

Large scale renovation is BIG on job creation

Investing in New Zealand's residential infrastructure maintains employment and critical mass in the building, building product manufacturing and building retail industries. It also mitigates the risks of losing skilled tradespeople to offshore markets.

The residential sector is a large source of employment - the house building and renovation industry is worth in excess of \$12.0b annually and directly employs about 8% of the workforce². There is significant economic and social benefit in redirecting this resource to improving the current housing stock in recessionary times.

A standard 1940-1960 home³ renovated for improved performance⁴ would require an estimated 277 hours of labour split between a variety of sub trades. The data⁵ indicates that, for every **1,000 houses retrofitted**, a total of **151 full time equivalent jobs** would be required for delivery solely of on-site retrofitting services, and a total of **392 full time equivalent jobs**⁶ would be required to provide the products and services involved in the renovation activity.

Benefits of undertaking wide scale renovation in relation to jobs:

1. Renovation activity involves a broad spectrum of skills and trades from unskilled labour through to qualified electricians, plumbers and builders, and hence provides a **diversity of employment opportunities**.
2. The jobs and skills required by renovation activity are easily transferred into and out of new build activity - providing a **flexible workforce**. As the housing stock is upgraded and New Zealand lifts out of a period of recession, the developed skill-sets required for renovation can be easily returned for the new build construction sector.
3. Specific **regional targeting** of renovation activity based on housing stock is possible - assisting communities who are in greater need of securing jobs and retaining skilled workers.
4. Renovation activity can utilise and **target New Zealand-made products and services** helping to support the wider local economy (for instance, through utilising locally-made insulation materials).
5. The need for an element of **low skilled labour** in renovation installation provides employment for many who need it most.

¹ Beacon Pathway Ltd (Beacon) is a research consortium that seeks to fundamentally increase the effectiveness of the design, construction and renovation of New Zealand's homes. Our shareholders are leaders in the development of the residential built environment - Fletcher Building, NZ Steel, BRANZ, Scion and Waitakere City Council. Since its inception in 2003, Beacon's shareholders' contribution has been matched dollar for dollar by the Foundation for Research, Science and Technology.

² Briefing for the Minister for Building and Construction, November 2008, p.7

³ Beacon Pathway has developed an approach to retrofitting NZ houses which defines a set of standard typologies in NZ housing. One of the largest groups of houses represented in this country is the 1940 - 1960 mass housing style. Research undertaken by BRANZ indicates that there are a total of 479,000 of these houses throughout NZ.

⁴ The majority of NZ houses can be readily adapted through renovation to perform to a much higher standard in terms of warmth, health, comfort, energy and water use. For the purposes of this exercise, a standard renovation package for the house has been assumed. This incorporates ceiling and under-floor insulation, ground polythene vapour barrier, wall insulation, efficient heating device, heat transfer system, solar hot water heating, low flow water devices and low flush toilets, rainwater tank, hot water cylinder and pipe wraps, extract fans in kitchens and bathrooms, double glazing retrofitted into existing timber window frames (or secondary glazing/thermal curtains), on-site assessment of house and project management.

⁵ Research commissioned by Beacon Pathway underpins these figures. Find more information at www.beaconpathway.co.nz

⁶ These figures represent total numbers of full time equivalent employees required to carry out the work. The numbers have been developed from detailed analysis of the time required to undertake the variety of renovation tasks outlined in the footnote above. The standard employment multiplier of 2.6 for the industry sector is then used to account for the additional employment generated through manufacturing, retailing and servicing of retrofit interventions e.g. manufacturing and retailing insulation, solar water heating systems, extraction fans, etc

Additional Notes:

1. **Homes are a key component of New Zealand's urban infrastructure.** Houses move in and out of the rental market and through socio-economic groups as neighbourhoods transform over time - they are the one relatively static component in the built environment. In a period of recession and low new-build activity, our existing housing stock provides an opportunity to maintain and develop our building industry and the economy. Investing in New Zealand's residential infrastructure keeps the retail sector active, employing trades and keeping New Zealand manufacturing plants operating while, at the same time, delivering higher performance of our residential built environment.
2. The **economic significance of our homes is enormous** – they are worth approximately half a trillion dollars and carry approximately \$170 billion of mortgage debt to banks.
3. Beacon's *National Value Case for Sustainable Housing* provides an independent value case for intervention and illustrates that investing in **improving our housing has multiple benefits and significant national payback**, both directly and in terms of the foregone need for additional infrastructural development.
 - a. Direct private economic gain to households equivalent to 1% of GDP annually by 2017 or about \$2 billion
 - b. Direct savings in household energy consumption amount to almost 22 PJ per year, or enough to power over 500,000 New Zealand homes for a year
 - c. A reduction in CO₂ emissions of 3,600kt per year, the equivalent of \$54 million in tradable emissions (at \$15/tonne)
 - d. Direct water savings amount to 81 litres per person per day, or about 130 million m³ per year
4. With the exception of state housing, **New Zealand's housing stock is private infrastructure.** Nevertheless, there is much the Government can do to influence its improvement - making our homes healthier (hence New Zealanders more productive) and more resource efficient (hence reducing the need for future infrastructural development, in particular electricity, gas and water). The current Government focus on upgrading state housing is an excellent leadership position which can be built on by encouraging and incentivising other home-owning New Zealanders to do the same. Expanded to landlords, this approach can help to ensure the supply of decent rental housing.
5. **Mechanisms to deliver renovation services exist** and, with the economic downturn, there will be increasing 'slack' in the system which the initiatives can help to take up. As a result, there is little upfront capital cost in initiating a significant existing residential infrastructural renovation initiative.
6. **Renovating New Zealand's housing stock is a 'means to achieve' a range of other central government priorities**, particularly those relating to health, energy, carbon emissions, water, productivity and resilience.

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