

Consultation

ECO4 scoring consultation: part 2

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We are consulting on a scoring methodology for the forthcoming Energy Company Obligation scheme, ECO4. We would like views from anyone with an interest in energy efficiency and fuel poverty. We particularly welcome responses from obligated energy suppliers, and companies and organisations involved in the delivery of energy efficiency measures, as well as other stakeholders and the public.

This document outlines the scope, purpose and questions of the consultation and how you can get involved. Once the consultation is closed, we will consider all responses. We want to be transparent in our consultations. We will publish the non-confidential responses we receive alongside a decision on next steps on our website at [Ofgem.gov.uk/consultations](https://www.ofgem.gov.uk/consultations). If you want your response – in whole or in part – to be considered confidential, please tell us in your response and explain why. Please clearly mark the parts of your response that you consider to be confidential, and if possible, put the confidential material in separate appendices to your response.

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1. Introduction

What are we consulting on?

1.1. This consultation sets out our proposed approach to scoring energy suppliers' progress towards fulfilling their ECO4 obligations. It is the second of two consultations we are undertaking on this topic. Our first consultation was published in August 2021 and has now closed¹.

1.2. Our first consultation covered our overall approach to scoring and included 'full project scores'. These are the final score a supplier will receive for the total improvement made to a given premises within the scheme (where the relevant conditions are met).

1.3. This consultation focusses on measure-specific partial project scores. Partial project scores are based on individual energy efficiency measures, and are replaced by a full project score once the minimum requirement is met. A full set of draft partial project scores are published alongside this consultation document. We seek views on these scores, particular where we propose to introduce new measures or change existing ECO measures.

1.4. The scores are based on the overall approach set out in our first consultation, except where it is specifically stated. We continue to assess stakeholder's responses to our first consultation, and will issue a joint decision taking account of submissions to both consultations in early 2022. Final sets of full and partial project scores will also be published at this time.

1.5. This consultation also provides further details on our proposed approach to determining a project's finishing Standard Assessment Procedure (SAP) band², and covers our proposal for the format and notification of scores in ECO4.

¹ ECO4 scoring consultation part 1: <https://www.ofgem.gov.uk/publications/energy-company-obligation-eco4-consultation-scoring-methodology-part-1>

² In an assessment, the energy efficiency of a domestic premises is expressed by assigning it a band from A to G. The band is determined by the SAP rating, a numerical value between 1 and 100 based on calculated energy costs for the premises. For the purposes of ECO4 scores, we have split the SAP bands further into intermediate SAP bands.

Context and related publications

1.6. The Energy Company Obligation (ECO) is a government scheme that requires obligated energy companies to deliver energy efficiency measures to domestic premises in Great Britain. The policy and legislation for ECO is set by the Department for Business, Energy and Industrial Strategy (BEIS). ECO is administered by Ofgem.

1.7. The current scheme, ECO3, runs from 3 December 2018 to 31 March 2022. BEIS consulted³ in summer 2021 on plans for a new Energy Company Obligation, ECO4. ECO4 is intended to run from 1 April 2022 to 31 March 2026.

1.8. BEIS's consultation describes their policy proposals for the new scheme and sets out their intent to require Ofgem to publish the scoring methodology. It proposes core requirements that the scoring methodology must meet.

1.9. With input from BEIS, we have developed a proposed scoring methodology which fulfils these core requirements. This document is the second of two Ofgem consultations on the scoring methodology, as described above.

1.10. As the scoring methodology is a central aspect of the scheme, we have developed it separately, ahead of plans for our general administration of ECO4. We are currently working closely with BEIS to develop these plans. We have a range of policy areas to consult on with respect to scheme administration, some of which can be progressed in advance of BEIS publishing their consultation decision. As such, we are consulting on our administration in two parts. An initial administration consultation was published on 2 November 2021⁴, and has now closed. Our main ECO4 administration consultation will follow in early 2022.

