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ENVIRONMENTAL ANALYSIS

How successful was The Green Deal?

December 2015

Executive Summary

When measured against the objectives set by the Department of Energy and Climate Change (DECC) The Green Deal failed, as the scheme did not result in a significant improvement in the energy efficiency of the UK housing stock.

By the end of the scheme there were just under a total of 16,500 Green Deal plans in place, while the total housing stock of the UK is around 25 million. Therefore, less than 0.1% of the total housing stock has improved its energy efficiency due to the Green Deal.

Ultimately the Green Deal was financially unattractive to customers due to high interest rates on the loans, the relatively small amounts of money available to pay for installations and the potential future risks from signing up for a Green Deal loan - the biggest of which was the potential to make a property harder to sell because any Green Deal loan sits with the property, not the owners. The prospect of paying back a loan they did not take out is off-putting to buyers. Further, the warranty for the work carried out may not be transferrable to the new owners. This is illustrated by the fact that The Green Deal (in its original form during its January 2013 launch) resulted in over 140,000 people signing up to the first stage of the deal and agreeing to have an assessment of their property to establish which energy saving measures they could benefit from, but less than 1,800 households agreed to the finance package and had completed the installation of their energy saving measures, an uptake of less than 1.3% - well below the Department of Energy and Climate Change (DECC) target of 10,000 in the first year.

The only part of the scheme that was popular amongst the public was the Green Deal Home Improvement Fund, which was essentially giving money away to people who wanted to improve the energy efficiency of their home. Perhaps unsurprisingly the demand for these grants was very high, and the fund often ran out of its allocated budget within days.

There has also been criticism of the scheme by those who say that it didn’t help those who most needed it - those living in the poorest quality housing stock. Instead it was mainly used by middle income households and landlords.

1. What was The Green Deal?

The Green Deal was a Government led scheme which hoped to encourage house owners in the United Kingdom to improve the energy efficiency of their homes; it was launched on the 28th January 2013. The scheme was open to any household with an electricity meter in England, Scotland or Wales. The scheme was scrapped in July 2015.

House owners who were interested in the scheme first had to pay £100 to £150 for a visit from a qualified Green Deal assessor, who recommended what upgrades to the property would save the most energy. Once the work had been agreed the householder then had to take out a loan to pay for the work done and repayments were taken back through the electricity bill. These repayments should never have been more than the amount that was saved from the reduction in energy use, however this was not guaranteed. The debt was then attached to the property rather than to the individual who agreed for the work to be done, so if the property was sold with some of the debt still outstanding it was passed on to the new owners.

The interest rates available on the loans varied depending on which company the property owner agreed a finance deal with. The APR available from The Green Deal Finance Company varied from 7.9% to 10.8% depending on the size of the loan. Some

finance companies also charged administrative fees of £63 plus an annual fee of £20 per loan. There was originally a fee for early repayment of the loan, but thanks to campaigning by consumer group *Which?* – this was removed in May 2014.
There were three stages to the life cycle of a Green Deal plan:

- Stage 1: A customer has obtained a quote and confirmed that they wish to proceed
- Stage 2: A plan has been signed by the customer and progress is being made to install the chosen measures
- Stage 3: After all the chosen measures have been installed, and the energy supplier has received all the information required to bill Green Deal charges.

The types of product which were eligible for Green Deal funding are listed below:

Heating and heating controls

- Condensing boilers (gas or oil fired)
- District heating
- Flue gas recovery devices
- Heating controls
- Radiant heating
- Storage heaters
- Underfloor heating
- Warm-air units

Insulation

- Cavity wall insulation
- Draught proofing
- Floor insulation
- Heating system insulation (pipes and cylinders)
- Loft insulation
- Pitched roof or flat roof insulation
- Solid wall insulation

Microgeneration

- Biomass boilers/wood-burning stoves
- Ground, water and air source heat pumps
- Micro-CHP
- Micro-wind/wind turbine
- Solar panels

Others

- Chillers
- Energy efficient glazing and doors (eg double glazing)
- Heating ventilation and air conditioning controls
- Hot water controls, including showers and taps
- Lighting fittings
- Solar blinds, shutters and shading devices
- Transpired solar collectors
- Variable speed drives for fans and pumps
- Waste water heat recovery devices attached to showers

At its peak there were over 170 authorised Green Deal finance providers, over 4,000 advisors registered to carry out Green Deal assessments and over 2,500 organisations now officially Green Deal approved to carry out installation.

The original idea for the Green Deal came from the energy industry rather than from government. It was thought that one of the key barriers to homeowners upgrading the energy efficiency of their homes was the large upfront cost of the materials and work that would be needed. Camco and Knauf proposed an idea called “Pay as you save”, and with the help of the UK Green Building Council they had a full policy idea, including a 116 page document in August 2009.

The idea, like the Green Deal, was to give householders a loan to install energy saving measures, the loan would be secured against the property and would be paid back through energy bills. It also understood that for a large number of households to use it the programme would have to offer incentives such as cash back, stamp duty reductions or VAT reductions.

Without these incentives it was predicted that installations of cavity wall and loft insulation would fall by up to 70% and 93% respectively. After the Green Deal was delayed, and the CERT policy had ended in December 2012 installations of cavity wall insulation fell by 97%. When the Green Deal was soft launched in October 2012 it was already apparent that it had been undermined with a lack of cash backing, tax breaks and poor terms for anyone applying for a loan. This was demonstrated in the first six months of the scheme, when less than 10 people took out Green Deal loans from nearly 40,000 assessments.

