BEST PRACTICE

RENEWABLES NETWORKING PLATFORM

with the support of

SuperHomes retrofitting programme

County Tipperary, Ireland – 160 441 inhabitants

Retrofitting – Solar energy – Air quality

Credits: Superhomes Team

Following some changes in methods, organisational delivery structures and technologies, Tipperary Energy Agency decided to embark on a Near Zero Energy Building retrofitting exercise in 2015. As a result, the SuperHomes Ireland pilot project was launched.

Project in a Nutshell

A SuperHome is an energy efficient home that has implemented all the cost effective and sensible energy measures. These include insulation, air tightness and advanced ventilation. Heat and hot water is provided by renewable energy technologies such as solar photovoltaic panels and heat pumps.

There are several mandatory measures that homeowners must complete to receive financial support. The primary heating system must be renewable, such as an air source heat pump or pellet boiler and an advanced ventilation system must be installed. Finally, the building's airtightness must be improved. The homeowner can also obtain other non-mandatory measures such as window and door upgrades, insulation, a stove and solar PV arrays may also be incorporated.

Up to 50% financial support is available to local owners willing to implement retrofitting measures in order to make their home energy efficient. This is administered by the not-for-profit Tipperary Energy Agency that is funded by the Sustainable Energy Agency of Ireland, Electric Ireland and the EU. Manufacturers and contractors are hand-picked by the Tipperary Energy Agency to carry out the works.

Tipperary Energy Agency works with the various funding organisations to maximise the resources available to the home owner. The basic premise is simple, for any home built before 2006 the aim is to bring the property to an A3 Building Energy Rating (BER) and achieve a 50 to 70 per cent reduction in energy bills. How to achieve this depends on the property and how cost effective the measures are.

First owners undergo an evaluation survey to understand the state of their house. Then they can decide to implement the suggested measures - such as insulation, air tightness and advanced ventilation. Heat and hot water is provided by renewable energy technologies such as solar photovoltaic panels and heat pumps.

Impact & Next steps

Since the launch of the first pilot programme in 2015, over 70 houses have been retrofitted to a near A3 Building Energy Rating. The average net investment by homeowners in 2017 was €33 000. As well as average financial savings of €1 000 – €1 500 per annum on oil, homeowners benefit from living in a comfortable, healthier house with better air quality.

Replicability: Challenges & Success Factors

The main barriers to deep retrofit are the cost of completing the works and the homeowner's understanding of what to do and how to do it. Homeowners can be worried about the costs and unsure about what is value for money. Also they are afraid by a process that seemed long and complicated.

On the contrary, homeowners that successfully completed retrofit works under the Superhomes scheme have reported significant improvement in the comfort levels of their house, feel they are contributing to the environment and have reduced heating bills.

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