UK GREEN BUILDING COUNCIL

JANUARY 2014

Task Group Report

Green Deal Finance

Examining the Green Deal interest rate as a barrier to take-up

CAMPAIGN FOR A SUSTAINABLE BUILT ENVIRONMENT

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1. EXECUTIVE SUMMARY

Introduction

Government's flagship energy efficiency policy – the Green Deal – was launched in January 2013 with the aim of transforming the energy efficiency of UK homes and creating a new, coherent retrofit industry. At the heart of the scheme is a "Pay As You Save" finance mechanism which allows households to install energy efficiency measures at little or no up-front cost, making repayments on loans via their energy bills.

Yet, almost one year into the scheme, uptake of the finance package has been lacklustre. Although more than 100,000 assessments have been carried out, fewer than 1,500 households have signed Green Deal plans, with under 500 homes having actually installed energy saving measures using the finance[1]. Various reasons have been put forward to explain this slow uptake, but a consistent theme has been concern over the interest rates of 8-10 per cent on Green Deal loans offered by the Green Deal Finance Company (GDFC).

In October 2013, UK-GBC convened a Task Group to examine the issue of Green Deal finance. The first aim was to review the available evidence and ascertain whether the interest rate is actually discouraging households from taking up the scheme, or otherwise negatively affecting its performance. Following this, the Group set out to understand what options are available to reduce the interest rate, presenting the associated costs and policy implications, and taking into account the estimated £7-11 billion needed per year over the next 15 years to fund a significant upgrade of the UK housing stock[2].

This report follows a previous UK-GBC Task Group report which examined how take-up of the Green Deal could be driven using structural incentives[3].

Is the interest rate really an issue?

Perceived high interest rates are often cited as one of the key shortcomings of the Green Deal, but it is vital to understand more about the degree to which they are actually holding back the scheme. This encompasses a variety of issues, including the degree to which it is affecting consumer perceptions of the benefits of taking up the Green Deal; the extent to which, objectively, the rates being offered compare to the wider market for consumer finance; and how it is affecting the scheme's operation.

Research carried out in 2010 by the Great British Refurb campaign[4] suggested that high interest rates would be a significant disincentive for householders. However, initial market feedback from actual and prospective customers, and Green Deal Providers, has found this not to be the case.

The long duration of the Green Deal loans was found to be a greater factor putting off householders, as current rates spread over twenty years could lead to a doubling of actual payments over the lifetime of the plan. Other key barriers include a fundamental lack of demand for energy efficiency and the complexity of the scheme.

[1] DECC Green Deal and ECO monthly statistics, Dec 2013
[2] E3G (2011) Financing the Green Deal.
[3] UK-GBC (2013) Retrofit Incentives
[4] Great British Refurb (2010) Green Deal – public appetite market research

Research by Capital Economics[5] found that the interest rates of 8-10 per cent on loans offered by the GDFC are competitive when compared against other similar forms of unsecured credit. Although the best rates are available through mortgage top-up, these are only available to homeowners, are often not suitable for smaller loans and the rates are not fixed for the term of loan.

However, the interest rate does directly impact on what measures can be funded under the scheme's 'Golden Rule', which states the expected financial savings must be greater than the costs attached to the energy bill. In order to undertake significant packages of work, householders have to make substantial contributions from their own pocket or take out further loans. Lowering the interest rate would therefore increase the number of measures that could be installed under the Golden Rule, potentially making the scheme more attractive.

Reducing the cost of Green Deal finance

Policy interventions

Firstly, Government could allow a degree of flexibility in the application of the Golden Rule. If this was relaxed, it would not reduce the interest rate but households could choose to repay loans more quickly and therefore reduce the overall amount repaid.

Another option would be to allow repayments to vary over time along with inflation or the Bank of England base rate. This would make it more attractive for investors and could potentially reduce the headline rate offered by the GDFC by around 2 per cent.

Similarly, removing certain Consumer Credit Act requirements from Green Deal loans – requiring related charges to be factored into the APR – could bring down the headline rates faced by customers.

Nevertheless, the key disadvantage of these three options is that they would each undermine the consumer protection offered under the scheme.

Government financial support

A more significant intervention by Government would be to provide a direct subsidy. This could take the form of finance for the GDFC (or other financial institutions involved in the market), or a direct subsidy to households – either in the form of a single upfront grant or a regular contribution to offset the costs of repayments.

There are a number of hurdles to overcome in order for this to happen, including issues around state aid, but the Group found no evidence that these are insurmountable. However, clearly this would create significant costs or liabilities for Government; for every £1 billion worth of Green Deal plans taken out by householders it would cost Government up to £300 million to reduce the headline interest rates to 4-5 per cent.

As an alternative to direct funding, Government could provide a guarantee. This would create contingent liabilities of a similar amount to the cost of direct subsidy but, depending on how it is treated for accounting purposes, could have less impact on national debt.

[5] Capital Economics (2013) GDFC Payment Plans – the Facts

Alternative sources of finance

There are a number of ways in which new finance sources could be brought to market as alternatives to the GDFC's finance offer. At a local level, social investors or community funding could offer finance at lower rates. Renewable energy programmes currently use EIS[6] tax relief to reduce their cost of capital to 4-5 per cent and the same could be done to set up a Green Deal finance package.

Similarly, local authorities have access to low cost capital through their own reserves or borrowing from central Government. A local authority could use this capital to set up a fund and offer a Green Deal finance package delivering an APR of 5-7 per cent. The main issues for local authorities would be their appetite for managing a loan scheme, and their comfort with higher levels of debt.