Source: Building - The Green Deal: 'A catastrophe from start to finish'

2. How popular was it amongst the general public?

The Green Deal in its original form during its January 2013 launch proved to be very unpopular with the general public and uptake on the scheme was extremely slow. By the end of January 2014 over 140,000 people had signed up to the first stage of the deal, and agreed to have an assessment of their property to establish which energy saving measures they could benefit from. However, less than 1,800 households agreed to the finance package and had completed the installation of their energy saving measures, an uptake of less than 1.3%. Well below the Department of Energy and Climate Change (DECC) target of 10,000 in the first year.

Many households that did not sign up to The Green Deal finance package said they had chosen to finance improvements themselves, with as many as 64,000 of the 76,648 houses assessed by September 2013 saying that they had installed at least one of the recommended measures or planned to do so.

There were problems with The Green Deal straight after its launch: only 20% of the public had heard of the scheme when asked about it, and 5 months after the launch only one of the biggest six energy providers in the United Kingdom had launched a national program offering The Green Deal to their customers. This may help to explain why the uptake of the deal was so far behind the government’s prediction of 130,000 households taking out a Green Deal loan in 2013.

Another key reason for the poor uptake suggested by industry commentators was that the APR on the finance package was far too high, so households were not actually likely to experience any savings on their energy bills as the repayments were expected to match any energy savings made. This is a point which DECC later admitted themselves. Early repayments of the loans were also penalised by the companies financing them, and property owners were worried that as the loan stays with the property and not the owner it could put off potential buyers if the property were put up for sale.

Another potential problem with the finance package is that according to a study conducted by the National Energy Efficiency Data Framework (NEED), the actual energy savings gained from installing energy saving measures is only half of the levels suggested by the Energy Savings Trust (EST). Others, including energy expert Chris Goodhall, have suggested that the actual savings made are even lower. He has suggested that loft insulation only saves £15.50 per year instead of £180, and new boilers save £70 per year instead of the £310 per year claimed by the likes of British Gas. Findings like these have made the general public more wary of the already unpopular Green Deal finance package.

The final barrier was the £120 charge to have a Green Deal assessment of the property to see what improvements the property required. Many people felt this was too high just to find out what savings they could make by improving the energy efficiency of their home.

Source: The Guardian, Left Foot Forward, Martin Stott's blog.

3. What changes were made to make it more popular?

In response to the very poor uptake of The Green Deal, the government introduced The Green Deal Home Improvement Fund (GDHIF) on 9th June 2014.This new scheme enabled people in England and Wales to get up to £7,600 when they installed certain types of home improvements. The refund was broken down as follows:

- up to £1,000 back for installing two measures from an approved list.
- up to £6,000 back for installing solid wall insulation.
- up to £100 refunded for their Green Deal Assessment.
- up to £500 back when carrying out improvements during the first 12 months of property ownership.

Apart from solid wall insulation, the other improvements eligible for the Home Improvement Fund were:

- Condensing gas boiler (on mains gas)
- Double glazing (replacing single glazing)
- Secondary glazing
- Replacement doors
- Cavity wall insulation
- Floor insulation
- Flat roof insulation
- Room-in-roof insulation
- Replacement warm air unit
- Replacement storage heaters
- Flue gas heat recovery units
- Waste water heat recovery systems

75% of the costs of installation up to a maximum of £6,000 could be claimed back by the customer for solid wall insulation. For the other types of improvement, 100% of the costs of installation to a maximum of £1,000 could be claimed back; for new property owners this maximum was £1,500. In order to be eligible, customers must have had the improvements recommended on an eligible Energy Performance Certificate (EPC), which was less than 24 months old, or a Green Deal Advice Report.

To apply for the GDHIF payment property owners had to take the following steps:

- Have a valid Green Deal Assessment Report or EPC which must have been carried out in the two years prior to application;
- Apply for measures as recommended on their assessment report or EPC;
- Register for their GDHIF voucher when the application website and telephone hotline number went live in early June;
- Once they have received their voucher, customers must have the improvements installed by a registered Green Deal Installer or Provider within six months;
- Once the work has been completed, submit their voucher – countersigned by the Green Deal Installer or Provider – with copies of the invoice, PAS2030 Claim(s) of Conformity, and their Green Deal Assessment Report invoice.

Once their GDHIF voucher has been validated, customers should receive their payment in ten working days if all documentation is submitted correctly.

On 16th May 2014 The Green Deal Finance Company removed the early repayment fees for the loans after the consumer group *Which?* campaigned against them.

Source: gov.uk, Which?

4. How successful were these changes?

Applications for the first tranche of The Green Deal Home Improvement Fund opened in May 2014, and due to overwhelming demand the entire budget for the scheme was allocated by the end of July. On Tuesday 22nd July 2014 DECC announced that £50 million of the £120 million budget (which was meant to last until April 2015) had already been allocated and that the maximum amount it would pay out to customers would be reduced. This sparked a rush to apply for the grants and the last £70 million of the budget was allocated in just three days, bringing the GDHIF to a close late on 24th July 2014. The final £70 million was spread amongst 9,500 applicants, which shows that applications were mostly for the full amount of funding available, so must include the installation of solid wall insulation.

