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Promoting the Green Deal to low income communities: Initial insights from Yorkshire & The Humber.

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EUROPEAN UNION
Investing in Your Future

European Regional
Development Fund 2007-13

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The BIG Energy Upgrade project is part financed through the Yorkshire and Humber European Regional Development Fund Programme 2007-2013. The Department for Communities and Local Government (DCLG) is the managing authority for the European Regional Development Fund Programme, which is one of the funds established by the European Commission to help local areas stimulate their economic development by investing in projects which will support local businesses and create jobs. To address the priority issues of job creation and carbon emissions reduction in an integrated approach, the University of Sheffield has brought together a multidisciplinary team of academics who are working alongside Local Authorities, ALMOs, social housing providers and an energy services company in delivering this project.

We would like to thank the Local Authorities that have taken part in this research, namely: Barnsley MBC, Doncaster MBC, Kirklees Council, Leeds City Council, North Lincolnshire Council and North East Lincolnshire Council.

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Executive Summary

The Green Deal is the centre of the current coalition Government's flagship energy bill and a key component of the Government's promise to be the greenest Government ever. It promises to provide access to the capital markets, reduce carbon emissions, stimulate economic growth and reduce fuel poverty. The introduction of this policy has already been marred by delay and controversy with many commentators questioning whether it will achieve the ambitious aims it has set out to cover.

Whilst debate in the popular press rages over the appropriateness of this policy instrument, this document draws upon research funded by the University of Sheffield and the BIG Energy Upgrade project, a £14.9 million European Regional Development Fund project, to identify the opportunities that the Green Deal provides for the local economy and provide some initial indication of how to succeed in stimulating market uptake and interest in the Green Deal amongst low income communities.

A series of focus groups were undertaken across the Yorkshire and the Humber region, with households from low income communities engaged in the BIG Energy Upgrade. Residents were asked to comment on their experiences of the BIG Energy Upgrade programme and its impacts, before being introduced to the Green Deal concept and asked to comment on it. Analysis of the data collected is ongoing, but this report presents initial insights and findings from the scheme and shows that the BIG Energy Upgrade programme has been well received, suggesting that residents living in deprived communities really feel the benefits of household energy efficiency interventions and are keen to engage with them to make energy savings.

This snapshot of residents' comments begins to build a powerful picture of the impact of such projects on everyday lives in deprived communities. Similarly, whilst the Green Deal was not familiar to the residents, the principles behind the scheme were welcomed. The opportunity to take control of the improvements in their home and the likely benefits in terms of warmth and bill reduction interested many of the residents. However some concerns were raised over the involvement of major banks in the finance mechanism and whether low income communities would really be able to take advantage of the policy. The focus groups tentatively suggested that in order to promote the Green Deal within these communities, the personal benefits in terms of increased warmth and local pride played a greater role than any environmental or economic factors.

Further work carried out by the Centre for Energy, Environment and Sustainability has highlighted concerns over the regional preparedness for delivering large scale energy efficiency interventions. Through engagement with the supply chain at a local and national level, opportunities have been identified for Local Authorities to improve their procurement practices, and develop stronger relationships with the multitude of local small and medium sized enterprises, which can bring reduced costs for intervention installation whilst boosting local employment and economic productivity.

The Green Deal provides a strong opportunity to reduce household energy bills and carbon emissions whilst increasing employment and productivity within the local and national supply chain. By preparing for any increase in demand by the private and domestic sectors, local authorities, SME's, residents and the broader society all stand to benefit.

1. Introduction and policy context

Introduction

This report presents a preliminary discussion of espoused attitudes towards the Green Deal by members of the community across six Local Authorities (LA's) in the Yorkshire and Humber region. This work was undertaken as part of Work Package 2 and Work Package 3 of the BIG Energy Upgrade Programme, a project part financed by the Yorkshire and Humber European Regional Development Fund Programme 2007-2013 and utilised additional funding from the University of Sheffield in order to run a scoping study to assess initial awareness of the Green Deal within these communities.

A history of inefficient homes

Historically energy efficiency has not been a focus in the construction of British homes. The inefficiency of the housing stock was recognised as early as 1904 by the German architect Muthesius who noted:

"...the insubstantial structure of the English house, especially the meagre thickness of the walls, the absence of cellars, of double glazed windows"
(Muthesius, 1979)

Legislative and regulatory provision within Britain traditionally paid little or no concern to the provision of warmth, or energy efficiency in the home, instead focussing on the provision of sanitation, lighting and adequate ventilation. The Simon report, (Ministry of Fuel and Power, 1948) and the Parker-Morris report (Ministry of Housing and Local Government, 1961), both voiced concern over the lack of provision for the installation of insulation, but it was not until 1965 that building regulations were introduced in England, requiring minimal standards of energy efficient interventions.

58.1%

English Homes
built prior to introduction
of building regulations in
1965

According to the English Housing Survey headline report 2010 – 2011 (DCLG, 2012) 58.1% of English homes were built prior to the introduction of the first building regulations in 1965, with just over a fifth of the total English housing stock having been built prior to 1915. At the current rate of demolition it would take over 1000 years for a complete turnover of the British housing stock (Boardman et al., 2005), indicating that Britain has "one of the oldest and least efficient housing stocks in Europe" (Boardman et al., 2005, p. 38).