Neither of these options is without complications, but both represent viable alternatives and useful interim measures to full market scale up. However, they may not be able to deliver on the scale required, unless local authorities co-operated through an aggregation scheme.

Retail banks are also beginning to offer more innovative retrofit finance products. However, they are currently not in a position to offer Green Deal finance due to the requirements for fixed long term rates and the collection of repayments by energy companies.

Conclusions

A reduced interest rate would not be a silver bullet solution but it would greatly benefit the Green Deal by increasing the eligible measures under the Golden Rule and reducing the overall payments that householders make. This report demonstrates that there are a range of ways this could be achieved, each with their own advantages and disadvantages. However, other major challenges must also be addressed to make the Green Deal a success, particularly boosting demand for energy efficiency measures through much stronger structural incentives and improved communication and marketing.

In the short term, the impact of the interest rate could be tested through a small scale low interest rate programme at a local level. If there is significant increase in demand then the Government can choose to act with policy changes and/or central Government financial support in the light of clear evidence.

While none of these options are straightforward, the scale of the retrofit challenge we face, and the benefits that overcoming it would bring, are so significant that this has to be made a top priority for Government.

[6] Enterprise Investment Scheme

2. INTRODUCTION

The Green Deal launched in January 2013 as the Government's flagship energy efficiency policy. The scheme is intended to stimulate a mass market for domestic energy efficiency by establishing a valued accreditation scheme, a robust assessment process, and an accessible and affordable finance mechanism. At the heart of the scheme is a "Pay As You Save" finance mechanism which allows households to install energy efficiency measures at little or no up-front cost, making repayments on loans via their energy bills.

However, one year on from the launch, the Green Deal has not created a retrofit finance revolution as had been hoped. Up to the end of November 2013, 117,454 Green Deal assessments had been undertaken, which appears very promising. Yet only 1,478 households had proceeded to undertake a Green Deal finance plan, with only 458 having actually installed measures which were funded in this way. These figures for Green Deal Plans fall far short of the 10,000 that the Government had anticipated for the first year of the scheme and as a result the finance mechanism has been the subject of a great deal of criticism.

The issue that has attracted the most attention is the interest rate being offered for lending under the Green Deal. The Green Deal Finance Company is the only body currently able to offer Green Deal finance at significant levels and is doing so with an APR of around 8 per cent. With record low interest rates of 4-5 per cent being offered for other finance products on the market, there is a perception that the interest rate on Green Deal plans is simply too high for householders. Many commentators have therefore claimed that reducing the interest is the critical factor in making the Green Deal a success.

The interest rate is potentially significant for two reasons. Firstly, it can put off potential customers through the initial 'sticker shock' of a perceived high APR. For many householders who are concerned with levels of personal debt, an APR figure which is higher than others on the high-street could be a major disincentive to take out Green Deal finance. Secondly, the interest rate has a direct impact on the measures that comply with the Golden Rule, which states that repayments should not exceed the expected savings on energy bills from the installed measures. A high interest rate means fewer measures can be funded through Green Deal finance and the customer is more likely to need to contribute up-front finance. The prospect of making an upfront contribution could prove another disincentive to householders taking up Green Deal finance or could mean that fewer measures are installed per household, reducing the potential carbon savings from the scheme.

Green Deal finance, with its specific requirements[7], may not be the most appropriate form of energy efficiency finance for all households and in order to stimulate a mass market for retrofit it is important that diverse finance options are available. Nevertheless, the pay as you save mechanism of Green Deal finance is a vital part of this market and therefore must provide the best deal possible. This report is therefore intended to address the issue of the interest rate for Green Deal finance by establishing the scale of the problem and offering potential solutions for reducing the rate. Although there are other issues which could also help to increase take up of Green Deal finance, these are not covered in detail in the report. This report follows a previous

[7] Meeting the Golden Rule; attached to the electricity meter; fixed rate (or 2 per cent increase) for period of loan

UK-GBC Task Group report which examined how take-up of the Green Deal could be driven by the use of structural incentives[8].

The focus of the report will specifically be on the interest rate for Green Deal finance within the context of the Golden Rule and repayments made via energy bills. It is also important that any solutions are available to a mass market and can fund a large proportion of the 14 million UK homes which still need to be retrofitted at a cost estimate to be possibly as high as £7-11 billion per year over the next 15 years[9].

The first section will seek to examine whether the interest rate is indeed the critical issue that some commentators have made it out to be. It will explore the competitiveness of the rate and will look to gauge the impact of perceived high rates for consumers. Moving onto solutions, the report will look at options for offering some form of Green Deal finance at a lower interest rate. The focus will be upon three ways this could be achieved – the use of small scale programmes which might encourage some take up but will not provide all the finance required, policy changes, and direct government subsidy to reduce the rate for large-scale programmes.

[8] UK-GBC (2013) Retrofit Incentives
[9] Financing the Green Deal. E3G. 2011

3. IS THE INTEREST RATE AN ISSUE?

Before exploring the options for reducing the interest rate, it is important to establish the scale of the issue. The current APR is frequently criticised for being too high but this is not necessarily the case in comparison to similar financial products available. Feedback from consumer research and Green Deal Providers also suggests that, although a lower rate would appear more attractive to consumers, the current APR in itself is not considered to be the biggest barrier for take-up.

However, whilst this might be the case, there are still benefits to reducing the interest rate. A lower interest rate would be beneficial in increasing the size of the Golden Rule and reducing the interest payments as a proportion of the total cost of a plan.