³ BEIS ECO4 consultation can be found here: <https://www.gov.uk/government/consultations/design-of-the-energy-company-obligation-eco4-2022-2026>

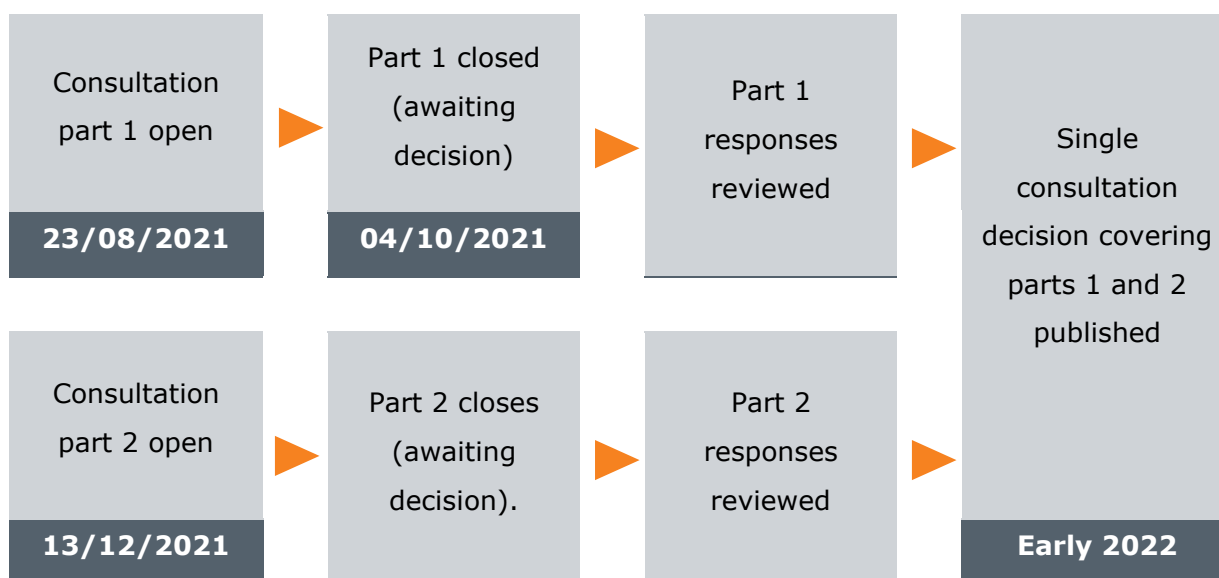
⁴ Ofgem ECO4 Administration Consultation Part 1: <https://www.ofgem.gov.uk/publications/ofgem-eco4-administration-consultation-part-1>

Consultation stages

1.11. Part 1 of our consultation closed on 4 October 2021, and the consultation decision will be published alongside part 2 of the consultation in early 2022. Part 2 of our scoring consultation will be open for six weeks from 13 December 2021.

1.12. Figure 1 gives an overview of our overall plan on consulting on the ECO4 scoring methodology.

Figure 1: Consultation stages



How to respond

1.13. We want to hear from anyone interested in this consultation. Please send your response to the person or team named on this document's front page.

1.14. We've asked for your feedback in each of the questions throughout. Please respond to each one as fully as you can.

1.15. We will publish non-confidential responses on our website at www.ofgem.gov.uk/consultations.

Your response, data and confidentiality

1.16. You can ask us to keep your response, or parts of your response, confidential. We'll respect this, subject to obligations to disclose information, for example, under the Freedom

of Information Act 2000, the Environmental Information Regulations 2004, statutory directions, court orders, government regulations or where you give us explicit permission to disclose. If you do want us to keep your response confidential, please clearly mark this on your response and explain why.

1.17. If you wish us to keep part of your response confidential, please clearly mark those parts of your response that you *do* wish to be kept confidential and those that you *do not* wish to be kept confidential. Please put the confidential material in a separate appendix to your response. If necessary, we'll get in touch with you to discuss which parts of the information in your response should be kept confidential, and which can be published. We might ask for reasons why.