In order to improve the energy efficiency of British homes and to reduce their carbon emissions, the solution lies within retrofit of extant houses, rather than redevelopment which would take too long to meet the legally binding carbon reduction commitments outlined in the Climate Change Act (2008). The challenge of effectively implementing retrofitted interventions across the wide variety of energy inefficient homes is significant (Dowson, Poole, Harrison and Susman, 2012).

The Green Deal

Background to the Green Deal

The Green Deal is one of the flagship policies of the current Coalition Government. Legislated for in the Energy Act (2011), its vision was that it would be a policy designed around consumers, creating a new dynamic market for businesses and therefore stimulating economic growth; resulting in carbon

emissions reduction, fuel poverty reduction and improved homes as recognised in a recent Department of Energy and Climate Change (DECC) report (DECC, 2011, p. 11).

There is an immediate need to tackle the inefficiencies inherent in the British housing stock. With rising energy prices, energy inefficient homes mean that householders are spending money on energy that they cannot keep within the home. This is resulting in significant carbon emissions levels in the atmosphere, strongly associated with climate change (Davies and Oreszczyn, 2012) as well as a worsening in the extent and depth of fuel poverty within Britain (Guertler, 2012).

*"There is an
immediate need
to tackle the
inefficiencies in
the British Housing
Stock"*

It is widely accepted that Britain is unlikely to meet its legally binding target to eliminate fuel poverty by 2016, as set out in the Warm Homes and Energy Conservation Act (2000). The Green Deal provides a mechanism for householders, whether they own or rent their house, to make improvements to their home to improve the energy efficiency, whilst offsetting the costs against savings made on their energy bill.

Originally intended for launch in October 2012, technical challenges surrounding the payment mechanism caused this new scheme's launch to be delayed until January 28th 2013.

Intended Green Deal adopters

In its impact assessment of the Green Deal, the Department for Energy and Climate Change (DECC) identified a number of market failures and barriers which were not addressed with current energy efficiency policies and interventions.

- Prices do not reflect negative externalities
- Access to capital
- Lack of information and information asymmetry
- Positive externalities could reduce future installation costs
- Social and psychological inertia
- Misaligned incentives such as benefits to the tenant but costs to the landlord
- Time inconsistent private discount rates i.e. consumers recognise the higher costs of installation up front but not potential longer term savings.

Adapted from (DECC, 2012a, pp. 14-16)

In devising the Green Deal it was the Government's intention to address these issues. By tying the loan to the home, providing increased access to capital, utilising accredited providers and installers and changing the time profile of the costs of installing energy efficiency interventions, it was hoped that the Green Deal would provide more equitable and affordable access to energy efficient solutions.

It is recognised that the Green Deal won't be accessible to all households. Some households in particularly low-income groups or those with hard to treat properties will fail to meet the requirements of one of the key components of the Green Deal known as "The Golden rule". This rule states that the expected

savings made on the fuel bill must be greater than the loan repayment cost. In situations when this rule cannot be met, such as for expensive interventions like Solid Wall Insulation (SWI), the Energy Company Obligation (ECO) will combine with the Green Deal in order to make these types of measures affordable (DECC, 2012b).

As a result of the combination of the Green Deal and the Energy Company Obligation, the intended market for the Green Deal incorporates all households within the UK whether privately owned, socially or privately rented. Many of the households included in the focus groups discussed in this document were from lower income communities and were likely to fall in to the ECO eligibility guidelines as members of the current Carbon Emissions Reduction Target (CERT) super priority group.

For this group in particular, and others across the country, questions of financial affordability are of particular interest when considering their potential engagement with the policy.

Financing the Green Deal

The Green Deal is in effect an unsecured loan which is associated with the home rather than an individual. When the Green Deal was initially announced there was no suggestion of a credit check being required for the householder, supporting the aim of the policy to increase access to capital for all.

Since this point, The Green Deal Finance Company, the primary providers of finance to the Green Deal announced that they would require credit checks to be completed and had been advised to do this by the Office of Fair Trading. Paul Davies from PwC, one of the organisations that make up the Green Deal Finance Company stated that:

We have to do a credit check but the threshold for getting a green deal should be lower than if they were getting a loan for the same value.

(Murray, 2012)

It remains to be seen what this means in practice, but concern has been raised by advocacy groups that this is likely to prevent those on the lowest income from accessing this support mechanism and reducing their financial outlay on energy. Similar concerns have been raised by the Energy and Climate Change Commons Select Committee who stated "it will be very important to track whether finance is available to low income households and at what cost", (Energy and Climate Change Commons Select Committee, 2013).

Another key consideration in the design of the Green Deal finance mechanism has been the interest rate that will be charged against the Green Deal loan. It has been shown that a lower interest rate will increase demand for the Green Deal and increases the likelihood of interventions meeting the 'Golden Rule' (Guertler, 2012). In his discussion, Guertler showed that a 3% interest rate would be most effective for reducing fuel poverty, though noted that due to the assumption that the capital will be raised in the private sector, the actual rate is likely to be much higher.

