Energy Company Obligation (ECO) consultation: Updating Deemed Scores for ECO3 Questions

ofgem
Making a positive difference for energy consumers

Background

The questions below relate to the consultation seeking views on our approach to updating the deemed scores for ECO3, should it be introduced as set out in the Government consultation. The consultation can be found on our website.

This consultation is open for six weeks from 4 April to 16 May 2018.

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. The questionnaire should be completed in typeface and returned via email to eco.consultation@ofgem.gov.uk by **close of business on Wednesday 16th May 2018**.

1. Respondent Details

Organisation Name:	Knauf Insulation
Organisation type:	Insulation Manufacturer
Completed By:	Steven Heath
Contact Details:	Steven.heath@knaufinsulation.com

1. Updates related to RdSAP and Fuel Prices

Q1. Do you agree with our proposal to apply the RdSAP v9.93 updates across all wall types which currently use a pre-installation U-value of 2.1 W/m²K?

- ○ Strongly Agree
- ○ Agree
- ◉ Neither Agree Nor Disagree
- ○ Disagree
- ○ Strongly Disagree
- ○ N/A

Please provide reasons for your answer and include as much detail and evidence as possible.

Regarding Party Wall Insulation, the U-value assumptions in the new Appendix S are the same as RdSAP 2012, and we are not quite clear if Appendix S has been used to create the PWI deemed score? The savings estimate in Appendix S is too low and does not reflect the field trial evidence MIMA & Knauf Insulation have submitted to BEIS.

Across a sample of properties, the un-insulated U-value aggregated to around 0.6 W/m2K while the insulated U-value aggregated around 0.05 W/m2K. In a report for MIMA, BRE calculated the impact of the decision to go with a change in U value of only 0.5 to 0.2 W/m2K in a typical home would wipe out up to 33% of the savings attributed to party wall insulation to both properties. If party wall insulation is to benefit fuel poor households in the Affordable Warmth segment (where IUFs are not applied), then it should be incentivized in line with robust in-situ data.

As a practical example, lifetime savings for PWI are extremely low under current deemed socres. In order to achieve £611 for standard CWI in 3 bed semi with a gas boiler funding will need to be at £0.11. At this level a single party wall in a 3 bed semi will attract £96 of funding. It's a long way from stacking up, yet party walls offer huge potential in the affordable warmth group where previous schemes will have delivered external cavity wall and loft insulation.

BEIS had suggested that changing the PWI U-values would be explored for SAP 2016, and we re-submitted our evidence. However, it does not appear that changes have been made and we would ask BEIS and Ofgem to clarify the position. Indeed, Ofgem committed to this in the paragraphs below taken from the response to the previous deemed scores consultation.

Party wall insulation

5.7. Some stakeholders raised concerns that the U-values used in the deemed scores calculations did not reflect actual results for party wall insulation and some evidence was provided that demonstrated this.

5.8. After talking to relevant stakeholders including the BRE, we have concluded that the evidence provided does not sufficiently represent the UK housing stock and so cannot be taken into account for the deemed scores. We may review this decision if more substantial evidence becomes available in the future.

We understand a BEIS live research project is underway exploring party wall bypass and U values - and has been for some time. Has this review been able to offer any definitive conclusions?

While Knauf Insulation, and MIMA's original research, questioned the BRE suggested U Values, we have not had sight of any of the output of the BEIS party wall research project.

Given the challenging insulation targets set, with a much decreased property sample, in ECO3, Party wall insulation could play a significant role - if it was considered worthwhile. Yet the deemed scores do not reflect our field work. BEIS appeared to accept this principle and conducted their own party wall research but haven't yet reported the outcome of the field trial.

We would ask Ofgem to encourage the BEIS Science & Innovation team to report on that project and open up the methodology & results for peer review ASAP. That research needs to examined and, if robust, feed in to this exercise. If it hasn't yet reached definitive conclusions, then what further research is required.

Q2. Do you agree with our proposal to use the most up to date fuel prices available from the Product Characteristic Database (PCDB) for the deemed scores throughout ECO3?