1.18. If the information you give in your response contains personal data under the General Data Protection Regulation (Regulation (EU) 2016/679) as retained in domestic law following the UK's withdrawal from the European Union ("UK GDPR"), the Gas and Electricity Markets Authority will be the data controller for the purposes of GDPR. Ofgem uses the information in responses in performing its statutory functions and in accordance with section 105 of the Utilities Act 2000. Please refer to our Privacy Notice on consultations, see Appendix 4.

1.19. If you wish to respond confidentially, we'll keep your response itself confidential, but we will publish the number (but not the names) of confidential responses we receive. We won't link responses to respondents if we publish a summary of responses, and we will evaluate each response on its own merits without undermining your right to confidentiality.

General feedback

1.20. We believe that consultation is at the heart of good policy development. We welcome any comments about how we've run this consultation. We'd also like to get your answers to these questions:

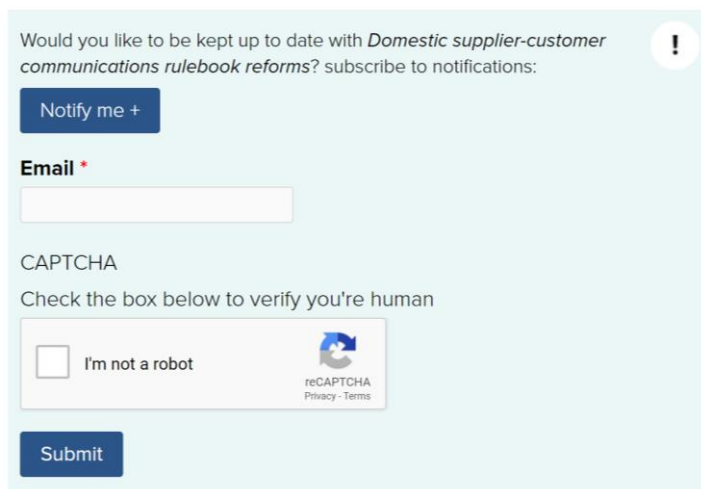
1. Do you have any comments about the overall process of this consultation?
2. Do you have any comments about its tone and content?
3. Was it easy to read and understand? Or could it have been better written?
4. Were its conclusions balanced?
5. Did it make reasoned recommendations for improvement?
6.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

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

How to track the progress of the consultation

You can track the progress of a consultation from upcoming to decision status using the 'notify me' function on a consultation page when published on our website. [Ofgem.gov.uk/consultations](https://www.ofgem.gov.uk/consultations).

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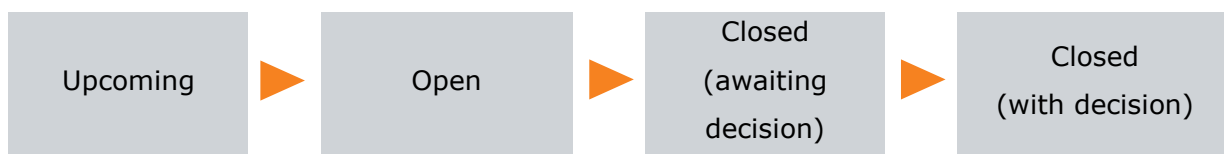
Email *

CAPTCHA

Check the box below to verify you're human

I'm not a robot  reCAPTCHA
Privacy - Terms

Once subscribed to the notifications for a particular consultation, you will receive an email to notify you when it has changed status. Our consultation stages are:



2. Overarching approach to ECO4 scoring

Section summary

This chapter gives an overview of the proposed ECO4 scoring methodology. The methodology was outlined in BEIS's consultation and in part 1 of our scoring consultation. We are not asking any further questions on this, but it is included here for context.

This chapter also sets out our proposed format for the publication of final partial project and full project scores. We have also included information on the forthcoming update to SAP.