The interest rate associated with the loan has been a key point of debate in the run up to the launch of the Green Deal in January 2013. The Green Deal Finance Company announced the interest rate it would be providing on Friday

25th January (The Green Deal Finance Company, 2013), ending the speculation and uncertainty surrounding the cost of Green Deal Finance. A rate of 6.96% per annum has been set. On top of this an initial £63 set up charge is applied as well as an annual £20 operating charge. The table below indicates the all-in cost of a £5000 Green Deal based on different pay back periods.

Overall interest rates	£5,000
25 years	7.67%
20 years	7.73%
12 years	7.89%
10 years	7.96%

Source: *The Green Deal Finance Company, 2013*

This interest rate and operating cost combination makes larger loans on a larger number of interventions result in a lower all-in annual cost than smaller packages of interventions. Already, the popular press are voicing concerns that this interest rate is likely to result in reduced demand for the Green Deal. Concerns have also been raised over the policies ability to reduce fuel poverty, with Ed Matthew from the Energy Bill revolution stating:

The Government's flagship energy efficiency policies, the Green Deal and Energy Company Obligation, will not stop fuel poverty rocketing in the face of high gas prices. The Prime Minister must get a grip on this growing crisis, and take a much more ambitious approach to tackling fuel poverty.

(Matthew, 2013)

Supply chain benefits of the Green Deal

Stimulating demand for energy efficiency interventions is one of the key motivators behind the Green Deal. Whilst concern remains over the likely appetite for Green Deals from the domestic sector, the potential value of the market is significant. The market for energy efficiency measures was estimated at £8.25bn in 2007 (DECC, 2012a, p. 31) and it is estimated that the technical potential of the domestic sector in 2013 is £58bn. This provides a significant opportunity for growth and development of the energy efficient supply chain within the United Kingdom. Not only is there likely to be significant growth in the UK energy efficiency market, but the global market is expected to rise to £4trillion by the middle of this decade (DECC, 2012a).

£4 tn
Expected value
of global energy
efficiency market by
2015

In Yorkshire and the Humber the supply chain for these measures is fragmented and dominated by micro businesses (Koh, Genovese, and Rees, 2010), with the regional supply chain at risk of not being placed to capitalise on the potential benefits of the Green Deal (Koh, Genovese, and Acquaye, 2012). Understanding the likely demand and uptake of the Green Deal is vital in order to prepare the local and national supply chains to provide the necessary skill sets, products, partnerships and delivery models required to deliver the Green Deal¹.

Motivation for the focus groups

Initial feedback emerging from BIG Energy Upgrade communities suggests that residents believe in the value of the Household Energy Efficiency Interventions and this snapshot of residents' comments begins to build a powerful picture

¹ For a thorough exploration of these issues it see Koh, Genovese, and Acquaye, (2012)

£50.6m
under spend on Warm
Front scheme (2011-
2012)

of the impact of such projects on everyday lives in deprived communities. However, residents living within deprived communities have grown familiar with the availability of much-needed household energy efficiency interventions via a variety of state funded domestic energy efficiency schemes. With the roll out of the Green Deal, residents living in these communities will begin to feel the effects of a dramatic shift in the landscape of funding for such interventions. In recognition of the fact that the Green Deal may not be accessible to such households, it is anticipated that ECO will provide a safety net for the residents and properties that fall through the gaps, although it is not yet fully clear where distinctions will be drawn.

However, there is a case to be made that the Green Deal's intended adopters, hailing from more affluent communities, will have access to alternative means of funding for household energy efficiency interventions, including buying outright or accessing loans at preferential rates. It is possible that those living in deprived communities, suffering the financial implications of inefficient housing stock and unable to access the necessary funding to improve the situation, are the ones most at need of such a scheme and could stand to gain more from it.

The Green Deal and the associated Energy Company Obligation (ECO) marked a significant change in direction for Government interventions to improve the energy efficiency of the UK housing stock. For the first time in over 30 years there are no state funded domestic energy efficiency schemes. The funding mechanism for the Green Deal and ECO moves the costs entirely to the private sector and individual households.

Over recent years and through successive cycles of Supplier Obligations (SO's), households in the UK have become accustomed to free or heavily subsidised provision of energy efficiency interventions, such as the multitude of loft and cavity-wall insulation schemes. A shift to entirely privately funded interventions under the Green Deal will be the first exposure that many customers have to the true market cost of these interventions. Energy companies and consumer advocacy groups have already identified that it is difficult to offer free interventions to households, with the now ceased Government funded scheme Warm Front seeing a budget under spend of £50.6 million in 2011-2012 (HC Hansard, 2012). Worryingly, the Green Deal Impact Assessment (DECC, 2012a) also acknowledges that the market for interventions such as cavity-wall and loft insulation has been driven by Government subsidies, with the consumer expecting free or cheap insulation. Fewer than 50,000 homes would have received these installation measures if it wasn't for Government subsidy (Rosenow, 2012).

