LENDERS Project

26th April 2016

Cardiff

Milica Kitson

Chief Executive

Constructing Excellence in Wales

LENDERS
Project Background

Levering Economics for New Drivers to Energy Reduction & Sustainability

Emma Thomas, CEW

Part funded by Innovate UK

About CEW ….

Part funded by Innovate UK

Need for action - Climate Change

Paris Agreement

… hold the increase in global average temperature to **well below 2° C** above pre-industrial levels and pursue **efforts** to limit the temperature increase to **1.5° C**

…to undertake rapid reductions in accordance with **best science**

…on the **basis of equity**, and efforts to **eradicate poverty**

Part funded by Innovate UK

LENDERS

To achieve 2oC **wealthy** nations *(inc. Wales)* require:

At least **10% reduction** in emissions year on year from **now**… equivalent to:
50% reduction by ~2020 (c.f.1990)
75% ~2025
90% ~2030

Fully decarbonise ALL energy by 2035

c.f. EU's submission to Paris 40% by 2030

Part funded by Innovate UK

LENDERS

The opportunity….

- Could a new approach to lending help drive the retrofit market?
- +/- £1million homes change hands every year – big driver for retrofit
- Home owners more likely to undertake improvement works in the first year following sale
- Capturing 10% not unrealistic target

Part funded by Innovate UK

LENDERS

The logic …

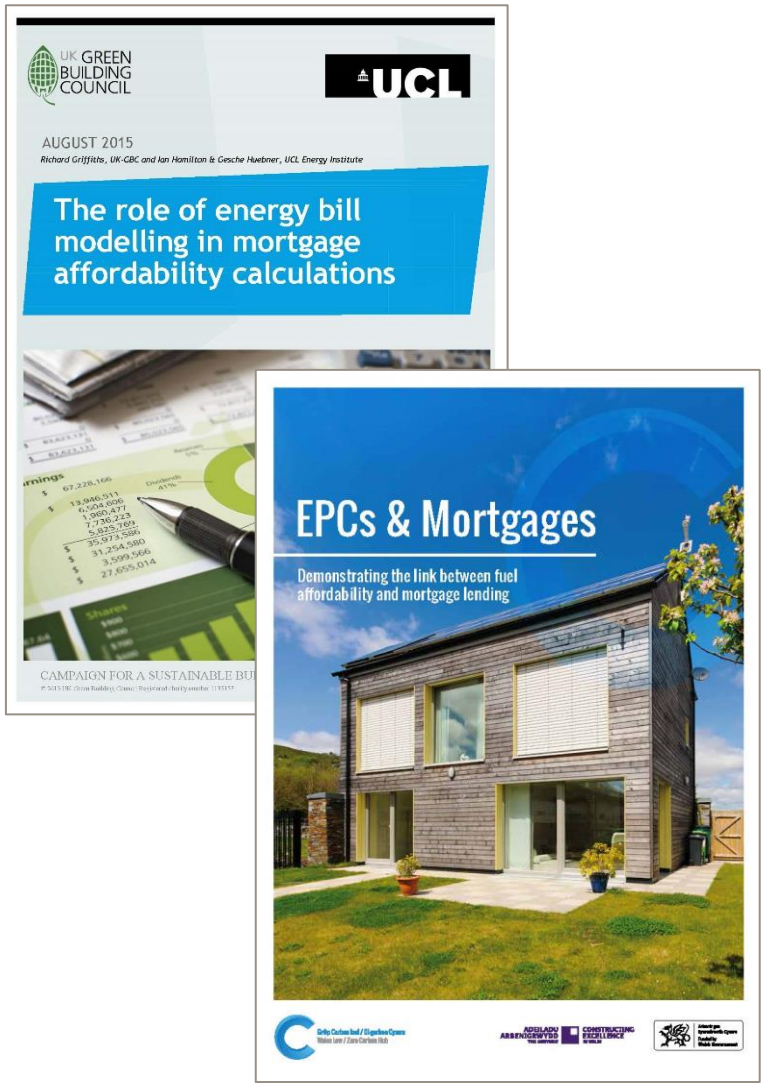
- Tendency to under value energy efficiency
- Leads to low demand
- “Green mortgages” could change that
- Recognition that lower bills impact affordability - utilities second largest expense
- Possible impact on house prices

SUCCESS!!!

Part funded by Innovate UK

LENDERS

EPC & Mortgages Report …



- As part of WLZCH, CEW funded "proof of concept" report
- Demonstrates link between energy efficiency (using data from EPC) and property types and actual fuel bill data
- Report highlights variance between fuel bills >£90/month between high and low energy homes
- Aligns with findings of UKGBC and UCL larger scale study
- Collaboration to form LENDERS