Green Deal Finance Company

Comparative analysis of the finance package offered by the Green Deal Finance Company (GDFC) shows that it is actually competitive with other financial products when compared on a like for like basis. It is therefore incorrect to assume the GDFC APR is high relative to what is being offered elsewhere in the finance market, although it is understandable that this is the initial reaction.

The GDFC was set up to provide a one-stop-shop to Green Deal Providers for Green Deal plan administration and provision of finance. It is a not-for-profit mutual company with 60 members from the public and private sectors including energy companies and Green Deal Providers. The GDFC has been allocated £244 million funding by the Green Investment Bank, DECC and a range of private companies. The GFDC works with Green Deal Providers, which in turn deal with individual consumers. The first Green Deal Plan was accepted in April 2013, and up to December 2013 the GDFC has processed £6.5 million in loans supporting 1,600 Green Deal Plans.

Capital Economics conducted a market review[10] for GDFC over the summer of 2013 which concluded that, as unsecured finance, GDFC rates are relatively competitive, especially for those looking to invest in home energy efficiency measures costing in the range of £1,500 to £5,000.

Table 1: Example APRs of payment plans offered by the GDFC

Improvement Amount	Max term (years)	APR	Total Amount to Pay	Total Charge for Credit
£1,500	10	10.3%	£2,373.80	£873.80
£1,500	20	9.6%	£3,287.25	£1,787.25
£5,000	10	8.2%	£7,230.96	£2,230.96
£5,000	20	7.9%	£9,788.70	£4,788.70

Source: Capital Economics 2013

The report claims that the interest rate of 6.96 per cent, set-up charge of £63 and annual administration charge of £18.25 results in highly competitive APRs when compared against other forms of unsecured credit. Whilst the best rates are available through mortgage top-up, this is often not suitable for smaller loans, and in any case only a third of households have mortgages, not all of which allow top-ups, and rates are not fixed for the term of loan. They also do not meet the requirements of Green Deal finance.

[10] 'GDFC Payment Plans – the Facts' http://www.tgdfc.org/ourfinance

One of these requirements is that rates are fixed for the life of the Green Deal plan, for up to 25 years. No other sources of finance offer such long term fixed rates. This protects households against future interest rate rises making Green Deal finance the most attractive proposition when taking into account reasonable expectations of future interest rate rises.

Green Deal finance rates are available without discrimination to all who pass the credit checks, which have been set at as low a level as possible, commensurate with the low risks of customers not paying their electricity bills. This means that Green Deal finance is available to about 83 per cent of the population and the lower risk of default payments enables a much lower rate of interest to be charged. In contrast, normal consumer finance is only available to around half of the population and advertised best rates, which have been used to benchmark the GDFC rates by commentators, only need to be accessible to 51 per cent of eligible applicants.

As Green Deal finance is available for long durations (up to 25 years), monthly or quarterly repayments are kept low, helping households spending budgets and allowing the Golden Rule to be met. Normal consumer credit is only available for shorter durations, meaning that for any given APR, the monthly payments will be higher, although the total interest paid as a proportion of the initial capital loan will be lower.

Table 2: Pricing grid for consumer and mortgage products

Consumer rates	Size	Rate	Term	Credit
Sainsburys	£7,500.00	4.90%	12-36m	No CCJs
Tescos	£7,500.00	5.10%	12-60m	Bank/Bsoc
Derbyshire	£7,500.00	5.00%	12-60m	No CCJs
Norton	£10,000.00	14.90%	60m	CCJs/IVA
Ocean	£10,000.00	14.30%	60m	CCJs/IVA
UK Credit	£3,000.00	47.90%	36m	Poor
Amigo	£3,000.00	49.90%	36m	Poor
Mortgage Rates	**Size**	**Rate**	**Term**	**Credit**
Clydesdale	tba	4.60%	25y	60%
First Direct	tba	3.50%	25y	60%
Virgin Money	tba	4.30%	25y	70%

Source: GDFC Stakeholder Loan Investor Presentation Dec 2012

Consumer research

Although the cost of finance appears reasonable when compared in detail with other forms of unsecured finance, some early research suggested that consumers would be more attracted to the Green Deal with a lower interest rate and believe it should be subsidised by government. Research by The Great British Refurb reported a significant fall in likely uptake as interest rates rise over 3 per cent, with a strong preference for a fixed rate[11].

However, there is a bigger demand issue in that only 10 per cent of households renovating their homes consider improving energy efficiency[12]. It is therefore clear that home energy efficiency retrofit is not currently a vibrant market, and the blame for low demand cannot be placed solely on the cost of finance. Consumers and landlords

[11] Great British Refurb (2010) Green Deal - public appetite market research
[12] UKERC (2013) Understanding Homeowners' Renovating Decisions: Findings of the VERD Project

need a much more compelling offer in which the advantages of energy efficiency clearly outweigh the upfront hassle and the cost of the investment in their homes.

While the level at which the interest rate is set undoubtedly has some influence on the attractiveness of the Green Deal to consumers, it is by no means the overriding issue, or indeed the first one they encounter. Examples from other sectors, such as home furnishing and kitchens, show that when consumers wish to buy, they are comfortable with levels of interest similar to those offered by the GDFC. Any consideration around devoting finance and resource to subsidising the interest rate should be viewed as one of a number of important issues for increasing demand for energy efficiency retrofit and cannot be viewed as a silver bullet solution.

