



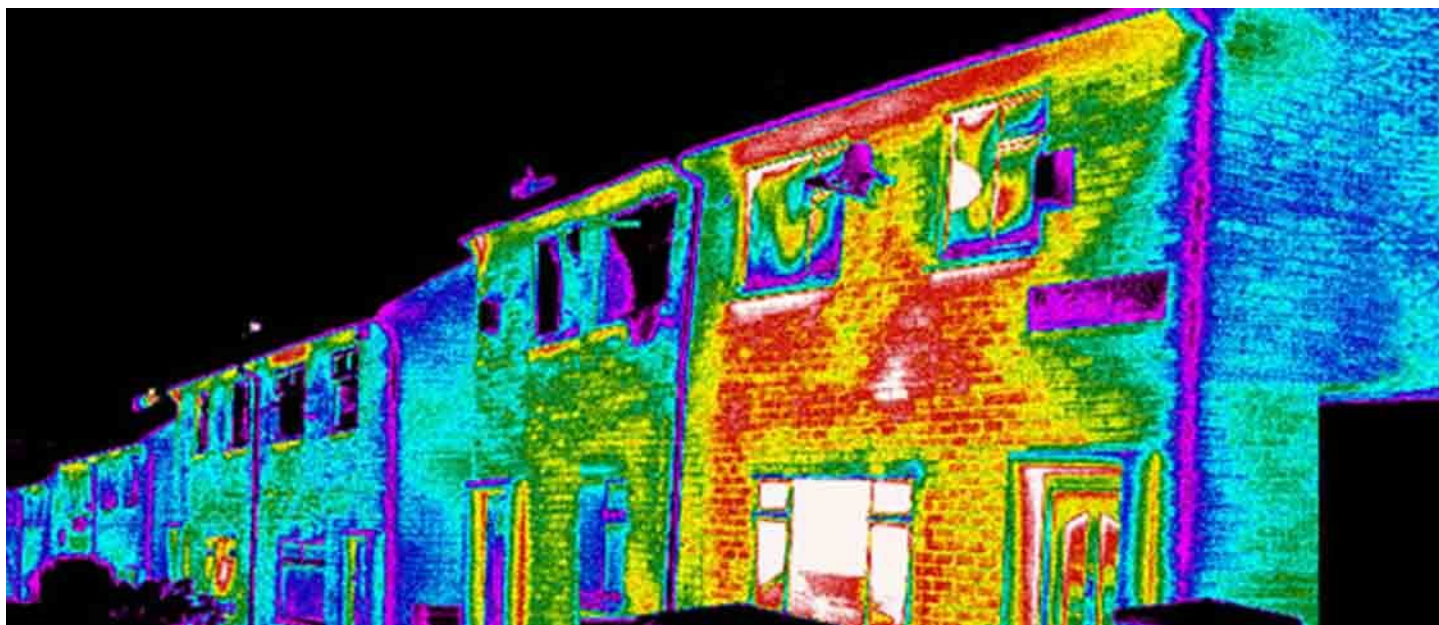
August 2009

Pay As You Save

Financing low energy
refurbishment in housing

Executive Summary

CAMPAIGN FOR A SUSTAINABLE BUILT ENVIRONMENT



BACKGROUND AND OBJECTIVE OF STUDY

With some 45% of the UK's emissions coming from existing buildings, it is clear that a significant and comprehensive programme is needed to upgrade the performance of our existing building stock to meet the target of an 80% reduction in UK emissions by 2050 as set out in the Climate Change Act. Government has said, rightly, that emissions from our homes and buildings should be "approaching zero" by 2050.

Meeting those targets requires a step change in refurbishment activity compared to current practice, not only in terms of numbers of homes but also in the installation of more expensive and potentially more disruptive measures. Government's intention is for 400,000¹ households per year to access a comprehensive package of home energy improvements, rising to 1.8M households per year by 2020, which equates to an investment in refurbishment of between £5bn-£15bn a year through to 2020.

The UK Green Building Council (UK-GBC) has been promoting the possibility of a new form of financing for low carbon refurbishment in the household sector for some time. Known as 'Pay As You Save' (PAYS), the concept is based on spreading the cost of refurbishment for a property over a substantial period of time, across different owners. These principles were adopted by both the Conservative Party, in their 'Low Carbon Economy' paper, and also in the Government's Heat and Energy Saving (HESS) consultation document and its recent white paper 'UK Low Carbon Transition Plan'.