These focus groups sought to understand interest in, awareness of and potential uptake of Green Deals by householders within the BIG Energy Upgrade Local Authorities. The BIG Energy Upgrade is a regional flagship £14.9 million project, part financed by the European Union Regional Development Fund, addressing the priority needs of both reduction in carbon emissions and the creation of jobs. To address the issues in an integrated approach the University of Sheffield has brought together a multidisciplinary team of academics working alongside Local Authorities, ALMOs, social housing providers and an energy services company. The BIG Energy Upgrade, is delivered by a consortium of local authorities and social housing providers, led by Kirklees Council. It is a very ambitious project

as, for the first time in the UK, the partners will work together in adopting a fully integrated, whole-house approach while installing energy efficiency measures and micro generation technologies in households. Through individual household assessments the project will identify a highly individual package of measures for each of the households which will provide optimal insulation and energy control to the house.

Through a series of semi-structured discussions this research aimed to explore whether the contemporary concerns and espoused benefits of the Green Deal were likely to be realised following its introduction.

To effectively promote the uptake of the opportunities presented by the Green Deal initiative, it will be essential to engage appropriately with homeowners and tenants in order to promote and inform people of the scheme and foster trust in its aims and providers. If public engagement and education activities are not appropriate, then this could stand to detrimentally affect the overall success of the initiative. In addition to the work scheduled as part of the BIG Energy Upgrade project investigating public opinion about the benefits and drawbacks of the BIG Energy Upgrade, the research team secured University of Sheffield funding to run a scoping study to assess initial awareness, understanding and attitudes towards the Green Deal. Focus groups were held in a number of deprived communities in Yorkshire and the Humber, where participants were asked to comment on their perceptions of the initiative.

This report therefore aims to challenge the notion of the middle classes as the intended adopters of the Green Deal, and to consider whether a wider application of the scheme might be desirable and, indeed, achievable. In the first instance, it aims to achieve this by understanding the attitudes and appetite for such a scheme within residents living in deprived communities. Whilst analysis of the qualitative data has not yet taken place, our experiences of research in this area have shed light on some of the issues that might stand to affect engagement with the Green Deal scheme when it is launched later this year. An outline of the key initial observations from these groups follows.

2. Methods

Focus Groups

Six focus groups were conducted, one in each of the six local authority areas (Barnsley, Doncaster, Kirklees, Leeds City, North East Lincolnshire and North Lincolnshire) that were part of the BIG Energy Upgrade project. Each group comprised between 2 and 8 participants and a mixture of genders (see the table below for a breakdown of each group location). All focus groups were held in venues familiar to the local community (e.g. community centres, church halls and cafes).

Details of focus group locations

Group	Location
1	New Wortley, Leeds
2	Athersley, Barnsley
3	Wheatley, Doncaster
4	Frodingham, Scunthorpe
5	Chickenley, Dewsbury
6	East Marsh, Grimsby

Location Selection

Attempts were made to advertise the groups to all households within the Lower Super Output Areas¹ (LSOA's) targeted by the BIG Energy Upgrade project (with the exception of Eightlands in Kirklees, which was not part of the BEU at the time of conducting the survey). See the table below for further details.

Lower Layer Super Output Areas (LSOAs) Within the Sample Region that were Targeted by the Research Team

LSOA (and LSOA code*)	LSOA (cont'd)
1. E01007325 - Athersley (Barnsley)	6. E01011363 - Lower Wortley (Leeds)
2. E01007651 - Wheatley (Doncaster)	7. E01013137 - East Marsh (North East Lincolnshire)
3. E01007652 - Wheatley (Doncaster)	8. E01013139 - Guildford (North East Lincolnshire)
4. E01011122 - Chickenley District (Kirklees)	9. E01013311 - Frodingham (North Lincolnshire)
5. E01011148 - Golcar District (Kirklees)	**

Recruitment strategy

A mixed recruitment method was employed in order to obtain a broad cross-section of individuals at each location. Interested parties were invited to register their interest in attending the focus groups by providing a name and contact details in their response to the original baseline survey that was used to target all BIG Energy Upgrade households in the project's original quantitative (survey) research phase. A researcher then contacted every resident who had expressed an interest in taking part. Additionally, a researcher attended a variety of local

¹ For further information about LSOA's and their geographic boundaries please visit: <http://www.neighbourhood.statistics.gov.uk/dissemination/Info.do?page=aboutneighbourhood/geography/superoutputareas/soa-intro.htm>

events, including Tenants and Residents Association meetings and community 'free lunches' to raise awareness and recruit local people face to face. Posters advertising the upcoming focus groups were placed in targeted local community centres, church halls, cafes and shops.

3. Initial insights from the delivery of previous schemes

Positive impact.

Analysis of the data collected is ongoing, with specific reports expected in due course. Initial analysis of the focus groups suggest that the programme has been well received. In particular, residents have noticed an immediate improvement in terms of the warmth of their homes. There was evidence that residents had clearly understood the benefits of household energy efficiency interventions and were engaging with them appropriately to use less energy at home:

Last winter was brilliant. You only put it on for about an hour then you think, 'Oh, I'll turn it off,' and it kept warm. Whereas before when you used to turn it off it'd gone, the heat had gone, hadn't it, through the wall. It just disappeared. Now it, sort of, keeps in.

Resident, Grimsby

We don't use as much, we don't need to because it's well insulated now, it's a lot warmer so we don't have to have the heating on as much now.