A minister from DECC said the following about the quick uptake of the GDHIF:

"In a short space of time the GDHIF has proved extremely popular. We were always clear there was a budget which is why we encouraged people to act quickly. As a result, thousands more families will now benefit from government help to have warmer homes which use less energy."

However, not everyone was as pleased about the early closure of The Green Deal and the GDHIF. Richard Twinn, of the UK Green Building Council said that the sudden closure of the scheme has created problems for companies which had set up specifically to cater to The Green Deal market for the long term, and now many jobs will be lost as their customer base has now disappeared with immediate effect.

The Green Deal had originally intended to upgrade the energy efficiency of millions of homes across the United Kingdom, but by the close of the GDHIF in July 2014 only 4,737 plans had been approved. The Department of Energy and Climate Change has stated that it doesn't intend to refund people who've paid for Green Deal assessments but were unable to register for the Green Deal Home Improvement Fund before it closed. There have also been reports that customers have not received the money they were promised, months after the work was completed on their home.

Source: ThisisMoney.co.uk, The Guardian, Money Saving Expert

Table 1: Number of Green Deal assessments carried out every month to Aug 2014

	Total in Month	Cumulative Total
Month	Green Deal Assessments	Green Deal Assessments
January 2013	74	74
February 2013	1,729	1,803
March 2013	7,491	9,294
April 2013	9,522	18,816
May 2013	12,146	30,962
June 2013	13,517	44,479
July 2013	13,645	58,124
August 2013	13,087	71,211
September 2013	13,965	85,176
October 2013	16,672	101,848
November 2013	15,595	117,443
December 2013	12,385	129,828
January 2014	15,268	145,096
February 2014	17,998	163,094
March 2014	25,138	188,232
April 2014	22,004	210,236
May 2014	23,811	234,047
June 2014	29,018	263,065
July 2014	37,193	300,258
August 2014	26,626	326,884

Source: DECC - Domestic Green Deal and Energy Company Obligation in Great Britain, Monthly report

Assessments for The Green Deal started very slowly, reaching 13,000 per month in June 2013 and then staying at a similar level until January 2014. The number of assessments peaked in the two months where The Green Deal Home Improvement Fund was available. At the end of this tranche of The Green Deal, 326,884 assessments had been conducted.

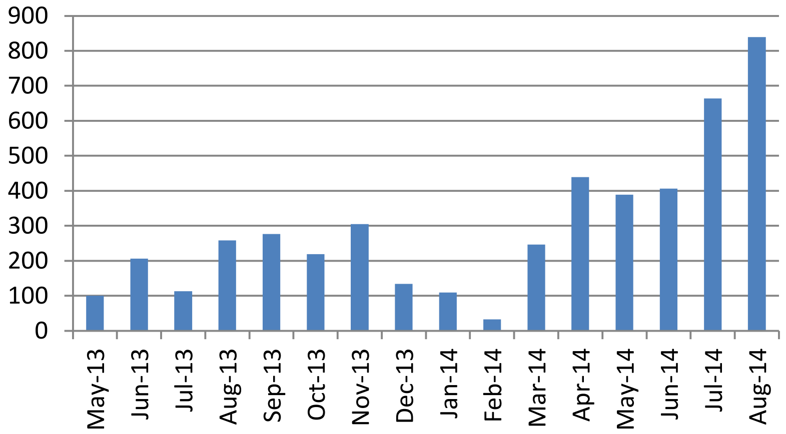
Table 2: Cumulative total of Green Deal plans by month to Aug 2014

Month	'New' Green Deal Plans	'Pending' Green Deal Plans	'Live' Green Deal Plans	'Total' Green Deal Plans
May 2013	98	2	0	100
June 2013	270	36	0	306
July 2013	286	132	1	419
August 2013	293	372	12	677
September 2013	392	505	57	954
October 2013	360	594	219	1,173
November 2013	448	572	458	1,478
December 2013	493	493	626	1,612
January 2014	494	481	746	1,721
February 2014	445	426	883	1,754
March 2014	532	473	995	2,000
April 2014	756	505	1,178	2,439
May 2014	863	593	1,372	2,828
June 2014	986	661	1,587	3,234
July 2014	1,192	891	1,815	3,898
August 2014	1,547	1,098	2,092	4,737

Source: DECC - Domestic Green Deal and Energy Company Obligation in Great Britain, Monthly report

The number of plans agreed remained very low throughout 2013, only once did the number of plans agreed per month break 300. This was despite 15,595 assessments being conducted in that month, this means less than 2% of customers who had an assessment of their property done decided to take up a Green Deal finance plan. Very few plans were agreed between December 2013 and February 2014 (possibly because of tight finances during and after the Christmas period), from April 2014 the number of plans agreed increased although the conversion rate between assessments and plans agreed remained below 2%. Once the GDHIF was announced the number of plans agreed per month nearly doubled, though the conversion rate between plans and assessments remained at about 2%.

Figure 1: Number of Green Deal plans agreed per month to Aug 2014



Source: DECC - Domestic Green Deal and Energy Company Obligation in Great Britain, Monthly report

Table 3 illustrates the types of measures agreed. The majority of measures installed from The Green Deal by the end of August 2014 were for photovoltaics (27.2%) and for condensing gas boilers (23.8%). Solid wall insulation accounted for 16.4% of installations, other insulation 10.2%, loft insulation 9.5%, cavity wall insulation 5.4%, other heating 6.7% and glazing 0.13%.

