Decision

Updating Deemed Scores for ECO3

Publication date:	23 July 2018	**Contact:**	Eric Baster
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On 4th April 2018 we consulted on our proposed approach to updating the deemed scores for use in the ECO3 scheme.

This document summarises the responses to our consultation and details our final position. Where relevant, we also explain where we were unable to incorporate suggestions. The approach outlined in this document will apply to relevant measures installed under the ECO scheme from 1st October 2018.

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Contents

1. Introduction

Context and related publications

1.1. The Energy Company Obligation (ECO) is a Government scheme that requires larger energy companies to deliver energy efficiency measures to domestic premises in Great Britain. The current scheme runs from 1 April 2015 to 30 September 2018 and is known as as ECO2. The current 'phase' of ECO2 is referred to as 'ECO2t', as it is an extension to the original scheme. ECO2 succeeds ECO1, which ran from 1 January 2013 to 31 March 2015. ECO is administered by Ofgem.

1.2. The Department for Business, Energy and Industrial Strategy (BEIS) published its consultation[1] on the future ECO scheme, known as ECO3, in March 2018. Its proposals for the scheme included that Ofgem would continue to set deemed scores for ECO3. We published our consultation on updating deemed scores for ECO3 in April 2018, and have published this decision document based on responses to our consultation and the confirmed proposals outlined in BEIS' consultation response, published on 19th July.

1.3. The consultation and associated documents were published on 4th April 2018[2]. The documents published were:

ECO3 deemed scores consultation

This document outlined our proposed updates to deemed scores for use in the ECO3 scheme.

ECO3 Deemed Scores Methodology Document (published alongside this document)

This document, co-written by the Building Research Establishment (BRE) and Ofgem, describes the methodology for developing the deemed scores in line with the proposed updates.

Proposed ECO3 Deemed Scores (published alongside this document)

The deemed scores developed in line with the proposals outlined in consultation and the aforementioned methodology.

[1] https://www.gov.uk/government/consultations/energy-company-obligation-eco3-2018-to-2022
[2] https://www.ofgem.gov.uk/publications-and-updates/energy-company-obligation-eco-consultation-updating-deemed-scores-eco3

Consultation overview

1.4. We received 45 responses to this consultation. Of these, 43 addressed each question individually and two were high level responses. One stakeholder requested their response was not published. The remaining 44 provided non-confidential responses, though it was reqested that some additional information was kept confidential.

1.5. The following chapters consider each consultation question in turn. For each question that had a Likert scale,[3] a chart summarising the responses is given followed by the discussion of the most pertinent points. Tables in Appendix 1 summarise all basic responses (ie Agree, Disagree, etc) to questions that had a Likert scale. Responses of 'N/A', or left blank, for these questions have not been included in the charts.

1.6. Our decision is then outlined, describing any changes we have made to our proposed approach as a result of the responses received.

1.7. In developing our final position, we considered all points raised by all respondents, even if they are not specifically mentioned in this document. All responses, apart from any confidential information, are published on our website.

1.8. Some changes have been made that were not explicitly proposed in the original consultation. These changes have taken place following the decisions outlined in BEIS' ECO3 consultation response. There is also one change relating to Solar PV measures, as a result of our own internal work on the scoring methodology, which ran parallel to this consultation.

Your feedback

General feedback

1.9. We believe that consultation is at the heart of good policy development. We are keen to receive your comments about this report. We'd also like to get your answers to these questions:

1. Do you have any comments about the overall quality of this document?
2. Do you have any comments about its tone and content?
3. Was it easy to read and understand? Or could it have been better written?
4. Are its conclusions balanced?
5. Did it make reasoned recommendations?
6. Any further comments?

Please send any general feedback comments to stakeholders@ofgem.gov.uk.

[3] A scale used to represent people's attitudes to a topic. Typical responses are 'Agree', 'Disagree', 'Strongly Agree' etc.

2. Updates related to RdSAP and Fuel Prices

This chapter outlined a proposal for how updates to RdSAP and the PCDB fuel prices could be incorporated into the ECO3 deemed scores. Questions were specific to deemed scores for solid wall insulation and whether fuel prices should be fixed throughout ECO3.

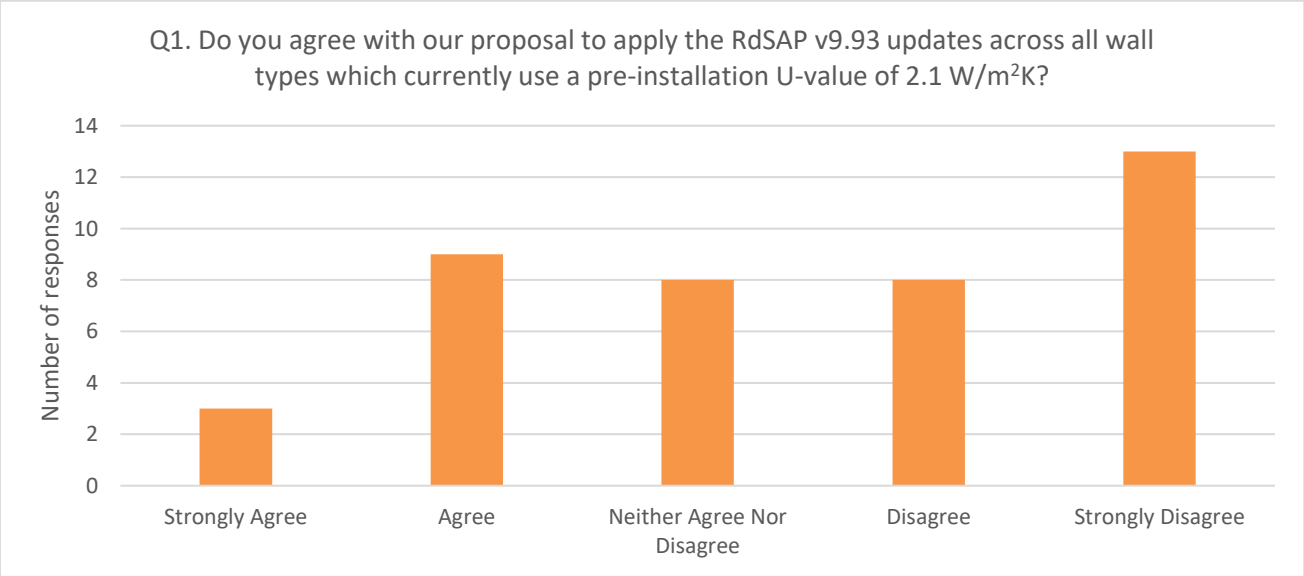
Question 1:

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/m^{2}K? Please provide reasons for your answer and include as much detail and evidence as possible.

Question 2:

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

Summary of stakeholder feedback and Ofgem's response



2.1. Many responses to Q1 indicated that they were generally in favour of updating the deemed scores in line with RdSAP updates. However, 51%[4] of respondents to this question disagreed or strongly disagreed with the approach put forward regarding solid wall insulation (SWI), compared to the 29% who agreed.

[4] Percentages in this document relating to 'respondents' do not include where stakeholders did not provide a response for a given question or answered N/A. For a comprehensive breakdown of responses for each question, see Appendix 1.

Solid wall insulation deemed scores

2.2. Our proposal outlined that, when treating the oldest properties with solid wall insulation, the deemed score relating to a pre-installation U-value[5] of 1.7 W/m^{2}K should be used. Previously in SAP 9.92[6], the deemed scores used for insulating the oldest properties assumed a pre-installation U-value of 2.1 W/m^{2}K. We proposed that these deemed scores would be removed due to updates in RdSAP 9.93.[7]

2.3. Many respondents argued that despite the updates in RdSAP 9.93, there are wall types that would be more appropriately represented by a pre-installation U-value of 2.1 W/m^{2}K.

2.4. The wall types in question are as follows:

- 'System build as built' walls built before 1967 in England and Wales, and before 1964 in Scotland (age band 'D'), and
- 'Timber frame as built' walls built before 1900 in England and Wales, and before 1919 in Scotland (age band 'A').

2.5. These wall types have U-values of 2.0 W/m^{2}K and 2.5 W/m^{2}K respectively. Several respondents suggested that using a pre-installation U-value of 1.7 W/m^{2}K for these was an underestimation of the heat loss of these wall types, and that a more representative deemed score should be developed.

2.6. We stated in our consultation that BRE analysis of the English Housing Survey (EHS) had indicated that there are relatively few of the aforementioned wall types in the Great Britain housing stock. However, many respondents provided statistics and data confirming that a significantly large proportion of their total external wall insulation (EWI) installations in ECO have been to older properties of system build construction.

2.7. In their responses to several questions, some stakeholders stated that as EHS data is based only on English properties, it was not appropriate to represent Scottish properties. For this question, respondents stated that Scotland, and particularly rural areas, contained large numbers of older properties containing the aforementioned wall types.

2.8. We understand the limitations of the EHS, and we comment on its use as a dataset to develop the deemed scores in various chapters in this document. For the purposes of this question, one respondent provided a report,[8] relating to the Scottish islands only, supporting the statement.

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[5] A U-value is a measure of the heat transmission through a material, measured in W/m^{2}K. In this context, the higher the U-value of a wall, the lower its insulating properties.
[6] https://www.bre.co.uk/filelibrary/SAP/2012/SAP-2012_9-92.pdf
[7] https://www.bre.co.uk/filelibrary/SAP/2012/RdSAP-9.93/RdSAP_2012_9.93.pdf
[8] https://www.cne-siar.gov.uk/media/10328/appendix-4-lhs-executive-report-of-survey-november-2016.pdf

2.9. The majority of those that disagreed mentioned that people in fuel poverty are more likely to live in homes that have the lowest levels of insulation. However, an objective of developing the deemed scores is that they are representative of the entire housing stock, not of those likely to be targeted under the scheme.

2.10. Based on the evidence submitted we will develop a set of solid wall insulation deemed scores to account for the wall types mentioned in paragraph 2.4.

2.11. We agree that there are a large number of properties in the housing stock with wall types that would be better represented by these deemed scores. We note that most respondents said that 2.1 W/m^{2}K should be used as the pre-installation U-value assumption. However, this value was chosen for ECO2t deemed scores based on information in RdSAP 9.92[9]. At that time, it was representative of some wall types, but we do not believe this is still the case following the update. There are no wall types in RdSAP 9.93[10] with a value of 2.1 W/m^{2}K.

2.12. Furthermore, a U-value of 2.1 W/m^{2}K would over-estimate the cost savings generated from insulating the system build walls that respondents indicated were prevalent.