Feedback from early Green Deal customers

Initial feedback from the market also bears out that the cost of finance is not proving a significant barrier to households. DECC surveys of households who have had a Green Deal Assessment found that only 2-3 per cent did not take up Green Deal finance because this option was "not attractive"[13]. Other issues must therefore be considered to explain the slow take-up of Green Deal finance.

Delays in establishing financing solutions, such as that offered by GDFC, has meant finance options not being available until at least June 2013, and then only to a small number of early-adopter organisations. At the time of writing it is still only possible for Providers to offer Green Deal finance to owner occupiers. This has also been compounded by delays in resolving system interfaces and automated solutions intended to support a better customer experience as well as reducing Providers' costs.

An additional restriction for householders has proven to be the limitations of the Golden Rule which have come to light since Providers have started actively promoting Green Deal propositions in the market place. Early market experience is showing that consumers are, in some instances, having to pay upfront or arrange alternative finance for a significant proportion of the total value of the install, with a lesser per cent of finance being available through Green Deal finance under the current Golden Rule methodology. With the householder required to make a substantial contribution even with a Green Deal, it becomes possible that, rather than proceed with the complicated Green Deal process for a part of the cost, they will seek to fund the full installation using other sources of finance or not proceed at all.

The APR has a direct impact on the Golden Rule calculation as a lower rate would allow more measures to be funded through the finance mechanism. A reduced interest could therefore be viewed as part of the solution for increasing the Golden Rule. With more eligible measures, consumers are more likely to be able to fully fund installations using Green Deal finance and it is possible that uptake would increase as a result.

Early feedback also indicates that there is another potential disincentive with the financial proposition of Green Deal, with consumers appearing to focus on the payback period and the overall cost. In many cases, plans of 25 years will result in total interest payments which exceed the initial capital investment. Total payments on a £1,000 loan at 8 per cent APR over 25 years is £2,340, driven as much by the longevity of the loans as the interest rate. Whilst interest payments are likely to exceed the capital investment for most other long term lending - notably mortgages – the feedback is that householders tend to view the overall repayments and their duration as a greater

[13] DECC (2014) Green Deal Assessments Research: Research report from Waves 1, 2 and 3, and the Wave 1 follow up survey

barrier than the APR. A reduced interest rate could help to reduce the overall interest payments and, as a result, the overall cost of a Green Deal plan.

Market feedback from Green Deal Providers is that there is demand for Green Deal, and this is growing. The slow start has been due to a combination of factors comprising processes, systems, legal issues, cost of delivery and financing; all of which still have outstanding issues yet to be resolved.

4. SMALL SCALE PROGRAMMES

Innovations in small-scale finance could have the potential to provide an alternative source of Green Deal loans at lower rates than the GDFC. Local authorities and community finance schemes are in many cases able to set up equivalent finance packages at a lower cost than the current Green Deal plans.

However, the primary issue with such programmes is that they are rarely able to scale up capital to increase the loan book to the required size.

Community finance

Social and other local retail investors could be used to help develop the Green Deal market in its early stages. They are able to provide finance at lower rates and could help to increase the understanding of the risks involved and build up demand by raising awareness and creating a sense of ownership in the Green Deal.

It is possible for community funding in renewable energy programmes to attract private sector investors with a rate of return of 4-5 per cent due to the enhancement from EIS tax relief[14]. If this tax relief were to be extended to community investors in the Green Deal then it would be possible to offer a small scale Green Deal finance package at a lower interest rate. Other investors who are comfortable with these levels of returns such as foundations and endowments might also invest in community funds. These types of investors have operating costs which might take the APRs towards 6-7 per cent but this would still be better than the current 7-9 per cent from GDFC.

Providing capital at a localised scale could build the size of the market at a greater rate by establishing a track record on defaults and general performance. This then could be made available to rating agencies for their assessments of larger scale programmes, thereby helping reduce the overall cost of capital. Furthermore, community programmes offering lower cost finance would be able to test whether the interest rate was a significant issue in generating demand.

A community-focussed Green Deal could be seed funded by institutional impact-focussed investors, such as charitable trusts and foundations, providing greater certainty to commercial sector investors through actual financial data. This is how other sectors such as community-led renewable energy are being financed through local investors, charitable investors, and then commercial banks as deal sizes increase and the market matures.

Clearly the challenge of scale through this approach is a significant one. Community renewable energy programmes are generally below £5 million in size, and many are below £1 million. Delivering housing retrofit solutions through community programmes will deliver valuable market lessons, but will not deliver the size of programme desired.

Local authority small scale programme

Local authorities have access to low cost capital through either use of their reserves or borrowing from central Government via the Public Works Loan Board (PWLB). The cost of reserve capital is typically around 1-3 per cent, which reflects the returns which

[14] The Enterprise Investment Scheme (EIS) is designed to help smaller higher-risk trading companies to raise finance by offering a range of tax reliefs to investors who purchase new shares in those companies.

might otherwise have been gained by using this money to make low risk investments. PWLB loans are priced at 0.8 per cent above government Gilts. The combination of these two costs would, at the time of publication, create a cost of capital for local authorities of 4.0-4.5 per cent for a 20 year fund.

This capital could be used for Green Deal loans if a local authority set up a fund as a local Green Deal Finance Party. Calculations for a Green Deal interest rate would need to allow for bad debts and operational costs. A simple approach would be to access the GDFC's operating platform by paying the £63 set up and £18.25 annual charge. An allowance for bad debt would also need to be made of perhaps a 4 per cent annual write-off. With these charges taken into account it might be possible to deliver an APR of 5-7 per cent[15].