Whilst there is broad support for such a concept including many experts within the property and construction sector (see Low Carbon Existing Homes report²), there are a number of barriers to overcome in order to turn a concept into a practical proposition: technical; financial; behavioural; and legal. Building on initial proposals prepared by UK Green Building Council members Knauf

Insulation and Camco, the UK-GBC brought together a range of key stakeholders to form a 'task group'³, to address these challenges and make clear recommendations to Government.

The objective of the Task Group was to identify the range of options available, review their relative merits and then propose a single structure for the PAYS financing mechanism, describe how the mechanism would work and, indicate how PAYS might be piloted.

This is an independent report produced by a range of stakeholders to inform government thinking and it is not a statement of Government policy.

HOW PAYS COULD WORK

This section briefly describes how a PAYS scheme could work in practice including key features. Some elements are not exclusive to a PAYS scheme but are included if they are necessary critical for its successful operation at a mass scale. For a detailed explanation see section 4 of the main report.

Overview

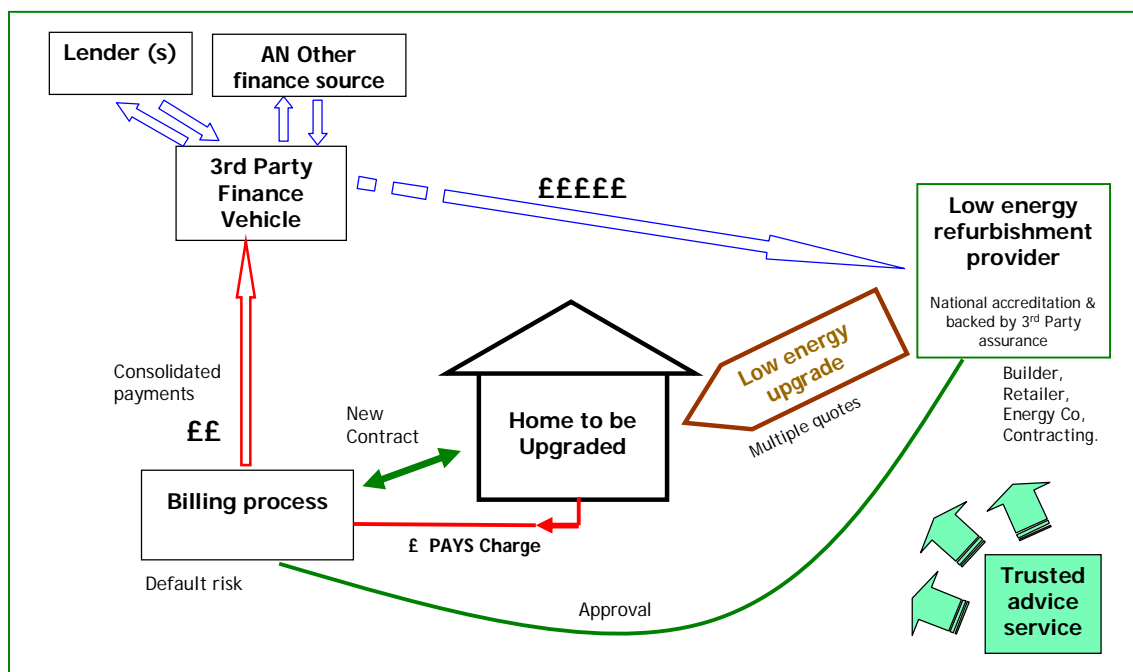
Please refer to the diagram on page 3.

A low energy refurbishment provider uses finance, from a third party, to cover the upfront costs of the low energy work. An obligation to repay is linked to the property over an extended period of time and the repayments are calculated to be less than the savings that will be made on the fuel bills. Crucially, at change of tenure the benefit of the measures and the obligation to pay is transferred to the new householder. The PAYS Charge is collected by the local authority. The upfront costs are moderately subsidised and/or carbon reductions purchased and incentives are provided to encourage mass take up. The work is undertaken by an accredited company with rigorous enforcement of standards and the mechanism as a whole is promoted by trusted 3rd parties.

¹ Heat and Energy Saving Strategy Consultation February 2009 paragraph 1.23

² *Low Carbon Existing Homes* was supported by the Energy Efficiency Partnership for Homes, Sustainable Development Commission and the Technology Strategy Board.
http://www.ukgbc.org/site/document/download/?document_id=371

³ UK-GBC task groups specialise in incorporating a diverse group of stakeholders, forging consensus and presenting practical solutions. See www.ukgbc.org/site/taskgroups for more information.