Table 3: Number and types of measures installed using The Green Deal by Aug 2014

Measure Types	Total number of Measures installed using Green Deal finance	Percentage of Measures
Boiler	**1,172**	*24*
Condensing bottled LPG boiler	1	*0*
Condensing bulk LPG (not community) boiler	2	*0*
Condensing gas boiler	678	*14*
Condensing gas boiler with flue gas heat recovery	6	*0*
Condensing LPG boiler	1	*0*
Condensing mains gas (not community) boiler	463	*10*
Condensing mains gas (not community) boiler with flue gas heat recovery	11	*0*
Condensing oil (not community) boiler	9	*0*
Condensing oil boiler	1	*0*
Cavity Wall Insulation	**257**	*5*
Loft Insulation	**453**	*9*
Loft insulation	450	*9*
Room in roof insulation	3	*0*
Micro-generation	**1,306**	*27*
Air source heat pump and radiators	2	*0*
Photovoltaics	1,300	*27*
Solar water heating	3	*0*
Wood logs boiler	1	*0*
Other Heating	**321**	*7*
Fan assisted storage heaters	2	*0*
Heating controls	270	*6*
Hot water cylinder thermostat	49	*1*
Other Insulation	**488**	*10*
Draught proofing	29	*1*
Flat Roof Insulation	23	*0*
High performance external doors	1	*0*
Hot water cylinder insulation	113	*2*
Under floor insulation	322	*7*
Solid Wall Insulation	**784**	*16*
Cavity fill and external wall insulation	1	*0*
External wall insulation	762	*16*
Internal wall insulation	21	*0*
Window Glazing	**6**	*0*
Total	**4,787**	*100*

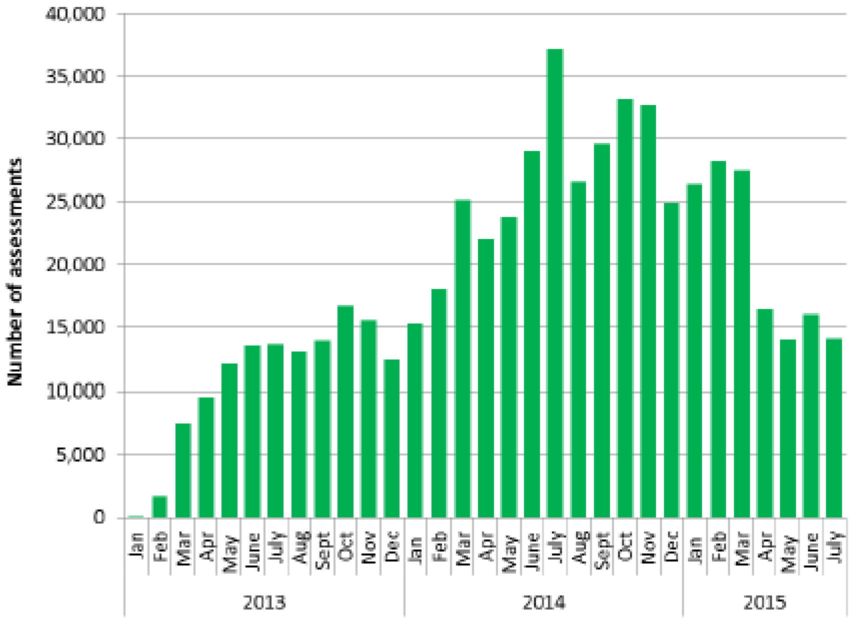
Source: DECC - Domestic Green Deal and Energy Company Obligation in Great Britain, Monthly report

By the time the Green Deal was scrapped in July 2015 there were a total of 16,456 Green Deal plans in progress, 11,215 of which had been installed. 12,558 plans were agreed in the final year of the Green Deal, at a rate of 1,046.5 per month. This was only 1,000th of the number of plans that the government had predicted consumers would sign up for.

At the end of the Green Deal there had been a total of 590,033 Green Deal Assessments carried out. Just over two thirds of these (67.7%) were carried out in 2014 and early 2015, before a large drop in popularity from April 2015 until the end of the scheme. This means that only 2.8% of Green Deal Assessments could be converted into active Green Deal plans, and nearly £70 million of consumers' money was spent without it directly resulting in improvements in the energy efficiency of the UK housing stock.

Figure 2 below shows how the number of Green Deal Assessments lodged per month changed over the course of the scheme. The last batch of grants for the GDHIF opened and closed in March 2015, which may well explain the rapid drop in the number of assessments from April 2015 onwards. The first batch of grants was in June 2014, which may also explain the spike in assessments in July 2014. This suggests that the loans available through the Green Deal were not nearly as attractive to consumers as the cash grants available through the GDHIF.

Figure 2: Number of Green Deal assessments per month by End of the Green Deal



Source: DECC - Domestic Green Deal and Energy Company Obligation in Great Britain, Monthly report

Table 4 shows the number of new Green Deal plans that were quoted for each month, they remained fairly similar through the end of 2014 and in 2015, at around 2,500 to 3,000 per month. This shows that the popularity of the Green Deal was slowly increasing, but it was still an extremely small proportion of the total assessments carried out.