Local authorities taking this approach will have to manage any impact this capital spending might have on their revenue budgets. This is because their reserve accounts would otherwise deliver revenues from investments and PWLB loans have to be serviced whether or not these revenues are being created. Thus any use of local authority capital to fund Green Deal plans would ideally deliver back-to-back repayments to service PWLB debts and make up for lost investment revenues.

The ability to use reserves is clearly limited for all authorities, especially given the illiquidity of Green Deal plans, but borrowing limits for councils are technically not affected given the asset/liability matching from these plans. However, all local authorities will want to cap the amount of funds that they use for Green Deal loans and this will limit the potential to deliver large scale retrofit. A solution to this, the refinancing of local authority Green Deal funds into the capital markets, is discussed in section six of the report.

Local authorities already provide loans to private households based on the Regulatory Reform (Housing Assistance) (England and Wales) Order 2002 (RRO). The RRO empowers local authorities to offer grants, loans (interest free or with interest) and guarantees to encourage commercial lending. The only conditions for this type of lending are that the assistance should be targeted at 'vulnerable' households and that the local authority must consult on its intended activity and publish a Private Sector Housing Renewal Policy which clearly states what financial assistance is available under the Order[16]. Thus virtually every LA Private Sector Housing Renewal Team in the country has been offering loans for improving properties since 2002.

Local authorities planning to use their own funds have to consider the state aid implications of such activities. Loans to private consumers are not covered by state aid restrictions but the Green Deal Providers who access the local authority funds might be seen as having an unfair advantage. Legal advice given to West Sussex County Council[17] suggests that this is not likely to be an issue if an OJEU[18] compliant procurement process had been used to select the Green Deal Provider.

Green Deal Provider on-balance-sheet finance

There is nothing stopping Green Deal Providers using their own balance sheets to provide funds rather than the GDFC's funds. However, the larger quoted companies are

[15] This does not take into account the costs of upgrading the GDFC's operating platform to handle third party funds, which would still have to be recovered.
[16] These conditions are not seen as applicable to Green Deal finance
[17] West Sussex County Council. December 2013
[18] Official Journal of the European Union

generally limited by their own cost of capital, with the typical Weighted Average Cost of Capital[19] being 10-12 per cent for the larger Green Deal providers. This would lead to even higher APRs if used in the market.

Smaller unquoted firms can choose to set their own cost of capital and so could provide loans at lower costs than the larger Green Deal Providers. For example, Nationwide Solar (NWS), which developed the solar PV roof-rental model with A Shade Greener, is offering retrofit loans with an APR of 6 per cent, subject to a customer's credit worthiness[20]. The company owner explained that their ability to extend the initial programme will be based on being able to sell the bundled up receivables to individual private sector investors who would need to look favourably on such a return compared to what they can achieve from other investments.

Credit Unions

There is growing interest in the role of credit unions across the country as a source of finance for those without access to banks or other sources of low cost borrowing. The amount of funding that can be provided is based on the deposits that they hold from their customers, so limiting the amount that could be lent for housing retrofit loans. However, they are also used as a means of managing third party funds working particularly with local authority loan schemes.

Credit union APRs, unless subsidised, are generally about 8-12 per cent, so being uncompetitive with the GDFC and are also more likely to be shorter term. One innovative credit union, the DotCom Unity Credit Union, has been able to provide 0 per cent finance with the local installer providing a subsidy to achieve that APR[21]. The scale of this programme is clearly limited by the appetite of the Green Deal supply chain to provide such support.

[19] The weighted average cost of capital (WACC) is the rate that a company is expected to pay on average to all its security holders to finance its assets
[20] Interview NWS. November 2013
[21] Interview Dotcom Unity Credit Union. Nov 2013

5. LARGE SCALE PROGRAMMES

The requirements of the current policy framework limit the potential to offer a lower interest rate. Indeed, attempts to develop competitive Green Deal finance products have been unable to match the rate offered by the GDFC, making the potential to reduce the current rate extremely limited.

The Green Deal has been created with a significant amount of consumer protection in mind, leading to some key features that affect the cost of capital and hence APR to the consumer. In particular, the requirement to provide a fixed interest rate (or pre-agreed average increase of 2 per cent on payments) leads to higher initial cost of capital than for short term rates, or for when finance providers can adjust rates based on bank rates or inflation. The Green Deal is also covered by the Consumer Credit Act (CAA) which provides certain obligations in how the APR is communicated and managed.

Some retail banks have looked to develop their own products specifically targeted at the domestic retrofit market and in some cases the rates offered have been competitive compared to Green Deal finance. But they are only able to offer lower rates as they do not adhere to the Golden Rule or the long term fixed rates as required by the legislation.

It may be possible to reduce the amount of interest payable on Green Deal finance, but in order to do so changes would need to be made to the policy framework. Adjustments to the Golden Rule, allowing householders to waive this requirement, could allow repayments to be completed sooner while inflation-linking the repayments could help to bring down the APR itself.

The Green Deal Finance Company rate

The loan rate that can be offered by the GDFC or equivalent lenders is determined by the cost of funds available. Other financing parties looked at this market in its inception but could not compete with the GDFC in terms of pricing and found that they would be delivering APRs in excess of 10 per cent[22]. Uncertainties around the finance model and more attractive returns from renewable energy meant that it was very difficult to get cheaper rates than the GDFC, given the latter’s scale and structure.