Householder proposition

A householder intending to undertake work on their property (which may or may not be energy related) approaches the appropriate company, for example, a retailer, small builder / contractor or an energy company. In addition to discussing the specific householder requirements the company introduces the opportunity for reducing the energy consumption at the same time via PAYS scheme. This information can be supplemented by trusted sources such as their local authority, Energy Saving Trust and third sector organisations. Following a whole house assessment, the company presents the options to the householder together with the projected savings, the subsidy available, any incentives and the resulting PAYS payment schedule. The repayment mechanism and the contract are explained. The householder obtains similar quotations from other companies and makes a decision. Should the householder proceed with a package of work, a contract would be signed allowing the PAYS Charge to be attached to the property. The local authority adds this payment onto their billing system and invoices the householder to the agreed schedule.

The upfront costs supported by PAYS is up to £10,000 and the typical net savings (after the

annual PAYS Charge obligation has been met) would be of the order of £50 to £200 per year (based on gas heating) depending on the extent of the low energy upgrade undertaken.

Householder - PAYS design features

Trigger points and providers

In many cases the low energy refurbishment would be undertaken in conjunction with other work that is planned. To facilitate this, the service could be offered by multiple providers, expanding their original business, who would provide a one-stop-shop service including: the original work, the low energy work, access to finance and subsidies, workmanship guarantees and performance assurance either alongside or separate to the other work originally planned by the householder. The PAYS mechanism must also work in such a way that it complements, and is able to be used alongside, established finance mechanisms for refurbishment work (e.g. home improvement loans for kitchen/bathroom).

Incentives

Research suggests there are many environmentally aware households to whom this scheme would be attractive since they are already motivated to act and simply lack

access to upfront capital⁴. However, in order to drive mass-scale take up, since the anticipated annual savings to the householder are likely to be modest, a range of strong incentives may be necessary to complement the PAYS mechanism.

Due to the constraints of time, exactly how such incentives would work was not discussed in detail within the PAYS Task Group. However suggested incentives are:

- Stamp duty, council tax or other market mechanism;
- Reduced VAT on work undertaken as is the case for professionally installed loft and cavity wall insulation;
- Cash back to help alleviate the short term disruption impacts on the householder.

Subsidy

A subsidy is provided based on the CO2 savings achieved and paid for via the Supplier Obligation (CERT), direct government grant or another scheme. This is both to encourage take up and to ensure PAYS works across the breadth of the housing stock, at a mass scale.

Measures

The PAYS mechanism would support all measures which cost less than they save over their lifetime after any subsidy / optional householder contribution. The measures are not limited to energy saving measures and could include micro-renewables (with a renewable energy tariff and/or householder contribution), and even water reduction measures etc. Examples might include: floor insulation, heating controls, PV panels, Ground Source Heat Pump, aerated shower heads etc. For the sake of simplicity these are referred to as “low energy measures” throughout this report.

Delivery and assurance

To ensure householder and lender confidence, access to the PAYS financing mechanism would only be available to accredited

providers. Work would be undertaken to strict quality assurance processes, using systems that have had their in situ performance verified, have agreed levels of insurance and where robust complaint handling processes are in place.

The accredited low energy refurbishment provider would arrange the upfront finance for the householder, organise eligible subsidies and facilitate the billing contract as well as organising the work. The customer enters into a contract with the accredited provider who in turn arranges for the charge to be collected via the billing mechanism (see section 3.4 in the full report).

A comprehensive ‘whole house’ energy improvement plan would be provided, even if works are to be staged over time. The energy saving estimates would be based on a standard assessment process used by all providers (such as full SAP). Where appropriate, a more bespoke energy savings estimate would also be provided which better reflects the actual occupancy type in order to ensure the projected financial and energy savings are broadly appropriate for the particular household considering the low energy work i.e. in the case of households that are under-heating their homes. The plan document should highlight appropriate trigger points and sequencing for undertaking measures such as a recommendation to internally insulate the kitchen when next fitting a new kitchen or fitting a dual coil hot water tank when a replacement is due in readiness for fitting a Solar Hot Water system. This advise, the charging schedule, and the projected financial savings will be clearly documented and together with the Energy Performance Certificate (EPC) form part of the information provided at the point of sale.

As part of the PAYS ‘package’, householders will receive appropriate advice and training to ensure they understand: how to operate any new controls, what to expect from the low energy upgrade, how they use the home will affect the actual level of savings achieved. The householder will be made aware that savings projected are on standardised usage.