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Table 4: The Number of Green Deal Plans per Month by end of the Green Deal

Month	'New'[1] Green Deal Plans	'Pending'[2] Green Deal Plans	'Live'[3] Green Deal Plans	'Total'[5] Green Deal Plans
May 2013	98	2	0	100
June 2013	270	36	0	306
July 2013	286	132	1	419
August 2013	293	372	12	677
September 2013	392	505	57	954
October 2013	360	594	219	1,173
November 2013	448	572	458	1,478
December 2013	493	493	626	1,612
January 2014	494	481	746	1,721
February 2014	445	426	883	1,754
March 2014	532	473	995	2,000
April 2014	756	505	1,178	2,439
May 2014	863	593	1,372	2,828
June 2014	986	661	1,587	3,234
July 2014	1,192	891	1,815	3,898
August 2014	1,547	1,098	2,092	4,737
September 2014	1,808	1,347	2,581	5,736
October 2014	2,434	1,534	3,239	7,207
November 2014	2,285	1,887	3,961	8,133
December 2014	1,763	1,864	4,721	8,348
January 2015	2,525	1,752	5,306	9,583
February 2015	2,943	1,939	5,964	10,846
March 2015	2,970	2,297	6,809	12,076
April 2015	3,001	2,537	7,817	13,355
May 2015	3,045	2,683	8,887	14,615
June 2015	2,759	2,838	9,999	15,596
July 2015	2,049	3,192	11,215	16,456

Source: DECC - Domestic Green Deal and Energy Company Obligation in Great Britain, Monthly report

By the end of the Green Deal 11,215 (68% of the total) plans were 'live' and had all measures installed. These 11,215 plans accounted for 17,518 separate measures, of which 31% were boilers, and 30% were micro-generation equipment (mostly photovoltaics). These two categories both increased mostly at the expense of Solid Wall Insulation and Other Insulation, as shown in Table 5, below.

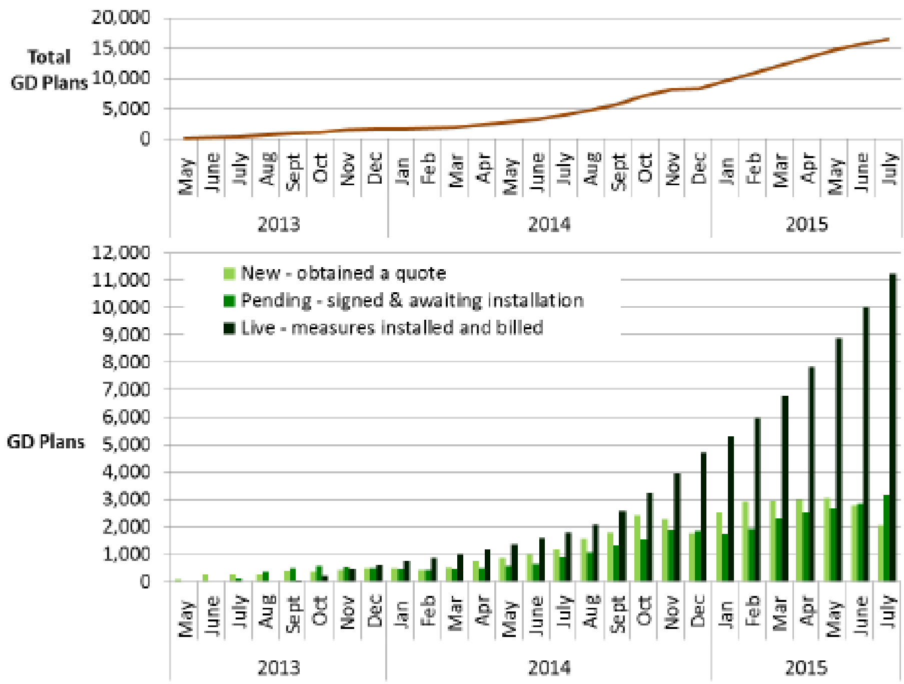
Table 5: Number and types of measures installed using The Green Deal by the end of the Green Deal

Measure Types	Total number of Measures installed using Green Deal finance[3]	Percentage of Measures
Boiler	5,486	*31*
Cavity Wall Insulation	373	*2*
Lighting	239	*1*
Loft Insulation	1,090	*6*
Micro-generation	5,228	*30*
Other Heating	1,495	*9*
Other Insulation	1,062	*6*
Solid Wall Insulation	2,505	*14*
Window Glazing	40	*0*
Total	**17,518**	***100***

Source: DECC - Domestic Green Deal and Energy Company Obligation in Great Britain, Monthly report

Figure 3 below shows how the number of Green Deal plans varied month by month. The number of new Green Deal plans had remained very low until the announcement of the Green Deal Home Improvement Fund, then started to drop off again after the third and final GDHIF release.