- ○ Strongly Agree
- ◉ Agree
- ○ Neither Agree Nor Disagree
- ○ Disagree
- ○ Strongly Disagree
- ○ N/A

Please provide reasons for your answer and include as much detail and evidence as possible.

2. Proposed Alternative to Percentage of Property Treated

Q3. Do you agree with our proposed approach to removing POPT for the majority of measures by identifying average treatable areas and adjusting the scores accordingly?

- ○ Strongly Agree
- ○ Agree
- ◉ Neither Agree Nor Disagree
- ○ Disagree
- ○ Strongly Disagree
- ○ N/A

Please provide reasons for your answer, and if applicable provide an alternative approach including as much detail and evidence as possible.

We believe, overall, that the ECO should adopt the principle that 100% of all cavity walls – external facing walls and those separating two premises - should be insulated unless there is a good reason not to insulate all of them.

Q4. Do you agree with our use of English Housing Survey data to identify average treatable areas for SWI, CWI, loft insulation, flat roof insulation and underfloor insulation?

- ○ Strongly Agree
- ○ Agree
- ◉ Neither Agree Nor Disagree
- ○ Disagree
- ○ Strongly Disagree
- ○ N/A

Please provide reasons for your answer, and if applicable suggest an alternative source of data with justification including as much detail and evidence as possible.

Q5. Do you agree with our use of English Follow up Survey data to identify average treatable areas for heating measures?

- ○ Strongly Agree
- ○ Agree
- ◉ Neither Agree Nor Disagree
- ○ Disagree
- ○ Strongly Disagree
- ○ N/A

Please provide reasons for your answer, and if applicable suggest an alternative source of data with justification including as much detail and evidence as possible.

Q6. Do you agree with our use of Ofgem data and industry opinion to identify average treatable areas for RIRI and park home insulation measures?

- ○ Strongly Agree
- ○ Agree
- ◉ Neither Agree Nor Disagree
- ○ Disagree
- ○ Strongly Disagree
- ○ N/A

Please provide reasons for your answer, and if applicable an alternative approach with justification including as much detail and evidence as possible.

Quality issues in Room in Roof insulation need to be addressed. Doing it properly means doing 100% of the roof - in a robust way - or carry a real risk of creating weakspots.

Q7. Do you agree with our proposed approach for measures for which there is insufficient data available to identify treatable areas?

- ○ Strongly Agree
- ◉ Agree
- ○ Neither Agree Nor Disagree
- ○ Disagree
- ○ Strongly Disagree
- ○ N/A

Please provide reasons for your answer, and if applicable suggest an alternative source of data with justification including as much detail and evidence as possible.

On the basis that a POPT factor (or average treatable area factor?) will not be applied to PWI at all, we agree.

Q8. Do you agree with our minimum requirement that at least 67% of the property is treated in order to qualify for the full ECO3 deemed score?

- ○ Strongly Agree
- ○ Agree
- ○ Neither Agree Nor Disagree
- ◉ Disagree
- ○ Strongly Disagree
- ○ N/A

Please provide reasons for your answer, and if applicable an alternative approach including as much detail and evidence as possible.

Ofgem highlights a number of potential issues with the 'average treatable area' approach. These include:

- a risk of gaming the system where a small portion of a property is treated but the whole score is claimed.

- for certain measure types the average treatable area is very low and that this impacts the commercial viability of a measure to the extent that the measure is never installed (even where certain properties would benefit from it). This may apply to a single party wall insulation job in a semi-detached property.

Q9. Do you agree with our proposed approach of using POPT to score measures which do not meet the 67% minimum requirement?

- ○ Strongly Agree
- ◉ Agree
- ○ Neither Agree Nor Disagree
- ○ Disagree
- ○ Strongly Disagree
- ○ N/A

Please provide reasons for your answer, and if applicable an alternative approach including as much detail and evidence as possible.

We support the approach of applying the POPT where the minimum requirement cannot be met.

3. Updates to the format of deemed scores

Q10. Do you agree with our proposed format for deemed scores?

- ○ Strongly Agree
- ○ Agree
- ◉ Neither Agree Nor Disagree
- ○ Disagree
- ○ Strongly Disagree
- ○ N/A

Please provide reasons for your answer, and if applicable alternative suggestions with justification including as much detail and evidence as possible.

