

Green Deal – practicalities

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Part of the BRE Trust



Green Deal

- Overview
- The golden rule in practice
- BRE and the Green Deal



Green Deal

- Flagship policy of coalition government
- Aimed at the able to pay market for major refurb
- Quality to be ensured
- Golden rule to pay off measures
- Top up from ECO (Energy Company Obligation)
- A competitive market
- Future proof buildings



The Green Deal

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In only a year's time the Green Deal will be launched.

1:11 / 2:55

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The Green Deal Explained



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Chances are that you haven't heard of the Green Deal just, but a crucial

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Exclusive: Green Deal suffers fresh setback

8 March 2012 | By Allister Hayman, Vern Pitt

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Green Deal will not be fully operational until 2013 after energy firms delay implementation of payment mechanism

The big six energy firms will not be geared up to deliver the payment mechanism for the government's flagship energy efficiency scheme until next year, with the delay threatening to undermine the launch of the scheme in October.

The Department for Energy and Climate Change (DECC) confirmed the six major energy firms - EDF, Scottish Power, Southern Energy, Npower, E.ON and British Gas - would not be ready to deliver the payment mechanism for the Green Deal from October, with the earliest date likely to be the "first quarter 2013".

The payment mechanism is critical to the operation of the Green Deal as it enables consumers to pay for energy efficiency measures in their home through a charge on their energy bills.

Last month Building [first reported fears within the industry](#) that the timetable for the roll out of the Green Deal was slipping, after DECC officials started describing the launch of the programme as happening "before the end of the year" in meetings with stakeholders, rather than October.

The introduction of the government's secondary legislation required to implement the Green Deal has already been delayed. The legislation was initially set to be introduced last month, but has now slipped to June.



- Delayed until 2013
- Lack of payment mechanism

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Andrew Warren

Careful oversight of the Green Deal is needed to prevent breaches of the code of conduct leading to the swift discrediting of the concept

'History of mis-selling could threaten Green Deal success'

9 March 2012 | By Andrew Warren

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Today's news that EDF has been [fined £4.5m](#) for mis-informing customers when selling their products highlights a major threat to the success of the Green Deal.

The Green Deal is a new and complex concept that householders and small businesses will never have encountered before. It includes unfamiliar technical measures, a completely new financial mechanism, and a form of billing never before been experienced by customers.

The aspirations are high. But so too are the risks. The last thirty years has seen a string of high-profile scandals involving the deliberate mis-selling of other financial products. Personal pension plans, endowment mortgages, payment protection plans: the list of shame goes on.

The doorstep selling practices of the big energy companies, seeking to persuade customers to switch supplier, have been found to have misled customers grossly, and have only finally been stopped after action in the courts. Today's case is just the latest chapter.

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8 Mar 12

Firms reluctant to invest in Green Deal skills

8 Mar 12

Community engagement 'key to Green Deal take-up'

23 Feb 12

- Delivered between energy companies and the banks
- Opportunities for local authorities to deliver measures

Latest Developments

- £200m boost for “early adopters” – November 2011
- £3.5m for training of assessors and installers – March 2012
- Social housing may be excluded from ECO (consultation)
- Launch to be delayed until “early 2013”



Golden Rule in practice

- Able to pay market may be tempted
 - Cost of borrowing vs reduced risks?
- Fuel poor and those with low bills unable to benefit
 - No margin on lower utility bills

Mid terrace example with Boiler Replacement and EWI

- Well heated house (21° C and 18° C)
- Solid wall (2.4W/m²K), loft to 270mm, G-rated system boiler, fully double glazed, 85m² floor area.
- A-rated boiler replacement, wall insulation to 0.45W/m²K
- Cost of borrowing: 7%, 25yr loan period, Energy price increase: 4%, no comfort take back.
- Modelling done using SAP and excel
- EWI @ £8k
- Boiler and rads @ £3k