Part funded by Innovate UK

LENDERS

Nationwide PRINCIPALITY BUILDING SOCIETY

bre GREEN BUILDING COUNCIL

ZERO CARBON HUB

energy saving trust

ADEILADU ARBENIGRWYDD YNG NGHYMRU CONSTRUCTING EXCELLENCE IN WALES

UCL ARUP

Thank you

www.epcmortgage.org.uk
research@epcmortgage.org.uk

Part funded by Innovate UK

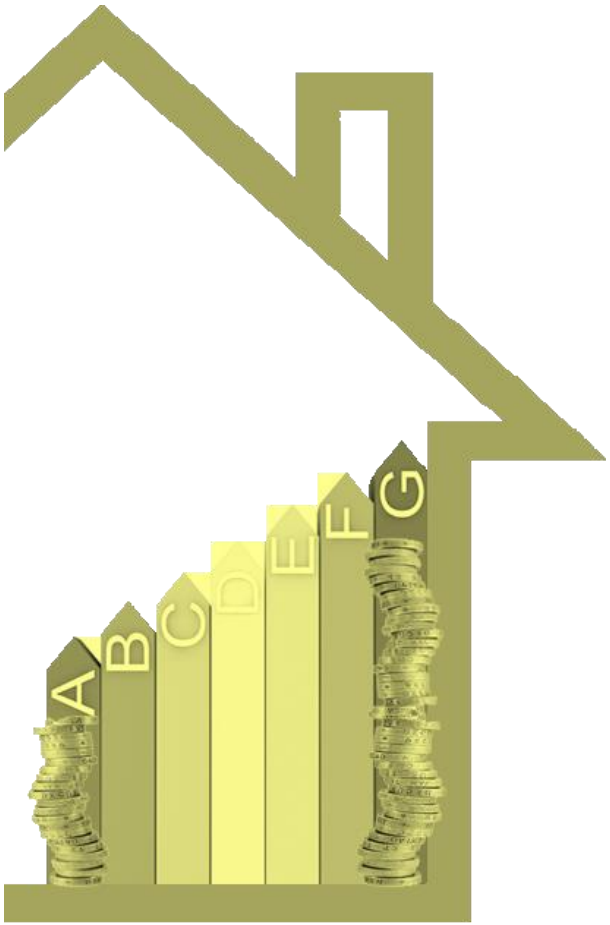
LENDERS
Project Summary

Levering Economics for New Drivers to Energy Reduction & Sustainability

Andy Sutton, BRE

Part funded by Innovate UK

My talk will cover…



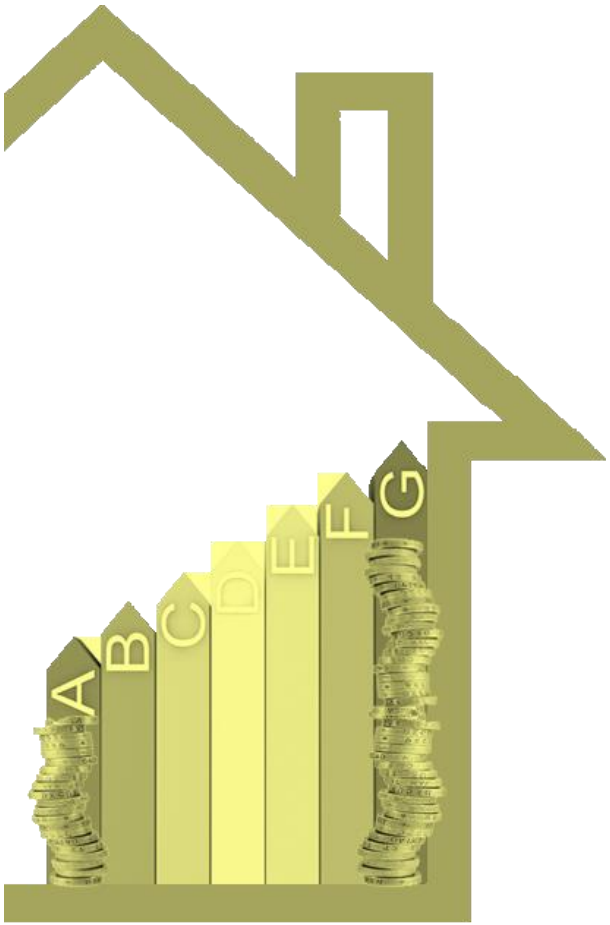
- **Who's** involved
- **What** we're trying to do
- **What** we're building upon
- **How** we're trying to do it
- **When** we're trying to do it by

The subsequent speakers will cover what we hope will happen as a result of our work; "**Why** we're trying to do it"

Part funded by Innovate UK

LENDERS

Who's involved…



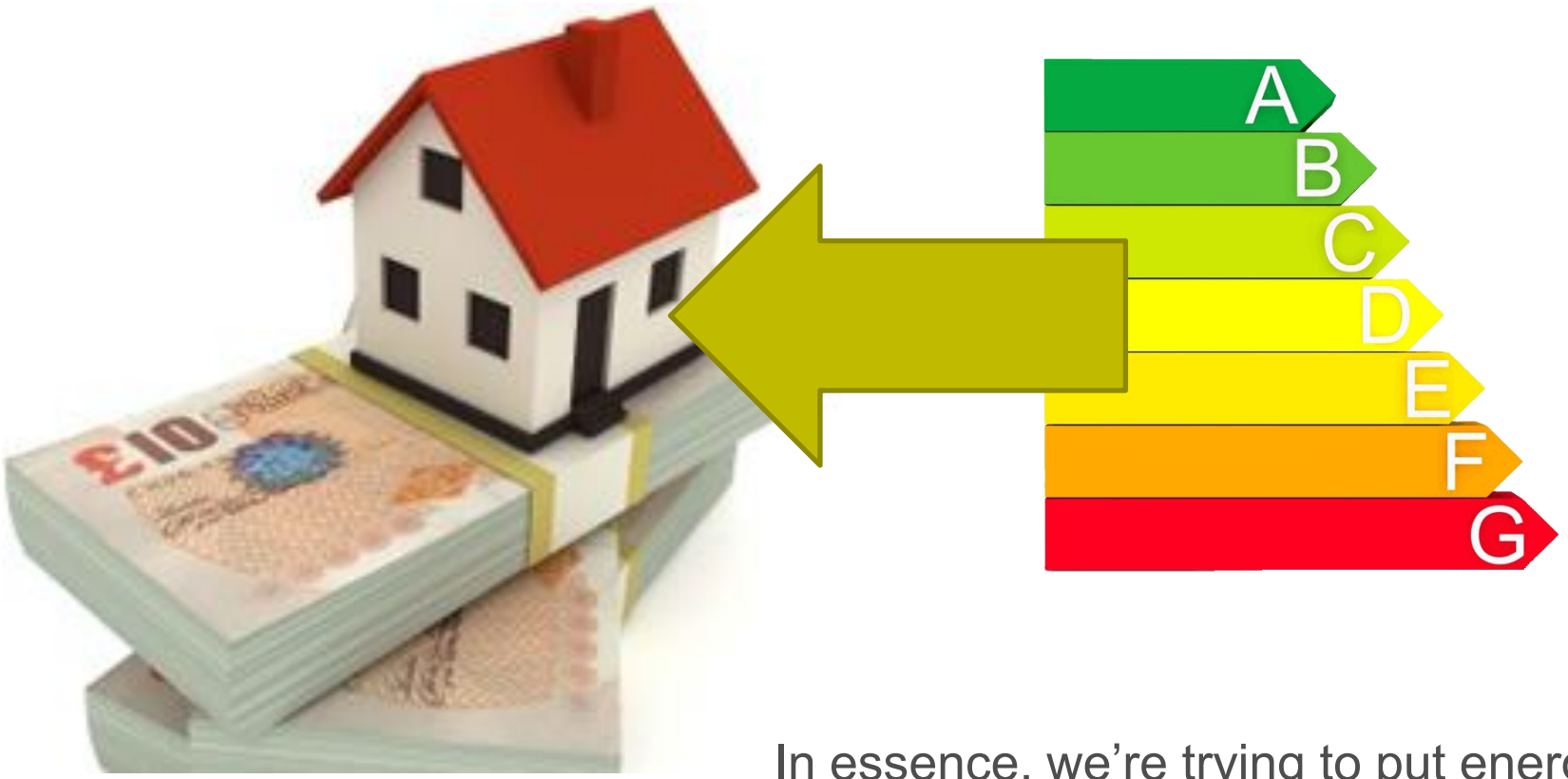
Collaborative research project involving Nationwide, Principality, BRE, Constructing Excellence Wales, UKGBC, EST, UCL, Arup & ZCH

