# 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-valuescavity-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:	RWE npower
Completed By:	Sarah Hayes, Compliance Manager
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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  $1.6 \text{ W/m}^2\text{K}$  in premises in the age bands B-K?

- C Strongly Agree
- Agree
- Neither Agree Nor Disagree
- Oisagree
- C Strongly Disagree
- 🔘 Don't Know
- 🔍 N/A

Please provide details and supporting evidence for your response below.

Yes we agree that it is unreasonable for the U-value of a cavity wall measure to exceed 1.6 W/m<sup>2</sup>K in premises in the age bands B-K.

This is based on the requirement that savings and scores in ECO must be calculated in accordance with RdSAP or SAP2012 Version 9.92, and that RdSAP Conventions state; 'The assumed insulation thickness or U-values from tables in the current edition of SAP (e.g. Table 6e for windows) or RdSAP (e.g. Table S10 for roofs and Table S15A for doors) can also be treated as documentary evidence provided that the evidence on which it is based is demonstrably robust (e.g. in relation to the age band for Table S10 or S15A).'

Table S6 states English and Welsh dwellings of Age bands B,C,D & E, with cavity walls of as built performance achieve a u-value of 1.6 W/m<sup>2</sup>K, therefore it does appear unreasonable for the u-value of a cavity wall to exceed 1.6 W/m<sup>2</sup>K.

We would also like to refer Ofgem to the 'BRE In-situ measurements of wall U-values in English housing report', produced for DECC on 4th July 2014, for further evidence and information on such matters, supporting our response.

**1.2** Do you agree that we should implement a limit of 1.6 W/m<sup>2</sup>K 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

### O N/A

Please provide details and supporting evidence for your response below.

We do agree in principle that Ofgem should implement a limit of 1.6 W/m<sup>2</sup>K for overwritten U-values for cavity wall measures, however we do not consider this limit to be relevant to premises in all age bands B-K. We would argue that this limit is not reasonable for properties in age bands G-K.

We do recognise the extensive range, and complexity, of situations throughout the British Housing stock. We suggest that Ofgem review the issues in much greater detail. For example, by understanding the related history of these issues and particularly Part L of the Building Regulations. We refer Ofgem to the report produced by David Olivier for the Association for the Conservation of Energy and Energy Efficiency Advice Services for Oxfordshire in October 2001 - 'Building In Ignorance. Demolishing complacency: improving the energy performance of 21st Century homes'.

## **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?

- C Strongly Agree
- O Agree
- 🔿 Neither Agree Nor Disagree
- Disagree
- Strongly Disagree
- 🔘 Don't Know
- 🔘 N/A

Please provide reasons for your response below.

We do not believe it suitable nor appropriate that relevant inputs should be collected for the U-value calculation via an intrusive inspection, using a borescope for example. Neither a DEA nor an OCDEA are suitably qualified to carry out such an inspection, and Obligated Suppliers may not have the in-house expertise to verify the results of any such inspection with certainty.

We would also question how the inputs required for a u-value calculation, in accordance with BR 443, can be obtained via an intrusive inspection with a borescope. We are concerned that the outputs from borescope inspections are insufficient as evidence and therefore provide limited assurance that the inputs to a U-value calculation are accurate.

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. As ECO Scores must be calculated in accordance with RdSAP / SAP2012 V9.92 we suggest that the types of evidence referred to in Convention 3.08 and 9.02 / 3.1 be required to support any new Uvalue calculations. In summary, the types of evidence we suggest would support the inputs used for a U-value calculation are: - relevant building control approval, which both correctly defines the construction in guestion and states the calculated U-value; - a U-value calculation produced or verified by a suitably gualified person; and clarification on what specific documents/information gualify as evidence thereof, or - direct measurement of U-values provided that the values have been obtained in accordance with the appropriate measurement standards (Conventions for U-value calculations 2006 edition (BR 443)). **2.3** Do you agree that the types of evidence listed in paragraph 2.5 are practical to provide? Strongly Agree O Agree Neither Agree Nor Disagree O Disagree Strongly Disagree On't Know O N/A Please provide reasons for your response below.

We are unable to confirm whether the types of evidence listed in paragraph 2.5 are practical to provide as we do not consider there to be sufficient detail of exactly what evidence should be available when a default U-value is overwritten for a CWI measure.

