

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



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:	ti National Bead Blowers Association
Organisation type:	Trade Body
Completed By:	David Emes
Contact Details:	

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.

While this update seems reasonable, it is based on the premise that the SAP methodology is valid. The longheld consensus throughout industry and Government (as commented by BEIS at the Glasgow conference on ECO3) is that SAP is fundamentally flawed when used in the application you are trying to use it for.

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.

POPT has proved to be overly-burdensome, administratively expensive and unpopular throughout the supply chain. While we encourage the intention of simplifying POPT, we question the value in keeping the current proposal versus removing POPT completely. It is unlikely that the administrative expense of managing the current POPT proposal outweighs the benefits of implementing the proposal compared with removing POPT altogether.

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.

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.

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.

It is important that there is a cut-off to ensure there are no potential over-claims of the benefit. Any stated cut-off value is going to bring uncertainty and as such, it is important that clear guidance is issued on assessment of whether a property is over or under the 67% threshold. Hopefully the learning process of POPT to date will inform this and marginal decisions / disputes with technical monitoring give the installer the benefit of the doubt. Setting the threshold at 67% is, in our opinion, a better level than the other two alternatives proposed in the consultation.

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.

While using this approach seems reasonable based on previous experiences under CERT and ECO2t, it doesn't consider the potential impact on the home that installing partial measures may have. For example, only installing ewi on 2 sides of an end terrace would fundamentally change the condensation balance within the property, causing potential mould/condensation issues.

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.

The proposed format seems simple to use. However, including an uplift of 4 to make broken boiler replacements commercially viable will lead to an inflated amount of boilers being replaced despite the reduced benefit of doing this versus installing more insulation measures on our attempts to reduce fuel poverty and carbon emissions.

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.

The approach seems to be consistent with the principles of the deemed scores methodology.

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.

As per question 11.

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.

The deemed scores methodology assumes that there will be a significant improvement in heating fuel efficiency when moving from a working non-condensing boiler to a condensing boiler. There is a large amount of evidence which questions the real-life efficiency of condensing boilers, particularly in smaller households which is particularly important as we switch our focus from carbon saving to fuel poverty where the fuel poor typically live in smaller dwellings (albeit those living in rural fuel poverty may have large floor areas). The key to a boiler condensing effectively is frequency and volume of use. It also needs returning water to be of a sufficiently low temperature which is less likely to happen when the water is being transferred through a small amount of space or if the property is insulated. Evidence is consistently published showing that boilers do not perform at the efficiency levels assumed within the deemed scoring of heating measures.

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.

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.

There are two key areas of consideration that we would like to comment on. Firstly, the relative installed density of EPS bead cwi versus mineral wool and its impact on in-situ thermal performance. Secondly, the impact moisture has on the relative thermal performance of EPS bead cwi versus mineral wool.

With regard to the first issue, evidence has been provided by our members in the past that highlights the relative merits of EPS cwi versus mineral wool cwi. There is a clear difference in how the products try to achieve the required installed density. Density is essential to achieve stated thermal performance and hence, fuel bill savings for the fuel poor. Put simply, if the density of the product in the wall is not in line with the stated product density, the product won't perform thermally and may lead to other problems in the home. EPS cwi products have a factory controlled density which is independently audited on a regular basis, whereas fibre based products rely on the installer to install the product at the required flow rate to achieve stated density. EPS clearly has a lower potential risk of installer error with regard to density. Our members have been asked by clients in recent years to remove mineral wool cwi and replace it with EPS as the energy bill savings were not being achieved. Throughout this process, our members have recorded the amount of mineral wool being taken out of the wall versus what should have been expected given the wall area and cavity width of the property. Over a recent sample of 259 properties, the amount of material found was only 51.3% of the mineral wool that was expected to come out. The density of product in these properties was nowhere near the expected amount.

In addition, one of our members is an experienced thermographer, having taken thousands of thermal images of insulated walls. Recent evidence of 474 WALLS that were insulated with fibre show that each wall is losing on average £26.63 per year of fuel bill savings and 162.6 kg of CO₂ based on RdSAP methodology versus expected savings. This evidence clearly highlights the challenge of achieving the required density of mineral wool at installation and its impact on fuel or carbon savings attributed to cwi when using mineral wool.

Further evidence considers the performance of EPS and mineral wool materials when moisture is present. Based on evidence from BRE and our typically damp climate, moisture is frequently going to be present in cavities throughout the UK. A study performed by EUMEPS showed that when only 0.4% moisture content (something that is likely in most UK cavities, most of the year), the thermal conductivity of the mineral wool tested went from 0.036 to 0.071 (almost doubled) versus the small change in EPS, going from 0.036 to 0.039. This evidence is further supported by the NATO Advanced Study Institute on Thermal Energy Storage for Sustainable Energy Consumption who found that the thermal performance of mineral wool was significantly more impacted by moisture than EPS. There are many more independent research papers assessing the thermal conductivity of both products when moisture is considered. Given the UK weather climate it is essential to consider this important factor when assessing the potential fuel bill or carbon savings achieved from both products.

We understand the need to maintain a balanced consideration of alternative products that are approved for a certain application. However, given the physical characteristics of both products and the abundance of both real life UK evidence and academic research into the comparable performance, we believe a distinction between the two respective cwi methodologies must be considered. A huge differential in respective scores or removal of mineral wool as an accepted technology isn't advisable

to anyone involved within the ECO framework but, there is sufficient evidence to justify a differential. We would propose a reinstatement of an in-use factor with a 10% in-use factor reduction to 0.040 thermal conductivity products to discourage the use of less thermally effective products and compensate for the higher administrative handling costs of processing 0.040 measures versus 0.033 measures (ie consideration of the 'lost' fuel bill and carbon savings by not putting 0.033 products into a house instead of 0.040). This differentiation would be justifiable and enough of a differential between the products to fairly consider the benefits of EPS v mineral wool. We would welcome further discussion on the evidence referenced and are willing to provide additional evidence to support a distinction between the two products.