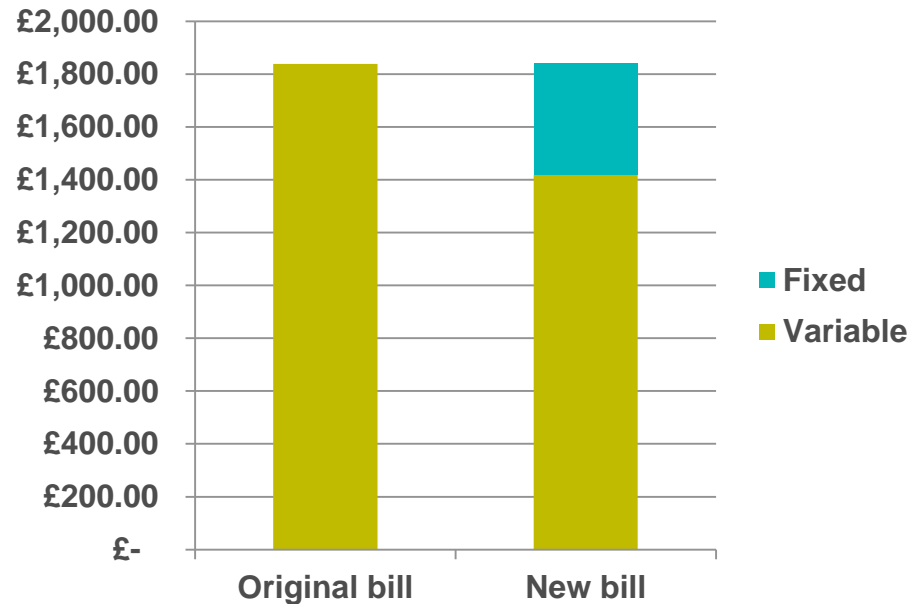
Mid terrace example with Boiler Replacement and EWI

	Original	Boiler	EWI	Boiler+EWI
Gas consumption (kWhrs/yr)	36757	24805	28355	18611
Gas bill (£/yr)	1837.85	1240.25	1417.75	930.55
EPC	F (35)	E (52)	E (47)	D (62)
CO₂ (t/yr)	7278	4929	5634	3698
Measure cost (£)	n/a	3000	8000	11000
Measure cost (£/m²)	n/a	35	94	129
Golden rule ok		Yes	No	Yes
Equity required (own funds or ECO)			3155	

Mid terrace example with Boiler Replacement and EWI



Boiler replacement



EWI with ECO top up

Mid terrace – Fuel Poverty Boiler Example

- Badly heated house (19° C and 14° C)
- Solid wall (2.4W/m²K), loft to 270mm, G-rated system boiler, fully double glazed, 85m² floor area.
- A-rated boiler replacement only
- Cost of borrowing: 7%, 25yr loan period, Energy price increase: 4%, 15% comfort take back.
- Modelling done using SAP and excel



Mid terrace – Fuel Poverty Boiler Example

	Original	Boiler	Boiler with 5% Comfort take back	Boiler with 15% comfort take back
Gas bill (£/yr)	800	540	620	750
EPC	F(35)	E(52)	E(52)	E(52)
Measure cost (£)	n/a	3000	3000	3000
Measure cost (£/m²)	n/a	35	35	35
Golden rule ok		No	No	No
Equity required		251	775	1820

For low users of energy, comfort take back impact can be significant

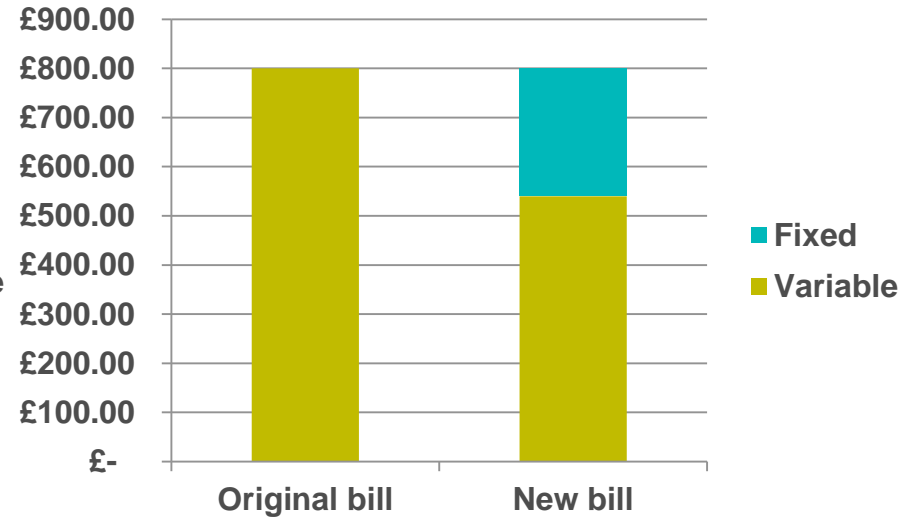
Green Deal doesn't work well when bills are low to start!

Mid terrace – Fuel Poverty Boiler Example



Boiler replacement

Green Deal Broken



Boiler with ECO

BRE Other Activities

- Developing Assessor tool for DECC – rdSAP with occupancy sensitivity
- Provision of certified training for installers
- Testing various products for manufacturers
- 30/30 testing – including smart controllers
- Cornwall pilot
 - 80 off-gas private properties with 1 to 4 measures.
 - Monitoring: T, RH, window sensors
 - Monitor real life vs SAP (and financial implications)

bre

Thank you very much for your attention

Jonny Williams

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