In order to respond comprehensively we request further clarification from Ofgem regarding exactly how to evidence the requirements outlined in paragraph 2.5. We would ask for specific clarification on the explicit and acceptable methods which should be used to evidence:

- a U-value calculation that is either calculated or verified by a suitably qualified person

1. Is it essential that this is a U-value Calculation Report Document which uses the conventions in BR 443? Simplified or Numerical method?

2. Does this need to be visible on the U-Value calculation report document?

3. What specific route is there to identify that an individual is, or was, a 'suitably qualified person' at

the time of the u-value calculation/verification? For example, an individual may have a certificate of qualification as a OCDEA, but no updated document that proves they are current members of an accreditation scheme. We have previously sought guidance from Landmark however it is not mandatory for assessors to be registered on the Landmark database. We have also contacted the relevant government departments however they are unable to provide any details of any 'other scheme formally agreed between Accreditation Schemes/Approved Organisations and Government'. We would be grateful if Ofgem could define exactly what is to be considered acceptable evidence of this qualification.				
- that the person is suitably qualified through one of the methods outlined in the RdSAP convention As per point above.				
<ul> <li>that supports each of the inputs used for the new U-value calculation</li> <li>1. What specific evidence is required to support this?</li> <li>2. Does this need to comply with the U-value conventions in BR 443?</li> <li>3. If photographs, exactly how can we identify the different types of materials used in construction?</li> <li>4. Do photographs require GPS Location and a date/time stamp?</li> <li>5. Which specific items of evidence can support with certainty the exact composition of a cavity wall, and associated required inputs for u-value calculation?</li> </ul>				
<ul> <li>site notes including justification for the default U-value being overwritten and justification for any assumptions made when determining each element of the wall construction.</li> <li>1. Can a u-value be calculated in accordance with the conventions of BR 443 via undefined justifications and assumptions?</li> <li>2. What exactly is required here, and what supporting evidence?</li> </ul>				
<b>2.4</b> Do you agree that the evidence listed in paragraph 2.5 is sufficient to support an overwritten U-value?				
C Strongly Agree				
O Agree				
Neither Agree Nor Disagree				
O Disagree				
C Strongly Disagree				
🗘 Don't Know				
<sup>©</sup> N/A				
Please provide reasons for your response below. As per our response to 2.3, we are unable to provide a comprehensive response without further clarity				

**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?

C Strongly Agree			
O Agree			
Neither Agree Nor Disagree			
O Disagree			
O Strongly Disagree			
O Don't Know			
O N/A			
Please provide reasons for your response below.			
We may potentially agree that the inputs for a U-value calculation should be collected by an independent person in order to increase confidence in the accuracy of overwritten U-values for CWI measures.			
However, further exploration of how this may best be achieved in reality is necessary. If the independent person also happens to be the suitably qualified person who is calculating or verifying the u-value calculation, and they are a member of a OCDEA Accreditation Scheme for example, they may not necessarily be suitably qualified to visit a dwelling and carry out the intrusive inspection as Ofgem propose.			
<b>2.6</b> 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?			
C Strongly Agree			
O Agree			
O Neither Agree Nor Disagree			
• Disagree			
C Strongly Disagree			
C Don't Know			
© N/A			
Please provide reasons for your response below.			
With the current level of detail provided we do not 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.			

In order to determine whether this would be practical we would require further clarification of exactly who would be qualified to collect the inputs required for a U-value calculation and how exactly the inputs shall be collected, in compliance with RdSAP/SAP.

## 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?

O Strongly Agree

O Agree

Neither Agree Nor Disagree

Oisagree

C Strongly Disagree			
🔿 Don't Know			
O N/A			
Please provide reasons for your response below.			

We do potentially agree that option 1 would increase confidence in the accuracy of overwritten Uvalues for CWI measures. However, again we need further information in order to arrive at a reasonable and considered opinion.

The age band of a dwelling is notoriously difficult to identify with certainty. Score Monitoring agents are not currently required to carry out intrusive surveys, and there will be legal and insurance related factors to consider.

No information has been provided as to the level of certainty required in identifying the average density of an inner block at any given existing dwelling. The Score Monitoring Agents are not currently required to be 'Suitably Qualified Persons' as defined in SAP/RdSAP2012 so little improvement in confidence should be expected.

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

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

Please provide reasons for your response below.

We do not agree that option 1 would be practical to implement taking into consideration cost and time implications.