4. Updates to Room-in-Roof Insulation Scores

Q11. Do you agree with our proposal to update the assumed size of the floor area of the room-in-roof used to develop the RIRI score?

- ○ Strongly Agree
- ◉ Agree
- ○ Neither Agree Nor Disagree
- ○ Disagree
- ○ Strongly Disagree
- ○ N/A

Please provide reasons for your answer, and if applicable please suggest an alternative approach including as much detail and evidence as possible.

Q12. Do you agree with our proposal relating to the assumed levels of insulation in the elements of the room-in-roof used to develop the RIRI score?

- ○ Strongly Agree
- ◉ Agree
- ○ Neither Agree Nor Disagree
- ○ Disagree
- ○ Strongly Disagree
- ○ N/A

Please provide reasons for your answer, and if applicable an alternative approach including as much detail and evidence as possible.

The current ECO2t deemed scores for RIRI were developed using the assumption that there was no insulation present in the ceiling or walls of the room-in-roof prior to installation and as such, a base U-value of 2.3 was used. The BRE has now conducted further analysis of EHS data, which allows Ofgem to propose an average level of insulation for the ceilings and walls of a room-in-roof. Using that information Ofgem proposes "that the weighted average U-value of 1.14 W/m2K is taken as the pre-installation position for ceilings and walls of a room-in-roof. The evidence shows that this is more representative of the GB housing stock than the approach taken for the current ECO2t deemed scores.

5. Updates to scores for heating measures

Q13. With regard to upgrades for inefficient mains-gas and LPG boilers, do you agree with the assumptions we have used to identify the pre-installation efficiency for non-condensing boilers?

- ○ Strongly Agree
- ○ Agree
- ○ Neither Agree Nor Disagree
- ○ Disagree
- ○ Strongly Disagree
- ◉ N/A

Please provide reasons for your answer, including as much detail and evidence as possible.

We do not have a specific comment on the pre-installation efficiency question, but Knauf Insulation strongly supports BEIS' proposal that under ECO3, inefficient heating systems can only be upgraded alongside insulation measures.

This policy aims to allow more costly, inefficient heating systems to be replaced through the scheme while encouraging a more multi-measure approach, a more complete package for households and greater improvements to the energy efficiency of those homes.

We therefore support the proposal to allow heating system upgrades through the scheme where the heating system is deemed inefficient and replaced alongside the installation of qualifying insulation measures.

We also broadly agree with the plan that installing heating measures alongside insulation will follow a similar process to that currently in place for CERO primary and secondary measures. For ECO3, insulation measures will constitute the qualifying primary measure, and heating installations, the qualifying secondary measure.

However, we recommend that the heating system upgrade should be delivered alongside ALL available cost-effective primary insulation measures needed in a property rather than a single primary insulation measure. The ambition on fuel poverty is expressed in terms of a whole-house target linked to the property EPC. Given this whole-house ambition there seems little logic to focus only on a single insulation measure.

Of the primary insulation measures listed in the draft ECO Order, the home, and fuel poor occupant of the home, may well benefit from a package of several insulation measures such as;

- Loft top up
- Adjacent property wall cavity fill – or "party wall insulation"
- External 'easy-to-treat' cavity fill for empty or partial fill cavities

In a fuel poverty focused scheme – with high search costs to find those properties - there is a stronger argument for completing all cost-effective measures where they are available. Without such a multiple measure obligation linked to heating requirements, the ECO scheme will drive the minimum number of insulation measures (one in the case of the current consultation). The possible exception to this 'all cost-effective primary measure' approach might be higher cost insulation measures such as 'room-in-roof", underfloor and SWI.

Government has often tried to tackle the issue of a low number of measures being installed per property. Adjusting the requirement, as set out above, has the potential to drive 3 or even 4 measures per property for fuel poor occupants without onerous cost to the scheme as multiple search costs are avoided to deliver equivalent LBS.

As a result, we would wish to see Ofgem's deemed scoring methodology set out how such multi-measure approaches would be scored. Ofgem says: "In a property where an insulation and heating measure are installed together, the scores should be selected as outlined in the ECO2t guidance."