Part-Funded by Innovate UK

Support for concept from Welsh Government, DECC and more

Part funded by Innovate UK

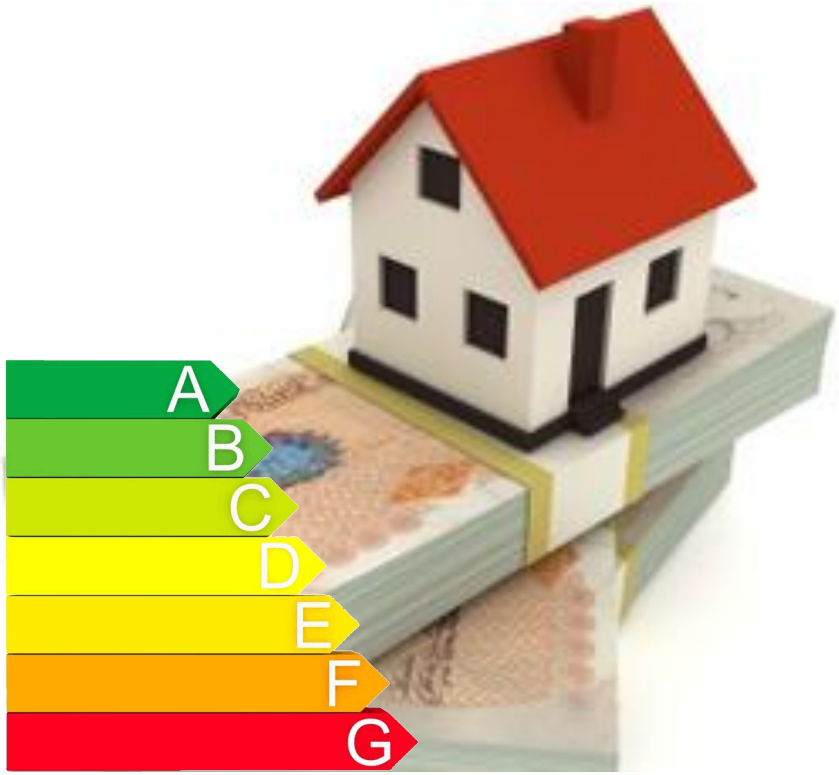
What we're trying to do… Project Goal



In essence, we're trying to put energy into mortgages.

Part funded by Innovate UK

Project Goal (more precisely)



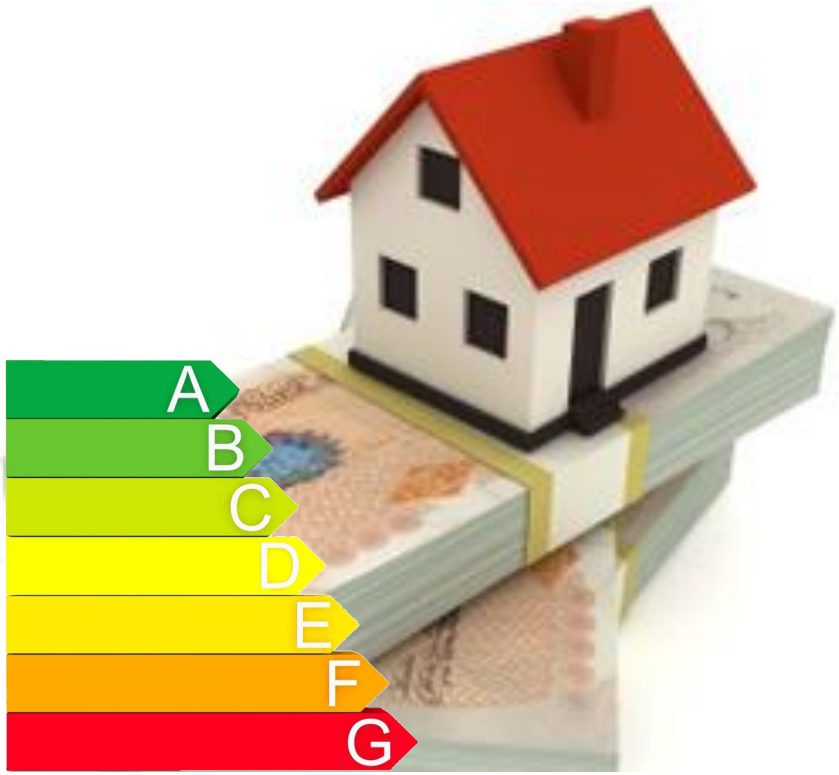
– To demonstrate a reliable link between energy information available on domestic properties at the point at which a mortgage would be offered, and those properties typical actual fuel costs.

and…

Part funded by Innovate UK

LENDERS

Project Goal (more precisely)