Score Monitoring agents are not currently required to carry out intrusive surveys, and there will be contractual, legal and insurance related factors to consider. The Score Monitoring Agents are also not currently required to be 'Suitably Qualified Persons' for calculating u-values, as defined in SAP/RdSAP2012. Significant costs will be incurred and to train as OCDEA requires approximately 300 hours of study.

Without detailed guidance relating to methods of accurately identifying the density of internal blocks there is a significant risk of lengthy disputes between parties. There is a need for an agreed methodology for identifying internal blockwork.

In addition, system and process development would be required to provide the Score Monitoring

Agents with the data necessary to conduct the inspections, and to enable the Score Monitoring Agent to report the findings of any such inspections to the obligated supplier.

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

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

Please provide reasons for your response below.

Based on the minimum requirements of a Score Monitoring Agent in ECO we do not agree that a score monitoring agent is suitably qualified to answer the proposed questions relating to the U-value inputs.

A DEA for existing dwellings is not suitably qualified, under that accreditation alone, to conduct intrusive surveys, nor accurately identify density of internal blockwork across entire lengths of external wall, nor accurately identify each individual element required in a u-value calculation in compliance with BR 443.

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

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

Please provide reasons for your response below.

We do not agree that the proposed additional score monitoring questions are appropriate for identifying where overwritten U-values are incorrect.

Only if defined methods and detailed guidance relating to the accurate response to those questions is provided will such a proposal be appropriate.

We can foresee potentially widespread issues being caused by the conflicting opinions of similarly qualified parties leading to complex and lengthy resolution processes across most of the proposed additional score monitoring questions.

**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.

There are no additional questions that we think would help to identify inaccuracies in overwritten U-value calculations.

There may, however, be alternative methods that could help to identify inaccuracies in overwritten Uvalue calculations. If, for example, in each case where a Domestic Energy Assessor overwrites a uvalue that DEA voluntarily submits their assessment and associated evidence to their accreditation company, with explicit disclosure of the fact that a u-value is overwritten, then the Scheme Operator may produce a certified outcome of the audit - satisfactory or inaccurate/inappropriate.

This would negate the further significant, and complex, additional burdensome activities on obligated suppliers that we foresee should the additional score monitoring questions proposed in option 1 be imposed.

There are methods and procedures in place though the EPBR Energy Assessor Accreditation schemes that could provide independent auditing to assist with the identification of inaccurate U-value calculations.

**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.

We anticipate that it would take 3-6 months for the new questions to be implemented into our systems, however this is dependent upon other requirements.

Internal and external process must be developed, with system development occurring through a third party. Exact requirements must be identified, with other third party system users required to agree to development and funding. Development must occur with an intensive testing cycle to confirm functionality is working prior to release into our live environment.

As per our response to question 3.3 we do not consider that the current minimum requirements for score monitoring agents deem them suitably qualified to carry out such monitoring therefore additional time may be required to carry out a re-tendering exercise for suitably qualified/appropriate persons. It would not be feasible to begin to enact these changes until detailed guidance is provided.

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

Yes

🔿 No

🔘 Don't Know

O N/A

Please provide reasons for your response below.

Yes we foresee significant issues if the questions were implemented within a monitoring quarter.

As well as the potential for adding further complications to an already complex monitoring process, the existing contractual agreements with Score Monitoring Agents would likely need to be amended, depending on the level of qualification and liability that may exist under the current proposals. Methods for extracting the relevant information and delivering it to the Score Monitoring Agents would need to be developed and tested before mutual agreement reached.

We can also, and as previously suggested, foresee potentially widespread issues being caused by the conflicting opinions of similarly qualified parties leading to complex and lengthy resolution processes across most of the proposed additional score monitoring questions.

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

Please provide reasons for your response below.

We do not agree that option 2 would increase confidence in the accuracy of overwritten U-values for CWI measures.

Option 2 is a reflection of the work already undertaken by obligated suppliers to review the details for any overwritten U-values. As well as increasing the administrative burden on obligated suppliers, we do not believe that Option 2 offers any greater confidence in the accuracy of overwritten U-values without the additional definition and guidance that we seek.

The evidence listed in paragraph 2.5 is already sought - it is the explicit and definitive interpretation of the evidence which is required, and guidance thereon.

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

- C Strongly Agree
- Agree
- 💽 Neither Agree Nor Disagree
- O Disagree
- O Strongly Disagree
- 🔘 Don't Know
- O N/A

Please provide reasons for your response below.

