

DeepRetrofit Assessment and interventions on a typical 1920's bungalow



Home Owner:

Darren

Solutions

DeepRetrofit Consultation

Whole-of-house heating & system

Replacement LED lighting

Replacement Double Glazing

Draught Stopping Measures

Date

October 2022

"We own a bungalow in Sandringham which is typically in good condition with decent insulation, but we wanted to know what we could do to take it to the next level.

We had already committed to improving our space heating and wanted to know how to get the most out of our new system" - Darren



OVERVIEW

This typical 1920's bungalow in Sandringham had already taken action on some areas to improve the energy efficiency, such as:

- Insulation to external walls when renovating
- Underfloor insulation
- Gas hot-water califont
- Heat pump in the living room
- Replaced some LED lighting

But the owners wanted to know the best area to focus their attention on next. A DeepRetrofit assessment and report was a great place to start.

The Deep Retrofit report identified that there were some significant gains to be made to the fabric of the house by replacing old recessed light fittings with modern LED's, upgrading the existing ceiling insulation, resolving draught stopping issues and installing whole of house heating and ventilation systems.

Typical 20's Home

- Ceiling & Underfloor insulation to rental requirements
- Some wall Insulation
- Old light fittings
- Old joinery with single glaze windows
- Draughty windows & doors

From Enstall

"There are hundreds, if not thousands of homes in Auckland just like this one. Owners have started out on their energy efficiency journey but want to know - "What next?"

"Heat pumps are a great way to immediately make your home feel warmer, but without ensuring your insulation and draught stopping measures are completed first, you're stuck pumping water out of a leaky boat!" - Nick Hall

Owner's comment

"Thanks to Enstall's DeepRetr0fit consultation and action plan, we know where to focus our money and effort to improve our home.

"Our new heating system has been great, but we look forward to seeing how great it really can be once everything is done."

- Darren

The DeepRetr0fit Report

To begin the process, Enstall conducted a DeepRetr0fit™ assessment of the property. The DeepRetr0fit™ process consists of an hour and a half assessment looking at three key areas;

- *Thermal Envelope*
- *Heating & Ventilation*
- *Energy Efficiency*

The resulting report provided an Action Plan to help the customer achieve their goals.

The Action! (so far)

Whole of house heating system

- ✓ The owner has replaced their old heat pump with a new whole-of-house heating system
- ✓ With a single unit they can control the temperature throughout the house, keeping it healthy at all times

Next Steps

- ✓ Replace old recessed light fittings with modern LED fittings
- ✓ Top-up ceiling insulation installed to meet the new H1 requirements
- ✓ Draught stopping interventions to windows and doors specifically
- ✓ Replacing old single glazed windows with new double glazing
- ✓ Whole of house ventilation system
- ✓ Photo-voltaic solar panels installed with on-site battery storage



The old inefficient living room heat pump



Old light fittings, gaps in insulation and direct path for heat to escape into the ceiling



Wall insulation in some walls where renovated



Gaps around doors and windows are a large source of heat loss in insulated homes