

# Scaling up Better Homes Yorkshire report summary

The study proposes the foundations for a long-term approach to energy efficiency and zero carbon homes by 2038. The proposals are the building blocks needed to shape a growing and sustainable market for whole house energy efficient retrofits with increasing rates of delivery as the market scales-up.

## 1. Background

The [Better Homes Yorkshire Partnership](#) has built a good track record on energy efficiency in homes. However, there is a need to renew programmes to reduce carbon, tackle the climate emergency and eliminate fuel poverty. In addition, it is recognised that to deliver net-zero retrofits, a whole house approach is required to reduce energy demand and enable zero carbon energy supply. The arrangements under the Better Homes Yorkshire Partnership end in 2023, leaving the door open for programme renewal.

## 2. Current status

There are approximately 985,000 homes in West Yorkshire with 80% estimated below Energy Performance Certificate level C (EPC C)<sup>1</sup>. Poor energy efficiency has entrenched fuel poverty, with some of the worst performing homes (EPC E-G) occupied by low income households. According to the West Yorkshire Emission Reduction Pathways study, 2.9 million tonnes of carbon dioxide came from housing in 2018. Without any additional interventions and new policies, this is expected to fall to 2.1million tonnes in 2030. This is not enough to meet the City Region's net zero carbon target.

To address these challenges, a renewed programme of delivery is needed to make the significant progress demanded by the climate emergency.

## 3. Methodology

A review of retrofit schemes provided evidence of good practice, identifying the components needed to enable an effective long term retrofit programme. Five broad themes emerged, these were:

- Developing a trusted offer – focus on high quality standards
- Building the market – for different tenures at scale
- Fit for purpose – focus on whole house solutions that perform well in real life
- Paying for it – mobilise the capital and make finance accessible and affordable
- Delivery – developing the supply chain, partnerships and skilled workforce

These themes enabled the identification of a component list on Page 3 of the full report, that will underpin a net-zero retrofit programme. The study then focussed in more detail on finance and skills needed, with in-depth interviews and stakeholder sessions to give critical perspectives and to refine and the validate proposals.

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<sup>1</sup> Building Research Establishment, 2016

#### 4. Results

The findings do not point toward a single scheme that has already delivered such an extensive retrofit programme. They do show that the components, for example, ways of paying for retrofit and a trusted offer are strongly interconnected. Therefore, these are the 'building blocks' and should *not* be prioritised or developed exclusively.

The study proposes a ten-year programme to retrofit of over 300,000 homes in West Yorkshire by 2030, mobilising up to £2.4 billion per year and saving around 1.8 million tonnes of carbon each year. This would represent a 62% reduction in carbon emissions from housing.

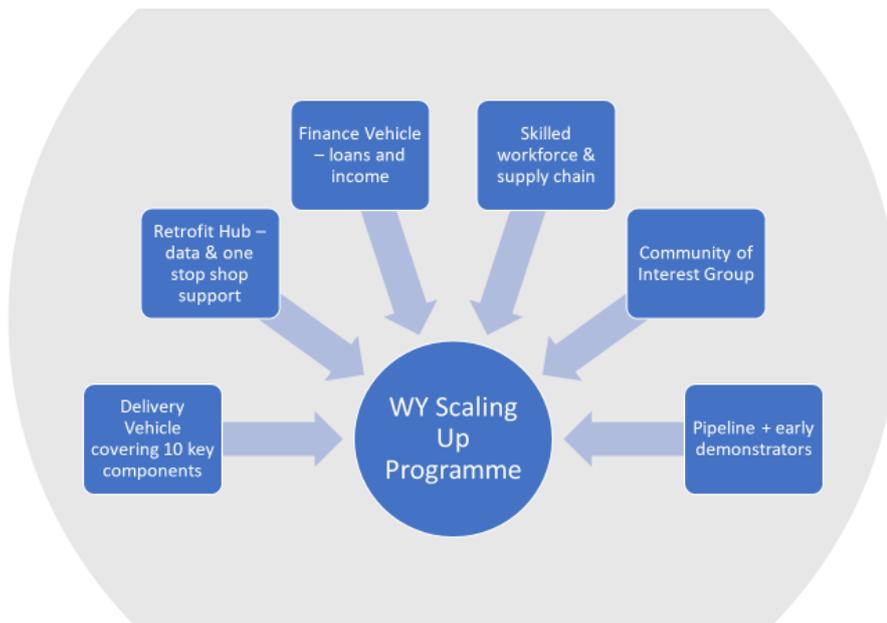
The study found that 'boom and bust' cycles of policy and support have contributed, in some cases, to reputational harm and poor-quality installations. A lack of skilled labour and coordination means there is insufficient capacity, and capability at present to push ahead with whole house, high quality retrofits at scale.