Questions

Question 1: Do you agree with our proposed format for partial project and full project scores? Please provide reasons for your answer, and if applicable alternative suggestions with justification including as much detail and evidence as possible.

Question 2: Do you agree with our proposal to include fixed value uplifts into our scoring matrix and for fixed value uplifts to be notified as measures? If not, please indicate your preferred alternative.

ECO4 scoring methodology

2.1. BEIS intend that ECO4 will move to a whole-house, multi-measure approach, where full project scores (FPS) are awarded in respect of packages of measures installed in eligible premises where the relevant minimum requirement is met.

2.2. Scores must be based on the difference in expected annual energy costs between the starting and finishing SAP rating⁵ of the premises. Under this approach, pre-calculated scores can be selected from a table based on the intermediate SAP band⁶ before and after the retrofit project, and the size segment that the floor area of the premises falls within.

2.3. BEIS also propose a minimum requirement for the SAP band improvement achieved by premises treated under ECO4. Band G and F premises should be improved to at least a

⁵ The SAP rating is a numerical value between 1 and 100 based on calculated energy costs for the premises. A range of SAP ratings (eg 20.5 to 29.4) correspond to the intermediate SAP band (eg low F).

⁶ ECO4 scoring consultation part 1 – page 14: <https://www.ofgem.gov.uk/publications/energy-company-obligation-eco4-consultation-scoring-methodology-part-1>

band D, and band E and D premises should be improved to at least a band C. Premises with a starting SAP band of C or higher will not be eligible for ECO4.

2.4. BEIS intend that partial project scores (PPS) will be awarded as each measure within a project is notified and approved. These are interim scores which represent a proportion of the bill saving improvement of the measure.

2.5. Once the project meets the relevant minimum requirement, the PPS will be replaced by a FPS. In part 1 of our scoring consultation, we proposed a system of deemed partial project scores, which would be selected from pre-calculated tables based on measure type, premises' starting SAP rating and floor area.

Format of partial project and full project scores

2.6. We publish the current ECO3 deemed scores as a single, unformatted, comma separated variable (CSV) file. This format was chosen following stakeholder feedback, on the basis that it would be easy to integrate into stakeholder IT systems.

2.7. We anticipate that stakeholders will continue to use IT systems to manage their participation in ECO4. We therefore propose to maintain the unformatted approach. As there are now two separate types of score (partial project and full project scores), these will be presented in separate CSV files. Draft scores are published in this format as part of this consultation.

Format of partial project scores

2.8. As illustrated by the draft scores, we propose to present the PPS in an unformatted CSV file. The PPS in the worksheet will be un-deflated. The PPS will be deflated by a fixed percentage prior to being awarded when the measure is notified.

2.9. The file will contain the columns listed below, and this format does not include redundant scores or any unnecessary fields.

- Measure type
- Starting intermediate SAP band
- Floor area segment
- Pre main heat source (distinctions available for heating measure types only)
- Post main heat source (distinctions available for heating measure types only)
- Partial project score (annual cost saving)

- SAP point saving

2.10. The starting SAP band is only required up to High D for most measures. Exceptions are 'infill measures',⁷ which need to be available up to High B:

- SWI measures (EWI, IWI and HWI)
- DHS measures
- CWI (0.027, 0.033, 0.040 and partial fill) when delivered to flats

2.11. The correct partial project score for a given measure can be identified by selecting the row with the appropriate values in the preceding columns.

2.12. It is important to note that BEIS propose a deflator⁸ will be applied to partial project scores, and this deflator is not included in the draft partial project scores included with this consultation. This proposal is set out in Chapter 4 of BEIS's ECO4 consultation. BEIS have not determined the value of the deflator at time of writing, but their consultation anticipates it will reduce partial project scores by 30 to 40%. This is intended to help maintain an incentive to meet the minimum requirement and obtain a full project score.

