

Energy Company Obligation (ECO) U-Value Consultation Questionnaire – Feb 16



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for energy consumers

Background

The questions below relate to the consultation on requirements for over-writing U-values for cavity wall insulation measures which can be found on our website :

<https://www.ofgem.gov.uk/publications-and-updates/eco2-consultation-requirements-overwriting-u-values-cavity-wall-insulation-measures>

Our proposals consist of three main parts:

- a. introducing an upper limit for overwritten U-values,**
- b. stipulating the evidence that we expect to be in place when a U-value is overwritten and how we expect inputs to be collected, and**
- c. a regime to monitor these measures; we suggest three approaches for implementing monitoring.**

Notes For Completion

Please complete all relevant sections of the document by selecting an answer for the question and then providing reasons/evidence for your response in the box provided. If you do not wish to answer a question please select 'N/A'. The questionnaire should be completed in typeface and returned via email to eco.consultation@ofgem.gov.uk by close of play **7 March 2016**.

Respondent Details

Organisation Name:	Acrobat Carbon Services
Completed By:	Andy Clixby
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1. U-value Limit

1.1 Do you agree that it is unreasonable for the U-value of a cavity wall measure to exceed 1.6 W/m²K in premises in the age bands B-K?

- Strongly Agree
- Agree
- Neither Agree Nor Disagree
- Disagree
- Strongly Disagree
- Don't Know
- N/A

Please provide details and supporting evidence for your response below.

I strongly agree that it is extremely unreasonable for a age band F onwards property to have a higher U-value than one built in 1929 (band B), but the U-value of properties built with (e.g.) ventilated cavities (typically bands B and C) could exceed 1.6W/m²K.

1.2 Do you agree that we should implement a limit of 1.6 W/m²K for overwritten U-values for cavity wall measures in premises in age bands B-K?

- Strongly Agree
- Agree
- Neither Agree Nor Disagree
- Disagree
- Strongly Disagree
- Dont Know
- N/A

Please provide details and supporting evidence for your response below.

For properties built age band F onwards, I 'Strongly Agree' however as mentioned in 1.1, some properties built prior to Band F, could have particular nuances that would give U-values higher than the RdSAP default of 1.6 W/m²K.

2. Evidence Requirements

2.1 Do you agree that relevant inputs should be collected for the U-value calculation via an intrusive inspection, using a borescope for example?

- Strongly Agree
- Agree
- Neither Agree Nor Disagree
- Disagree
- Strongly Disagree
- Don't Know
- N/A

Please provide reasons for your response below.

Where RdSAP assumes that an age Band F or later property hasn't been insulated, a borescope inspection on each elevation is the only practicable way that this can be determined and clear GPS date/timed stamped photos should be provided. The inner leaf blocks on display in the roof space or inside integral garages may not be representative of the wall construction everywhere else.

2.2 What types of evidence do you suggest would support the inputs used for a new U-value calculation?

Please provide reasons for your response below.

RdSAP assumes that with each change in Building Regulations, new houses had to immediately comply with the new regulation; this is incorrect as there has always been a delay between when planning permission is given and when the properties have to be completed by, which could be several years after the new regulation was introduced.

As RdSAP assumptions are therefore obviously flawed when determining the insulation levels (or lack of) in cavities of properties built from Band F onwards, it would be easier to replace these assumptions with new, more realistic ones.

The constructional element - the inner leaf - is the most difficult to accurately identify and is also the one that would be most likely to produce inaccurate U-value scores. For example, it is extremely unlikely that dense blocks were used in the construction of properties built from Age band H onwards and still have an empty cavity. Therefore it should be reasonable to assume that inner blocks have deemed lambda values for each Age band which would result in a U-value no higher than (for example) 1.6 W/m²K.

The suggested additional level of evidence proposed in the consultation should only be required where the new deemed lambda values can be irrefutably proven to be inaccurate.

I appreciate that this would have to be agreed with the EPC accreditation bodies, but this suggestion has to be more representative of an uninsulated cavity wall from Age band F onwards than we currently have and less costly to implement.

2.3 Do you agree that the types of evidence listed in paragraph 2.5 are practical to provide?

- Strongly Agree
- Agree
- Neither Agree Nor Disagree
- Disagree
- Strongly Disagree
- Don't Know
- N/A

Please provide reasons for your response below.