Pockets of existing practice in the finance community suggest there are options to unlock private funds for retrofit that could suit different social and economic groups. For example, government backed zero interest loans and local authority led equity release loans that repay when the house is sold. Other options such as regulation, taxation and alternative business models are part of the landscape but will not readily leverage funding at this moment.

The study identified that a long-term approach must be adopted, particularly if business and individuals see sufficient prospect to invest in new skills and training. A long-term approach could overcome this and give confidence to the sector. A pipeline of retrofit projects, and demonstrators will support that confidence. However, the availability of funds and attractive finance options will provide a strong signal to scale up demand and supply.

#### 5. Recommendations

This diagram below is a summary of the results. See the full report for the full 20 detailed recommendations.



## Finance

The evidence shows the harm caused by fluctuating government support for retrofit and the need for a sustainable offer underpinned by attractive ways of paying. The upfront cost of retrofit is not financially viable for most homeowners with paybacks over 7 years. Subsidised low-cost measures with up to 100% grant funding have been made available to eligible households in recent times. However whole house retrofit is considered too expensive to be fully funded by the Government.

Additional funding will be required for homeowners to invest in retrofits. The evidence points to a range of options, from high street lending to equity release loans to unlock private investment. Although it is established that funding alone will not create demand, it is a crucial part of a compelling offer. A local retrofit loan fund offering progressive lending to different socio-economic groups, is a key part of these proposals, alongside a quality offer and trusted advice.

The analysis shows that access to low cost lending (e.g. 2.5%) will enable greater carbon and energy savings compared to high street lending rates. Applying the 'golden rule'<sup>2</sup> where homeowners are no worse off, could allow emissions reductions of up to 70% (Figure 1).

<sup>2</sup> [The Green Deal](#), DECC (2010)

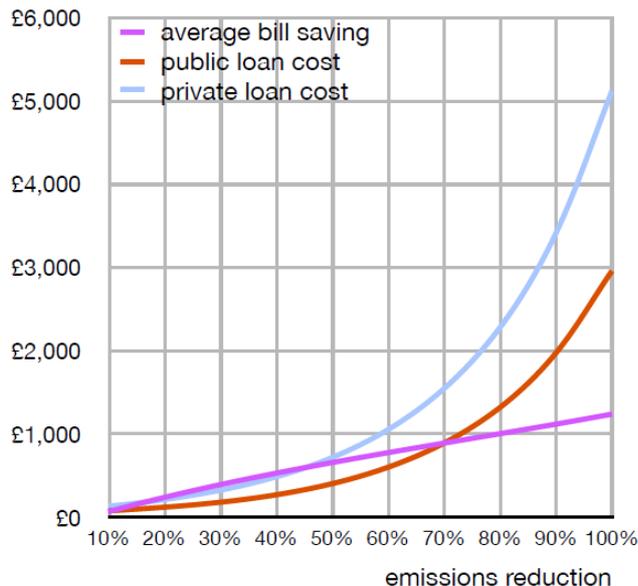


Figure 1 Annual loan repayments (y axis) at different interest rates compared to annual bill savings (y axis) (public rate 2.5 % / private 3.3%) against carbon emission savings (x axis)

### Recommendation

- Explore with partners the development of a financial vehicle able to offer lending to different socio-economic groups

### Solar PV and battery storage

Solar PV and battery storage can help make the financial case for whole house retrofit stack up and meet the golden rule. However, the financial savings from self-generated solar energy do not increase bill savings to the homeowner significantly. There are, however, additional revenues that could be attracted through the energy markets.