And:

"In our previous consultation on deemed scores, some respondents requested guidance on accounting for multiple installations of ECO measures to a single property using deemed scores. Some respondents noted that where multiple measures were installed in one property the overall savings were likely to be artificially high.

We considered the issue at the time and chose not to implement a methodology for the following reasons which still apply;
• calculating the varied impacts of existing measure types would be highly complex which would result in a huge number of scores and in turn increase the risk of error,
• introducing a requirement for identification of existing energy efficiency measures in a property would reduce the supply chain's ability to calculate savings before visiting the property."

However, this reasoning appears to relate to existing measures rather than new "packages". We would be happy to work with Ofgem to develop options for scoring and using deemed score to drive a multi-measure approach.

Second, in BEIS's ECO consultation the proposed eligible primary insulation measures are:

• flat roof insulation;
• loft insulation;
• rafter insulation;
• room-in-roof insulation;
• wall insulation (insulation of a cavity wall or solid wall insulation);
• insulation of a mobile home; and
• under floor insulation

The "wall insulation" primary measures list appears to be missing party wall insulation – an existing primary measure under the ECO. We ask Ofgem to ensure PWI is in their guidance as a primary measure (and we also asked BEIS to ensure it is clearer in the ECO Order).

Q14. Ofgem are responsible for determining what constitutes a similar efficiency rating to non-condensing boilers and for electric storage heating with a responsiveness rating of 0.2 or less. We are in the initial stages of developing our position on this area and we welcome views from stakeholders. In responding you may have regard to the following non-exhaustive examples of issues to consider;

(i) A methodology for determining this rating for each heating type
(ii) Data sources that we could use

Please provide reasons for your answer, including as much detail and evidence as possible.

N/A

6. Updates to scores for Park Home insulation measures

Q15. Do you agree with the proposed update to the park home insulation deemed scores?

- ○ Strongly Agree
- ○ Agree
- ◉ Neither Agree Nor Disagree
- ○ Disagree
- ○ Strongly Disagree
- ○ N/A

Please provide reasons for your answer, including as much detail and evidence as possible.

7. Invitation to Provide General Comments

Q16. We are also interested in high-level and material issues which are relevant to and likely to have a substantive impact on our approach to improving deemed scores for ECO3, for example, you may have views on:

(i) How could we streamline our administrative processes to further the main objectives of the deemed scores;
(ii) How could we amend the underlying assumptions or methodology to improve the deemed scores.

Please provide as much evidence and detail as possible in your response.

We are concerned that a possible issue that might significantly impact the insulation market - initially corrected by Ofgem in their previous deemed scores consultation response - has been recreated in the current iteration. The issue relates to the possibility of choosing a 'cut-off' point at which CWI technologies become eligible for enhanced deemed score ratings.

Below is pasted Ofgem's response accepting our evidence submission taken from p25 of Ofgem's deemed score consultation response. We are happy to provide that evidence on request once again if required. If however, the ranges set out in table 3 below are still relevant and the specific .033 figure is still being used as a proxy for the range of values set out in table 3 then our point is moot.

6.5. Some respondents also highlighted that our proposed method of selecting the appropriate deemed score for the variant of cavity wall insulation related to enhanced bead technologies (with a thermal conductivity of 0.033) unfairly disadvantaged enhanced mineral wool, which has a thermal conductivity of 0.034. Furthermore these responses were supported by calculations showing that products of these thermal conductivities achieved the same U-value.

6.6. We agree that our proposed method unfairly disadvantaged enhanced mineral wool technologies. We do not believe that generating a new score is necessary as the proposed score was developed by taking an average of the enhanced mineral wool and enhance bead technologies available in the market. We have therefore revised the ranges of thermal conductivity values which are relevant for the CWI deemed score (see Table 3 below).

Cavity Wall insulation – All values given in units of W/mK

Thermal Conductivity input value 0.04 Associated range of thermal conductivity - 0.045 – 0.035
Thermal Conductivity input value 0.033 Associated range of thermal conductivity - 0.034 – 0.029
Thermal Conductive input value 0.027 Associated range of thermal conductivity =< 0.028