

# Kāinga Ora house renovation, One Tree Hill Trade Academy



Kāinga Ora house, One Tree Hill Trade Academy renovation, Auckland

## EnergyTight™ Retrofit delivers over 80% of the energy benefit of a traditional renovation at less than 10% of the time and cost

Energy modelling on a Kāinga Ora house renovation, using NZGBC ECCHO software shows that an EnergyTight™ Retrofit achieves 88% of the energy reduction of a full deep renovation, while costing significantly less, taking days not weeks, and leaving the property completely undisturbed internally.

The key difference is that the EnergyTight™ Retrofit achieves this by improving airtightness and ventilation rather than retrofitting wall insulation – avoiding the cost and disruption of removing internal linings. All scenarios include ceiling and underfloor insulation, which is non-intrusive and straightforward to add.



AeroBarrier Air Sealing

## Cost Comparison

*Traditional Deep Renovation*

**\$150,000**

Remove linings, add wall insulation and double glazing.  
12 ACH50

*EnergyTight™ deep retrofit*

**\$36,000**

Double glazing, AeroBarrier air sealing and MVHR 1.7ACH50

*EnergyTight™ light retrofit*

**\$12,000**

Draught-proofing windows, AeroBarrier airsealing and MVHR 1.7ACH50

*For the cost of one traditional renovation, you could upgrade 12 homes with an EnergyTight™ light retrofit, or 4 with a deep retrofit. The difference in energy performance between the approaches is surprisingly small.*

## Energy performance comparison

Total energy use as % of traditional renovation energy saving · ECCHO modelling · Kāinga Ora house

### Deep renovation

Add wall insulation, alu frame T/B windows double glazed - 12 ACH50

*Benchmark for energy saved*

\$150,000

### EnergyTight™ deep retrofit

Alu frame T/B windows, double glazed, MVHR - 1.7 ACH50

*88% of energy saved compared to deep renovation*

12%

\$36,000

### EnergyTight™ light retrofit

Draft proofed timber frame windows, single pane, MVHR - 1.7 ACH50

*82% of energy saved compared to deep renovation*

18%

\$12,000

Energy Saved Energy Remaining

Source: ECCHO energy modelling, Kāinga Ora house, One Tree Hill Trade Academy renovation. Costs by qualified QS. All scenarios include ceiling and underfloor insulation. The EnergyTight™ light retrofit approach has also been successfully implemented at Trust House community housing in Masterton, confirming performance and ballpark cost.

## Beyond energy – the full case for EnergyTight™ Retrofit

### 📅 Days, not weeks

An EnergyTight™ Retrofit is typically completed in one to two days. No linings removed, no trade sequencing. Tenants return immediately. A traditional deep renovation takes weeks and leaves units uninhabitable throughout.

### 🏠 Ideal between tenancies

The vacancy period is the perfect window. Work is complete before the next tenancy begins – no disruption to tenants and no loss of rental income during extended renovations.

### 🛡️ Health & indoor air quality

Controlled mechanical ventilation delivers fresh filtered air continuously – reducing condensation, mould and indoor pollutants. Airtightness and ventilation provide health outcomes that insulation alone cannot deliver.

### 💧 Moisture management

Airtightness prevents warm moist air entering wall and ceiling cavities – eliminating hidden condensation that leads to mould, timber rot and long-term building damage. Protects the asset, not just the occupant.

### 🛡️ Measured & certified

Every AeroBarrier install has an airsealing certificate. The result is measured, not estimated.

### 👥 Portfolio scale

At the low cost of An EnergyTight™ Retrofit, a community housing provider can upgrade an entire portfolio for the cost of a handful of traditional renovations – with comparable energy outcomes and far less disruption.

## Schedule a consultation

Contact the Aero team for a no-obligation discussion on the EnergyTight™ Retrofit

[www.aero.solutions/contact-us/](http://www.aero.solutions/contact-us/) | New Zealand 0800 758 937 | Australia 1800 948 628