2.13. A U-value of 2.0 W/m^{2}K is determined in RdSAP 9.93 for the relevant system build wall types. Timber frame walls built before 1900 have a higher U-value of 2.5 W/m^{2}K, but BRE analysis of EHS data indicated that there are very few of these in the housing stock (as previously mentioned, we appreciate the limitations of EHS data, but there was no evidence provided stating that these wall types are particularly prevalent in Scotland or Great Britain as a whole).

2.14. We have developed SWI deemed scores with a pre-installation U-value of 2.0 W/m^{2}K. To clarify, these may only be used for SWI measures delivered to properties with the wall types and build ages as stated in 2.4.

Table 1 ECO3 U-value changes for SWI deemed scores (all values in W/m^{2}K)

SWI deemed score measure types by U-value change (W/m^{2}K)				
2.0 -> 0.6	1.7 -> 0.55	1.0 -> 0.45	0.6 -> 0.35	0.45 -> 0.3
2.0 -> 0.35	1.7 -> 0.32	1.0 -> 0.3	0.6 -> 0.3	0.45 -> 0.21
2.0 -> 0.3	1.7 -> 0.3	1.0 -> 0.28	0.6 -> 0.24	0.45 -> 0.17
2.0 -> 0.25	1.7 -> 0.23	1.0 -> 0.21	0.6 -> 0.18	0.45 -> 0.14
2.0 -> 0.18	1.7 -> 0.18	1.0 -> 0.17	0.6 -> 0.15	

U-value for solid walls used as base cases for heating measures

2.15. Some respondents also questioned the U-value used as the base position for all heating measures delivered to solid walls. The figure used is 1.6 W/m^{2}K, taken from a weighted average of insulated and uninsulated solid walled properties

[9] https://www.bre.co.uk/filelibrary/SAP/2012/SAP-2012_9-92.pdf (Table S6)
[10] https://www.bre.co.uk/filelibrary/SAP/2012/RdSAP-9.93/RdSAP_2012_9.93.pdf (Table S6)

using data from the EHS. Respondents suggested that this was not in line with the RdSAP update, and that a U-value of 1.7 W/m^{2}K may better represent the older system build and timber frame wall types previously mentioned.

2.16. The approach to develop the weighted average uses the assumption that all uninsulated solid walled properties in Great Britain have a U-value of 1.7 W/m^{2}K. This is already overestimating the level of heat loss of a *typical* solid wall, for the purposes of developing an average for deemed scores.

2.17. We have not changed the proposed approach for the U-value used to represent solid wall base cases for heating measures (1.6 W/m^{2}K).

U-values for party cavity wall insulation

2.18. The deemed scores for party cavity wall insulation measures assume a pre-installation U-value of 0.5 W/m^{2}K and a post-installation U-value of 0.2 W/m^{2}K. Some respondents mentioned that research they had undertaken indicated that these U-values were not correct.

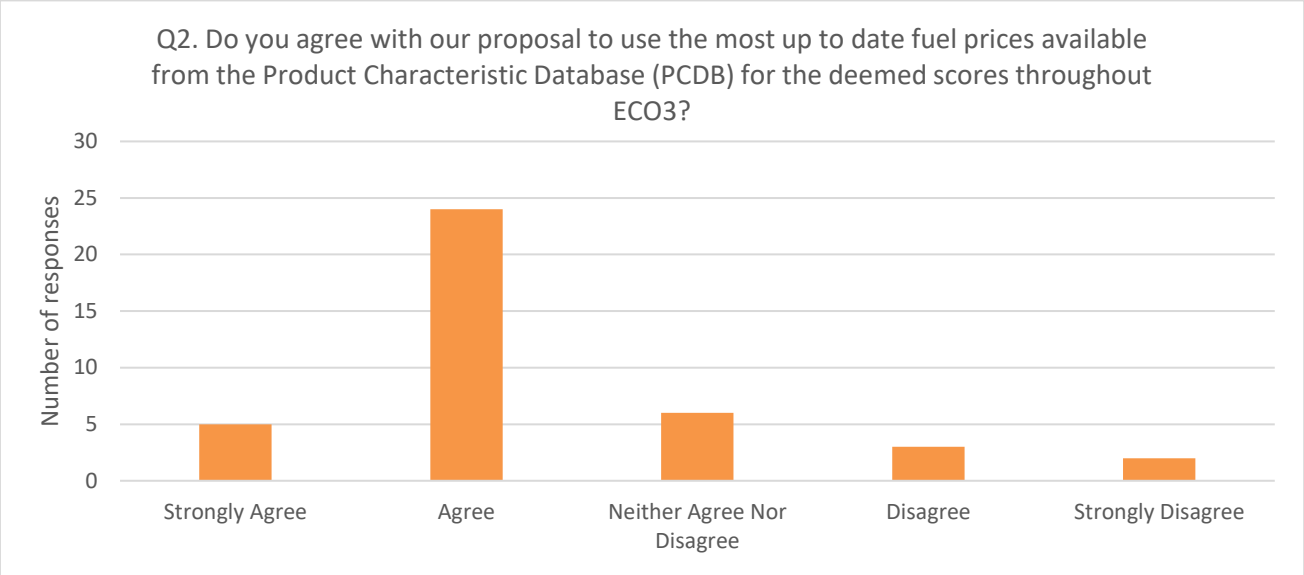
2.19. Respondents did not provide any additional evidence to that submitted in response to the previous ECO2 deemed scores consultation[11]. In our response to that consultation we stated that: "After talking to relevant stakeholders including the BRE, we have concluded that the evidence provided does 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."

2.20. The respondents did not provide additional evidence, but recognised that BEIS' Science and Innovation team were currently investigating the effects of insulating party walls. The results of this project are expected to be published later this year. Given that there is no evidence at the time of writing (such as the results of this project), we will not change our approach.

2.21. We have not changed the U-values proposed for party wall insulation measures.

[11] https://www.ofgem.gov.uk/publications-and-updates/eco2-consultation-deemed-scores

Fuel prices



2.22. Seventy-three percent of respondents to Q2 agreed or strongly agreed with our proposal.

2.23. Almost all respondents who provided a comment agreed that we should use the most up-to-date fuel prices available.

2.24. We have developed the deemed scores using the June 2018 fuel prices from the Product Characteristics Database (PCDB).[12]

2.25. Responses on the subject of keeping fuel prices fixed throughout ECO3 were more varied. There was a significant amount of responses agreeing with this proposal, but several others stated that we should update the fuel prices periodically, or reserve the right to update them when necessary.

2.26. Several respondents mentioned that there would likely be significant changes to fuel prices across a three-and-a-half-year scheme, and some provided statistical comparisons showing the changes in fuel prices over time. A question was also asked about whether the fuel prices used in the PCDB account for future fluctuations in prices.

2.27. Of these respondents, some requested that we commit to updating the deemed scores periodically at six-month or yearly intervals. There were suggestions to index-link the fuel prices in line with inflation, or to account for the price changes set by energy suppliers. There were also suggestions to reserve the right to change the fuel prices; one approach put forward was that this should occur if the fuel price change impacts the deemed score by more than 5%.

2.28. However, the BRE has confirmed that, whilst actual 'spot' fuel prices at any particular point in time may change significantly, their impact on the published

[12] The fuel prices are located at www.bre.co.uk

fuel prices to be used in the scores is smaller. This is because fuel prices are calculated using a rolling average method, which limits the effect of large or short term fuel price fluctuations.

2.29. Several respondents agreed with the statement that a consistent set of deemed scores would allow the ECO supply chain to plan for the scheme more effectively, bringing more certainty to the supply chain.

2.30. Some respondents suggested that periodic changes could provide an incentive for suppliers to phase the delivery of measures to take advantage of future fuel price changes.

2.31. Overall, the majority of responses were in favour of keeping fuel prices fixed across the scheme. It was widely accepted that the additional accuracy of updating the scores mid-scheme is outweighed by the certainty that consistent scoring provides.

2.32. We will keep the fuel prices used for the deemed scores fixed throughout the entirety of the ECO3 scheme.

3. Proposed alternative to Percentage of Property Treated

This chapter outlined proposals for how to reduce the need to calculate Percentage of Property Treated (POPT) for ECO3 deemed scores. Proposals and consultation questions were specific to certain groups of measure types.

Question 3:

Do you agree with our proposed approach to remove POPT for the majority of measures by identifying average treatable areas and adjusting the scores accordingly? Please provide reasons for your answer, and if applicable provide an alternative approach including as much detail and evidence as possible.

Question 4:

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? 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.

Question 5:

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

Question 6:

Do you agree with our use of Ofgem data and industry opinion to identify average treatable areas for RIRI and park home insulation measures? Please provide reasons for your answer, and if applicable an alternative approach with justification including as much detail and evidence as possible.

Question 7:

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

Question 8:

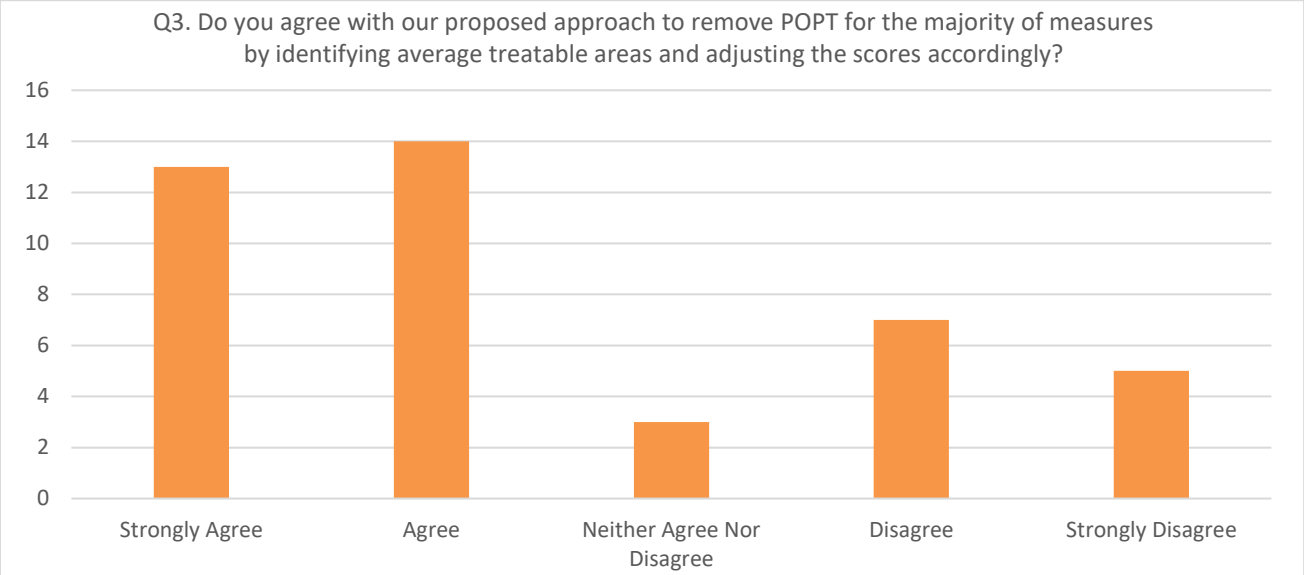
Do you agree with our minimum requirement that at least 67% of the property is treated in order to qualify for the full ECO3 deemed score? Please provide reasons for your answer, and if applicable an alternative approach including as much detail and evidence as possible.