The whole process, including post works support and advice, would be supported by advice and communications from trusted sources such as the local authority,

⁴ For example, in a recent Ipsos Mori poll of 1,000 adults on low carbon lifestyles, 15% of participants stated that they would be very interested in a long term zero interest energy efficiency loan with repayments spread across energy bill reductions (*Low Carbon Lifestyles: Still Searching for Gladwell's Tipping Point*, Icaro Consulting, April 2009)

Government, Government agencies (such as the EST) and third sector organisations.

Finance

The low energy refurbishment provider receives finance directly from the 3rd Party Finance Vehicle upon contract agreement with the householder.

The 3rd Part Finance Vehicle is financed through capital sourced primarily from the private sector such as; bank loans, issuing bonds or raising equity finance from an investor. In order to keep interest rates down to householders this would be underwritten by the Government to reduce the investment risk. To keep the monthly capital repayments low for householders a 25 year term is used.

In order to create attractive investment conditions:

- There must be significant consumer demand generated either through consumer marketing and incentives and / or regulatory action;
- The investment proposition must work for all parties - banks, government, private sector participants and consumers;
- Debt risk is managed by the biller (local authority), with some debt risk potentially mitigated by a level of support from the Government;
- The system needs to be simple to ensure success;

The capital raised sits within a 3rd Party Finance Vehicle which will initially be established as an arms length Government vehicle (such as an Infrastructure Bank), with subsequent encouragement of the market to establish more.

Billing

In terms of the billing process, both council and electricity billing are workable models. Other options considered were: Using the Council Tax system, Gas bill, Water bill and Telecoms bill although these were discounted.

Both the council and electricity billing have advantages and disadvantages and both warrant further development. However, on

balance the council billing route was preferred.

In brief, Local Authority billing offers:

- a relatively simple way to link payments to the property rather than the individual consumer
- whilst consumers change energy suppliers frequently, local authorities change rarely and if they do so the rights and responsibilities transfer automatically.
- Local authorities tend to be viewed as 'trusted organisations' which adds a level of third party endorsement especially as they are not profit making.
- The proposed mechanism can be presented as a periodic payment obligation running with ownership of the property clearly differentiated from a personal loan.
- The PAYS Charge is not linked with a bill which is volatile and expected to rise significantly over time.
- A charge on a home is not uncommon so is less likely to be perceived as unusual by potential purchasers of properties
- Councils tend to have a low default level and a greater and potentially stronger powers / appetite to recover debt.
- Council billing systems would need to be modified where as the energy billing route would need a new and separate national charging mechanism.

On the negative side: it is more immediately intuitive for an energy related cost to be included on an energy bill, a proportion of householders have their council tax bill paid for them so there is a risk the bills may be ignored and, there are many local authorities.

Both billing approaches will require legislative changes.

Legislation

Local authorities must be enabled to create a PAYS Local Land Charge through new legislation to secure the payment obligation. The legislation should be drafted to allow for monthly payments over 25 years or for earlier

repayment. The legislation could be drafted in such a way as to place the obligation to pay on someone other than the ultimate freehold owner such as the occupier from time to time, similar to the principles for payment of council tax.

A mechanism must be inserted in the legislation to deal with enforcement, e.g. a requirement to repay to be recoverable summarily as a civil debt (i.e. does not require lengthy proceedings but gives access to the court enforcement mechanisms). This must allow for robust enforcement, appropriately applied with a range of available collection routes, otherwise exposure to default will undermine PAYS by forcing up interest rates to cover the risk or expose the Local Authorities or Government to considerable costs.

The legislation could expressly provide that the local authority have the powers to administer the PAYS scheme. This will remove any doubt held by individual local authorities that the use of the well-being powers to administer the scheme is not possible.

Local authority billing process

The new legislation enables the local authority to be able to create a PAYS Local Land Charge to secure the payment obligation. The Local Land Charge attaches to the Property and not to the current owner and it does not appear on the title of the Property at the Land Registry. Instead, it is kept upon the Local Authority Register of Local Land Charges. Upon a conveyance of the Property the solicitor of the purchaser will undertake a Local Land Charges search and obtain a report from the local authority.

The local authority maintains a schedule of payments to be made for each property and information on payments received. The local authority uses the same billing process as Council Tax and either presents the PAYS amount clearly separated at the bottom of the bill or on a separate piece of paper. Further work is necessary to determine the best approach.

A level of default risk will be carried by the local authority and this would be factored into the interest rate charged. Agreement is required between the Government, local

authority and 3rd Party Finance Vehicle on the detail of how the default risks are ultimately borne.

If the owner / occupier is unable to meet the periodic payments under the PAYS scheme (e.g. is fuel poor) they could agree with the local authority to reduce their periodic payments with the balance being rolled up to be repaid on sale of the property or at another agreed point.