Resident, Doncaster

These initial comments from residents highlight the big impact that the installation of household energy efficiency interventions can have in deprived communities.

What's in it for me?

The BIG Energy Upgrade scheme was focused on making important changes with regards to the environment and the financial burden inefficient homes present to those living in deprived communities. Whilst residents undoubtedly believed they would save money, when asked to comment on the perceived benefits of the scheme in their own words, residents were far more likely to comment on

(1) increased warmth and comfort and (2) a sense of increased pride in the appearance of their homes and communities. It may be worth considering that, from the perspective of the end-user, home energy efficiency interventions may or may not prove to have saved residents money (these savings are long term and uncertain, whilst escalating energy prices make comparisons difficult), but more efficient systems will tangibly improve quality of life from day one through increased pride, warmth and comfort and by enabling residents to use their homes more:

"more efficient systems will tangibly improve quality of life from day one"

I go to bed to keep warm.

Resident, Leeds (pre-intervention)

It's been marvellous, absolutely marvellous. We can actually sit downstairs now as a family, because we've got a fourteen-year-old son. We'd been living upstairs since he was two years old and he's fourteen now and we can actually sit downstairs and watch television as a family now we've got the heating. It's marvellous.

Resident, Doncaster (post-intervention)

Who should pay for home energy efficiency interventions?

All of the residents included in our study had received one or more of a variety of eligible household energy efficiency interventions as part of a previous scheme

delivered to residents living in deprived communities in Yorkshire and the Humber, the BIG Energy Upgrade (BEU). Residents demonstrated a consistent belief that home energy efficiency interventions such as those available as part of the BEU and the Green Deal would make their homes warmer and would lead to savings on energy bills. However, they were also asked to comment on whether they would consider paying for home energy efficiency interventions and demonstrated a reluctance to invest financially on a personal basis whilst living in rented homes and social housing. This finding demonstrates the potential challenge that will be faced by schemes under which residents will be required to make a personal financial contribution.

Keeping your word

Whilst residents were typically pleased with the end results of the work that they had done under the BEU, some criticisms focused on the process of having the work done. Comments on the process were mixed. Many were positive, focusing on the friendliness of workmen and the care taken. One resident recalled a swift and successful response from workmen to an emergency situation with a leaking temporary roof covering:

They turned out though, gone midnight and re-did it. They came out, all the way from Leeds.

Resident, Doncaster

However, other comments focused on leftover mess and confusion caused by delays without communication:

Oh the mess was horrendous. You know, this concrete and the stuff that they're pouring, the cream or whatever, all over the garden, oh it was awful.

Resident, Grimsby

They're all lovely lads, so far, but like I said, I'm just getting fed up of waiting now. Scaffolding around your house when there's no work getting carried out whatsoever for days. I mean, the scaffolding went up on Monday, I think it started going up, and they finished yesterday. So it's up, but nothing else seems to-, it's not like they say, 'That house is all up, they can start.' It's like it gets left for a few days before anything else gets carried out and I just think, why?

Resident, Kirklees

Resident-perspective experiences of the BEU point to the importance of talking to residents, letting them know what is happening and sticking to your word. In particular, it is perceived by residents as important that workmen turn up when you say you will, do what you say you'll do and provide obvious and accessible lines of communication to discuss concerns and issues before, during and after the work is completed.

Quality and respect

Perceived attempting to cut corners to save time and money in the short term undermine trust and cost more in the long term. Residents want to feel respected. They are proud of their homes and communities and the quality of the work needs to reflect and respect this.

4. Initial community feedback and potential implications

Some initial feedback from communities

Awareness of the Green Deal

Focus Groups with residents were held in July and August 2012. At this time, information about the Green Deal was available and the official Green Deal website was up and running. However, existing levels of awareness amongst residents were very low, in fact none of those consulted had heard the term 'the Green Deal' or knew what the term related to. Whilst residents expressed interest once the scheme was explained, they wanted to know more and were surprised that they have not seen any advertising about a scheme that was due to start in Autumn 2012 (now revised to January 2013). Increasing awareness of the programme should be a priority as the stated importance of the programme appears to conflict with the rather muted marketing it has received to date. This situation could stand to undermine the perceived credibility of the programme.

Questions raised

Residents were provided with a simple oral overview of the Green Deal, focusing in particular on following the basic facts detailed in the table opposite. When asked for their initial thoughts, residents tended to respond with questions, highlighting the complexity of the scheme and the need to provide information in answer to the following:

- What household energy efficiency interventions are available?
- How much will residents have to pay back?
- How long are residents going to be paying this back for and is there a time limit, or will the debt be written off if it hasn't been paid in a certain period?
- Do you have to undergo a credit check and could you be refused on the grounds of poor credit?
- In rented homes or social housing, will landlords, local authority or housing association allow the work to take place?
- Will the anticipated savings be guaranteed (or could residents be paying more each month than they are currently?)
- Does the Green Deal involve taking out a loan and, if so, what will the interest rate be?

Initial impressions of the Green Deal

Once the group's moderator had explained the basic model of the scheme, the majority of residents were initially quite open to the idea of the Green Deal, although some residents expressed suspicion:

What's the catch?