Question 9:

Do you agree with our proposed approach of using POPT to score measures which do not meet the 67% minimum requirement? Please provide reasons for your answer, and if applicable an alternative approach including as much detail and evidence as possible.

Summary of stakeholder feedback and Ofgem's response

Question 3: the general principle and methodology



3.1. Sixty-four percent of respondents to question 3 agreed or strongly agreed with our proposal to remove the need to calculate POPT for the majority of ECO measures. Those that agreed welcomed the reduction in administrative burden.

3.2. Several respondents did highlight that the need to install measures to a minimum of 67% of the property in order to claim the deemed score may not lead to a reduction in administrative burden, as this was more dependent on the requirements of obligated energy suppliers. Some stated that we would need to provide clear guidance on how the supply chain should evidence this requirement.

3.3. Of the 29% of respondents who disagreed or strongly disagreed, several were concerned that this would discourage installers from treating the maximum possible area.

3.4. It is important to highlight that the requirement for installing 100% of a measure (unless there are reasonable grounds for not doing so) will remain in ECO3. Therefore, we do not consider this as a significant risk in light of the proposed approach.

3.5. Some respondents suggested that the assumed POPT could be further differentiated by property type, stating that smaller property types may be disadvantaged as part of the proposed approach.

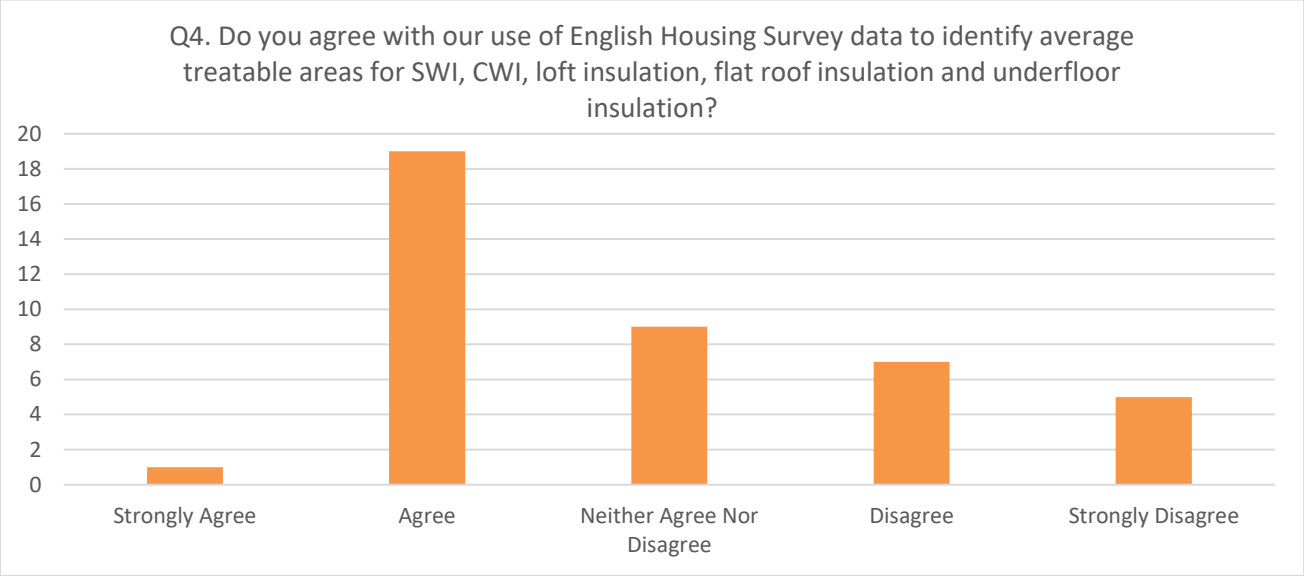
3.6. We have not differentiated the assumed POPT values by property type. We investigated this approach, and the additional splitting of the EHS dataset by property type results in very small sample sizes for certain combinations of property type and measure type. Developing an average POPT for all of these combinations would lead to inaccurate and unrepresentative values.

3.7. There were some responses highlighting that some areas of industry are settled with the existing POPT method, it is not seen as especially difficult and therefore a change was actually not necessary.

3.8. Whilst we can see that the calculations around POPT are not especially complex, ultimately, these views are significantly outweighed by the responses agreeing with the approach to remove, and the results of the POPT review undertaken in November 2017.[13] One of the key factors is the administrative burden that calculating POPT for all deemed scored measures brings.

3.9. We have removed the requirement to calculate POPT for the majority of ECO3 measures.

Question 4: Wall, roof and floor insulation approach



3.10. Forty-nine percent of those who responded to this question agreed with the use of English Housing Survey (EHS) data to identify average treatable areas. Many respondents explained that they recognised the need for conformity in the data and that they agreed the EHS was appropriate, given its usage for the creation of the deemed scores.

3.11. Of those that disagreed (29%), or neither agreed nor disagreed (22%), there were several responses stating that a different dataset could be used. The suggested options were datasets relating to Energy Performance Certificates (EPCs), Scottish Housing Condition data, and Ofgem's ECO2t notifications.

3.12. We have concerns with the accuracy of EPC data for the purpose of developing a comprehensive set of deemed scores. We still agree with our position put forward in our deemed scores consultation for ECO2t: "Our experiences under ECO have shown that EPC data can also be prone to error. We have reservations over using this dataset as the basis for the deemed scores. We do

[13] https://www.ofgem.gov.uk/publications-and-updates/eco2t-percentage-property-treated-popt-review

not have sufficient confidence that archetypes developed using these data sources would be an accurate reflection of the housing stock."

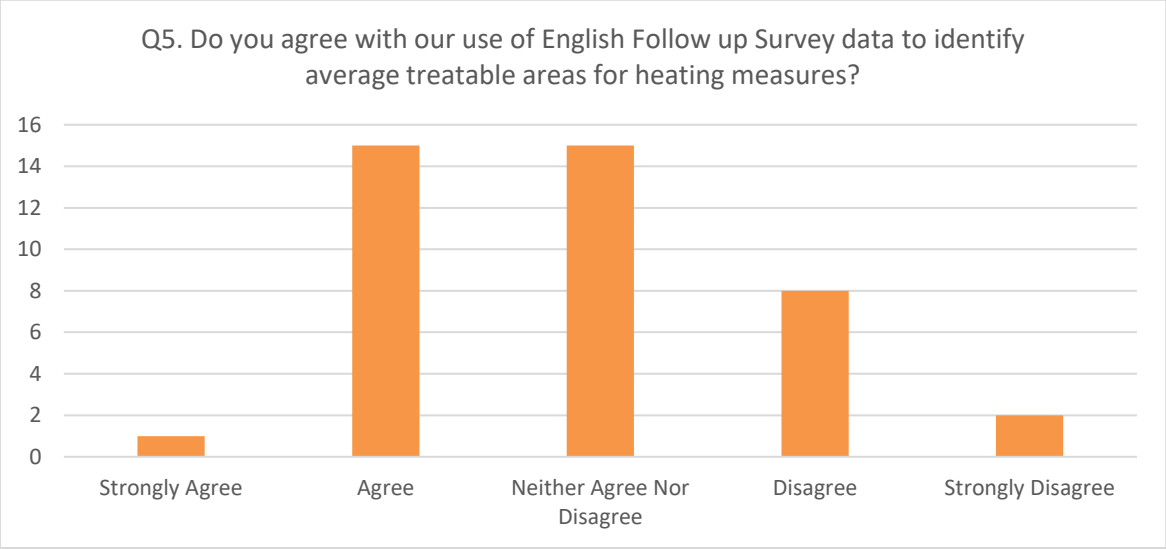
3.13. We have explored incorporating Scottish Housing Condition data, but we will not be taking it forward. We accept that the Scottish property profile has some differences compared to England, and some consultation responses provided useful insight on this fact. However, as 86% of the Great Britain housing stock is in England, the addition of Scottish data would have a limited impact on the scores.

3.14. Concerning ECO2t notification data, several responses suggested that Ofgem's historic ECO data is a larger dataset than the EHS. However, properties in the ECO dataset are not representative of the overall housing stock. Properties are often targeted based on the deemed scores, and through the householder's eligibility for HHCRO. This means that once we categorise the data into *unique* properties, and split by measure type, sample sizes are small and skewed towards properties that provide the highest scores.

3.15. Given the limitations of the other data sources, we think that the EHS is the most appropriate data source to identify and calculate average treatable areas. It is also used for developing the property archetypes for ECO3 deemed scores, so using it, where possible, is consistent with the overall development of the scores.

3.16. We have used the EHS data to identify average treatable areas for certain measures as described in our consultation.

Question 5: Heating measures approach



3.17. Thirty-seven percent of respondents to the question agreed with the use of English Follow Up Survey (EFUS) data. Reasons were similar to those in the responses to question four, highlighting conformity and agreeing that the EFUS is an appropriate dataset for this purpose.