It is difficult to cost-effectively provide suitable evidence for some of the inputs e.g. the density of the inner block and I believe it makes more sense if agreed 'reasonable assumption's are made. E.g. It is extremely unlikely that dense blocks were used in the construction of properties built Band H onwards and still have an empty cavity. Therefore it should be assumed that each Age band has a deemed lamda value for the inner block which would result is a U-value no higher than (for example) 1.6 W/m2K.

Other inputs are easier to provide such as whether the inner surface has dense plaster or is 'dot-and-dabbed' by simply performing a 'knock' test and should be recorded on a Construction Checklist.

2.4 Do you agree that the evidence listed in paragraph 2.5 is sufficient to support an overwritten U-value?

- Strongly Agree
- Agree
- Neither Agree Nor Disagree
- Disagree
- Strongly Disagree
- Don't Know
- N/A

Please provide reasons for your response below.

If the evidence could be collected easily, there would be no need for this consultation.

2.5 Do you agree that the inputs for a U-value calculation should be collected by an independent person to increase confidence in the accuracy of overwritten U-values for CWI measures?

- Strongly Agree
- Agree
- Neither Agree Nor Disagree
- Disagree
- Strongly Disagree
- Don't Know
- N/A

Please provide reasons for your response below.

Although it may increase confidence, it would increase the cost of installing the measure and result in a further intrusion on the householder. If deemed lambda values were introduced, the U-value calculation would be realistic enough to produce reasonable U-value calculations without the need for additional pre-installation visits.

2.6 Do you agree that an independent person collecting the inputs for a U-value calculation would be practical to implement taking into consideration cost, time and customer journey implications?

- Strongly Agree
- Agree
- Neither Agree Nor Disagree
- Disagree
- Strongly Disagree
- Don't Know
- N/A

Please provide reasons for your response below.

As mentioned in my answer to 2.5, it would be both expensive and result in a further intrusion on the householder. If agreed deemed lambda values were introduced, the U-value calculation would be realistic enough to produce reasonable U-value calculations without the need for additional visits. Also, the savings could be used to either assist more households with ECO measures, or deliver the works more cost-effectively or accurately.

3. Option 1 – Additional Monitoring Questions

3.1 Do you agree that option 1 would increase confidence in the accuracy of overwritten U-values for CWI measures?

- Strongly Agree
- Agree
- Neither Agree Nor Disagree
- Disagree
- Strongly Disagree
- Don't Know
- N/A

Please provide reasons for your response below.

Apart from the question in 2.9 regarding the inner block, I would 'Strongly Agree'. As stated previously, it is extremely difficult and costly to easily determine the density of the inner block and could be subjective.

3.2 Do you agree that option 1 would be practical to implement, taking into consideration cost and time implications?

- Strongly Agree
- Agree
- Neither Agree Nor Disagree
- Disagree
- Strongly Disagree
- Don't Know
- N/A

Please provide reasons for your response below.

I am of the firm belief that post installation technical monitoring is the answer for most issues and the savings made by not having an additional 'independent person' visiting the property pre-installation, could be used to provide additional post-installation monitoring. However, the non-intrusive nature of the post-installation inspection may not reveal signs of existing insulation being present

3.3 Do you agree that a score monitoring agent is suitably qualified to answer the proposed questions relating to the U-value inputs?

- Strongly Agree
- Agree
- Neither Agree Nor Disagree
- Disagree
- Strongly Disagree
- Don't Know
- N/A

Please provide reasons for your response below.

Apart from the question in 2.9 regarding the inner block, I would 'Strongly Agree'. As stated previously,

it is extremely difficult to easily determine the density of the inner block which is the key element in wall construction and could be subjective. The post-installation inspector may believe that the block is of a different density to that stated by the installer, however the installer may have irrefutable evidence to support their claim (although this would probably not be worthwhile unless for blocks of flats). In the meantime, the lengthy challenging and overturning process for that one scoring fail, could temporarily place a company installing <100 measures in a quarter on to the Pathway to Compliance.

3.4 Do you agree that the proposed additional score monitoring questions are appropriate for identifying where overwritten U-values are incorrect?

- Strongly Agree
- Agree
- Neither Agree Nor Disagree
- Disagree
- Strongly Disagree
- Don't Know
- N/A

Please provide reasons for your response below.

I strongly agree but as stated previously, it is extremely difficult for a post-installation inspection to accurately determine the density of the inner leaf.

3.5 Are there any additional questions that you think would help to identify inaccuracies in overwritten U-value calculations?

Please provide reasons for your response below.

- i. Results of internal 'knock' test - dry-lined/plaster/(to determine inner surface element).
- ii. Results of electric meter box inspection - signs of existing insulation.