Resident, Scunthorpe

However, despite clarification that the scheme was open to all, many residents perceived that the scheme was intended purely for home-owners and did not initially comprehend that a scheme such as the Green Deal could be targeted at them:

This is not for us; this is for everybody like people in private houses.

Resident, Scunthorpe

The Green Deal – Overview

- The Government want to make houses more energy-efficient so that homes have less of a negative impact on the environment and so that people can spend less on their energy bills.
- Any home can be eligible (could be quite energy efficient already, could be very inefficient).
- Any sort of tenure can be eligible (can be council-owned, rented or private).
- The Green Deal is a package of work which could include a variety of interventions.
- The 'golden rule' is that the cost of installing the interventions must be less than the saving you would make from having them, over time.
- The money comes from the Green Deal Fund, which is a pot of funding contributed to by the Government, the energy companies and the banks.
- The money for the interventions is paid back over time through a resident's household energy bills.
- The idea is that if you participate in the Green Deal, the work you have done should save you more money each month that you will need to pay back towards the interventions.
- If over time energy prices rise, you will still be paying less per month than you would have been without the interventions.

Perceived benefits of the Green Deal

Some particular benefits of the scheme were perceived. These provide useful insight into on how the scheme could be successfully pitched to the groups.

Whilst hesitant to invest in home energy efficiency interventions, participants perceived the scheme as positive on the grounds that some residents in deprived communities would struggle to get a loan on account of a poor credit rating. In this sense, the scheme was perceived as empowering. Similarly, it was perceived that the scheme puts the resident 'in charge':

I think it's a good idea, me, because you get a say in what you want done, then, instead of somebody sat in a boardroom, deciding what you need doing for your house.

Resident, Barnsley

Equally, it was perceived that residents would be eligible for measures that their home actually needs to make it more comfortable, rather than a 'one size fits all' approach applied to every household. Some residents noted that if the council installed the measures instead, they might put up your rent to charge you for them anyway, so the Green Deal was similar, but gave you more personal control.

To a certain extent, however, the value of this perceived benefit is put at risk by residents' own perceived sense of disempowerment, with many residents suspecting that their Local Authority or Housing Association would not agree to let the scheme take place in their area.

Perceived disadvantages of the Green Deal and barriers to engagement

Residents are dubious of the role that banks might play in financing the Green Deal. At present many people dislike and do not trust the banks:

If the banks are involved, it's dodgy.

Resident, Dewsbury

Our groups really highlighted how sensitive this group are to the way the Green Deal message is phrased. As we introduced further information, some attitudes changed. For example, when questioned more directly about how they felt about taking a 'loan' via the scheme, residents were in some cases less enthusiastic, reflecting that they hadn't initially perceived the scheme as a 'loan':

So it is a form of credit?

Resident, Scunthorpe

Residents discussed the fact that they were not home owners. Many questioned

whether improving the energy efficiency of the homes was their responsibility:

Why should the tenant pay for something that North Lincs Homes should be doing anyway?

Resident, Scunthorpe

The Green Deal and previous 'free' schemes

The residents living in the deprived communities of our sample have lived through a variety of different Government initiatives aimed at providing household energy efficiency interventions that are free or subsidised. Residents demonstrated confusion between the Green Deal and other Government initiatives, such as solar panels and the feed-in tariff. For example, when discussing the potential availability of solar panels under the Green Deal scheme:

The Government's put a stop to it, haven't they?

Resident, Scunthorpe

This knowledge of previous schemes has also led some residents to conclude that it's only a matter of time before their Local Authority or Housing Association will fund interventions across all homes under one scheme or another:

North Lincs Homes will eventually get round to you, I'm sure they will.

Resident, Scunthorpe

In order for residents to seriously consider participation in the Green Deal, it seems it may be important to clarify that the Green Deal is the new arrangement for the provision of home energy efficiency interventions and is not an alternative to other, free, schemes.

Marketing the Green Deal

Not everybody reads what comes through the letter box.

Resident, Scunthorpe

Residents were keen to find out more about the Green Deal, but felt they would be unlikely to seek out more information on their own or as a result of a flyer through the letterbox. Many pointed to the focus group format as a platform in which they felt they were being given open and honest information and the opportunity to ask questions without being 'sold' an idea. Whilst focus groups are not the right format to disseminate a marketing message, it is clear that the face to face format provides an opportunity to ask questions and instils a sense of trust:

In the meantime, you've got all these people around this table that know about it. So you're going to tell somebody, I'm going to tell somebody and then they're going to say to themselves, 'Oh what is this Green Deal?' Then if you've got something in place, they've already got an idea and they think, 'Oh I think I've heard about this. I'm going to go to see what it's about.'

"...the face to face format provides an opportunity to ask questions and instils a sense of trust"

Resident, Scunthorpe

Well if I spend so much, how much am I going to have to pay back, for how long?' Once they get all the information together, I'm sure that they're going to be, you know, willing to look at it more closely.

Resident, Scunthorpe

Residents were also keen on the idea of someone local piloting the scheme, so they could learn the real pros and cons from someone they trusted:

You need someone to pilot it.