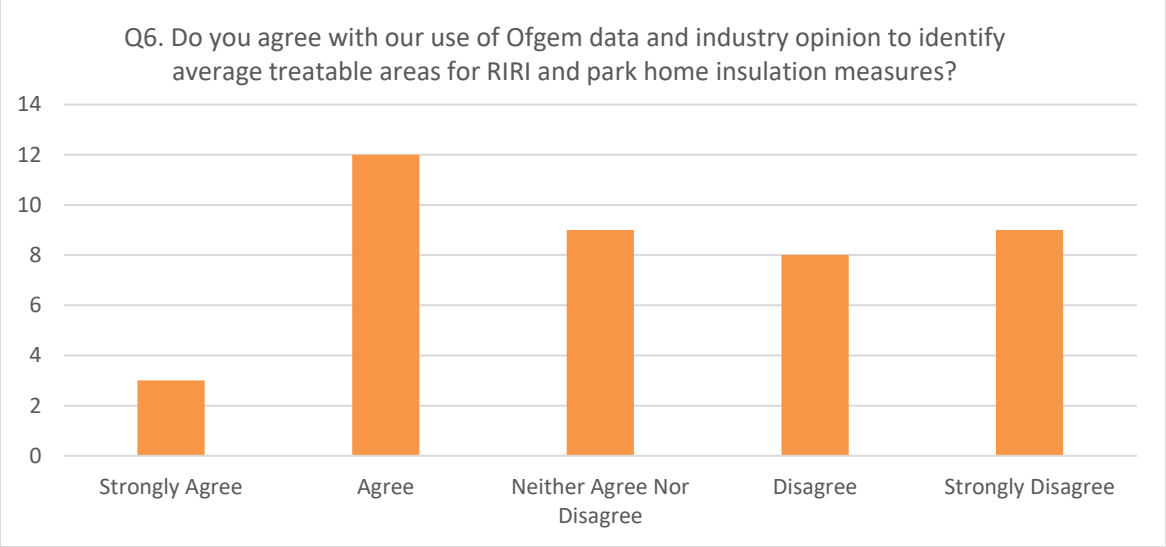
3.18. Thirty-five percent of respondents selected neither agree nor disagree. Those that disagreed (23%) stated various reasons, including that it is especially rare that 100% of a property would not be heated.

3.19. Points made in response to the previous question were reiterated, for example that Ofgem or RdSAP data could be used to generate the value, and that properties in Scotland and Wales would not be accurately represented. The EFUS survey was undertaken in 2011, so there was a concern that the data would not be up-to-date. There was also a concern that the survey was not widespread enough to be considered as statistically significant.

3.20. Given the issues with alternative datasets already mentioned in this chapter, we assert that the EFUS Survey, despite the limitations above, is the most accurate representation of heating systems in the housing stock.

3.21. We have used the EFUS data to identify average treatable areas for certain heating measures as described in our consultation.

Question 6: Room-in-roof insulation (RIRI) and park home insulation approach



3.22. Thirty-seven percent of respondents to the question agreed that Ofgem data should be used for the purposes of RIRI and park home insulation measures. Forty-one percent disagreed, and the remainder neither agreed nor disagreed.

3.23. The majority of those who disagreed with the question commented on the park home insulation element, whereas the RIRI approach received more broad support.

RIRI

3.24. Those that disagreed with the RIRI approach highlighted that it may discourage installing 100% of a RIRI measure. Issues mentioned around RIRI were largely focused on concerns around the standards of install, rather than the approach

to POPT. Some stated that the existing POPT approach should be retained to aid evidencing of the minimum requirement.

3.25. Ultimately, installing 100% of a measure, and ensuring that measures are installed to the relevant standards (PAS[14], in the case of RIRI) are fundamental requirements of ECO. We do not think these issues are directly relevant when developing average treatable areas for the purposes of ECO3 deemed scores.

3.26. We have used the average treatable area factor as described in our consultation for RIRI measures.

Park home insulation

3.27. The majority of respondents who disagreed with this question disagreed with the approach for park home insulation and argued that using industry opinion was not accurate.

3.28. Some stated that ECO notification data should be used to develop the average POPT. Others mentioned that the approach was inconsistent with the approach for other measure types with relatively few notifications. Another suggestion was to use a weighted average of the average POPTs for the relevant insulation measures.

3.29. Several also noted that applying the average factor would reduce the future delivery of park home insulation under ECO, however encouraging delivery of specific measures is not a consideration in the development of deemed scores.

3.30. Those that agreed were in favour of the approach to use industry opinion, given the lack of available data.

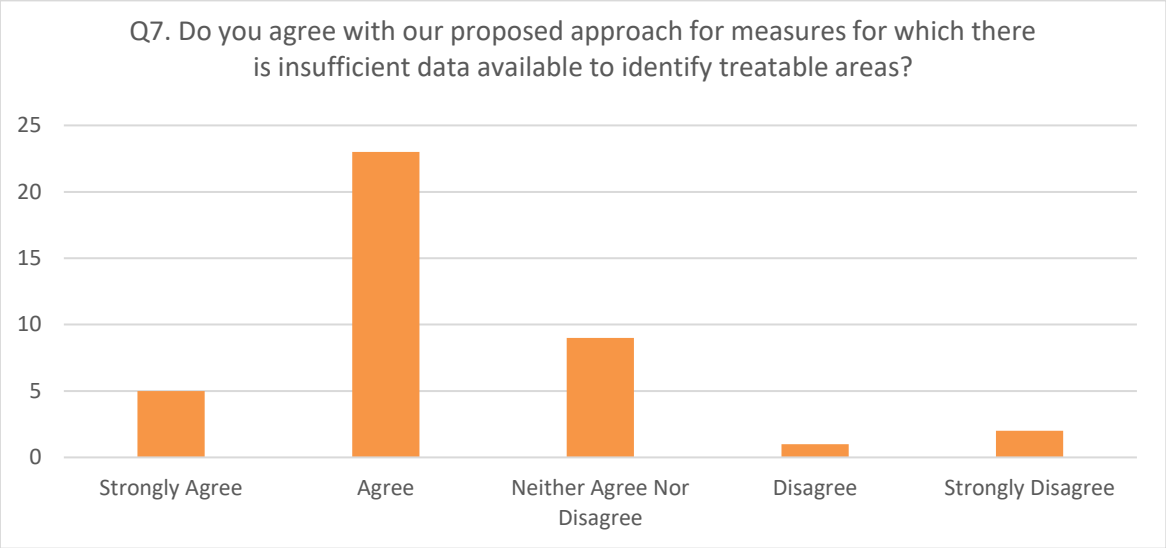
3.31. One respondent provided a report commenting on a case study of park home insulation, which outlined several related issues and the structure of the measure type in general. This study is commented on in more detail in Chapter 0 of this document.

3.32. We agree that the approach to develop an average treatable area for park home insulation outlined in our consultation was not consistent with other approaches to measure types with similarly small datasets.

3.33. We have used an average treatable area factor of 100% for park home insulation measures.

[14] PAS 2030:2017 Specification for the installation of energy efficiency measures (EEM) in existing buildings.

Question 7: 'Rarer' measures approach



3.34. Seventy percent of respondents were in favour of our proposal for measure types for which there was insufficient data available.

3.35. Those who provided explanations agreed that the approach was acceptable and proportionate given the circumstances, and in the interest of simplicity. Some respondents, however, requested that Ofgem remain open-minded with their POPT approach for any new measure types delivered under ECO3 innovation proposals.

3.36. Eight percent of respondents did not agree with the proposal. The responses suggested that there should be more data available on ECO measures, and that POPT calculations for some of the measure types would be relatively easy.

3.37. We have applied the approach described in our consultation to these measure types.

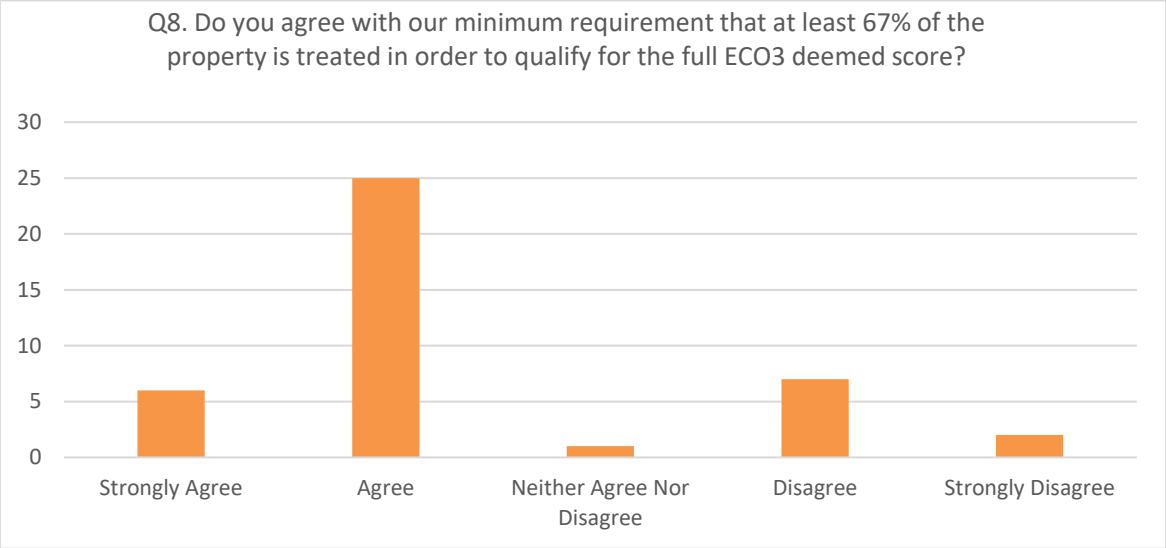
Solar Photovoltaics (PV)

3.38. It should be noted that Solar PV was listed in the category of 'rarer' measures in the consultation. Following the consultation period, Ofgem published a methodology for determining POPT for Solar PV measures in ECO2t.[15] The methodology states that the POPT is variable depending on various factors relating to the installation.

3.39. We will continue to use this approach in ECO3.

15 https://www.ofgem.gov.uk/system/files/docs/2018/06/180607_solar_pv_banding_ofgem_table_v1.0.pdf

Question 8: The deemed scores minimum requirement



3.40. Seventy-six percent of respondents agreed with the proposed minimum requirement of 67%. Agreements were centred around the removal of POPT in general, and the recognition that for this to work there would need to be a minimum requirement. Comments supported that this was sensible and in line with previous energy efficiency obligations.