Figure 3: Number of Green Deal Plans per Month by the end of the Green Deal



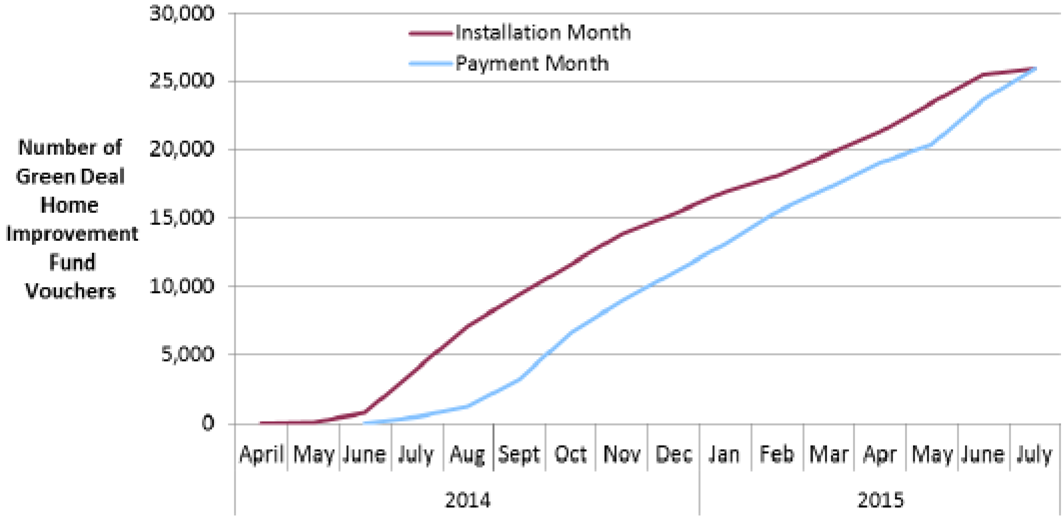
Source: DECC - Domestic Green Deal and Energy Company Obligation in Great Britain, Monthly report

The first Green Deal Home Improvement Fund (GDHIF) release was opened in June 2014 and closed to new applicants on 24th July 2014. The second commenced on 10th December 2014 (and closed to new Solid Wall Insulation applicants on 11th December 2014). The final release started on 16th March 2015 (and closed to new Solid Wall Insulation applicants on 26th March 2015).

By the end of the Green Deal Home Improvement Fund there were 38,484 active applications, of which, 25,908 vouchers had been paid with a total value of £122.8 million. This accounted for approximately 73% of the total budget committed to the GDHIF, in total over 75% of the installed measures were solid wall insulation.

Figure 4 illustrates the cumulative number of GDHIF vouchers issued every month.

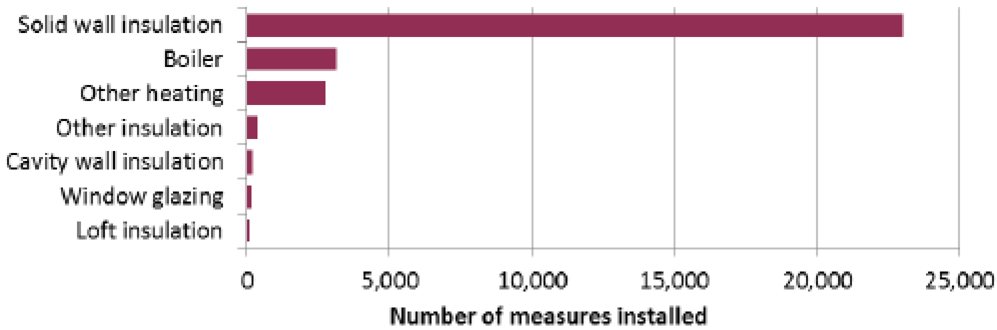
Figure 4: Number of GDHID Vouchers by the end of the Green Deal



Source: DECC - Domestic Green Deal and Energy Company Obligation in Great Britain, Monthly report

The vast majority of measures installed using GDHIF payments have been Solid Wall Insulation (78%), this is most likely to be because Solid Wall Insulation installations received the largest financial contribution. Gas boilers accounted for 11% of measures installed, and 'Other Heating' accounted for 9%. Figure 5 below shows the complete list.

Figure 5: Types of Measure Installed Using GDHID Vouchers by the end of the Green Deal



Source: DECC - Domestic Green Deal and Energy Company Obligation in Great Britain, Monthly report

5. Why did it fail?

There were a number of different reasons that contributed towards the downfall of the Green Deal. These are summarised below:

- *Interest rate and finance packages*
- *Fixing the finance to the house instead of a person*
- *Finance not covering the installation costs*
- *Green Deal providers high set up costs.*
- *Unrealistic energy saving expectations*
- *Poor advertising to consumers*

- *Interest rate and finance packages*

  The interest rate was set by The Green Deal Finance Company (TGDFC) at 6.96% at the start of the scheme. Unfortunately for TGDFC, with mortgages at record lows and bank loans available with much lower interest rates most potential customers were not keen on taking out a loan for 25 years at 6.96%. This high interest rate meant that almost universally it would have been cheaper for homeowners to fund any improvement work through their own mortgage rather than through a Green Deal loan.

  However, trying to choose a fixed interest rate for a period of 25 years is very difficult, as underlying interest rates could increase significantly over this period. For example, a fixed mortgage is usually only fixed for a maximum of 10 years. So the higher interest chosen by TGDFC reflects the risks associated with a fixed interest rate over such a long period.

  There was also a credit score requirement in order to be eligible for Green Deal finance, which meant that some people would have been ruled out completely from utilising the Green Deal. TGDFC did try to lower the credit score rating required to access the Green Deal, but it still meant that many people who could have benefited the most from the scheme were unable to take part.