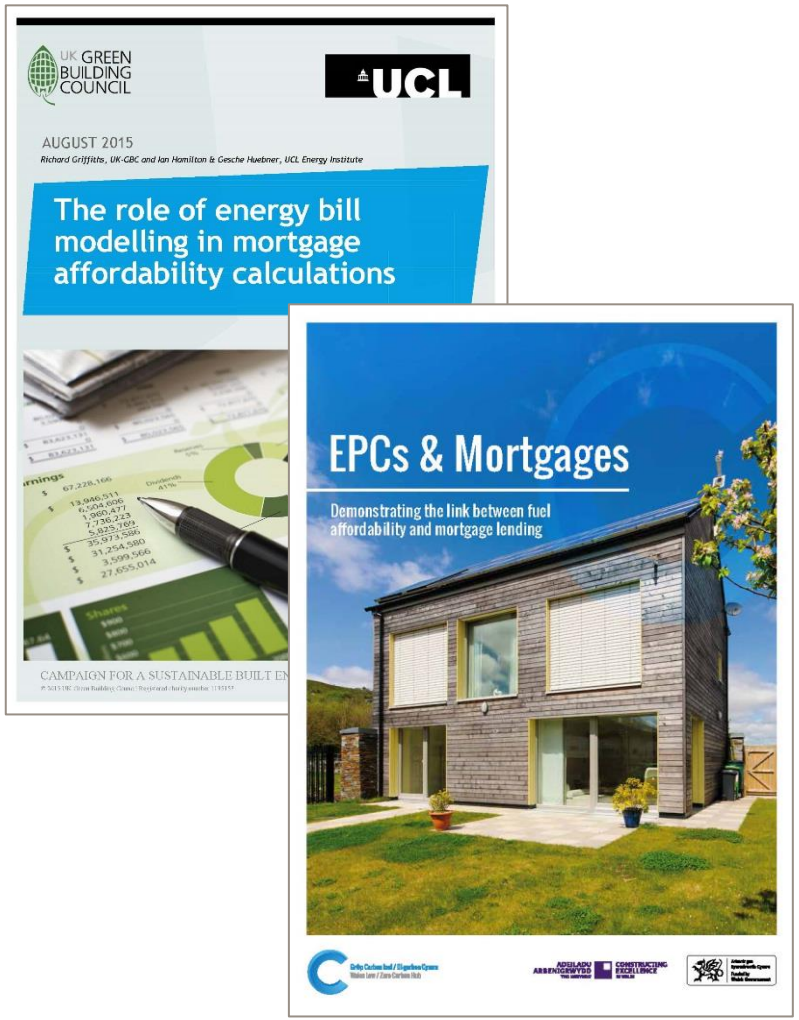


– To provide robust evidence of this link free to the financial industry, probably through an equation/mechanism that can be used to replace the current fuel estimations in mortgage affordability calculations.

Part funded by Innovate UK

LENDERS

What we're building upon…



- Idea first mooted in 2011 by BRE as part of CEW's WL/ZCH
- CEW commissioned BRE to report on "EPCs & Mortgages"
- UKGBC & UCL collaborated independently from 2014 on "The Role of Energy Bill Modelling in Mortgage Affordability Calculations"
- LENDERS project formed by BRE as a collaboration of all parties, and won part-funding from Innovate UK

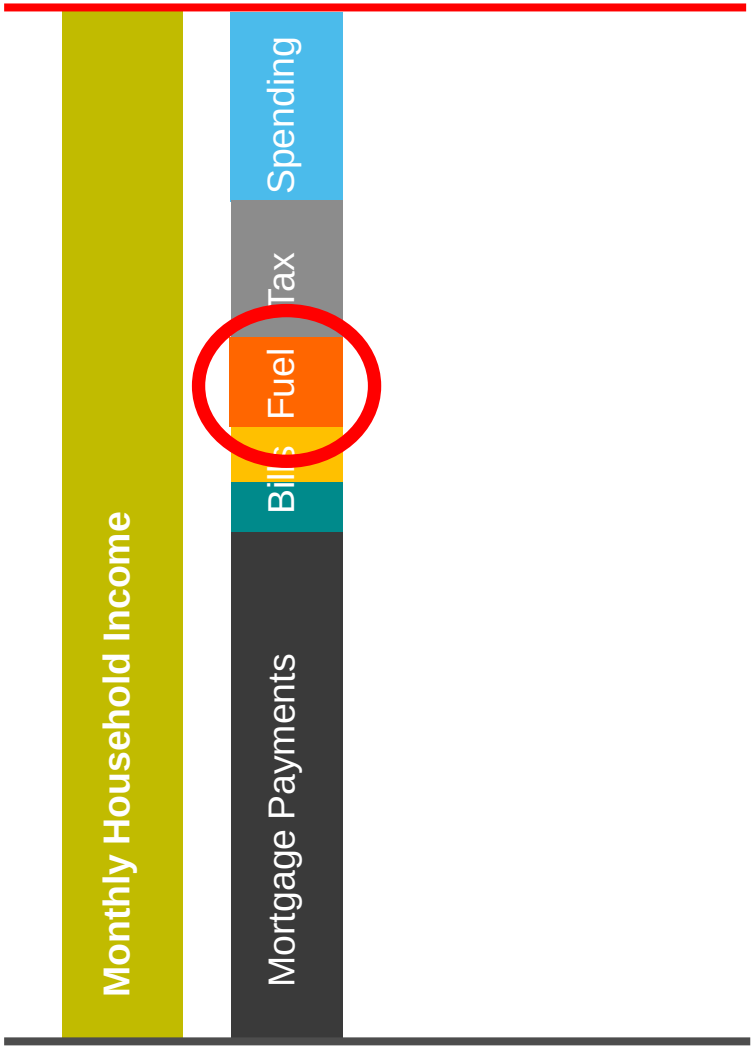
Part funded by Innovate UK

What We're Trying to Do… Current Mortgage Method

- Mortgages are given based on the ability to repay the loan; checked via an "Affordability Calculation"
- The Affordability Calculation varies slightly, but is basically monthly income minus outgoings & some general spending
- This determines how much you can afford to repay each month on your mortgage
- The amount you can repay each month can then be capitalised to a total amount you could borrow