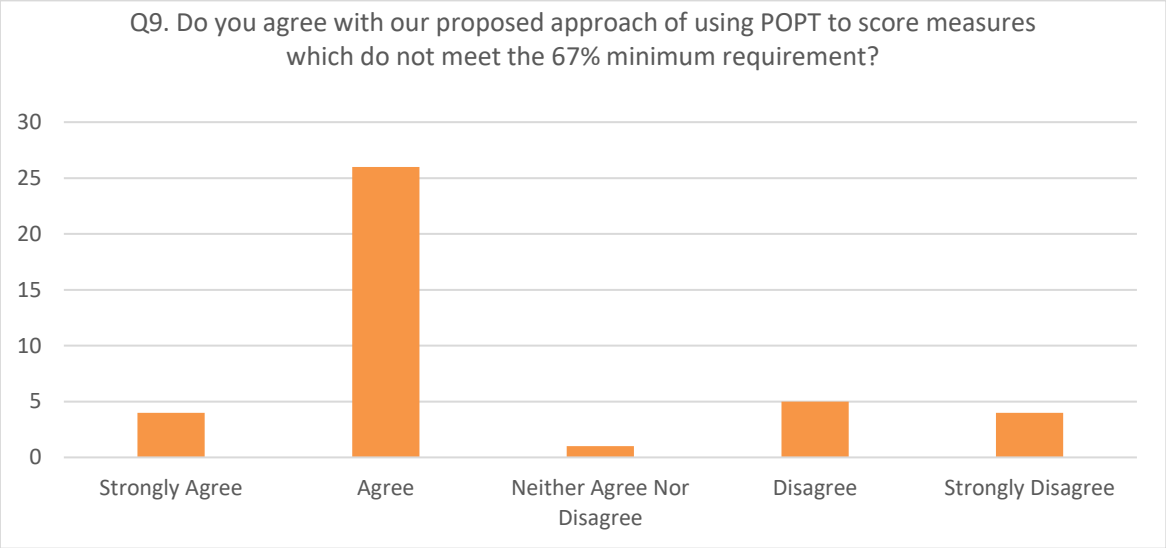
3.41. Of those who agreed, several mentioned the importance of emphasising that this was merely an approach for scoring purposes. There were concerns that this minimum requirement could encourage partial installations. Installing 100% of a measure, and installing measures to the relevant standards, remain fundamental requirements of the ECO scheme. If 100% of a measure is not installed, we expect suppliers to retain evidence detailing the reasons why. If this evidence did not provide a valid reason, we would have grounds to reject the measure.

3.42. Several respondents requested specific evidence requirements to be determined by Ofgem. We do not agree with this, as the supply chain already has evidencing requirements in place to ensure that 100% of a measure is installed. Therefore in the vast majority of situations (except where 100% of the measure is less than 67% of the property), evidence requirements should already be in place.

3.43. In addition, responses outlined that there may be confusion within the industry between the 67% minimum requirement and BEIS' policy that an insulation measure must be installed to at least 50% of the property in order to support an inefficient heating system upgrade. Some respondents suggested that a minimum of 50% may be easier to administer. We do not believe that reducing the minimum requirement any lower than 67% is appropriate, given the weight of respondents in favour of the proposed minimum.

3.44. We have determined that a minimum of 67% of the property must be treated by the measure in order to claim the full deemed score.

Question 9: Use of POPT where minimum requirement not met



3.45. Seventy-five percent of respondents to this question agreed or strongly agreed with the proposal. Several stakeholders noted that the POPT approach is already understood by the sector, so retaining it in this scenario is appropriate. Many stakeholders requested that we provide clear calculation guidelines.

3.46. Stakeholders requested clear guidance on whether POPT would be applied to the published score (ie the one with an average POPT already applied) or to the deemed score which represented 100%. Requests for clarity on how the rounding should apply after the calculation were also made. There were also several comments relating to clarification needed around score monitoring tolerances.

3.47. For measures installed with a POPT of less than 67%, the deemed score should be divided by the percentage of average treatable area in order to determine the '100%' deemed score. This should then be multiplied by the actual POPT. A worked example is provided below.

3.48. When notifying measures in ECO2t, we required POPT values to be rounded to the nearest 20% for ease. Some respondents argued that this rounding requirement did not provide administrative simplicity, as in many cases the supply chain are required to evidence both the original POPT and the rounded POPT anyway. They suggested that using the actual percentage would reduce administrative complexity in practice.

3.49. We agree with this. For measures with a POPT of less than 67%, we will require that the actual POPT, rather than a rounded version, is used to calculate the score.

3.50. The most common comment alongside a disagree or strongly disagree response was that the proposed approach undermines administrative savings. Some stakeholders suggested that either the minimum requirement should be discarded or that, rather than using the POPT approach for properties below the threshold, there should be a second score based on a lower average treatable area. However, no suggestions for how to develop this value were put forward.

3.51. We will require POPT is used to score measures that do not meet the 67% minimum requirement.

Formula and worked example

3.52. The deemed scores are published with the average POPT already applied. Where the actual POPT is less than 67%, the published deemed score must be divided by the average POPT then multiplied by the actual POPT to calculate the correct value.

3.53. See the below formula: x is the published deemed score, *actual POPT* is the percentage of property treated by the measure *and average POPT* is the average POPT factor, as published alongside the deemed score.

Where the actual POPT is less than 67%:

$$\frac{x}{average\ POPT} \times actual\ POPT = deemed\ score\ to\ be\ notified$$

3.54. For example, installer A installs an external wall insulation (EWI) measure to a 3 bedroom semi-detached house, with a gas boiler as its primary heating source. The walls of the property are of both cavity and solid construction, such that 50% of the wall area is cavity wall and the other 50% is solid wall. The cavity wall is already fully insulated, and installer A installs EWI to the solid wall. *Actual* POPT for this measure is therefore 50%, below the 67% threshold.

3.55. *Average* POPT for EWI measures is 95%, written as 0.95 in the published deemed scores. The deemed score (assuming the wall U value is improved from 1.0 to 0.28 W/m^{2}K and no uplift applies) is £4,116.

3.56. The deemed score that would be notified for this example is thus

$$\frac{£4{,}116}{0.95} \times 0.50 = £2{,}166\ (to\ the\ nearest\ £)$$

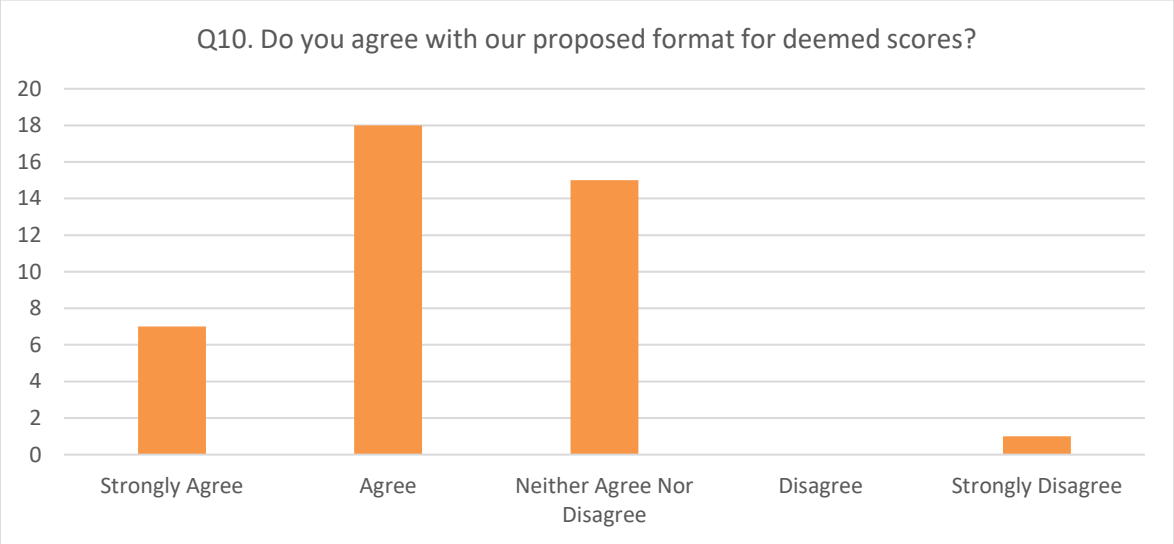
4. Updates to format of deemed scores

The consultation described a format change for the deemed scores which would be published on the website. The chapter sought views on changing the format to a flat design.

Question 10:

Do you agree with our proposed format for deemed scores? Please provide reasons for your answer, and if applicable alternative suggestions with justification including as much detail and evidence as possible.

Summary of stakeholder feedback and Ofgem's response



4.1. Sixty-one percent of respondents to this question agreed or strongly agreed with the approach, and 36% neither agreed nor disagreed.

4.2. The most frequent comment was that the new format is more user-friendly. Many agreed that the new format is easier to integrate into third-party ECO software. Some stakeholders stated they found the previous format easier to use, and two requested that both formats are published, as each has different merits. As these were in the small minority, we will not be taking this approach.

4.3. One stakeholder highlighted that any changes to the format of the scores results in administrative costs on the sector, whilst another stated that they were already working on updating their systems to accommodate the new format and reverting to the old format at this stage would be unwelcome.

4.4. We have developed the deemed scores in the format proposed at consultation.

4.5. Some stakeholders made comments about specific aspects of the format. Three suggested that the use of proxies for less common heating systems should be discontinued, and individual scores for each of these heating systems added to

the scores table. We recognise the benefits of this, as the 'proxy' approach to selecting rarer heating systems adds complexity to the overall process of selecting the correct deemed score. However, this would increase the number of deemed scores and the size of the spreadsheet considerably. We will explore whether there could be a solution integrated into our IT system in line with this.

4.6. Further suggestions from individual stakeholders include adding park homes as a property type for heating measures and renaming air source heat pump (ASHP) measures to aid searches, and the use of uniform terminology for cost score/lifetime bill savings.

4.7. Currently, when installing a heating measure into a park home, users must select the 'Detached Bungalow' as property type as a proxy. Some respondents indicated that heating measure deemed scores for the 'Detached Bungalow' property types should be duplicated and renamed as 'Park Home', to make the identification clearer.

4.8. We do not think this approach works in practice. Renaming the 'Detached Bungalow' options for use with park homes would result in a 'Park Home with 2 or fewer bedrooms' and a 'Park Home with 3 or more bedrooms' property type. Given that, for insulation measures, park homes are split by the 'single' and 'double' archetype, having different park home options in this way would not actually simplify the process as intended.

4.9. Ideally, we could develop new park home archetypes appropriate for all types of measures, but there is very limited data on what constitutes a typical park home on which to base this approach. Overall, we think that the current approach is proportionate given these constraints.

4.10. We have not changed our approach to naming ASHPs in the deemed scores. We think that the approach to selecting them is simple and straightforward.

4.11. We agree that referring to 'cost savings' as 'lifetime bill savings' would be consistent with BEIS' terminology. However, the ECO3 Order specifically defines a 'cost saving' within the scope of the ECO scheme, and we administer the scheme in line with this Order. Therefore, we will continue to use the term 'cost savings'.

4.12. A number of other comments were made on topics outside the scope of this question. These have been fed into the other chapters in this document.

SWI presentation

4.13. In ECO2t, deemed scores for SWI measures are split into various measure types, taking into account the U-value change, the type of SWI and the wall type to which the insulation is being applied.

