

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



Making a positive difference
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: | Elmhurst Energy Systems Limited |
| Completed By: | Paul Mayne (Existing Dwellings Manager) |
| Contact Details: | 01455 883250 |

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.

Elmhurst agrees it is not unreasonable to assume that properties built within age bands B to D (inclusive) may have cavity walls with U-Values exceeding 1.6 W/m²K as these were constructed prior to the introduction of the Building Regulations and therefore, by definition, there was no formal control over the construction and materials used.

However, since the introduction of the Building Regulations in 1965, there have been far tighter controls over both construction methods and building materials therefore RdSAP has adopted much lower default U-Values for cavity walls falling within age bands E to K (inclusive). Whilst these default U-Values range considerably from 1.0 W/m²K for band E down to 0.30 W/m²K for band K, none are as high as 1.6 W/m²K therefore to adopt this figure as a 'backstop' across age bands B to K is unrealistic and to do so would imply that properties within these age bands were not built in accordance with Building Regulations (which will be incorrect in the vast majority of cases). Within a number of the age bands a specific U-Value was defined and for the other more recent standards a guide U-Value was given (elemental approach). However, there was also a maximum (backstop) value, usually of around 0.7 W/m²K. NB - Please be aware that there is some variance in these figures between the England & Wales and Scotland regions.

Under the circumstances, Elmhurst believes that such a proposal is not appropriate and would recommend that further, more detailed research is conducted (perhaps by BRE) before this type of approach is given further consideration.

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.

Please refer to our comments in Section 1.1 above.

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.

Whilst Elmhurst strongly agrees that an intrusive inspection is essential, visual evidence alone is not sufficient and the use of a boroscope is often inconclusive (e.g. identification of specific block type and density is both difficult and unreliable)

For the purposes of calculating the U-Value of a particular building element (e.g. an external wall) a core sample is the only reliable method of confirming the specific building materials. The core sample should be tested in a laboratory environment to determine the U-Value of each individual material used in the overall make-up of the building element.

Obtaining a core sample is relatively straightforward although this method is more cost-effective when calculating U-values for portfolios comprising properties of a similar age and construction type (e.g. social housing estates). In this situation it may be acceptable to adopt a 'representative sample' approach whereby core samples are taken from a selected number of similar properties and the mean results (if proven to be consistent) applied across the portfolio.

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.

U-value calculations should be supported by the following:

Results of core sample analysis demonstrating the U-values of the individual building materials

Photographic evidence obtained via a boroscope (where available)

Photographic evidence of the empty/partially filled wall cavity taken in the loft and meter cupboard (where possible)

A copy of the Building Regulations Compliance/building specification documents stating the relevant U-value(s) (where available)

SAP calculations produced by a suitably qualified person (where available)

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.

Elmhurst agrees that it is practical to provide the documentary evidence detailed in Paragraph 2.5 of the consultation document. However, we would refer you to our comments in Section 2.4 below.

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.

The evidence alone is not sufficient unless it is subject to formal monitoring. The current requirements that the U-Value calculation must be produced by an 'appropriately qualified person' means that, for example, whilst an OCDEA must produce the calculation, that person is not responsible for verifying either the accuracy or quality of the evidence provided.

Please note - Elmhurst operates a U-Value competency scheme that operates at a higher level than the current process which is fundamentally flawed as it only requires the person issuing the U-value calculation to ensure that the calculation is accurate based upon the evidence provided (which is only assumed to be correct).

In order to ensure that the evidence is robust, we strongly support the introduction of formal U-Value Competency Schemes to monitor the accuracy of U-Value calculations issued by members of such Schemes. We also recommend that, for the purposes of ECO applications, only U-Value certificates issued by accredited members of a Competency Scheme should be accepted.

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.

The person responsible for collecting the evidence on site and producing the subsequent U-Value calculation should be independent from the installer. Ideally, they should also be a member of a U-Value Competency Scheme which would regularly monitor the quality of their work.

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.