Part funded by Innovate UK

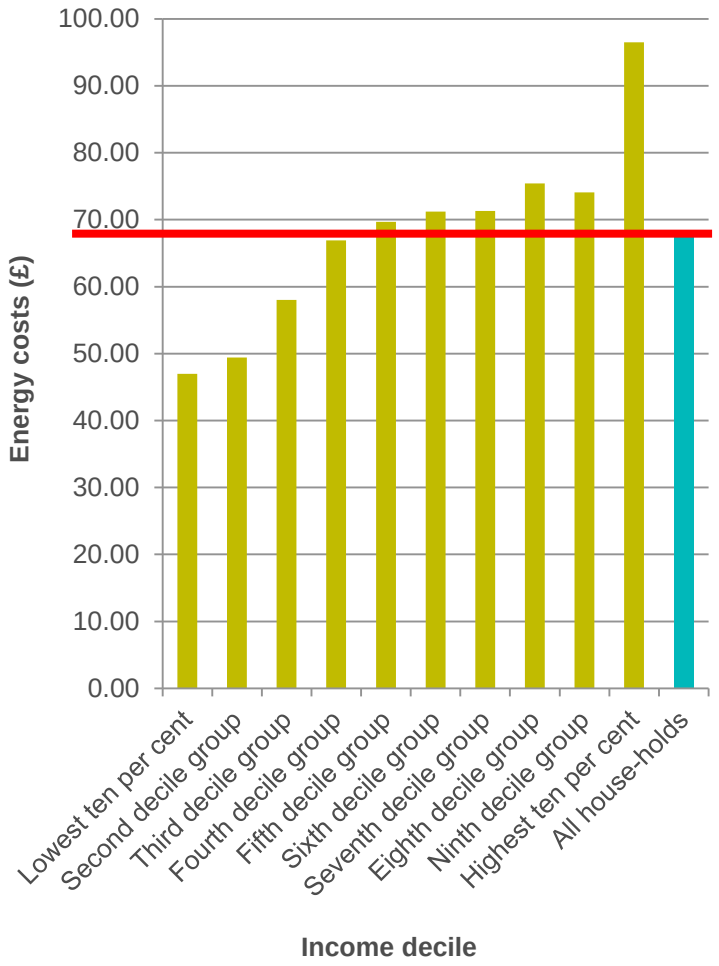
Current Mortgage Method



- These Affordability Calculation costs are generally split into essential (i.e. unavoidable) and non-essential (i.e. avoidable if you have to pay the mortgage)
- Fuel costs are one of the largest ‘essential’ costs in this calculation
- This is the one we’re interested in…

Part funded by Innovate UK

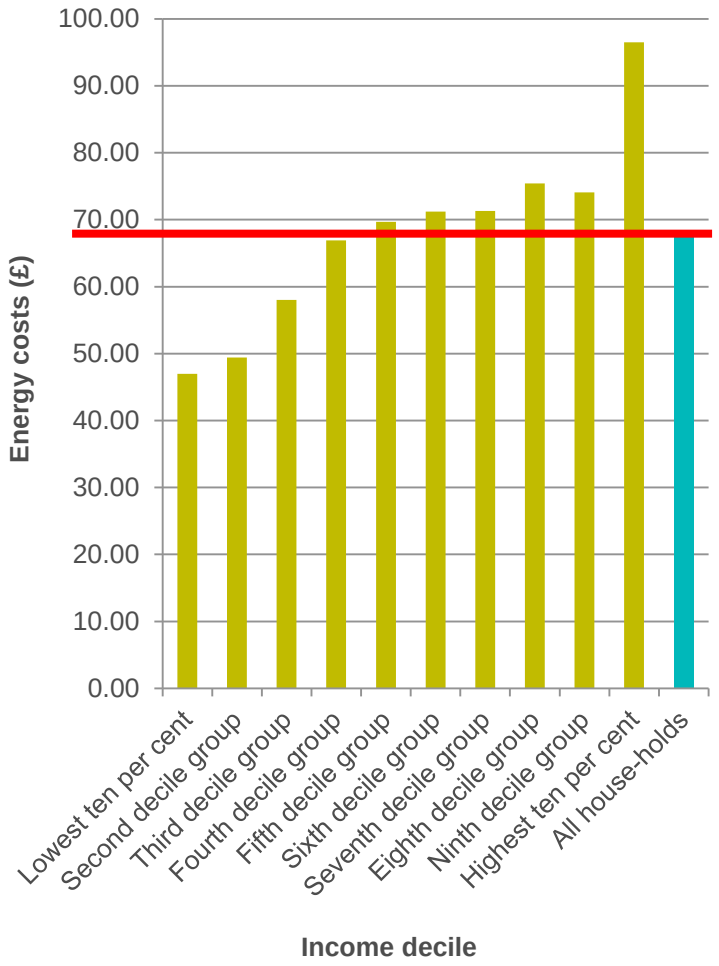
Current Mortgage Method



- The current approach typically takes fuel costs from the Office of National Statistics “Family Spending Report”
- Some lenders then vary this by number of occupants and/or region
- Fuel costs are predicted by your household income and, excluding extremes, are c.£50-£75/month
- This means typically a variance of ±£12.50 on the Affordability Calc.

Part funded by Innovate UK

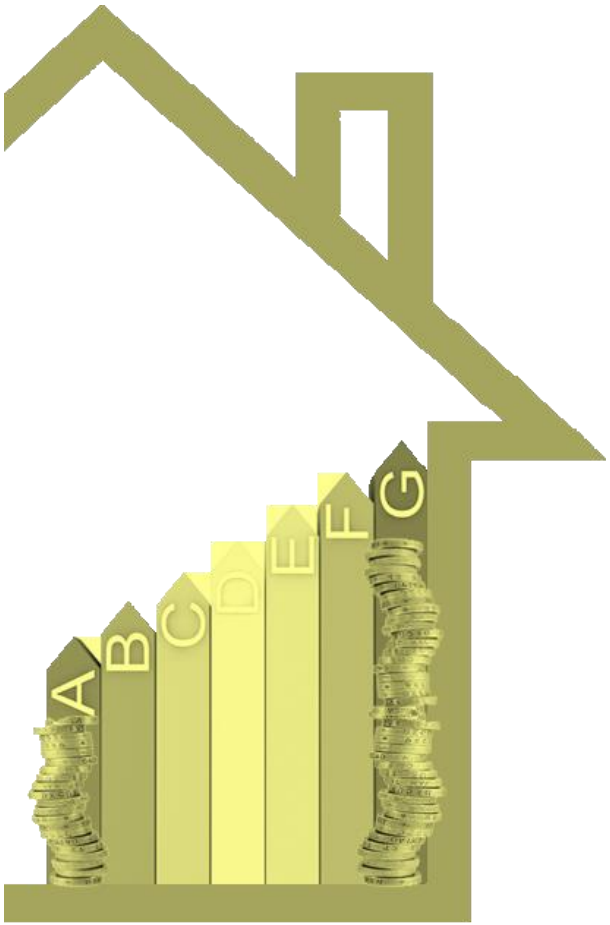
Current Mortgage Method



- Over 25 years at 5%, that means the impact of your fuel costs might be worth about ±£2,150 on what you might be able to borrow
- Whilst not "fixed", the fuel cost estimate based on your household income doesn't vary much
- And none of this makes ANY consideration whatsoever of the actual property's features or fabric, it's based on your income