Confidential analysis of the GDFC cost of funding seen by the authors of this report demonstrates that at all levels of the capital structure, the GDFC has a market or better than market cost of funds. The senior level finance is in-line with higher rated tranches of non–traditional ABS[23] bonds. Similarly the hybrid and bridge levels are keenly priced at close or better than bond market levels. Finally, the junior piece is aggressively priced at better than market clearing levels for this residual type risk[24].

The GDFC has achieved at least market, if not better than market, funding levels and analysis indicates the GDFC is passing its favourable funding level directly through to its customers.

[22] Verbal report to steering committee
[23] Asset Backed Securities
[24] Input to steering committee

Retail Banks

The requirement for fixed long term rates makes the Green Deal unattractive to retail banks. Under the Basle III regulations introduced after the 2008 financial crisis, long term lending by banks has to be offset by high equity allocations. This is already affecting the availability of capital for the project finance markets and would have a similar impact if retail banks were to become involved in the Green Deal.

Retail banks are also not organised to work with the new finance processes required by the Green Deal including the collection of repayments by energy companies and the credit assessment of that collection process. This is something that could be addressed but clearly there is a cost to it and, given the balance sheet limitations mentioned above, it is unlikely that retail banks will offer Green Deal finance.

This does not mean that the market might not see innovative retrofit finance products being offered by the retail banking sector given the increased interest in retrofit from the advent of the Green Deal. The following are examples of two possible approaches:

Green Mortgages

Bank of America Merrill Lynch is working with several parties, including the European Covered Bond Council, to explore the concept of a green mortgage product. Houses that achieve a certain energy efficiency rating might receive a slightly lower mortgage rate based on the increased value of their property and lower outgoings on energy bills. It is hoped that the resulting savings in mortgage payments would be sufficient to be cost neutral on mortgage payments from a slightly larger mortgage from which energy efficiency upgrades could be made.

To deliver this rate, it would be necessary to explore whether, over time, such mortgages could apply a lower risk weighting based on the enhanced credit performance. However, this is a long term project as banks would have to see more data on asset performance that would justify an adjustment in European Capital Requirements either under existing or updated European rules, the development of this product, both in the UK and across Europe will require extensive discussions with appropriate regulatory bodies.

Revolving Retrofit Loan Funds

Revolving Retrofit Loan Funds have been used in Hungary and are being reviewed for Gloucestershire and South Wales to reduce the cost of retail bank finance. They work through the creation of a fund that provides retail banks with a first-loss facility. This fund is ideally grant funded by EU or national funds and needs to sign up partner banks. This has yet to happen in the UK.

Policy changes

There are three areas of Green Deal policy that could be adjusted to reduce the cost of Green Deal finance: the Golden Rule, fixed rates and CCA requirements. If these were altered it might be possible to offer cheaper Green Deal finance to a mass domestic market.

However, it must be noted that adjusting these areas would take away some of the core positioning of the Green Deal which might be deemed more important than reducing the current interest rate levels.

Table 3: Potential Green Deal policy changes

Policy issue	Description	Issues
Golden Rule	The Golden Rule requires that repayments do not exceed the expected energy bill savings in the first year of the Green Deal plan. The Golden Rule requirement could be waived which would not reduce the interest rate but would allow Green Deal plans to be repaid more quickly so reducing the overall amount repaid, something that might be seen as positive based on market interactions.	Although the current householder might be comfortable with faster repayments and higher net bills initially, this will complicate the transfer to a new bill payer (whether a tenant or house owner) and reduce the level of consumer protection.
Fixed rates	Interest rates could be linked to base rates or inflation which might take 2 per cent off the current APR based on the current yield curve and value of inflation linked Gilts.	Energy prices might in the future rise at a lower rate than base rates or inflation leading to a risk that the Golden Rule might be broken in future years. Selling a house or letting a property with a variable rate payment might be more troublesome than selling one with a fixed payment
Consumer Credit Act (CCA)	Remove the CCA requirements from the Green Deal so that Green Deal Providers charge a fixed service charge or management fee for energy efficiency services, similarly to that seen in the commercial ESCO[25] market but without the energy savings guarantees. This would be time-limited and Green Deal Providers would compete on cost of the charge versus cost of upfront payment. The APR is therefore not an issue.	Finance costs included in the charges would be concealed from customers. Consumer protection groups will be concerned about the lack of disclosure.

[25] Energy Service Company as seen in the non-domestic sector, sometime operating with guarantees

6. SUBSIDISING GREEN DEAL FINANCE

In order to work within the current policy framework, the most viable option for reducing the Green Deal interest rate on a large scale is through the use of direct subsidy. Interest rate subsidies can be used to deliver upfront energy savings to consumers, effectively working as an incentive to drive uptake. In some circumstances they can also be used to increase the package of measures that can be delivered within the Golden Rule.

However, subsidising Green Deal finance would come at a significant cost to government. The possible mechanisms for subsidy are outlined below along with the indicative costs and the potential impact on the interest rate.

Central Government subsidy

Mechanism for subsidy

There are a number ways in which subsidies can be delivered:

1) Subsidy is embedded in the Green Deal process such that the effective interest rate that a householder pays is reduced. This could be achieved via a grant to GDFC and similar financing institutions. This is the simplest solution from the perspective of the consumer.

2) The end consumer taking out a Green Deal loan, or subsequently the bill-payer, receives a direct subsidy from the Government as an annual (or more frequent) payment as is the case under the Renewable Heat Incentive.