  Source: Building.co.uk – The Green Deal catastrophe from start to finish

- *Fixing the finance to the house instead of a person*

  Because the repayments of a Green Deal loan were fixed to the property rather than the person who instructed for the work to be carried out, potential customers were put off in case it made trying to sell their property in the future more difficult. A buyer may choose not to buy a house that has additional monthly bills attached to it that they have had no say over, even if it is more energy efficient that an alternative property.

  Many people when asked said that they were very nervous about taking out Green Deal finance for this reason.

  Source: Building.co.uk – The Green Deal catastrophe from start to finish

- *Finance not covering the installation costs*

  When companies sent their assessors to the Green Deal training scheme they were told that any measure with a green tick next to it on the Green Deal report would be fully covered by Green Deal finance, and that any measure with an orange tick would be partially funded by Green Deal finance. However, this turned out not to be true, but it was not discovered until 6 months after the Green Deal was launched. This meant that for 6 months customers were told that certain measures would be covered by Green Deal finance, when this wasn't actually true.

  In reality the factors effecting whether or not a measure was fully covered by Green Deal finance were the size and age of the property, and the efficiency of the heating system. To calculate this you needed to know the lifespan of the measure to be installed, or more accurately, the length of time over which the TGDFC would provide a customer with the finance, which was capped at 25 years. Table 6 shows the different finance lifespans for different energy efficiency measures.

Table 6: Finance lifespans for various energy efficiency measures

Measure	Finance Lifespan
Condensing Boiler	12
Heating controls	12
Under-floor heating	25
Heat recovery systems	20
Mechanical ventilation (non-domestic)	25
Flue gas recovery devices	12
Cavity wall insulation	25
Loft insulation	25
Flat roof insulation	20
Internal wall insulation	25
External wall insulation	25
Draught proofing	10
Floor insulation	25
Heating system insulation (cylinder, pipes)	10
Energy efficient glazing and doors	20
Lighting fittings	25
Lighting controls	25
Innovative hot water systems	25
Water efficient taps and showers	25
Ground and air source heat pumps	20
Solar thermal	25
Solar PV	25
Biomass boilers	20
Micro-CHP	15

Once the finance lifespan had been calculated the typical annual savings for the measure needed to be taken from the Green Deal Report. For example, on the report illustrated (Exhibit 1) the typical annual saving for solid wall insulation was just £73.

Exhibit 1: Example report

Introduction

This report has been prepared following your Green Deal assessment on 10 December 2014. It shows some improvements you could make to your home that may save around £449 per year on your energy bills.

Green Deal improvements recommended by your assessor:

Recommended Improvements	Your household's estimated annual savings #	Typical annual savings - maximum Green Deal repayment in year 1	Money you could receive in year 1 ‡
external wall insulation ECO	£62	£73	
Heating controls	£19	£20	
Solar photovoltaic panels	£368	£368	£426 FIT
Total	**£449**	**£460**	**£426**

Taking this figure, and multiplying it by the finance lifespan gave the total amount of finance that a customer could get to have the measure installed. In this example that is £73 x 25 years, which equals £1,825. However, this figure also includes the interest on the loan, in the case above the interest to capital ratio was approximately 55%: 45%, so only £1,000 of the £1,825 loan would actually go towards covering the cost of the works.

For a 12 year measure such as a boiler the ratio was slightly better, 40%: 60%. So if the annual saving was £70 the total finance available was £70 x 12, which is £840. Of this £336 was interest, so £504 was available for the installation of the energy saving measure.

Unfortunately, installing the measures above is much more costly than the amount of money gained through the loan. A typical solid wall insulation installation costs from £5,000 upwards, and a new boiler installation from about £1,500. So the majority of the money for the works still needs to come from the customer.

This was worst for window installations, which was the reason that the scheme eventually stopped offering assessments for people who were only looking to install new windows. The typical savings for new windows on Green Deal reports were extremely low, and would only cover a fraction of the cost of installing new windows.

There were some circumstances where the amount of finance made available to a customer was enough to cover the installation of measures, but only on occasions where the house was very large, old, and had a very inefficient heating system.

Source: Building.co.uk – The Green Deal catastrophe from start to finish

- *Green Deal providers high set up costs.*

  In order for a company to become a Green Deal Provider they were charged £10,000. This high cost meant that the providers had to recuperate this money from somewhere, which resulted in customers being charged almost £300 to set up their Green Deal finance plan. If a customer is only going to borrow around £1,000 then and extra £300 fee on top is likely to put them off completing the deal. Green Deal plans also took a lot of time to set up, up to 4 hours in some cases even with all the correct information present, which also explains the high set up fee charged to customers.

  Green Deal Providers were also given no notice that the scheme was coming to an end. One provider had only become an approved Green Deal Provider on the day that the Green Deal scheme was scrapped, which meant that they lost the £10,000 they spent on becoming a provider, plus the costs of hiring any extra staff required for the expected extra work they would be receiving.

  Every time they spoke to the Green Deal communications manager they were told that the scheme was doing very well, so to have it suddenly cancelled would have been a large shock.

  Source: The Greenage – Why did the Green Deal fail?

- *Unrealistic energy saving expectations*

  Sadly the savings that the average customer can make from installing energy efficiency measures in their homes would not cover the cost of installation once the interest payments are taken into account. This means that domestic energy efficiency improvements do not make financial sense if the customer has to borrow at commercial rates of interest.