Part funded by Innovate UK

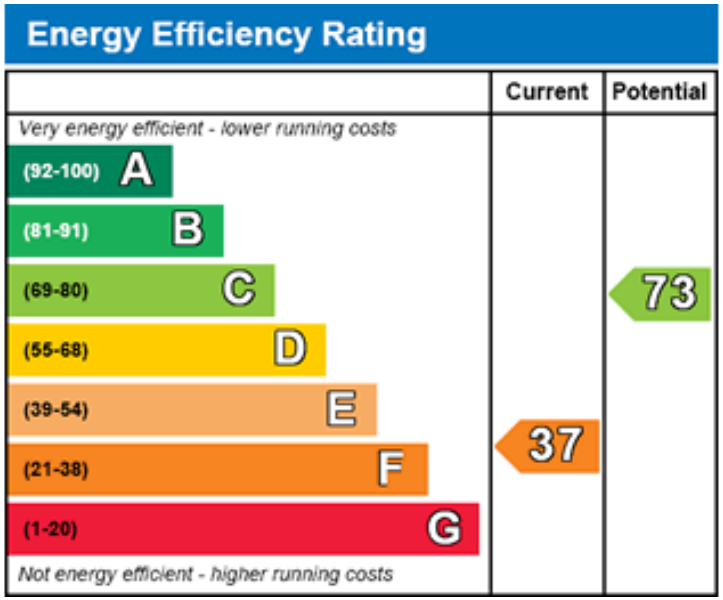
What We're Trying to Do – LENDERS Mortgage Method



– LENDERS project seeks to change the current calculation for fuel costs by considering the actual property

Part funded by Innovate UK

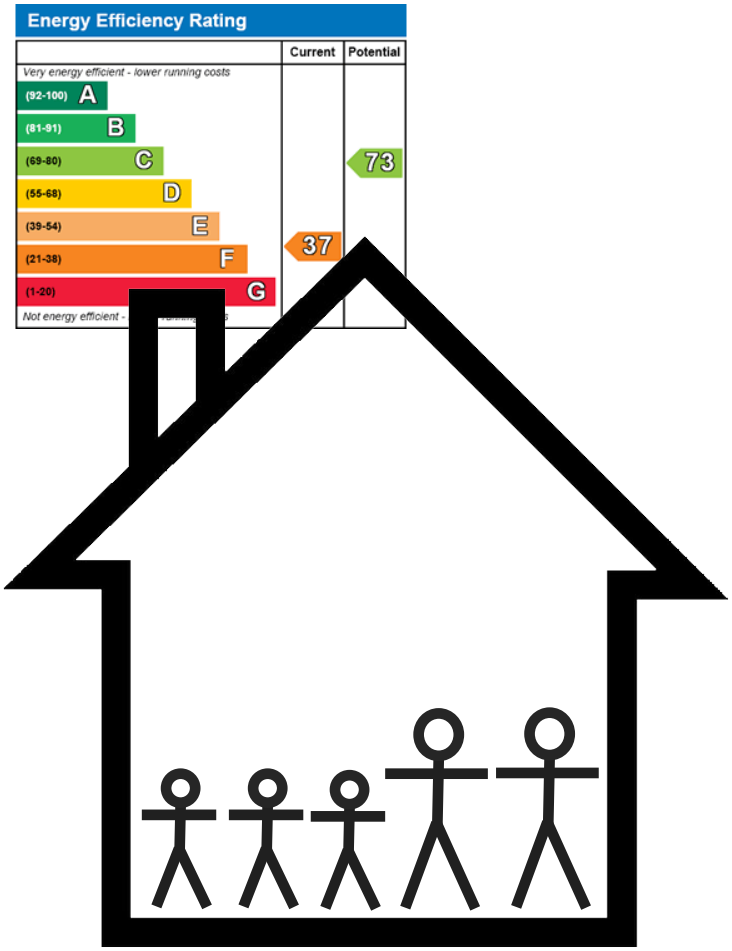
LENDERS Mortgage Method



- Energy Performance Certificates (EPCs) are legally required on all properties at point of sale
- Fuel costs are known to vary approximately along EPC scores
- EPC “A” & “B” rated properties average fuel cost is c.£56/month (“A” alone is even lower)
- EPC “F” rated properties average fuel cost is £105/month
- This alone gives a range x2 greater than the current method

Part funded by Innovate UK

LENDERS Mortgage Method

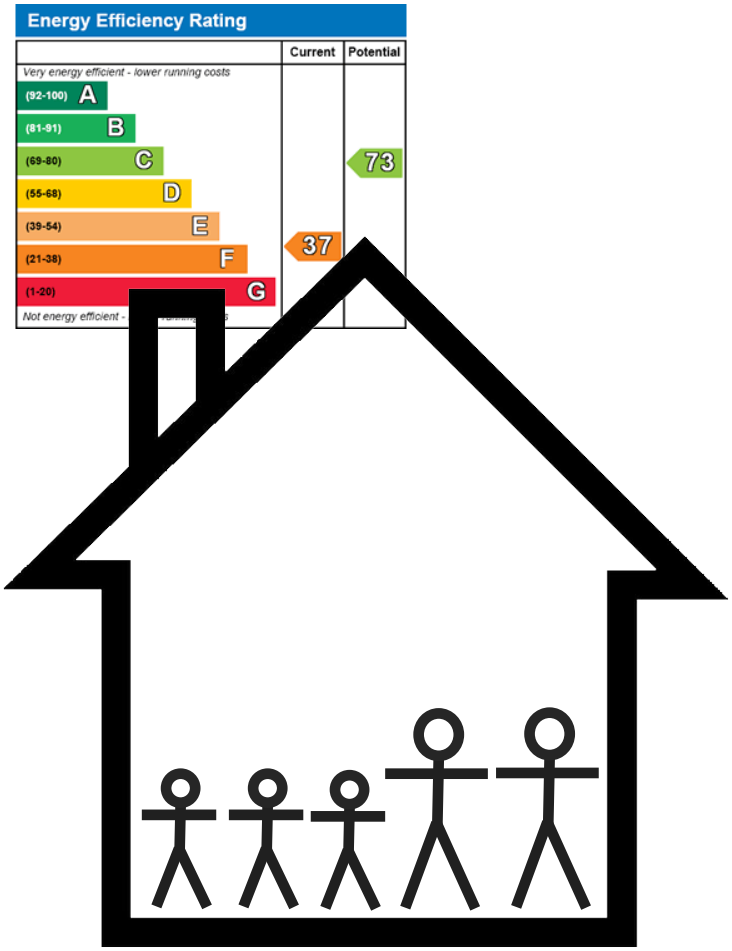


- LENDERS will also look at other factors that can be ascertained at the point of a mortgage
- This potentially includes occupancy, age of house, type of house, size of house…

  …and yes, we'll look to see if household income is a factor too!