Future property sale

Unlike a low energy refurbishment funded by the householder's own money (where the capital outlay needs to be recovered by an increased valuation compared with a 'typical house'), with PAYS a 'neutral' valuation is enough to ensure the vendor is not out of pocket.

On the assumption that the standards and accreditation process ensures that projected savings are less than or equal to the PAYS charge, that the PAYS charge is not significant relative to the value of the property, that it is attached to the property as a land charge and, that there is a charging schedule which carries over from householder to householder on sale then, on a generalised basis, the effect on valuation is unlikely to be significantly impacted negatively or positively.

Over time, as energy prices rise and society becomes more 'carbon conscious', then additional value may be attributed to low energy homes by prospective purchasers. This represents an upside potential.

Variants for other tenures/situations

The Task Group also considered how PAYS might vary for the social housing, private rented and New Build sectors. Details can be found in the full report.

Fuel Poverty

PAYS was not originally conceived as an approach to tackle fuel poverty. After consideration of the implications of PAYS for this group, it was concluded that PAYS is not a strong solution to alleviating fuel poverty in its own right. It may help in certain instances: where a householder has a low income but has considerable value in their property or if the subsidy available is high. It could be effective

at preventing people falling into fuel poverty as energy prices rise and may indirectly assist by providing a mechanism where the level of subsidy for 'able to pay' is minimised freeing up Government funds to focus on fuel poor.

KEY CONCLUSIONS AND RECOMMENDATIONS

1. PAYS could offer a real and workable solution, financing low energy refurbishments, with no upfront cost to the householder in many cases. PAYS could also be effective for funding 'consequential improvements' and in reducing some of the upfront costs of new build low energy homes.
2. Wholesale finance providers are interested in the PAYS proposition provided there is confidence that significant take-up will be achieved. Capital could be sourced from the private sector. The money should be held by a third-party finance body, underwritten by Government in order to keep interest rates low for householders.
3. To avoid negative reactions to 'loans', 'interest', the extended term length and, 'pay-back' as well as to normalise the process of passing the 'PAYS Charge' from one householder to the next, consideration should be given to presenting PAYS should be presented as a monthly schedule with the PAYS Charge listed alongside the projected savings together with having a smooth, legislated, process for transferring the PAYS Charge from one householder to the next at change of tenure.
4. All billing mechanisms have advantages and disadvantages. Local authority billing of the 'PAYS Charge' is the preferred option although Electricity billing is not discounted.
5. Although it is possible to place a charge on a property without any legislative changes, certain characteristics make this highly undesirable. For the preferred model, by which the Local Authority places a Local Land Charge on the property, primary legislation will be required. Primary legislation would also be required to use the electricity billing route to give the electricity supplier and the Distributed Network Operator (DNO) the requisite powers to administer the scheme.
6. Effective roll-out will require: support for the consumer and to grow understanding and demand (including marketing and communication); development of robust standards and accreditation to build confidence; and integration of low energy refurbishment within general home improvements to minimise disruption.
7. PAYS should be aimed at "the willing" in the first instance (4% to 20% of householders); achieving mass take up within the short timescales proposed is likely to require additional and powerful incentives such as stamp duty/council tax or other market mechanisms.
8. A subsidy scheme will still be required to ensure that the savings are greater than the costs using a PAYS approach when applied to the breadth of the housing stock and at a mass scale.
9. Unlike other financing mechanisms which require an increased value at point of sale for the householder not to lose out financially, a PAYS funded low energy refurbishment is not dependent on the property price rising.. Subject to a range of conditions being met, including confidence that measures actually deliver the level of savings projected, the costs of low energy refurbishment can be 'passed on' at change in tenure by PAYS without detriment to the valuation.
10. PAYS would benefit from extensive piloting to refine the proposition and test the householder appeal, and a range of organisations from different sectors are keen to help take this forward.
11. Smart meters could potentially play an important role in showing the householder the energy savings that have been made. With the Smart Meter roll out underway this opportunity would need to be progressed rapidly.

12. Once the legislation and mechanisms are in place, a 'soft start' is likely to be necessary to avoid overheating the industry and to allow growth of the requisite skills in a robust manner.
13. To ensure a smooth roll out of PAYS a high level steering group made from senior representatives from stakeholder organisations should oversee its introduction.
14. Cross party support for low energy refurbishment facilitated by a Pay As You Save type scheme would provide industry with the confidence to invest in training, skills and market development.



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A full list of organisations who contributed to the PAYS Task Group can be found in the full report.

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