Whilst Elmhurst accepts that this approach would involve additional time and cost this would be justified in many instances as a more accurate assessment can often secure higher carbon savings. In the case of larger projects (e.g. a social housing estate comprising large numbers of properties of a similar age and construction type) this additional cost could be mitigated through the adoption of a 'sampling' approach whereby it would not be necessary to inspect each individual property (please refer to our previous response in Section 2.1 above).

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.

Whilst Elmhurst agrees in principle with this approach we would question whether the additional monitoring questions will actually help the Score Monitoring Agent (SMA) to judge the accuracy of the evidence, data inputs and calculation unless the SMA is themselves competent at calculating U-Values and is, ideally, a member of a U-Value Competency Scheme.

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.

Elmhurst believes that this approach would be cost effective given that Score Monitoring Agents will only be required to monitor a representative sample of U-Value calculations and inspect a relatively small number of properties.

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.

If the Score Monitoring Agent (SMA) is trained/qualified only as a Domestic Energy Assessor (DEA) they will not have the required level of knowledge to competently assess the accuracy of a U-Value calculation. At the very least all SMAs should be trained/qualified as On-Construction Domestic Energy Assessors (OCDEAs) although, ideally, should be members of a formal U-Value Competency Scheme.

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.

Elmhurst is concerned that this proposal may amount to little more than a paper exercise which serves only to confirm that the data entered into the U-Value calculation software matches that recorded by the assessor. For example, the questions as proposed do not provide any assurances that the actual materials used in the construction of the property have been identified correctly. Whilst the U-Value calculation may be technically correct (based upon the data used), it may not be appropriate for the property in question if the building materials used for the calculation have been mis-identified.

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.

Robust evidence is essential in helping Score Monitoring Agents to verify the accuracy of U-Value calculations. It is recommended that this includes certified laboratory evidence providing a breakdown of all materials in the core sample along with the individual, verified U-Value of each element.

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.

As Elmhurst are not Score Monitoring Agents we are unable to comment on timescales for the implementation of this proposal.

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.

Elmhurst are unable to provide comment.

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.

Elmhurst strongly agreed with the proposals in Option 2 although we accept that this will be an additional burden on the Score Monitoring Agents.

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.

The practice proposed in Option 2 is over and above the standard monitoring procedure and could therefore be prohibitive given the additional time and cost implications to the Score Monitoring Agents.

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.

Elmhurst agrees that the timescales proposed in Paragraph 2.12 are reasonable.

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.

The proposal in Option 3 is similar to a 'smart audit' approach whereby specific risks/concerns are

identified and monitoring activity is targeted accordingly. For example, this could help to identify potentially fraudulent activity although it is essential that this type of monitoring is conducted as early as possible during the installation process - if left until the installation has been completed the opportunity to take action may be lost.

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.

Elmhurst agrees that it would be practical to implement the audit regime proposed in Option 3 on the assumption that the size of the audit sample is relatively small (e.g. less than 5% of U-Value calculations used for ECO purposes).

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.

Elmhurst does not currently have any specific concerns regarding the overwriting of U-Values for other ECO measures (e.g. loft insulation) although are mindful that the option to overwrite U-Values in RdSAP can be open to abuse and should be monitored closely if this is justified.

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.

The most reliable method of ensuring the accuracy of U-Value calculations would be to set up a formal U-Value Competency Scheme, membership of which would be mandatory for anyone wishing to produce U-Value calculations for use in ECO applications. The Competency Scheme would independently monitor its members to ensure the quality of the evidence used in the production of the calculation, along with the accuracy of the calculation itself.

Elmhurst has also considered Ofgem's alternative proposal of implementing new, default U-Values by age band where cavity walls are found not to be insulated. Whilst Elmhurst does not disagree with this approach in principle, further, more detailed research will be required before this method is adopted so as to provide the level of accuracy required. We would also refer you to our earlier comments in Section 1.1 above.

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.

Elmhurst agrees that the above proposals will enable U-Values for cavity wall insulation measures to be overwritten, subject to our comments in this formal response.