  For example, below are the average annual saving from installing some common energy saving measures at current gas prices of about 4 pence per kWh:

  - Cavity Wall Insulation - £48
  - Loft insulation - £16
  - Condensing boiler - £52
  - Solid wall insulation - £88

  These savings observed in real homes differ greatly to the figures usually used by the government and associated bodies such as the Energy Saving Trust. They suggest that a flat could save £90 from cavity wall insulation and a detached house could save £275, nearly six times more than has actually been measured.

  These unrealistic figures make installing cavity wall insulation look like a good idea under the Green Deal. For the average semi-detached house the annual savings are estimated at £160, and the cost of installation is estimated to be under £500. The Green Deal loan would cost £65 per year, so the customer would still be saving themselves £95 per year once the loan payments are accounted for. However, with the real life savings being only £48, they are actually wasting £17 per year by completing the above installation.

  This means that installing this measure using the Green Deal does not make any financial sense for the customer. This is the same story for all the other types of energy efficiency measures available through the Green Deal.

While recent research by the Department for Energy and Climate Change has shown that energy savings from cavity wall insulation are lower than previously reported, the Energy Savings Trust (a body charged by the government with providing householders with independent advice on energy saving) has increased its estimate on the savings from installing this measure from £140 for a semi-detached house to £160 per year. This conflicting information from government backed sources is only going to confuse potential customers more when they try to decide which measures are worth installing.

Source: Carbon Commentary – Who killed the Green Deal?

- *Poor advertising to consumers*

The Department of Energy and Climate Change (DECC) was made to drop an advertising campaign by the Advertising Standards Agency as it was misleading to customers over the amount of savings that they could expect to make from the Green Deal. The adverts also failed to highlight that customers would be charged an assessment fee before even agreeing to install any energy saving measures.

There were also complaints that the advertising campaign implied that financial savings were guaranteed. The advert claimed *"the money that we are saving more than covers any repayments for having the work done".* However, the DECC could not actually guarantee that the Green Deal repayments would not be higher than the savings made.

DECC said that it *"did not deliberately mislead households"*, and that they *"accept that we got it wrong. We'll use this ASA decision to improve our future advertising."*

Source: McLean Ross – Blunders in the media world of the Green Deal

According to Conservative MP Greg Barker, a further contributory factor for the lack of success of the Green Deal was down to a lack of implementation by the big six energy companies in the United Kingdom. He believed that these energy companies were not promoting the Green Deal enough to their customers:

"My biggest mistake was taking the big six at face value in the early years of this parliament when they said they were interested in energy efficiency. Absolute rubbish. They are not,"

Ed Davey, the Secretary of State for Energy and Climate Change expressed similar sentiments.

However, Greg Barker also stated that British Gas had told the government that "*Your Green Deal's rubbish, we've put all our resources in and nobody wants these products*."

Source: Next Energy News – Big six responsible for Green Deals failure claims MP Greg Barker

- *Businesses collapsing due to the poor uptake*

  A number of companies have reported financial and other difficulties after the failure of the Green Deal.

  Carillion had to spend £40 million in 2013 restructuring after the extremely slow start to the Green Deal. Mark Group, who provide insulation, had to fire 670 members of staff after changes to the government's ECO scheme. Enact Energy went into administration in June 2013 with 29 job losses and Baring Insulation went the same way costing 24 jobs, both blamed the Green Deal.

  One local business said about the Green Deal: *"I gave up months ago – £2,500+VAT on training, two weeks off work, over £1,000 in fees [it is a] joke"*.

  Nationwide Energy Services owed £2.6 million when it went under, and materials firm SIG sold its Green Deal installer business Miller Pattison for £1.

  Many thousands of people got the correct training and accreditation for the Green Deal, but due to a lack of demand they have been left with nothing in return. The cuts to the government's energy saving programs have cost an estimated 20,000 jobs.

  Source: Building.co.uk – The Green Deal catastrophe from start to finish, Luciana Berger – Holding the government to account on failed Green Deal

6. Conclusion

The Green Deal failed in its main objective, which was to significantly improve the energy efficiency of the UK housing stock. By the end of the scheme there were just under 16,500 Green Deal plans in total, while the total housing stock of the UK is around 25 million, so less than 0.1% of the total housing stock has improved its energy efficiency from the Green Deal scheme.

Ultimately the Green Deal suffered from being financially unattractive to customers, due to high interest rates on the loans, the relatively small amounts of money available to pay for installations, and the potential future risks from signing up for a Green Deal loan. The biggest of which was the potential to make the property harder to sell as new buyers who are put off by having to pay back a loan they did not take out, and because the warranty for the work carried out may not be transferrable to the new owners.

The only part of the scheme that was popular amongst the public was the Green Deal Home Improvement Fund, which was essentially giving money away to people who wanted to improve the energy efficiency of their home. Perhaps unsurprisingly the demand for these grants was very high, and the fund often ran out of its allocated budget within days.

There has also been criticism of the scheme stating that it didn't help those who most needed it - those living in the poorest quality housing stock. Instead it was mainly used by middle income households and landlords.

There is currently no plan to replace the Green Deal with another government backed scheme, and the government is now relying on the private sector to encourage home owners to improve the energy efficiency of their homes.

Important:
We have used our best endeavour and knowledge to research the answers to questions posed. We cannot guarantee that the information provided is absolute in its accuracy or completeness.