3.6 Can you please estimate how long you think it will take for these new questions to be implemented into your systems?

Please provide reasons for your response below.

Although current U-value calculations should be accurate, it would make sense to implement the new questions 1 month after publication of this consultation's findings. As U-value calculations are completed quite early on in the process, there could be genuine measures submitted which may fail the

new questions due to not having the additional evidence to support the U-value calculation report.

3.7 Do you foresee any issues if the questions were implemented during a monitoring quarter?

- Yes
- No
- Don't Know
- N/A

Please provide reasons for your response below.

It would make sense to implement the new questions at the start of a new quarter in order to ensure that all measures inspected have been monitored to the same standard.

4. Option 2 – Ongoing Monitoring

4.1 Do you agree that option 2 would increase confidence in the accuracy of overwritten U-values for CWI measures?

- Strongly Agree
- Agree
- Neither Agree Nor Disagree
- Disagree
- Strongly Disagree
- Don't Know
- N/A

Please provide reasons for your response below.

Any additional auditing would increase confidence, however if maximum deemed lambda values were introduced for each Age band, there would be no need to perform such audits.

4.2 Do you agree that option 2 would be practical to implement, taking into consideration cost and time implications?

- Strongly Agree
- Agree
- Neither Agree Nor Disagree
- Disagree
- Strongly Disagree
- Don't Know
- N/A

Please provide reasons for your response below.

As stated in 4.1, if maximum deemed lambda values were introduced for each Age band, there would be no need to perform such audits removing additional and unnecessary costs.

4.3 If we were to implement a new monitoring regime in order to verify the accuracy of overwritten U-values for CWI measures, do you agree with the sample size and reporting timeframes outlined in paragraph 2.12?

- Strongly Agree

- Agree
- Neither Agree Nor Disagree
- Disagree
- Strongly Disagree
- Don't Know
- N/A

Please provide reasons for your response below.

I don't think it should be introduced as per my responses to 4.1 and 4.2.

5. Option 3 – Audit Regime

5.1 Do you agree that option 3 would increase confidence in the accuracy of overwritten U-values for CWI measures?

- Strongly Agree
- Agree
- Neither Agree Nor Disagree
- Disagree
- Strongly Disagree
- Don't Know
- N/A

Please provide reasons for your response below.

Any additional auditing would increase confidence, however if maximum deemed lambda values were introduced for each Age band, audits such as these would only be required if an investigation on a particular installer was deemed necessary and not as the primary method of verifying U-value calculations.

5.2 Do you agree that option 3 would be practical to implement taking into consideration cost and time implications?

- Strongly Agree
- Agree
- Neither Agree Nor Disagree
- Disagree
- Strongly Disagree
- Don't Know
- N/A

Please provide reasons for your response below.

As stated in my response to 5.1, audits such as these should only be required for a one-off investigation and should not be used as the primary method of verifying U-value calculations.

6. Additional Questions

6.1 Do you have concerns with U-values being overwritten for other ECO measure types?

Please provide details and supporting evidence for your response below.

If irrefutable evidence can be supplied easily for other measures, in particular, EWI and RiRi, then the overwriting of U-values for such measures should be permitted; the issue is that if the pre-install U-value is required, the measures being fitted could 'hide' the original construction.

6.2 If you do not agree with any of proposals outlined, could you please suggest an alternative approach which you consider would provide assurance that U-values are being accurately overwritten for CWI measures?

Please provide details and supporting evidence for your response below.

As per my previous responses, I believe that deemed lambda values could be given to properties in each Age band from F onwards where a borescope inspection has identified that the cavity is both empty and suitable. This would result in more realistic and reasonable U-value scores being calculated without the need for additional pre-installation visits and its associated cost implication.

NB

In response to the additional proposal discussed in the Ofgem consultation workshop, I believe that the implementation of agreed deemed maximum U-values for each Age band is the best option. Although not as bespoke as my proposal, it would be easy to implement whilst providing more accurate results than we have now.

I would suggest the following deemed U-values (in W/m²K):

Age Bands B - F - 1.6

Age Band G & H - 1.5

Age Band I - 1.4

Age Band J - 1.3

Age Band K - 1.2

6.3 Do you agree that the proposals outlined above will enable U-values to continue to be overwritten for CWI measures where this is appropriate?

Please provide reasons for your response below.

U-values should be able to be overwritten due to the incorrect assumptions of RdSAP and any process that can achieve this simply and cost effectively is welcome.