



Exeter Healthy Park Homes

Presentation by Peter Bywater - Senior Project Manager

- ▶ Up to 45% of heat lost in an uninsulated park home is through walls
- ▶ Insulating walls reduces heat loss and can save around £400 a year on fuel bills. (More for LPG or Electric – if adequately heated).
- ▶ Most park homes have some form of insulation but pre-1995 properties had no agreed insulation standard.
- ▶ Insulation hung off hangers at top of wall – but much may have now fallen down inside wall.
- ▶ Twice as much heat can be lost through an uninsulated park home wall than through an uninsulated masonry cavity wall.
- ▶ Like cavity walls, park home walls can be insulated – from the inside or from the outside.

Why insulate the walls?

- ▶ External wall insulation is an effective way to save energy and money at home. In winter, a well insulated house keeps warmth exactly where you need it – indoors.
- ▶ Insulating walls will help to heat the home more efficiently. Using less energy reduces carbon dioxide (CO₂): one of the biggest causes of climate change. It will also help save significant amounts of money on your energy bills too.

What could you save?

► Park Home walls can be insulated in two different ways:

1. Internal insulation (from the inside)
2. External insulation (from the outside).

A park home insulation scheme delivered in Cornwall during 2013-14 found that **89%** of residents now reported being able to keep adequately warm compared to **4%** before the external wall insulation was installed.

This scheme also reported that the average fuel bill saving was **£35.65** a month and this represented **38%** of the annual fuel bill.

Type of solid wall insulation	Saving per year	Total cost including installation	CO ₂ saved per year
Internal	Around £250 - £500	£800 - £10,000	1.0 - 2.5 tonnes
External	Around £300 - £600	£5,000 - £20,000	1.0 - 3.0 tonnes

The figures given above are for the whole installation however if you are going to be renovating the individual walls of your home internally, you can still make big savings by insulating them.

How does external wall insulation work?

- ▶ Heat will always flow from a warm area to a cold one. The colder it is outside, the faster heat will escape.
- ▶ External wall insulation slows down the rate at which heat escapes.
- ▶ Insulation works by coating or filling walls with a layer of material that only allows heat to pass through it very slowly.
- ▶ Reducing what is known as the U value of the walls – the rate at which heat can pass through them.
- ▶ The lower the U value, the more slowly heat is lost – and the more money is saved.



Effectiveness of materials

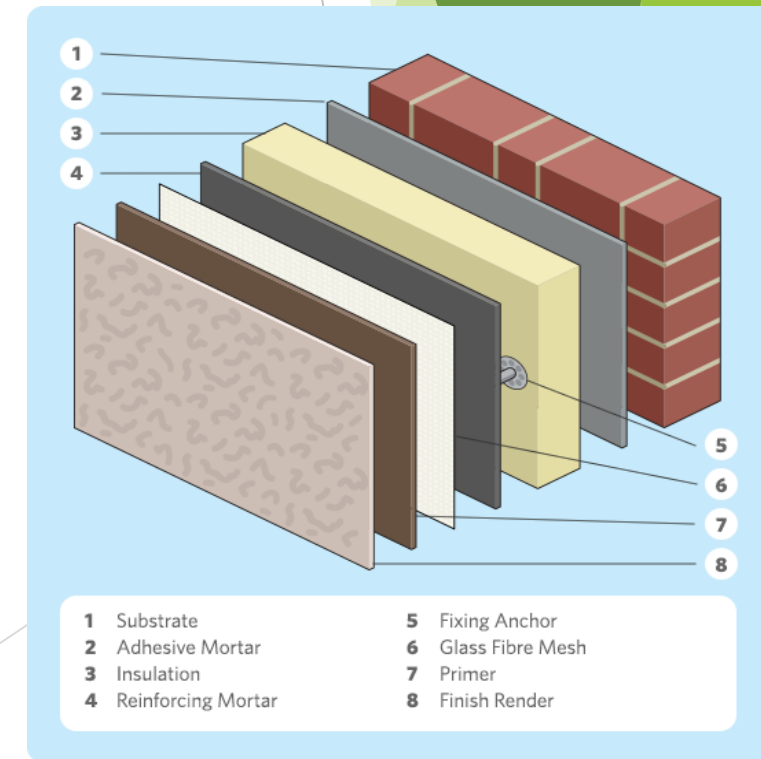
- ▶ You may see references to the “thermal conductivity” of the insulation type.
- ▶ This is often known as the “lambda (λ) value” and is measured in “watts per metre-kelvin” (W/mK).
- ▶ The thermal conductivity of a material describes how easily heat passes through it.
- ▶ The ‘R-Value’ expresses this for an individual element such as the insulation board itself, and the U-Value for the system as a whole
- ▶ The best insulation materials have a low lambda value as a material with a low thermal conductivity will need a thinner layer than a material with a high thermal conductivity.

External Wall Insulation

- ▶ Can be applied without disruption to household and does not reduce floor area.
- ▶ Renews appearance of ageing outer walls.
- ▶ Fills cracks and gaps in the exterior, which will reduce draughts.
- ▶ Increases the lifetime of a home's wall by protecting them.
- ▶ Reduces condensation on internal walls and helps prevent damp, although it will not solve penetration damp which must be resolved prior to installation.
- ▶ Requires good access to the outer walls so installers can apply the insulation
- ▶ Not recommended if the outer walls are structurally unsound and can not be repaired.

How is a solid wall insulated from the outside?

