



# TAKING SUSTAINABILITY TO THE LIMIT

Forward-thinking and innovative, builder Michael Moriarty is a leader in energy-efficient housing and the 2017 GreenSmart Professional of the Year.

story > Laura Valic

Michael Moriarty has lived his whole life in the Northern Territory, raised on an isolated cattle property before he established his sustainably-focused design and construction business, Killarney Homes, in Darwin 12 years ago.

An upbringing like his yields a certain type of worker – industrious, analytical and hands-on – someone who understands the surrounding environment, and how to adapt and thrive in it.

Farm life fostered Michael's passion for construction, which he shares with his business partner and brother, Damien. 'We learned to be quite self-

reliant,' Michael says. 'We built our first place when we were teenagers, a good little outstation still standing today.'

This solid training ground, along with comprehensive knowledge of the Top End's seasonal weather patterns, has proven to be invaluable to the success of Killarney Homes. The award-winning business leads the way in high-quality energy-efficient construction in Darwin's competitive building market, and is touted by design guidelines as a benchmark for tropical housing.

Michael says Killarney is always trying different approaches, and experiments on its display homes.

## IDEAS ANYONE CAN USE

'Look for your quick wins,' says builder Michael Moriarty. 'You can cut kilowatts just by upgrading your lighting system to LEDs. Once you cut out a 60W halogen or incandescent bulb to a 14W LED you quarter your electricity and alter your energy usage. Halogens [produce] over 95 per cent heat but that heat has to be offset by your air conditioner.'



'In terms of innovation, what we're looking for is incremental progress – passive design, shading, how we manage the air in roof spaces and improvements in insulation,' he says. 'Then we look for the next big steps. We're certainly investigating how to get a home properly off the grid.'

While not yet there, Killarney has already made leaps and bounds. One example is an energy-efficient nine-star project – the 'product of a lot of work' – designed with deep eaves and a 4.5-metre breeze path that takes advantage of prevailing winds.

Michael adds he regularly receives feedback from happy clients who either pay a nominal amount or none at all for electricity in their new homes: 'Energy efficiency for us is looking at demand and how to moderate it. There's nothing more satisfying than to get a power bill from a client that says it's in credit.'

Committing to continuous improvement and GreenSmart principles are just some of the reasons Michael was recognised as the 2017 HIA GreenSmart Professional of the Year.

With his ear to the ground for new products and methods, Michael is invested in testing technologies and remaining at the forefront of sustainable

design. He travels internationally and around Australia to meet with product manufacturers or other leading green builders, and recently visited technology giant, Apple, in San Francisco, and other companies in the energy efficiency market.

'We're working on augmented reality solutions, designing houses onsite with an iPad [so] the client can fully understand what we're putting on the ground,' Michael reveals, adding it will also allow Killarney to examine the impact that neighbouring houses will have on a property.

### MICHAEL WAS THE FIRST BUILDER IN THE NORTHERN TERRITORY TO INSTALL SOLAR HOT WATER AS A STANDARD HOME INCLUSION

As a home builder specialising in energy-efficient homes, he sees the emergence of batteries or small-scale power management systems as one of the biggest trends on the horizon. Michael was the first builder in the Northern Territory to install solar hot water as a standard home inclusion and is 'really keen' to do the same with energy storage batteries.

'Air conditioners have a huge draw when they start so that is the main thing holding us up at the moment.'

For homeowners who may not yet be at the stage of investing in energy storage, Michael says consider replacing appliances more than 10 years old.

'There's been terrific improvements in appliances, they're much more energy efficient,' he says. 'Then start looking at your insulation and roofing options.'

For anyone concerned with energy or water efficiency, understanding how much you're using is the first step.

'Most state and territory governments have initiatives [such as] energy audits that can help you understand your [consumption]. A program called Living Water Smart [in the Northern Territory] provides free irrigation checks. Killarney is a participant and we're saving mega litres.'

The business is also in the process of designing a commercially-viable home with an indoor rainwater tank.

In the future, Michael hopes to see continual innovation in sustainable housing and more builders become GreenSmart Professionals: 'That's got to be the end game, where everyone is concerned about building and taking [sustainability] to the limit, constantly.' **gs**