Yes we potentially do agree that option 2 would be practical to implement, taking into consideration cost and time implications, because this is largely completed now.

However, the transfer of data to Ofgem would increase the administrative burden on obligated suppliers, and without further specific and explanatory guidance as to the nature of the evidence required it is difficult to determine the resource requirements to both submit this information to Ofgem and support any subsequent review of queries.

**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?

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

Please provide reasons for your response below.

Should a new monitoring regime be implemented we are comfortable with the proposed sample size and reporting timeframes, however as per our response to 4.1 we would question the merit of moving to such an approach.

If this approach was adopted it would be essential that Ofgem provide feedback to suppliers within designated SLAs so that any issues could be addressed in a timely manner to provide the greatest possible assurance of the savings to be determined.

## 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?

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

Please provide reasons for your response below.

We do not agree that option 3 would increase confidence in the accuracy of overwritten U-values for CWI measures.

In order for an audit to be useful we need to have a detailed set of criterion against which auditing will occur. The evidence listed in paragraph 2.5 is already sought by obligated suppliers because it is effectively a list of current regulatory requirements with which we are ordered to operate. However it is currently unclear as to what precisely constitutes acceptable evidence for each item listed at paragraph

<b>5.2</b> Do you agree that op	ption 3 would be practical to implement taking into consideration cost and time implications?
C Strongly Agree	
C Agree	
Neither Agree Nor D	isagree
🔿 Disagree	
🔿 Strongly Disagree	
🗢 Don't Know	
<sup>©</sup> N/A	
Please provide reasons f	or your response below.

We possibly do agree that option 3 would be practical to implement, taking into consideration cost and time implications, because this is largely completed now. Our concern is that suppliers would carry a greater risk on these measures if issues are identified late in the delivery of the obligation, when there is much less scope to address and mitigate any issues within our supply chain.

We also have concerns that the explicit and definitive interpretation of the evidence will not be easily practical to implement without further specific and explanatory guidance.

## 6. Additional Questions

2.5.

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.

We do not have any specific concerns with U-values being overwritten for other ECO measure types. We believe that the requirements of the National Calculation Methodology, RdSAP & SAP, can deal with the matters relating to U-values.

We do have some concerns that the difficulties created by a lack of specific guidelines for the required provision of evidence affect all cases where default u-values are overwritten in RdSAP Assessments.

**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.

We are currently required to use SAP/RdSAP to calculate scores savings for ECO. The framework for overwriting u-values within Energy Performance Certificates in existing dwellings already exists. We suggest that Ofgem agree with EPBD Energy Assessor Accreditation Schemes to provide a voluntary auditing regime in cases where their members overwrite the widely accepted default u-values within SAP/RdSAP.

We believe that the Accreditation schemes are best placed to verify the accuracy of the overwritten uvalues proposed by their members. We suggest that a 'Certificate of ECO EPC Overwritten u-value Compliance' or similar be provided by the Accreditation Schemes in all cases where a default u-value is overwritten in a Lodged EPC. We also suggest that this certificate of compliance be made an evidence requirement for ECO CWI Measures where the starting u-value is amended.

An alternative proposal would be to make it mandatory for the suitably qualified person responsible for the U-value calculation to lodge this amendment with the accreditation body, and for this to be recorded on a database that is easily accessible to Ofgem and obligated suppliers. Not only would this ensure any amendment could be fully evidenced at any time, but it would also provide assurance that the relevant person was suitably qualified at the point the U-value amendment was made.

Finally, we would suggest that direct measurement of U-values is permitted provided that the values have been obtained in accordance with the appropriate measurement standards. Again please refer to existing regulatory requirements of the Conventions for U-value calculations 2006 edition (BR 443).

With regards to the additional proposal presented by Ofgem at the workshop on 1st March, we believe that this would be difficult to implement given the default u-values would not be able to be incorporated in SAP. Without significant change to scoring systems, which would be cost and time prohibitive, or manual intervention, it would therefore be difficult to calculate an associated carbon score.

**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.

We believe that the proposals we have outlined in 6.2 would enable U-values to continue to be overwritten where appropriate.

We consider the proposals put forward by Ofgem would both increase the administrative burden on suppliers and would potentially deter installers from making improvements to houses which would have legitimate amendments because of the potentially excessive additional requirements.