Aggregation of batteries under a single point of control can provide energy balancing services to the National Grid as well as trading in the energy market. While these revenues are not available to householders now, they may be available through a 3<sup>rd</sup> party aggregator. An aggregator business would access energy markets on behalf of battery owners and generate revenues for itself. New business models are rapidly emerging along these lines, with regulatory changes expected to unlock new opportunities. Access to these revenues, could pay for deeper retrofit and carbon savings over 80% (Figure 2) in combination with a low cost (public) loan.

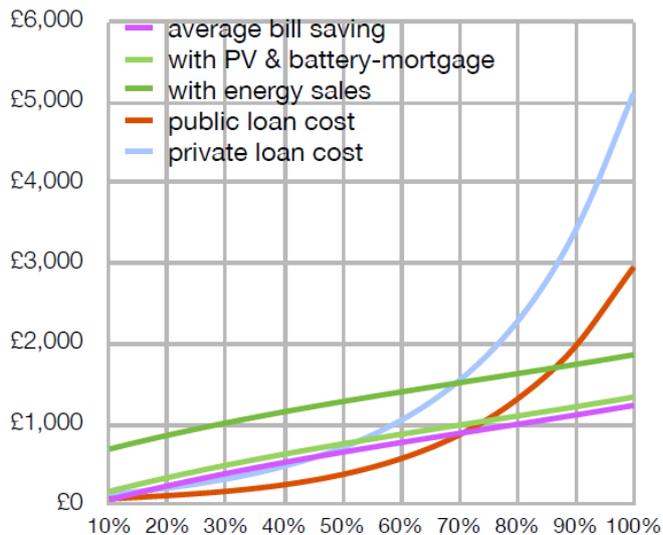


Figure 2 Annual loan repayments (y axis) at different interest rates compared to 1. bill savings 2. bill savings + with PV and battery, 3. Bills/PV/Battery and additional energy sales (y axis) (public rate lending 2.5 % / private 3.3%) carbon emission savings (x axis)

### Recommendation

- Explore with partners the accessibility and reliability of these revenues and the steps necessary to realise them.

### Delivery

Councils and registered providers require compliant methods of delivery to improve standards and performance of the housing stock. A range of methods have been identified that range from approved contractor lists and fixed frameworks to joint ventures, requiring increasing levels of public intervention.

### Recommendation

- Explore options with partners to ensure there is a route to scalable delivery capable of delivering high quality whole house retrofits.

### Retrofit Hub

The need to oversee progress is currently hampered by access to quality data including stock condition, customer insights, and real-life performance. In addition, there are roles on promotion, signposting, advice, coordination, home assessments and funding (a one stop shop of advice and support) not readily filled by the market.

### Recommendation

- Create and resource a 'community of interest' made up of a variety of stakeholders, overseeing the data and intelligence and the customer journey for each property.

### Whole house retrofit competitions

Whole house retrofits at the level required will need a new approach and a greater level of planning and coordination. Capacity and capability needs to be grown in the supply chain in order to scale up. A pipeline that is large enough and long-lasting enough (>10 years) should attract more SME businesses who see the merit in taking part.

#### *Recommendation*

- Deliver 300 whole house retrofit demonstrators in year 1, identify loan streams and develop whole house retrofit competition briefs and the resource structure to deliver them

### Workforce and skills development

Alongside the pipeline, development of local training courses will need to be developed with skills providers. There are also some regulatory standards that will influence contractors and workers to invest in training, such as the PAS2035 retrofit quality management systems and coordinator roles. Current government funding (see below) for energy efficiency requires accreditations and standards to attract funding.

#### *Recommendation*

- Access funding to support training for new roles and accreditations and carry out an audit of existing skills and providers

### Scaling up Better Homes Yorkshire

The diagram below outlines the building blocks and suggested timescales to delivering a long-term approach to energy efficiency retrofit in the City Region. Delivering on all these elements is important because of the strong

interdependencies.

