woodland Grey from TankTec.



summer, which achieves a seven-star energy efficiency rating.

The north-east wall features full height timber windows made locally from Spotted Gum and Tasmanian Oak, finished in Cutek CD50 oil with a black ash tint.

‘When the sun is out in winter it will warm the house without the need for heating,’ Ian says. ‘The house can deliver a wonderful lifestyle.’

What’s even more special is that it’s literally carved out of materials foraged on the site, thanks to its savvy owners.

They had already protected the land by placing more than 50ha into a conservation covenant under the Native Conservation Act 2002. They had also installed a telemetered weather station to collect data and determine what type of off-grid systems they should implement. As a result of this, wind generation was shelved because there was not enough wind on the site to generate the power required.

‘It was clear that their interest in the environment and sustainability was long-term,’ Ian says.

The first task was to source, fell and mill the site’s Blue Gum, Stringybark and pine trees – 18 months before construction. The pine trees were used for the home’s ceiling lining boards, while the rafters and portal frames were manufactured sustainably by EcoTuss in Invermay, Tasmania.

‘We tried to use as much [site-sourced] timber as possible for the exterior cladding,’ Ian says.

*Below: (L–R) HIA Tasmania Regional Executive Director Rick Sassin, Minister for Building and Construction Guy Barnett, Ian Simondson from Skookom, and HIA Tasmanian President Paul Burnell.*



### Become a HIA GreenSmart Professional

HIA’s GreenSmart program is a sustainable approach to building and renovating. Through HIA GreenSmart Professional training, HIA members gain environmental awareness and sustainable residential design and construction skills. The two-day course runs Australia-wide and can provide members or their staff with recognised environmental building skills, which can also be leveraged to promote a business’ services as being sustainable.

The course covers:

- thermal performance
- passive solar design and natural ventilation
- design and operational issues for water and energy efficiency
- lighting
- sustainable building
- marketing sustainable housing to clients.

Businesses also have the opportunity to apply for GreenSmart accreditation or apply for GreenSmart project accreditation. The latter offers recognition of projects that demonstrate environmentally responsible home building and land development, and meet HIA GreenSmart project protocols.

*For more information, visit [www.hia.com.au/greensmart](http://www.hia.com.au/greensmart) or call 1300 650 620. For course dates in your region, visit [www.hia.com.au/training](http://www.hia.com.au/training)*

Luck favoured them again as the site revealed another treasure; tonnes of granite-like stone, syenite, which would form the polished slab, plinth and internal fireplace.

In a painstaking process and what Ian describes as ‘a very holistic approach’, the syenite was also hand-picked by the owners, cleaned and laid on site by local stonemason, Bruce Walter.

As for power, the house is completely off-grid using a 4kW solar array, 16x250W Trina panels and an 800W PowerSpout hydro generator.

There are large water tanks 30 metres up the hill to be used in case of bushfire and for household use, pumped up from smaller slimline rain water tanks by the house, then gravity-fed back to the house. ‘I don’t believe they will ever run out of water,’ Ian says.

Or power. In fact, the property generates so much power through hydro and solar, the owners bought themselves an electric car, allowing them to ‘power it up and get into Hobart and back on one charge’.

The power is stored in 1580Ah lead acid batteries, Absolyte GP, and two parallel banks each of 24 cells giving 48V.

As the result of many years’ work between the owners, Skookom and designer Isaac Tyson of Earth Craft Design and Construction, this is now an award-winning ecologically sustainable development (ESD) home that doesn’t compromise on style or functionality.

[www.skookom.com.au](http://www.skookom.com.au) 