3) The end consumer taking out a Green Deal loan receives an upfront payment, similar to the current cashback scheme, equivalent to the net present value of the annual payments. This option may work quite well in driving uptake but does so at the expense of disadvantaging future bill-payers inheriting the Green Deal loan. It also adds a significant amount of upfront burden on Government finances.

4) A combination of upfront and annual payments designed to incentivise the current bill payer to take action without unduly disadvantaging future bill payers.

Cost to Government

The level of subsidy could be linked to how intensive/intrusive the installed measures are, so that they adequately incentivise the householder for the hassle involved. A stepped subsidy linked to relative improvement in SAP[26] score before and after refurbishment could be considered.

Three levels of direct subsidies have been modelled by Verco for IPPR's Help to Heat report[27], and the cost to the Government of reducing the effective interest rate for a Green Deal loan from the current rate of around 8 per cent down to 5 per cent, 2 per cent and 0 per cent was estimated. Analysis was done using Verco's in-house tool Navitas, which used housing archetypes from the English Housing Survey and modelled

[26] Standard Assessment Procedure
[27] Help to Heat: A solution to the affordability crisis in energy, IPPR 2013

the package of energy efficiency measures that can be delivered within the Golden Rule for those archetypes at 8 per cent interest rate.

At 8 per cent interest rate, the average Green Deal loan size across all archetypes is around £2,625. Direct subsidies to reduce the interest rate from 8 per cent to 5 per cent will cost £1,135 per property on average over a 20 year Green Deal loan term, or £57 per annum. This increases to £2,137 and £2,723 to bring down the interest rate to 2 per cent and 0 per cent respectively.

The review by Verco calculated that to upgrade 1.2 million homes by 2020 (in line with forecasted uptake in the Green Deal and ECO impact assessment), the total cost to the Government for subsidising the consumer interest rate from 8 per cent to 5 per cent and 0 per cent respectively would range between £1.4 billion and £3.3 billion (undiscounted), with that level of uptake realising a total capital investment of £3.15 billion in the economy. These subsidies would directly translate into cash savings for consumers where the Golden Rule is fixed at 8 per cent.

These figures show that for each £1 billion of Green Deal plans, Government subsidy would be required amounting to £432 million for a 5 per cent rate, £814 million for a 2 per cent rate and £1.03 billion for a 0 per cent rate. Upgrading 14 million homes all using Green Deal finance would therefore cost the Government up to £38 billion for a 0 per cent rate. However, this scale of activity would also see a capital investment of over £36 billion in the economy along with the associated benefits of increased jobs and VAT receipts.

Central Government Debt funding

Alternatives to direct subsidy would be for the Government to provide debt funding or a guarantee for the junior debt/first loss capital in the GDFC. Both of these approaches would be able to take around 2 per cent off the current GDFC interest rates, creating APRs of 5-7 per cent. This form of support would need to be focused on junior debt, as the cost of senior debt in the GDFC is set by the bond market.

Replacing the high cost junior debt/first loss capital in the GDFC with government debt would require an increase in the national debt equivalent to the junior debt in the GDFC. The specific amount of junior debt in the GDFC is confidential, but assuming this amount to be 30 per cent would require the provision of up to £300 million of central government debt for every £1 billion of Green Deal plans offered to households. This amount would add to the national debt but it would be backed by future cash flows from the Green Deal plans, unlike most of the other debt which is repaid largely through tax payments.

If the Government was not willing to provide this low cost debt then it could in turn provide a guarantee for the junior debt/first loss capital. This could be done in a similar way to the UK Infrastructure Guarantee Scheme which is structured to enable both the borrower (in this case the GDFC) and investors to take advantage of the UK Government's credit rating. Such a guarantee represents an obligation for HMT to pay guaranteed amounts of interest, allowing a prospective investor to rely on the UK's Government's rating when pricing its investment in the GDFC. The accounting treatment for this approach is unclear and whilst creating contingent liabilities this will determine whether it impacts the national debt numbers.

Local authority large scale programme

In section four above, it was suggested that the ability of local authorities to use low cost finance to fund Green Deal programmes would be limited by their appetite for increasing the amount of debt on their balance sheets, even if it was matched against

the Green Deal plan repayments. In 2011-12 the Local Energy Efficiency Project[28] (LEEP) reviewed how a local authority Green Deal aggregation vehicle or banking warehouse might support this process, by allowing local authorities to refinance their projects via the capital markets.

This would be done by refinancing the senior debt from the local authority Green Deal programmes but leaving junior debt (of 10-30 per cent) with the local authority funds. This would mean that the senior debt cost of capital would be set by the market, but a lower APR would be still be achievable because of the lower cost of capital being provided by local authorities for the junior debt. If this is assumed to be at 4.2 per cent, compared to an illustrative 10 per cent for the GDFC, then the APRs achieved would be in the range of 5.5-7.5 per cent.

Initially it was hoped that the GDFC might provide this warehousing role but its finance structures are not able to mix senior debt from its own Green Deal plans with senior debt from local authorities' funds. A local authority may still want to use the GDFC's operating platform but it would have to generate £300-500 million of Green Deal plans to issue its own rated bond, independent of the GDFC. However, if there was a market for an unrated bond then a lesser amount of plans would be required.

There would not be a cost for local authorities to do this as it would be a self-financing programme, but it would increase the size of their long term debt. For every £1 billion of Green Deal plans there would be an increase in receivables-backed local authority debt of £100 million to £300 million depending on the size of the first loss layer[29]. It is possible that this could be spread between the 152 upper-tier authorities, increasing their debts by up to £2 million each for every £1 billion of Green Deal funds.