4.14. The proposed ECO3 deemed scores for solid wall insulation were differentiated in the same way. For the wall type, the categories were 'solid brick', 'non-brick solid' and 'cavity'.

4.15. 'Solid brick' and 'non-brick solid' were differentiated because previously in ECO, a different in-use factor was applied to each to calculate the lifetime carbon scores. BEIS has decided not to use in-use factors for ECO3, so this differentiation is no longer necessary. However, it is still necessary to differentiate by solid wall and cavity wall, in order to easily identify measures that count towards the solid wall minimum requirement.

4.16. The deemed scores for SWI measure types have been split into 'solid' and 'cavity' categories.

5. Updates to Room-in-Roof Insulation scores

This chapter summarised the changes to the assumptions used to develop deemed scores for room-in-roof insulation (RIRI) measures. The questions sought feedback on the changes, and the methodology behind them.

Question 11:

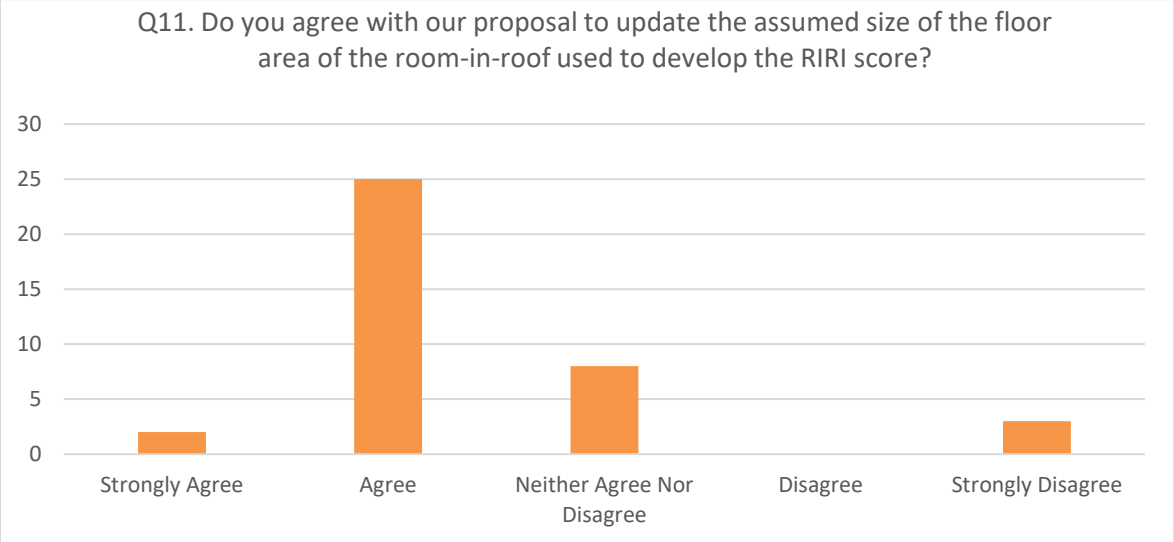
Do you agree with our proposal to update the assumed size of the floor area of the room-in-roof used to develop the RIRI score? Please provide reasons for your answer, and if applicable please suggest an alternative approach including as much detail and evidence as possible.

Question 12:

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

Summary of stakeholder feedback and Ofgem's response

Question 11: Room-in-roof floor area assumptions



5.1. Seventy-one percent of respondents agreed or strongly agreed with question 11, and of these there were few comments made in addition to the response.

5.2. Two respondents suggested that newer properties should have been excluded when calculating the weighted average. This was based on a view that newer properties would not be treated with this measure, yet as these properties tend to have a smaller floor area they would incorrectly skew the average.

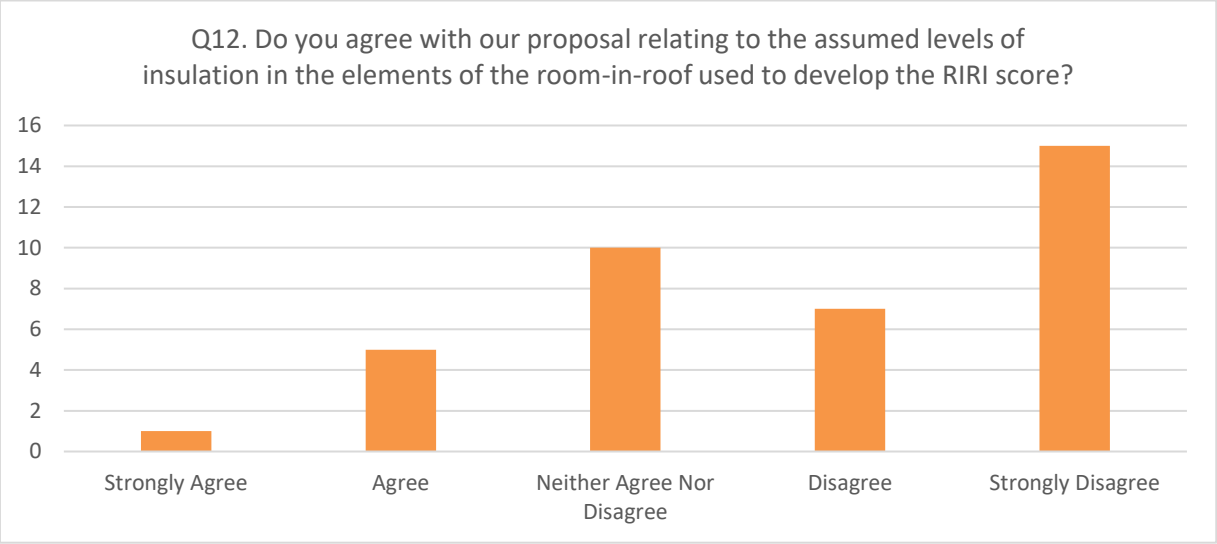
5.3. Another respondent outlined that the range of floor areas present in the housing stock meant that that an individual assessment approach would be preferable to deemed scores. It was also suggested by one respondent that the use of English Housing Survey data is not representative of the GB housing stock. These points relate to the overall approach we have taken with deemed scores, and are addressed in our response to question 16.

5.4. In the remainder of the chapter, we discuss a change to the approach for developing the pre-installation U-value following responses to question 12. The change relates to removing room-in-roofs built after 2002 from the calculation to develop a weighted average U-value.

5.5. It would be consistent to apply this change to the derviation of the average floor area size also, but equally, consultation responses are in favour of the consulted approach. In fact, applying the approach of selecting only pre-2002 room-in-roofs for calculating the floor area assumption leads to 59%, the same value on which we consulted. More information can be found in the ECO3 deemed scores methodology document.

5.6. We have used an assumed floor area of 59% in developing the room-in-roof insulation (RIRI) deemed scores.

Question 12: Pre-installation U-value assumptions for room-in-roof insulation



5.7. Fifty-eight percent of respondents disagreed or strongly disagreed with question 12.

5.8. Many respondents were concerned about the reduction in the overall deemed score. Some respondents were of the view that the proposed score would mean that RIRI is less likely to be carried out in older, uninsulated properties. Five commented that the proposed reduction in scores would mean that it is no longer financially viable to install RIRI.

5.9. One of the main objectives of developing deemed scores is to make them as accurate as possible with regards to the housing stock. We are not able to consider financial viability as a factor.

5.10. A common view given by respondents is that RIRI is typically installed to older buildings, and that incorporating recent buildings in the calculation of the pre-installation U-value means that it is not representative of properties that are actually being treated under ECO.

5.11. To support this, some respondents provided data on the proportion of RIRI measures delivered to homes in certain age bands. For one respondent, the data provided indicated 98% of homes they had treated were pre-1966 properties. In the other case, over 70% were pre-1966.

5.12. It is important to note that the consultation proposal used EHS data relating to the age of the *room-in-roof*, not the age of the property.

5.13. Comments around what sort of properties receive RIRI were often followed with suggestions for alternative approaches to the weighted average. The most common suggestion was to exclude more recent properties from the weighted average calculation on which the U-value assumption is based. Various cut-off dates were suggested, ranging from 1966 to 2006, and the most common suggested was 1983.

5.14. Some respondents highlighted that the proposed deemed score could not be representative of room-in-roofs built after 2002, as these room-in-roofs have already been built to a standard which doesn't require additional insulation. It was noted that the U-values for these age bands were lower than or equal to the assumed *post*-insulation U-values for the proposed deemed scores, and therefore excluding these age bands from the weighted average calculation makes the score more representative of the typical savings achieved by this measure.

5.15. Some respondents put forward a variation on these suggestions, which was to have separate sets of scores for RIRI, differentiated by the age band in which the room-in-roof was built. Another suggestion was that there could be a 'insulated' and 'uninsulated' option.

5.16. Other respondents noted the difficulty in obtaining evidence to determine the age of a room-in-roof, which may be more recent than the overall property. One suggested a solution could be to use householder declarations supported by mid-installation inspections to confirm insulation levels are consistent with the declared age.

5.17. We do not agree with having two separate scores, due to the difficulty in obtaining evidence for the age of a room-in-roof. The age of a property is not necessarily a good indicator of the age of the room-in-roof. Some room-in-roofs will be part of the original construction, but others will be later conversions. We do not consider householder declarations to be a reliable method of evidencing age as there is a high likelihood that the householder will not be aware of the exact age of the room-in-roof, especially in the private rented sector.

5.18. We do not agree that the age bands used to calculate an appropriate pre-installation U value should be changed to reflect that RIRI measures are typically delivered to the older properties. Given the objective of developing deemed scores that are accurate and representative of the housing stock, it would be inappropriate to develop scores on this basis.

5.19. However, we do agree that the age bands from 2003 onwards should be excluded from the calculation for pre-installation U-value. This is because RIRs in these age bands are *already equal to or better than* the assumed post-installation position. Removing these age bands from the weighted average calculation results in a pre-installation U-value of 1.43 W/m^2K (the consultation proposal was 1.14 W/m^2K).

5.20. We have assumed a pre-installation U-value of 1.43 W/m^2K for the RIRI deemed scores.

6. Updates to scores for heating measures

The chapter described updates to heating measures resulting from BEIS' policy proposals in the new Boiler Plus requirements and their ECO3 consultation. The questions asked were specific to pre-installation efficiency assumptions.