Part funded by Innovate UK

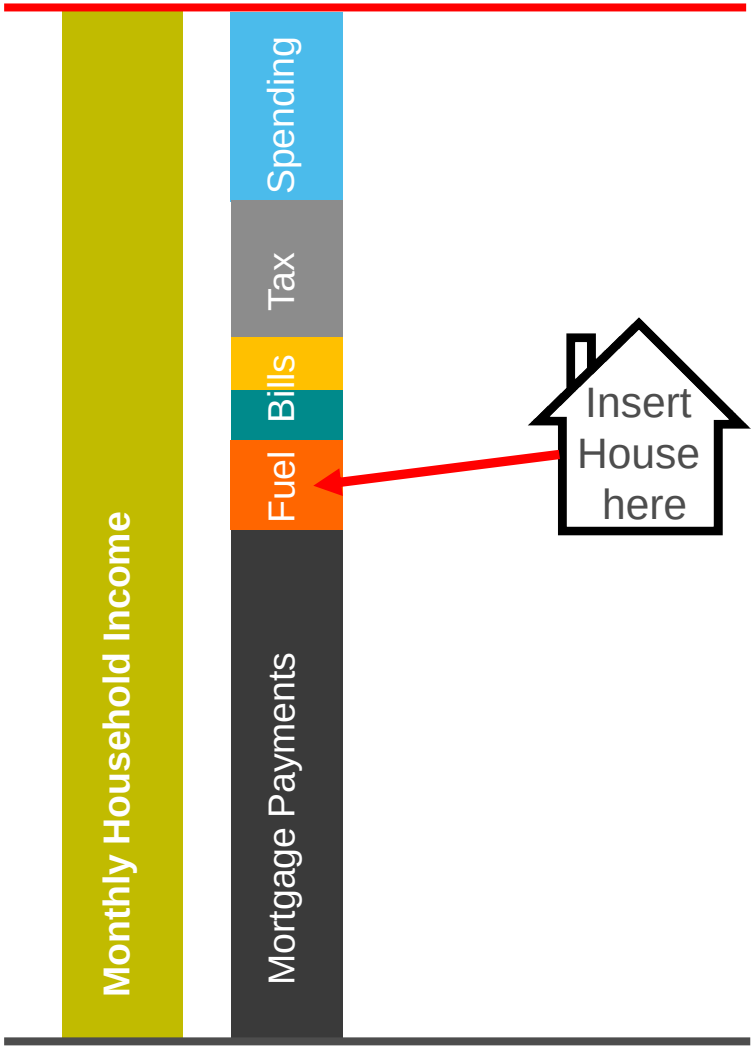
LENDERS Mortgage Method



- Some evidence suggests that monthly costs for different homes with different occupancies can vary by £90/month or more
- Over 25 years at 5%, that means the impact of those fuel costs might be worth about £15,000 on what you might be able to borrow

Part funded by Innovate UK

LENDERS Mortgage Method



- LENDERS therefore seeks to make the Fuel Cost estimate actually relate to the energy performance of the house being mortgaged
- LENDERS also seeks to increase the range of the Fuel Cost estimate, in order to greater impact on the maximum mortgage lending amount

Part funded by Innovate UK

Project Programme

- LENDERS is looking to complete in Spring 2017
- To proof the concept, LENDERS needs a large dataset of information on houses, energy costs and EPCs
- We're running a survey to gather this; please help us out by filling it in.
  The survey can be found at:
  http://tinyurl.com/jc7wjqa

Part funded by Innovate UK

LENDERS

Nationwide PRINCIPALITY BUILDING SOCIETY

bre GREEN BUILDING COUNCIL

ZERO CARBON HUB

energy saving trust

ADEILADU ARBENIGRWYDD YNG NGHYMRU

CONSTRUCTING EXCELLENCE IN WALES

UCL ARUP

Thank you

www.epcmortgage.org.uk
research@epcmortgage.org.uk

Part funded by Innovate UK

Llywodraeth Cymru
Welsh Government

www.cymru.gov.uk

Lenders Project
Welsh Government perspective

Cardiff
26 April 2106

Francois Samuel
Building Regulations
Welsh Government

Why we care about residential energy

Benefits

- Warmer, more comfortable homes
- Health benefits
- Reductions in energy bills
- Jobs and economic activity in insulation and construction industries
- Reducing greenhouse gas emissions
- Improved energy security –less total demand, and reduced peak demand

The Policy drivers

EU level targets:

- 20% energy saving by 2020 and 27% by 2030 (the latter binding at EU level) EED 2102
- Nearly zero energy newbuild by 2018/20 EPBD 2012

UK legislation:

- 80% greenhouse gas emissions cut by 2050
- Carbon budgets –50% cut by 2023-2027 (fourth carbon budget)

Welsh Government:

- 2010 Strategy to tackle fuel poverty
- Environment Act (Wales) 2016 Carbon budgets
- Wellbeing of Future Generations Act 2015
- Building Regulations Part L

Why LENDERS matters

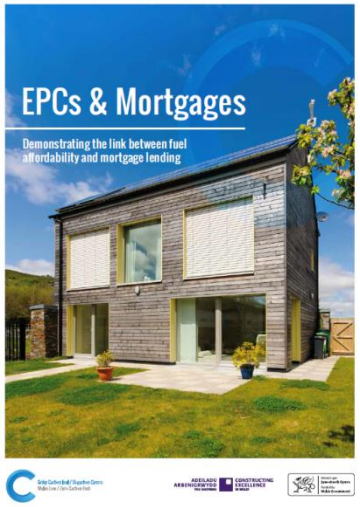
Consumers tend to undervalue energy efficiency, leading to low demand

“Green mortgage” type products could change that – recognising that lower bills impact affordability

But for that to happen, the evidence needs to be in place to support those products to give confidence

Research through LENDERS project offers a vital part of that evidence base

Welsh Government funded 2014 report



125 properties analysed EPCs against energy bill data

Conclusion EPC rating was a reasonable affordability indicator

A gap in the assessment of mortgage affordability?