The PWLB current loan book on 31 March 2013 stood at £64 billion. For every £1 billion of funding provided by local authorities on a large scale programme the loan book would increase by between £0.1 billion and £0.3 billion.

[28] Climate Bonds Initiative, Ecofin Research Foundation, Energy Saving Trust, Marksman Consulting; research funded by the Sainsbury Family Charitable Trusts
[29] The first loss layer is the amount of capital at risk before other finance providers are affected

7. CONCLUSION

It is incorrect to claim that the low take up of the Green deal is down to the interest rate alone. According to market research and feedback from early customers of the scheme, other issues such as a general apathy towards energy efficiency among householders and the limitations that the Golden Rule places on the number of measures which can be installed are more significant factors in explaining the slow take-up of Green Deal finance. These have been compounded by complications in setting up the finance offering which has meant that Providers were delayed in offering Green Deal lending at scale. It is vital that these issues are also addressed in order to make the Green Deal a success.

However, despite this it is clear that a reduced interest rate would improve the Green Deal finance package available to householders. Although a low interest rate alone may only have a minimal impact on consumer decisions, the implications for the total finance available under the Golden Rule, and the overall cost of a Plan to the householder would be far more significant.

The number of measures that could be funded under the Golden Rule would be increased and would therefore reduce the likelihood of consumers having to provide additional up-front finance on top of a Green Deal Plan. Householders are more likely to use Green Deal finance if it covers most of the cost of the measures and there is therefore less need to go through the hassle of arranging an alternative form of finance at the same time.

Reducing the interest rate would also make the overall cost of a Green Deal Plan more appealing. In many cases, longer-term plans will result in consumers paying more in interest payments than capital repayments. Reducing the proportion of repayments that are spent on interest would appear a much more attractive offer to householders.

It is possible to achieve a lower rate for Green Deal finance through small scale lending programmes such as community programmes and local authority financing. EIS tax relief already allows a lower cost of capital for community renewable energy projects, and if this could be applied to a loan scheme which meets the requirements of the Green Deal, then this might enhance this option. However, it would be very difficult to scale up any of these programmes and offer loans on the mass scale required to retrofit the UK's housing stock.

For large-scale programmes, the specific requirements of Green Deal finance, as defined, are such that it is not possible to reduce the interest rate beyond that offered by the GDFC. Some retail banks are beginning to offer innovative finance products specifically for domestic retrofit, but these do not necessarily adhere to the strict conditions of the Golden Rule and fixed repayments. Although they may be useful additions to the market, these differences mean they are alternative energy efficiency financing for householders rather than equivalents to Green Deal finance.

Changes to policy do have the potential to relax some of the strict conditions on the Green Deal and could help to reduce the cost of finance. But altering the Golden Rule or scaling back other consumer protection measures would undermine some of the key principles of the scheme and may lead to a reduction in demand that offsets the gain from a reduced rate.

Indeed, working within the current policy framework, the most viable option for reducing the cost of Green Deal finance on a large scale is through direct subsidy. A number of mechanisms could be used to subsidise or guarantee the GDFC or Local

Authority programmes which could help to reduce the interest rate for Green Deal lending. Nonetheless, these options would all come at a cost to government, with liabilities per £1 billion of Green Deal loans of over £400 million for a 5 per cent headline rate or over £800 million for a 2 per cent headline rate, although this might be through use of repayable debt rather than revenue expenditure.

The options for reducing the cost of Green Deal finance all have difficulties. Community finance programmes would not be able to work at the scale required and large scale programmes would be unlikely to improve on the current rates of the GDFC if they work within the current constraints of Green Deal finance. Changes could be made to the policy framework or government subsidy could be used but these would have significant implications for key principles of Green Deal policy and government spending respectively.

Policy makers can therefore adopt one of three positions. Firstly, they could assume that current level of Green Deal interest rates are not an issue, and so they can focus on generating demand at these rates. Small scale programmes will be useful to demonstrate this, or otherwise, but will not be game changers. Secondly, current Green Deal policy can be changed, allowing the Golden Rule to be waived, removing CCA requirements or allowing greater flexibility in interest rate changes. Finally, they could decide to use public funds to reduce rates, at least as a short term trial, ensuring that Green Deal finance is taken off the agenda and focus is turned onto other demand issues. There will, however, be costs to central government funding for a direct subsidy approach or increased borrowing for local authorities or central government if they are used to supply finance or guarantees.

While there are a number of major challenges to be addressed to make the Green Deal a success, a reduced interest rate can only benefit the scheme by increasing the eligible measures under the Golden Rule and reducing the overall payments that householders make. This report demonstrates that there are a range of ways this could be achieved, each with their own advantages and disadvantages. While none of these options are straightforward, the scale of the retrofit challenge we face, and the benefits that overcoming it would bring, are so significant that this has to be made a top priority for Government.

ABOUT THIS REPORT

We would particularly like to thank Christoph Harwood of Marksman Consulting for chairing the Task Group.

The Task Group included representatives from the organisations listed below. The report represents a joint view, and does not necessarily represent the position of individual organisations.

Adca Investments
Behaviour Change
Carillion
Consumer Futures
E.ON Energy Solutions
Energy Saving Trust
Ernst & Young
Forum for the Future
Gentoo
Green Deal Finance Company
Keepmoat
Marksman Consulting
Saint-Gobain
Travis Perkins
Verco
Willmott Dixon

With additional thanks to our partners and sponsors for the launch event.

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