Question 13:

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

Question 14:

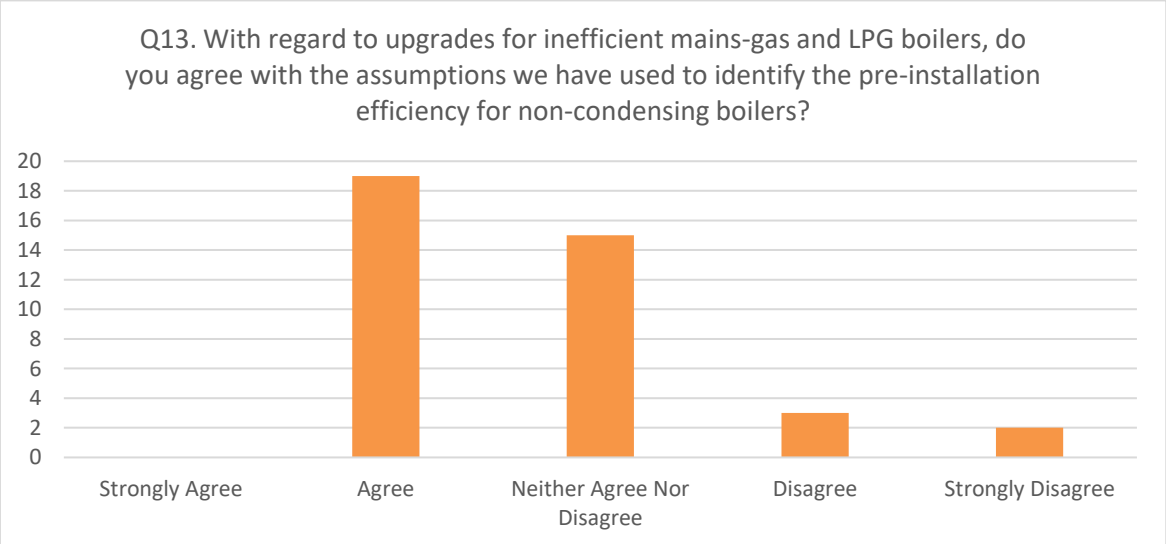
Ofgem are responsible for determining what constitutes a similar efficiency rating to non-condensing boilers and for electric storage heating with a responsiveness rating of 0.2 or less. We are in the initial stages of developing our position on this area and we welcome views from stakeholders. In responding 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 as much evidence and detail as possible in your response.

Summary of stakeholder feedback and Ofgem's response



Question 13: Pre-installation efficiency for non-condensing boilers

6.1. Forty-nine percent of respondents agreed with question 13, and 38% of respondents neither agreed nor disagreed.

6.2. There was general agreement for the methodology used to determine the pre-installation efficiency for non-condensing gas and LPG boilers, and few additional comments were made. There was support for taking into account Boiler Plus requirements with regards to the post-installation position.

6.3. Of those that disagreed, comments were made regarding concerns over the use of the English Housing Survey data to represent Great Britain and the scores being too low to incentivise delivery. These relate to the general deemed scores methodology and have been covered in Chapter 8.

6.4. We have assumed a pre-installation efficiency of 72% for gas and LPG boiler upgrades.

Question 14: Pre-installation efficiencies for other heating upgrades

6.5. Six stakeholders provided responses to this question.

6.6. Responses were generally centred on identification of 'inefficient' heating types, and implementation of requirements for what could be eligible for a heating upgrade. This feedback will be incorporated into discussions for our administration of ECO3.

6.7. As there was limited evidence provided with regards to the pre-installation efficiencies used in the deemed scores, we will use the approach used to develop the 'proposed ECO3 deemed scores'.

6.8. There is one exception – given the general support for using an average of non-condensing boilers, and the decision on broken oil boiler replacements described in the ECO3 consultation response published by BEIS, we have chosen to re-assess the pre-installation position of heating upgrades replacing an existing oil boiler. Previously this was given as 81%, an average of all oil boilers.

6.9. We have used an average efficiency of all *non-condensing* oil boilers for the ECO3 deemed scores. This average efficiency is 76%.

6.10. The details of these efficiencies are in the published methodology document.

Deemed scores for broken boilers replaced by oil boilers

6.11. In BEIS' ECO3 consultation it was proposed that the installation of oil boilers would not be supported by the scheme. In our consultation, we proposed a set of ECO3 deemed scores on this basis.

6.12. In the consultation response, BEIS have stated that suppliers are able to replace broken boilers with oil boilers, and count the cost savings toward their obligation. We have developed deemed scores for these situations.

6.13. The details of these, including the pre- and post-installation efficiency assumptions, are outlined in the methodology document published alongside this consultation response.

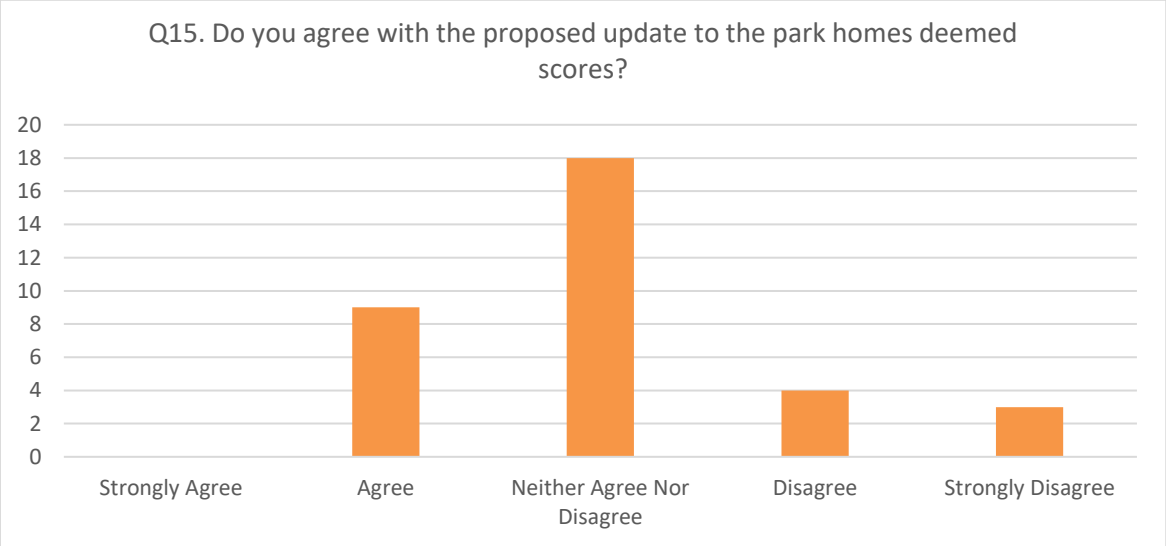
7. Updates to scores for park home insulation measures

This chapter described proposals to update the assumptions underlying the standard park home insulation measure, and discontinue the park homes insulation 'II' measure. Stakeholders were asked whether they agree with the proposed changes.

Question 15:

Do you agree with the proposed update to the park home insulation deemed scores? Please provide reasons for your answer, including as much detail and evidence as possible.

Summary of stakeholder feedback and Ofgem's response



7.1. Responses for this question were varied. The most popular response was 'neither agree nor disagree' (53%). This may reflect the smaller number of organisations involved in the installation of this measure type. Other views were fairly evenly split.

7.2. We proposed two changes to park home insulation deemed scores. The first was to update the assumed pre-installation U value used to develop the standard park home insulation deemed score from 1.0 to 1.2 W/m^{2}K. The second was to discontinue the park homes insulation 'II' deemed score. There were very few direct comments on the first of these changes - most stakeholders' responses related to the latter.

7.3. As described in the consultation document, our proposal to update the pre-installation U-value for the standard score was made by considering three data sources. These were:

- British Standard BS3632:1983 (suggesting a U-value of 1.0 W/m^{2}K);

- RdSAP (1.2 W/m^{2}K); and
- a report on park home insulation developed as part of a Demonstration Action for the Carbon Emissions Reduction Target (CERT), the Alba Building Sciences report (~1.4 W/m^{2}K).[16]

7.4. The objective was to develop a set of scores that would be representative of a 'typical' park home in Great Britain.

7.5. We proposed to change the value used in ECO2t (1.0 W/m^{2}K) due to the Alba report suggesting that typically, park home walls have a higher U-value. At the same time, the sample sizes used in this report were small, so to weight our decision based on this seemed inappropriate. We proposed that using the RdSAP value seemed a reasonable compromise.

7.6. We received no evidence suggesting that this approach was inappropriate. One stakeholder suggested that the Alba Building Science report's findings should be given more weight than RdSAP values. As stated previously, the small sample sizes made this difficult. Had we taken this approach, we would likely have taken a basic average of all wall U-values across all age bands, in order to develop a set of assumptions representative of all park homes. The average of these is 1.219 W/m^{2}K.[17]

7.7. We have used the assumed pre-installation wall U-value of 1.2 W/m^{2}K for the standard park home insulation deemed score.

7.8. Of those who disagreed with question 15, most focused on the proposal to discontinue the park home insulation 'II' deemed score.

7.9. As stated in the consultation, we developed the park home insulation 'II' score due to uncertainty around the assumptions behind the 'standard' park home insulation score.

7.10. For ECO3, we have proposed an update to the standard score in order to make it more representative of all park homes, which we will be implementing as a result of consultation responses. We now have less doubt that the deemed scores are representative of all park homes in Great Britain. We do not believe it is necessary to retain a park homes insulation deemed score that is representative of a subset of the park homes that the 'standard' score has been developed for.

7.11. Additionally, we did not receive any evidence or data relating to distribution of the age or build standards of park homes in Great Britain. We would welcome any investigation or study into the park homes housing stock to increase the amount of available data.

[16] https://www.ofgem.gov.uk/sites/default/files/docs/2012/05/park-homes-alba-report---cert-demonstration-action_0.pdf
[17] Using values from page 3 of the report. (1.890 + 1.406 + 0.900 + 0.680)/4 = 1.219.

7.12. Some respondents disagreed that the update to the standard deemed score removed the need for the 'II' deemed score, because the update has not changed the overall improvement between pre- and post-installation U-values. In the absence of a set of standards for retrofitting park homes, and of any evidence provided challenging the post-installation position, we do not agree.

7.13. Some respondents suggested the greater number of notifications of the park home insulation 'II' deemed score means that it should be retained. However, our objective is to develop deemed scores that are reflective of the housing stock, not of the ECO notifications we receive.

7.14. One respondent welcomed the removal of the park home insulation 'II' score, on the basis that claiming it requires more stringent evidence and monitoring than other ECO measures.

7.15. We have discontinued the park home insulation 'II' deemed score for ECO3.

Walls, floors and roofs of park homes

7.16. Several respondents suggested that technical difficulties prevented a greater uptake of this measure. There were suggestions that the deemed score being a combined one for all elements, along with the requirement to install 100% of the measure adds to these difficulties.