Resident, Scunthorpe

Some potential implications of community feedback

Whilst this report presents initial insights from an ongoing analysis process, it is possible to draw out some potential implications of the feedback from this small sample of residents living within deprived communities. Some potential implications that may be of use in stimulating demand for the Green Deal follow.

Sell the benefits as perceived by the users

Feedback from a previous scheme, the BIG Energy Upgrade, highlights the importance of understanding what home energy efficiency interventions really mean to residents in deprived communities. Whilst the financial savings may be significant in time, increased warmth and comfort are immediate and tangible. Equally, many residents who do not own their own homes perceive a financial investment in someone else's property as unfair and illogical. Framing the Green Deal as something residents can do now to improve their quality of life in a cost-effective way is likely to be more successful than focusing on the potential financial savings. In short, the Green Deal could more successfully be framed as something residents can do to improve their lives, rather than their homes.

*"...the Green Deal could more successfully be framed as something residents can do to **improve their lives**, rather than their homes."*

Sharing information

Residents were surprised that they had heard so little about the Green Deal and lack of information left them feeling distrustful. Full and honest information needs to be available, in particular answering in clear terms whether the anticipated savings will be guaranteed, how much residents will have to pay back (i.e. what is the rate of interest) and who is eligible (e.g. will there be credit checks).

Local engagement and neighbourhood ambassadors

It is clear that residents require more information, but this information will not reach them unless the appropriate channels of communication are considered. The Green Deal is seen as a bit of a 'gamble' and trust in national Government and local authorities is not always strong. Neighbourhood ambassadors (local people who have had works done) and 'independent' experts could help to convey information and increase trust and engagement in the initiative.

Terminology

The success of the scheme is also likely to be related to careful explanations of the role the banks play in financing the Green Deal. Active efforts will need to be made to assure homeowners that they (and their homes) are not at risk from the involvement of these banking establishments. Similarly, it will be important to highlight the differences between a conventional loan and the financial support available through the Green Deal, perhaps answering the question 'is it a form of credit' straight on.

Changing attitudes and dependence on 'free' schemes

It will also be important to frame the scheme as 'the' current provision for energy efficiency improvements and is not an alternative to other, free, schemes. The Green Deal may appear to residents to be a poor offer compared with previous

free and fully-funded schemes. It may be important to emphasise the differences with previous schemes, in particular that the Green Deal empowers residents, allowing them to decide what they want to invest in and who they want to deliver it, rather than simply passively accepting a 'one size fits all' funded scheme.

5. Procurement and supply chain recommendations

Building on the work of Koh et al, 2010 a number of key recommendations have been identified that will enable the preparation of regional supply chains for the successful delivery of the Green Deal programme. In adopting these approaches, the greatest economic, social and technical benefits of the Green Deal programme can be realised.

Including End-User perspective in procurement exercises

Currently, some LAs, are adopting approaches that include end-user feedback. This is because emerging evidence suggests that some householders are concerned with some of the work been undertaken on LA contracts, as also pointed out in this report. This may also be an issue for contract works that would be undertaken within the Green Deal scheme where LAs are playing a significant role (as Green Deal provider or partners). As such, in the tender evaluation process, LA should specifically include case study format question about potential scenarios from undertaking work in local communities. Negative end-user feedback may therefore become a constraint, in the sense that firms whose performance have been rated as 'poor' or 'not satisfactory' may be prevented from bidding for future projects. These approaches would require bespoke tender documents to be prepared for each specific project

Furthermore, KPI should be included in the project monitoring phase to keep track of end user satisfaction related to work that has been undertaken. This information can become part of the historical record for specific contractors and sub-contractors. This may work in favour of local firms. Indeed, local firms can have a better knowledge of the local communities and their specific needs.

A New Supply Chain Configuration

A proposal of a new form of Energy Efficiency Retrofitting Service supply chain for supporting large scale projects (such as the forthcoming Green Deal) emerged from the field analysis (see Figure 1 below).

This supply chain consists of multiple stakeholders namely:

1. The interested Local Authorities;
2. ALMOs or Housing Partners, that manage the housing stock;
3. The program sponsor, providing funding to cover (partially or totally) the cost of the project
4. Procurement consultancy firms or organisations, that often provide external services to ALMOs and Local Authorities
5. Tier-one contractors, that are awarded the contract and the responsibility to complete the works;
6. Tier-two sub-contractors that are awarded smaller pieces of works by the main contractors.
7. Materials suppliers, that provide products (for example, insulation materials) to be then installed in the properties to be targeted;
8. Distributors, that buys bulk quantities of products to be then delivered to main contractor or sub-contractors.