Lender interest in pursuing further

Why we are here today to launch the Lenders project.

Thank You

LENDERS

Nationwide bre Principality GREEN BUILDING COUNCIL ZERO CARBON HUB energy saving trust UCL ADEILADU ARBENIGRWYDD CONSTRUCTING EXCELLENCE IN WALES ARUP

Principality Building Society

Mike Pollitt

Part funded by Innovate UK

Principality Involvement

1. As Wales' largest Building Society we are proud to be at the heart of our communities throughout Wales and its borders

2. A key objective for the society is involve colleagues, members and local communities in activities that support and benefit people and the areas around them.

3. Leaving a legacy for future generations is something we are passionate about.

4. Discussions Re. project late 2014/2015.

5. Agreed to join Nationwide and contribute to project.

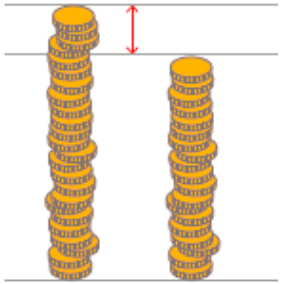
The LENDERS project linking home energy performance to mortgages

1 The LENDERS project is undertaking large scale data research and analysis to establish if there is a reliable link between the energy efficiency information available about homes and the actual fuel costs that those homes incur.

2 The goal is to allow a more reliable and accurate prediction of the fuel costs part of a home owners monthly outgoings.

3 Predicting this more accurately would allow mortgage lenders to better estimate how much a home owner would be able to afford to repay each month on their mortgage.

4 That means mortgage lenders can justify higher lending to low energy properties.



5 In turn, this creates a virtuous circle of borrowing that both supports energy home improvement and lends new borrowers more money if they buy low energy homes.

Nett monthly costs for home owners won't increase, but energy efficiency can improve.

6 **The Virtuous Circle**

- So you can live in a low energy home that has lower energy bills
- Leaving you more of your income after energy costs
- Enabling you to afford bigger mortgage repayments
- Allowing you to borrow more money (for the same mortgage + energy total cost)
- So you can buy a low energy home or borrow to improve your own home

7 Which might lead to house buyers actively looking for low energy homes, driving the market value of low energy homes upwards.

8 Which will probably drive those selling homes, building homes or just improving them, to use the additional capacity to borrow through fuel savings to improve their energy performance.

The LENDERS project is a collaboration of these organisations, who are part funded by Innovate UK on behalf of UK government.

LENDERS

Three Key Tests

Is the correlation robust?	Can we effectively anticipate actual fuel cost from combined EPC & property information?
Is the cost variation significant?	Is their enough difference for a large enough number of properties?
Can the mortgage process be re-engineered?	Can we effectively and efficiently incorporate any change into the mortgage process?

LENDERS Project

26th April 2016

Why do HBF support the project?

In 2015 HBF published a series of fact sheets about the advantages of buying a new home.

‘New homes currently built in the UK are roughly 50% cheaper to run per year than the equivalent Victorian house. That could mean an annual saving of £440 for a 1-bed ground floor flat, and £1,410 for a 4-bed detached house.’ *

*Zero Carbon Housing - Annual Running Costs 2014 Zero Carbon Hub.

NEW IS GREENER AND CHEAPER!
WHY BUYING A NEW HOME WILL SAVE YOU MONEY WHILE HELPING TO PROTECT
THE ENVIRONMENT

When you're thinking about buying a home, it's never just the initial price of the property that you've got to take into consideration. Removal costs, legal fees and stamp duty are just some of the other costs that you'll likely have to bear in mind.

You'll also have to consider running costs in the future.

Buying a new build home means you'll be getting an exceptionally high quality home built to the latest exacting building standards. This means your home will not only stand the test of time, but will actually end up saving you a lot of money every year.

AN EFFICIENT NEW HOME MEANS SAVINGS FOR YOU

We're working hard to reduce the size of the carbon footprint we leave on the planet when we develop sites for new homes. As a result, energy efficiency standards and CO2 emissions in new homes built in England and Wales are some of the best in the world.

On average, new homes built in England and Wales today are 65% more energy efficient than a Victorian house of the same style.

This is achieved through a combination of innovative design and using the most modern materials available, for example installing boilers that only give you hot water when you need it, fitting modern double glazing, using quality insulation in the roof and walls, and by creating sophisticated water drainage systems.

The benefits are not only keeping you warmer in winter, but also saving you money on your utility bills every year.

In addition, new homes use a series of innovative designs that mean on average they use 30%* less water than older properties. This saves the average home owner £54** on their water bill every year. New homes also fit water efficient sinks, toilets, baths and showers as standard; so, you not only save water, you also save money.

SO, WHAT'S IT WORTH TO ME?

New homes currently built in the UK are roughly 50% cheaper to run per year than the equivalent Victorian house. That could mean an annual saving of £440 for a 1-bed ground floor flat, and £1,410 for a 4-bed detached house.

WHY BUYING NEW IS CHEAPER AND GREENER

*According to the Consumer Council for Water, the average person uses 149 litres of water every day. Under current building regulations, new build homes must reduce average daily water use to 105 litres per person, per day. **The average UK water-only bill is £180 per year.

HBF
HOME BUILDERS FEDERATION
Cymru | Wales

Public Policy Institute for Wales
Sefydliad Polisi Cyhoeddus i Gymru

HBF
HOME BUILDERS FEDERATION
Cymru | Wales

Future Need and Demand for Housing in Wales

September 2015

Alan E. Holmans
Cambridge Centre for Housing and Planning Research

It is estimated that over the period 2011 to 2031 an additional 174,000 - 240,000 ‘units’ (houses or flats), or 8,700 - 12,000 a year, will be needed; of which 64% would be in the market sector.

Cymorth i Brynu - Cymru
Help to Buy - Wales

HBF
HOME BUILDERS FEDERATION
Cymru | Wales

First Phase (still running) could allow 5,000 properties to be purchased, latest statistics (March 2016) show 2,788 helped since January 2014.

Second phase up to £290 million invested Between 2016 – 2021 allowing over 6, 000 properties to be purchased.

A total of 11,000 properties potentially supported between 2014- 2012.

Andy Sutton, BRE

Q&A/Summing Up

Close

Lunch/Networking