**Net Zero Energy Homes**

**$784k** Funded by ARENA

**$2.05m** Total project cost

* **Lead Organisation** Mirvac Victoria Pty Ltd

**Location** Altona, Victoria

* **Start Date** October 2019

**Summary**

The Net Zero Energy Homes project will see Mirvac complete the design, marketing, sales and construction of a ‘net zero energy’ housing estate in the Melbourne suburb of Altona North.

**Need**

The Net Zero Energy Homes project has identified that around 160,000 new detached or semi-detached dwellings are built in Australia each year. Initiatives are needed to drive the uptake of energy efficient and sustainable design features to minimise energy consumption and improve thermal comfort levels. These elements combined will reduce the demand on the grid and significantly reduce energy bills for homeowners.

**Action**

[Mirvac](https://thefabric.mirvac.com/news-and-events/News/mirvacs-commitment-to-sustainable-homes) will build 49 townhouses to demonstrate the feasibility of achieving zero energy homes at scale and significantly reduce energy bills for homeowners. Each of the townhouses will be designed with a minimum 7- star energy rating. Each townhouse will have a minimum of 3.8-5 kW rooftop [solar](https://arena.gov.au/renewable-energy/solar/) array, 10 kWh home [battery storage](https://arena.gov.au/renewable-energy/battery-storage/), real-time smart home energy monitoring, upgraded wall and roof insulation, double glazed windows and energy efficient electric appliances, heating, cooling, lighting and hot water systems.

**Outcome**

The successful completion of the Net Zero Energy Homes project will provide a test case for the future construction of net zero energy homes. New design features will be deployed along with an understanding of optimal sizing in [PV](https://arena.gov.au/renewable-energy/solar-pv-rd/), batteries and household equipment relevant to the size of the homes. In addition, an understanding of residential consumer behaviour will also tailor future sales and marketing strategies for new purchasers of net zero energy homes.

**Additional impact**

The 49 homes constructed under this project will all be in one local precinct in Altona North. It is hoped that, given the commonality of purpose, the precinct will deliver a community focussed on sustainability and energy efficiency.