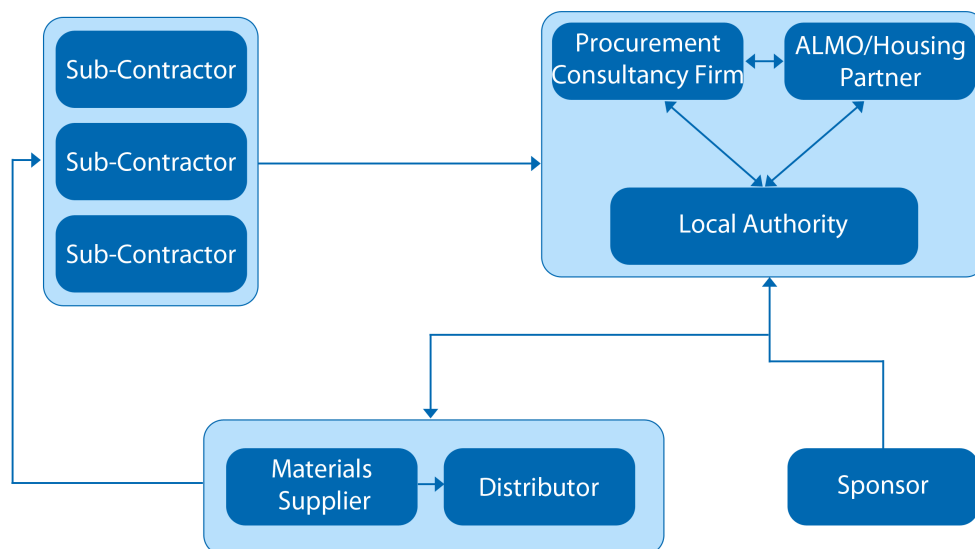


Figure 1: Potential Supply Chain Configuration for the Green Deal

A supply chain configuration that could emerge if Local Authorities want to undertake the Green Deal roll out as direct providers or in partnership with one of more Green Deal providers (public-private partnership) is presented in Figure 1. It would involve the Local Authorities raising finances by themselves (or by the partnership or Green Deal providers) and controlling strategic planning and local delivery to address specific local priorities through procurement and supply chains.

In the context of the Green Deal supply chain this would therefore involve the direct procurement of energy efficiency measures by LAs through the procurement firm. This can be financed as part of a Green Deal public-private partnership between the LAs and Green Deal provider(s). This will de-risk the business model; leverage strengths of Green Deal providers working with LAs, and at the same time involve SMEs along the supply chain. LAs should however be aware of the risks related to this supply chain configuration.

Skills Training

Providing appropriate training and development to bridge the skills gap in the energy efficiency sector. This includes skills throughout the supply chain from installation to R&D. Low carbon skill is in great demand and of great shortage. With the expected increase of Green Deal roll out throughout the supply chain, it is important to prepare for the skills supply and training at all levels. The Government recently announced City Deals which will support each local authority's plans to test key elements of the Green Deal including the needed skills need and investment. Involvements of apprentices to high level skills are required. Multi-skilled labour will also play a key role in ensuring enough qualified Green Deal installers are available to meet with the demand. Green Deal (or similar) training centres are envisaged. Innovation in energy efficiency measures will also play a key part, and this will require increased investment in R&D at University and Research Centres.

Investment in infrastructures

Investment in infrastructures to support delivery from design, build, logistics, installation, maintenance and repair. Green Deal supply chain provides great opportunities to invest and renew the infrastructures required for their delivery. The range of infrastructures include micro-generation for decentralisation of energy supply, heat network, control systems, to service centre of energy advice. This calls for change towards an end-to-end energy supply and demand service chain delivered locally (e.g. mini energy centre).

IT Support

Implementing IT systems capable of providing updated information on properties' components, devices and installations (kitchens, doors, windows, insulation materials) and their useful life, providing alerts and planning on required interventions are required. As a result, ALMOs can plan well in advance the works that are required. This enables very good visibility of future requirements (in terms of skills, materials and supply chain support) and strategy formulation (with respect to procurement aspects).

6. Conclusions

Our research has shown that improving energy efficiency and uptake of Green Deal will depend on stakeholder buy in. Although Green Deal at the moment has been targeted more so to middle income society, which may or may not need a Green Deal loan to retrofit their home, it will be interesting to explore the views from the lower income community to gauge their thoughts on Green Deal because they will be the end users / tenants that are more likely to be in need of financial help.

This report, in particular, examines these challenges from the tenants' / end users' perspective, and seeks to show how the tenants' concerns could be addressed from strategic and wider perspectives at community and regional levels.

Economic prosperity and low carbon / green growth will create jobs. This will then create a better quality of life for people living in the community (especially deprived areas), improving conditions for energy affordability and health. Green Deal provides a significant opportunity to tap into the £4 trillion energy efficiency market and supply chain. Yorkshire and Humber have a very strong representation of Green Deal providers, which creates opportunity for Green Deal assessors, Green Deal installers, Green Deal skills providers and so on. The value and potential of the Green Deal supply chain benefiting local SMEs and organisations for the Yorkshire and Humber is significant. This will create wealth, create green skills set and develop a sustainable place for living and working in the Yorkshire and Humber.

Therefore, the role of procurement in delivering Green Deal will play a key role to help SMEs to be part of the Green Deal supply chain. The skills and quality of work delivered through this must be assessed independently and standardised. The infrastructure investment required should be carefully and strategically charted with close public-private partnership in addition to stimulating Community Interest Company and social enterprise to take a more bottom up approach. A more visible information system will also help to remove inefficiency in the process. These will need strong end users and community engagement, and new way of integrating and delivering social, environment, economic values for a sustainable future.

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Notes



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