- ▶ External wall insulation must be fitted by a specialist installer trained by approved system designers.
- ▶ The installer will need full access to walls from the outside. It is not recommended for homes with structurally unsound outer walls that cannot be repaired.
- ▶ A layer of insulation material is fixed to the walls with mechanical fixings and adhesive, then covered with a special type of **render** or **cladding**.
- ▶ Finish can be smooth or textured and painted, tiled, panelled, pebble-dashed (for easy maintenance).



Exeter Healthy (Park) Homes Scheme

- Developed by Keith Williams at Exeter City Council – who has been trying to set something up for Park Homes for a very long time.
- Managed and overseen by Wessex Energy Advice Centre.
- Up to £2000 grant to qualifying households – Over 50 years old and in park home in ECC area.
- Wessex Home Improvement Loans also available to top up – low 4% interest – up to 5 years up to £15,000.
- Total budget will allow at least 60 properties to benefit from works.
- Wessex will vet registered external wall installers to work on scheme.
- Measures covered will include external wall insulation, underfloor insulation, roof insulation, heating and heating repairs.

Exeter Healthy (Park) Homes Scheme

- ▶ External insulation works provided with 25 year independent insurance backed guarantee. (only available to pre-1995 units on scheme)
- ▶ Works expected to take 2 – 6 weeks depending on weather and scope of works.
- ▶ All works carried out must use PAS2030 process (PAS = Publicly Available Specification) and installers must be National Insulation Association members.
- ▶ Customer satisfaction feedback received and monitored alongside a follow up recorded call.
- ▶ Request for testimonials and demonstration/show homes.
- ▶ Final report on results of the scheme after completion.

How much does the work usually cost?

- ▶ Cost of installation of external wall insulation usually between £5500 - £7000.
- ▶ Under Floor insulation £1100-£1700.
- ▶ Roof insulation £500 - £4000 (dependant on type of work/replacement of roof TBC).
- ▶ New central heating system - £3500 - £5500.
- ▶ New boiler £2000 - £3500.

- ▶ Higher costs for external insulation can be due to the state of repair of the wall timbers and panels which need to be repaired first.
- ▶ Heating works higher if LPG boiler or electric heating required.
- ▶ Boiler installation costs vary dependant for example on property size, existing boiler type to be changed, system flush, other repairs, replacement and re-siting of any existing pipework and the upgrade of controls.

Worked examples for external wall insulation

- ▶ Single Unit: £5800 - £2000 grant = £3800 to pay.
- ▶ If £3800 loan taken at 4% over 5 years = £69.98 a month.
- ▶ Total repayable £4198.87 (total interest £398.97).

- ▶ Double Unit £6800 - £2000 grant = £4800 to pay.
- ▶ If £4800 loan taken at 4% over 5 years = £88.40 a month.
- ▶ Total repayable £5303.96 (total interest £503.96).

- ▶ Some residents will be able to cover the cost themselves or contribute to reduce the loan amount.

Further worked examples

- ▶ Underfloor insulation: in most cases covered by grant.
- ▶ New boiler: £2500 - £2000 grant = £500
£500 loan at 4% over 2 years = £21.71 a month
Total repayable £521.10 (total interest £21.10)
- ▶ New pitched insulated roof: £3800 - £2000 grant = £1800.
£1800 loan at 4% over 5 years = £33.15 a month.
Total repayable £1988.98 (total interest £188.98)

Park Homes – Where's the support?

- ▶ Park Homes continue to miss out on energy efficiency measures.
- ▶ Green Deal scrapped along with the voucher scheme and swathing cuts to targets under the Energy Company Obligation (ECO).
- ▶ ECO unable to assist park homes with insulation due to inadequacy of RDSAP used for EPC's and the low energy savings it predicts. Along with lifetime of measure being longer than predicted lifetime of home.
- ▶ Public Health starting to fund some projects.
- ▶ Certain areas of the country that receive higher financial support from Europe and Government through assisted economic development such as Cornwall, able to develop schemes.
- ▶ Local authority budgets systematically reduced.
- ▶ Higher unit cost of works to park homes often make it less appealing to fund in terms of the number of people being assisted.

Park Homes – Where's the support?

- ▶ In some circumstances other funding may be available to certain residents through Turn2Us.
- ▶ Turn2Us oversee and/or have information on over 3000 grants and trusts.
- ▶ We will signpost those who cannot afford contributions or the loan to Turn2Us or local organisations (such as Citizens Advice) that can offer advice, guidance and financial assistance.
- ▶ These organisations can also help maximise clients income.
- ▶ Grants often dependant on persons health, a disability, claiming of benefits, or based on a persons previous or existing career.

Future Assistance

- ▶ Public Health may increase funding into projects.
- ▶ ECO – there are many people lobbying Government and Ofgem to carry on looking into making this funding available towards insulating and providing upgraded heating for park homes.
- ▶ Warm Homes Discount – to be extended to park homes residents (trials finishing soon), qualifying residents will be entitled to £140 a year.
- ▶ Fuel Poverty grant – from April 2018 there are plans for a grant (£2000 - £4000 tbc) to be made available to those who are in defined fuel poverty. This will be determined using a fuel poverty calculator which compares heating costs against income.

Given the high fuel cost and low incomes of many park home owners, this may be applicable to many park home owners.

Future Assistance

Also evidence has been submitted to support a call for energy efficiency as a national infrastructure priority.

Energy efficiency investment by Government benefits the economy 3:1 and has an effect on saving some of the £3.6 million per day cost of cold homes on health budgets.

Calls for grant budgets to be managed locally where Local Authorities can set objectives against local need and priority.

Thanks for Listening

Any Questions?

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