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Dear ECO supplier

Hard-to-treat cavity review: process for extrapolating site audit failure rate

We wrote to all energy companies with ECO obligations on 31 October 2013 to request further information in support of hard-to-treat cavity (HTTC) measures installed in 2013.[1] This additional information took the form of a document review, to be completed by the energy companies, and independent site audits. Energy companies commissioned independent auditors to undertake site audits for a minimum of 1% of the narrow HTTC measures that passed the document review.

There were a number of options available to energy companies in relation to the site audit of narrow HTTC measures; these are described later in this letter. The energy companies chose different routes.

Our October 2013 letter permitted suppliers to opt for extrapolating reduced savings where the failure rate from the site audits was 5% or more. This letter explains how extrapolation will work. Extrapolation is applied only to certain narrow measures installed in 2013.

How extrapolation works

Where the failure rate from the site audits is 5% or more, we will apply a reduction to the total carbon savings notified for the narrow measures not subject to site audits (the remaining measures).

First we will approve the remaining measures, and attribute the notified savings[2] to each measure. Next we will calculate total savings for all measures that were subject to the site audit and determine the percentage of those savings that are attributable to the measures that failed. See example 1 below.

[1] A copy of this letter is available on our website: https://www.ofgem.gov.uk/publications-and-updates/energy-companies-obligation-eco-hard-treat-cavity-measures-installed-1-january-2014-letter-suppliers

[2] Where checks show that the notified savings for a measure are incorrect, we will attribute the corrected savings reported by the supplier.

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Example 1: Determining the percentage reduction to be applied to narrow measures

Site audit measure	Site audit result	Associated carbon savings (tCO_2)	Calculation 1	Calculation 2
Measure 1	PASS	20		SUM of all carbon savings
Measure 2	PASS	25		
Measure 3	PASS	30		
Measure 4	PASS	20		
Measure 5	PASS	25		
Measure 6	PASS	30		
Measure 7	PASS	20		
Measure 8	PASS	25		
Measure 9	FAIL	30	SUM of all FAIL carbon savings	
Measure 10	FAIL	20		

$$\text{Carbon savings reduction to be extrapolated (\%)} = \frac{\text{Calculation 1}}{\text{Calculation 2}}$$

Calculation 1:	50 tCO_2	Sum of all FAIL carbon savings
Calculation 2:	245 tCO_2	Sum of all carbon savings
Result:	20.4 %	Carbon savings reduction to be extrapolated

We will calculate the total savings for the remaining measures, then reduce this total by the percentage attributable to the measures that failed.

We will apply this reduction when we make our final determination at the end of the scheme.

Each measure subject to extrapolation will be approved and will receive full savings; the extrapolation only reduces the total savings for the remaining measures.

For the sake of administrative simplicity, the ECO register will record a reduction in savings against each measure. However this record does not represent the savings we will attribute to the measure under article 19 of the ECO Order[3]. We will attribute full savings to each measure that is subject to extrapolation. These full savings will remain in the 'Carbon Score (tCO_2)' field of the ECO register, as notified by the supplier.

We will add the reduced carbon score to the 'Ofgem Carbon Score (tCO_2)' field in the ECO register as soon as we have sufficient information to calculate the reduction. If a supplier is considering re-electing or transferring any of the remaining measures, it should take the potential reduction into account. Although each measure will show a reduction, this is not a comment on any particular measure: it is merely the easiest way of tracking the overall expected reduction.

[3] The Electricity and Gas (Energy Companies Obligation) Order 2012. Available at: http://www.legislation.gov.uk/uksi/2012/3018/pdfs/uksi_20123018_en.pdf

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Determining whether extrapolation is required

Examples 2 and 3, below, show how we determine whether a site meets the 5% extrapolation threshold. We determine the failure rate without rounding.

EXAMPLE 2		EXAMPLE 3	
Number of measures in site audit:	61	Number of measures in site audit:	100
Number of PASS outcomes:	58	Number of PASS outcomes:	95
Number of FAIL outcomes:	3	Number of FAIL outcomes:	5
Failure rate:	4.92%	Failure rate:	5.0%
Extrapolate?	NO	Extrapolate?	YES

Where a supplier chose to undertake site audits on a statistically significant sample of measures for each installer, we will make this calculation for each installer.

Determining the percentage reduction

Our October 2013 letter provided a hypothetical example of how we would extrapolate the site audit failure rate. The example assumed that all measures notified had the same associated carbon savings. In practice, it is likely that the carbon savings associated with each narrow HTTC measure will differ. To take account of this, the percentage reduction will be calculated as shown in example 1.

Reducing the carbon savings

The percentage reduction will be applied to the total carbon savings associated with:

a) All measures originally notified as narrow HTTC which pass the document review but which are not included in the site audit. Measures which pass a site audit will retain their full carbon savings and measures that fail a site audit will not be approved.
b) All measures in the document review with an outcome of 'reclassify as narrow'.
c) All measures installed in 2013 and notified as narrow HTTC which were not included in the HTTC document review.

Extrapolation alternatives

Our October 2013 letter set out the main requirements of the HTTC review. Independent site audits of narrow HTTCs were included because we had concerns over the accuracy of the documentation available. Our letter set out three options for energy companies in relation to the scale of these site audits, ranging from a 1% sample of all narrow measures to a statistically significant sample of narrow measures for each installer.

The lower threshold of a 1% sample was introduced in order to minimise disruption for customers. Where energy companies chose this option and the failure rate identified was at least 5%, they could choose extrapolation or they could increase their audit sample size. Where the site audits included a statistically significant sample of measures by

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installer, energy companies could choose targeted extrapolation, applying a reduction to only those measures by installers with a failure rate of 5% or above.

For further details of these options, please refer to our October 2013 letter.

Please contact Cassie Sutherland (senior manager, ECO Technical Team) if you have any questions.

Yours faithfully,

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