

# BEYOND THE FIRST LIGHT HOUSE: PROTOTYPE TO PRODUCTION

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## 1. First Light Studio Wellington

The First Light house is a Victoria University of Wellington student project that won international recognition as a full-scale prototype building designed for the prestigious US Department of Energy's Solar Decathlon competition in 2011.

The New Zealand students placed third overall in the biennial competition that challenges 20 university teams from all over the world to design, build & operate a small, solar powered house – to be demonstrated over the course of 10 days in Washington DC's early autumn.

Their house was a custom-designed, technically-sophisticated, net-zero-energy home – producing all of its electrical energy and hot water from the sun. Every aspect of the home was rigorously tested to ensure that it met a strict set of requirements in terms of building performance, air tightness and occupant comfort. The First Light house was uniquely 'kiwi' in its design and materiality; yet it exceeded international best practice in terms of building performance.

The house was constructed in a factory here in New Zealand and assembled on-site in Washington DC over a six-day period. Using the latest in pre-built technology, the house itself could split into a number of easily-transportable parts for re-assembly anywhere in the world.

Now, three years on, the same team that developed the First Light house have produced a series of new homes, specifically designed for the kiwi market. These demonstrate that the construction technologies and design principles applied in the competition house are no longer an expensive dream - but a commercial reality that should be a part of every new house in the country.

Through their latest built works, the team will discuss how they have developed the original prototype First Light house into a series of modern, energy-efficient homes that set an exemplary standard of residential construction in New Zealand.

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