7.17. These respondents were of the view that splitting the deemed score into separate scores for the individual elements (floor, walls and roof) would result in greater uptake, as installers who specialise in one element could claim for the specific element that they are insulating. A case study was provided, detailing the results of a survey of 475 park home owners and outlining the challenges of insulating certain elements.

7.18. We have split out the park home insulation measure type into the separate elements of park home wall insulation, park home roof insulation, and park home floor insulation. The combined park home insulation score will be discontinued.

7.19. At this stage we have not changed our determination of what constitutes 100% of a park home insulation measure.

General comments

7.20. Two respondents suggested that park homes can have a shorter lifetime than that used for the park home insulation deemed scores, due to the actions of site owners rather than residents. One suggested that there should be a requirement for a signed declaration from site owners stating that the relevant park home may remain in place for the lifetime of the insulation measure. However, we do not think this would be an appropriate approach. We do not ask for these types of assurances for other measure types, and we did not receive evidence backing up these concerns. At this stage, we do not think placing requirements on site owners would be a proportionate approach.

7.21. We have received feedback throughout ECO, and in response to this consultation, that there is a lack of robust and comprehensive standards around the insulation of park homes. We have put this forward as an area for improvement as part of the PAS 2030 review,[18] and are continuing to explore how we can drive good standards.

[18] ECO measures mentioned in 'PAS 2030:2017 Specification for the installation of energy efficiency measures (EEM) in existing buildings' must be installed in accordance with this document. We are providing input in the review of this document ahead of its replacement.

8. Invitation to provide general comments

Question 16:

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.

Summary of stakeholder feedback and Ofgem's response

8.1. Twenty-seven stakeholders provided a response to this question.

The general level of the deemed scores

8.2. The most frequent topic raised related to general concerns that the proposed deemed scores are lower than those used in ECO2t. The concerns centred on the commercial viability of measures at the current funding rates.

8.3. We do not take account of financial considerations when developing deemed scores. We are required, as set out in the draft ECO Order, when generating a set of scores to have regard to the SAP and RdSAP methodologies and ease of use.

8.4. There are a number of factors that have led to a general reduction in scores, including the removal of the 'deemed scores uplift' from ECO2t, the implementation of 'average treatable areas' in line with industry feedback requesting the removal of POPT, and changes related to updated fuel prices.

8.5. In-use factors, introduced by BEIS in previous phases of ECO and applied to carbon scores to more accurately represent the in-situ performance of measures, have not been applied to the ECO3 deemed scores.

Comments on ECO policy

8.6. Several stakeholders raised points about aspects of ECO policy, such as changes set out in the BEIS ECO3 consultation. These points included the removal and introduction of various multipliers, the removal of oil boiler installations, and requests for uplifts for particular measure or property types. As BEIS is responsible for these policy areas, we are unable to comment.

General approach to Deemed Scores

8.7. Stakeholders commented on a variety of different aspects of the overall deemed scores approach.

8.8. Stakeholders also commented on the assumptions underpinning the scores. It was suggested here, and in responses to various other questions, that they should be based on ECO data held on the properties to which ECO measures are delivered, rather than overall housing stock.

8.9. Whilst ECO notifications can assist the development of background assumptions for some elements of deemed scores, we do not agree with this as a comprehensive approach. We discuss this in paragraph 3.14.

8.10. ECO measures can be installed to any eligible property, but typically are installed where the deemed scores are high. Therefore, developing deemed scores using ECO notifications would likely lead to scores which overestimate the improvement of an average measure.

8.11. Additionally, there are limitations to the data collected in notifications compared to the EHS. For example, we do not collect data on property age in ECO notifications.

8.12. Another suggested English Housing Survey data, which was used in the development of some scores, is not reflective of Scottish and Welsh homes. This point has been addressed in chapters 2 and 3 of this document.

8.13. A third stakeholder was of the view that there is a lack of justification for the assumptions that underlie the scores. We do not agree with this view, and have been transparent on the basis for the assumptions throughout this consultation and our previous consultation. We have published the deemed scores methodology document as part of this consultation to provide as much information as possible.

Measure type names

8.14. Two stakeholders suggested minor adjustments to the names for solid wall insulation measures. This has been superseded by the decision to combine the two solid wall types described in chapter 4.

8.15. A further stakeholder suggested the name for and boiler upgrade measures should be 'B_upgrade' rather than 'B_upgrades', as the use of the pluralised name is confusing. We agree, and have implemented this change.

8.16. One stakeholder also suggested that aspects of measure and property types are separated out into separate columns of the deemed score spreadsheet. In the case of property type, for example, the number of bedrooms and external walls could be in their own columns rather than part of the type name. Whilst we can see how this could assist the development of certain softwares used in industry, we do not think that developing additional columns and increasing the overall complexity of the sheet would be worthwhile.

8.17. Two stakeholders suggested that the concept of proxies for heating systems should be dropped. These comments were considered under question 10 on the format of the scores.

Requests for new scores and property archetypes

8.18. One stakeholder suggested the addition of a new property type to cover large bungalows. This was raised during the ECO2t deemed scores consultation, in which we stated: "The English Housing Survey includes a small sample (less than 30) of four-bed detached bungalows. This indicates that their prevalence in the overall housing stock is not significant and it isn't a strong basis to develop a new property archetype on. Respondents did not provide any evidence which challenged the English Housing Survey data nor did they provide any additional data which could be used to develop deemed scores for this property archetype."

8.19. Our position on this for ECO3 remains the same. One respondent did provide figures based on EPC data indicating that there is a significant number of these in the Cornwall area, but this is not a strong basis on which to develop a new property type for deemed scores being used across Great Britain. We have concluded that a new property type is not merited.

8.20. One stakeholder commented that there are no scores for replacing an inefficient oil boiler with an ASHP. There is a score for this measure type, but due to the difference between oil and electricity tariffs, the score is zero. Currently, this measure does not result in a cost saving.

Differentiation of better performing products

8.21. One stakeholder suggested that ECO3 should recognise better-performing products in order to encourage research and development. The new approach to innovation, as introduced by BEIS in their ECO3 consultation, provides the opportunity for specific new products to obtain score uplifts. Further information is provided in BEIS' response to their consultation[19] as well as in our ECO3 consultation[20].

Measure-specific comments

8.22. One stakeholder suggested adjusting the two loft insulation measures such that they correspond to pre-installation insulation thicknesses of ≤60mm and >60mm. The borderline between the two measures as proposed in the consultation is ≤100mm and >100mm, in part because a particularly large proportion of properties have 100mm of insulation.

[19] https://www.gov.uk/government/consultations/energy-company-obligation-eco3-2018-to-2022
[20] https://www.ofgem.gov.uk/publications-and-updates/eco3-consultation

8.23. Changing the borderline to 60mm would significantly reduce the number of properties to which the 'less than or equal to' 60mm measure type could be applied. We have maintained the ≤100mm and >100mm measures.

8.24. One stakeholder was concerned that the approach to identifying the appropriate deemed score for variants of cavity wall insulation used in ECO2t would not be maintained for ECO3. This is not our intent: the same approach as set out in table 3 (page 25) of our Response to ECO2 Consultation: Deemed Scores[21] will be applicable in ECO3.

8.25. Another stakeholder raised concerns that some CWI products did not achieve the savings that the deemed scores assume, due to installation difficulties or the material's effectiveness decreasing over time. The respondent suggested that the relevant deemed scores should be subject to an 'in-use factor' (a reduction) of 10%.

8.26. In-use factors were specified in legislation for previous energy efficiency schemes, and were developed for carbon savings. Given that deemed scores for ECO3 are for cost savings only, we have no direction from BEIS that they must be applied as part of the scoring methodology. If we were to include these as part of a scoring methodology, we would expect a holistic approach that could be applied to all measure types. We do not think that applying an in-use factor for one set of deemed scores and not others is an appropriate approach.

Guidance requests

8.27. Three stakeholders suggested that Ofgem provide clear direction on what documentation and supporting evidence suppliers should require from installers, in order to promote uniformity and reduce administration for installers. We do not determine the evidence requirements for supporting the deemed score claimed for a given measure, these are determined by obligated suppliers. We will raise the relevant issues to the ECO Reporting Working Group.

8.28. Two stakeholders requested clarification with regard to wall insulation in flats where the flat or maisonette is adjacent to a corridor. For clarity, when selecting the property type '2 external wall flat' or '3 external wall flat', a wall adjacent to a corridor should not be included as part of this determination, regardless of whether the corridor is heated or unheated.

8.29. This should not be confused with the determination of the external heat loss wall area. If the corridor is unheated, the adjacent wall should be considered as part of the overall external heat loss wall area of the property. If the corridor is heated, it does not form part of this overall heat loss wall area.

8.30. One stakeholder requested guidance on the possibility of replacing boilers in ECO3 that were installed under ECO1 and ECO2, given that the assumed lifetime for broken boiler measures is now 3 years. The respondent suggested

21 https://www.ofgem.gov.uk/system/files/docs/2016/11/deemed_scores_consultation_response_0.pdf

that the lifetime change gave reason to assume that the boiler installed in ECO1 or ECO2 was now broken.

8.31. We disagree with this. The lifetime change was implemented by BEIS in order to reflect research which found that that typically in fuel poor households, a broken boiler is replaced after 3 years. It is not an indication of how long a boiler should last.

8.32. The fact that a boiler was installed more than 3 years ago would not be acceptable evidence that it is no longer functioning. Duplicate measures are automatically identified in ECO processes, and are subject to additional investigation.

8.33. A further stakeholder requested additional guidance around determining POPT for electric storage heating measures. These points will be fed into the development of our ECO3 guidance.

Appendix 1

Table of all responses

Question	Strongly Agree	Agree	Neither Agree Nor Disagree	Disagree	Strongly Disagree	N/A	No response	Total
1	3	9	8	8	13	2	0	43
2	5	24	6	3	2	2	1	43
3	13	14	3	7	5	1	0	43
4	1	19	9	7	5	2	0	43
5	1	15	15	8	2	2	0	43
6	3	12	9	8	9	2	0	43
7	5	23	9	1	2	3	0	43
8	6	25	1	7	2	2	0	43
9	4	26	1	5	4	3	0	43
10	7	18	15	0	1	1	1	43
11	2	25	8	0	3	5	0	43
12	1	5	10	7	15	5	0	43
13	0	19	15	3	2	2	2	43
15	0	9	18	4	3	7	2	43
Total	51	243	127	68	68	39	6	602