Format of full project scores

2.13. We have republished the draft full project scores from our previous scoring consultation in the proposed format. The scores are listed in an unformatted CSV file using the columns listed below.

- Starting intermediate SAP band
- Finishing intermediate SAP band
- Floor area segment
- Full project score

2.14. As with the partial project scores, the correct full project score for a project can be identified by selecting the row with the appropriate values in the preceding columns.

⁷ BEIS ECO4 consultation – page 68-69: <https://www.gov.uk/government/consultations/design-of-the-energy-company-obligation-eco4-2022-2026>

⁸ ECO4 scoring consultation part 1 – page 27: <https://www.ofgem.gov.uk/publications/energy-company-obligation-eco4-consultation-scoring-methodology-part-1>

Uplifts

2.15. In ECO3, uplifts were applied as multiplication factors to deemed scores. In ECO4, some of the uplifts available are fixed values. These are the: boiler repair, boiler replacement, ESH repair, ESH replacement and building fabric repairs uplifts.

2.16. As the uplift scenarios above do not result in any additional efficiency gains, BEIS do not intend for the score associated with uplifts to contribute towards a project's minimum requirement.

2.17. The fixed value uplifts are intended to be awarded at the PPS stage. These uplifts are standalone values and are not associated with another measure within the PPS matrix. The boiler repair uplift, for example, is the amount that will be counted towards a supplier's obligation in respect of a repair to an eligible boiler. Further information on this uplift can be found in chapter 5.

2.18. Due to the standalone and fixed value nature of these uplifts, we propose that they can be notified as a measure type and appear within the PPS scores matrix. These uplifts are independent of other measures, and can be notified as such.

2.19. Similar to PPS scores, the fixed value uplifts will appear within the score matrix with their values un-deflated. The fixed value uplifts will be deflated to the same percentage as the PPS prior to being awarded when the measure is notified. Once the project is complete and the minimum requirement has been met, these uplifts will be un-deflated and added to the FPS.

2.20. To demonstrate this proposed format, we have included the boiler replacement and ESH replacement uplifts in the score matrix published alongside this consultation.

2.21. All other ECO4 uplifts, including innovation, off gas, pay for performance and LA flex route 4, do not have a fixed value and therefore will not be included in the PPS matrix.

2.22. For the innovation uplift, the innovation measure's deflated PPS will receive either a 25% or 45% uplift. Once the minimum requirement is met, the un-deflated uplift for the innovation measure will be applied on top of the project's FPS.

2.23. For project level uplifts, such as off-gas, we expect the percentage uplift to be applied to the FPS once the minimum requirement is met. Details of the pay-for-performance and LA flex route 4 uplifts are yet to be confirmed by BEIS. Our approach to these uplifts will be set out in our main administration consultation in early 2022.

SAP version

2.24. We anticipate that ECO4 legislation will require the scoring methodology to be based on the current version of the SAP - SAP 2012⁹. The scores published alongside this consultation have been developed accordingly.

2.25. SAP is updated periodically to account for changes in fuel prices, improved modelling, and the inclusion of new technologies. The next iteration, SAP 10, is due to be launched in 2022. A near-complete edition of SAP 10 (SAP 10.2) was published in August 2021, but the final version is not expected to be used for assessments until mid-2022. It is expected that an updated version of the Reduced Data Standard Assessment Procedure (RdSAP) will be used from early 2023. It is not possible to develop scores using SAP 10 at this point in time, as the calculation engine is not complete.

2.26. SAP 11 is also expected to come into use during ECO4 in the mid-2020s, subject to the usual consultation and development processes.

2.27. As the ECO4 scoring methodology is based on the difference between a starting and finishing SAP rating, any updates to SAP will have an impact on scoring.

2.28. We expect that the version of SAP/RdSAP used in an ECO4 project's pre and post-installation assessment to be that which is current at the point the pre-installation assessment is conducted. The version used for assessments will therefore change during the scheme.

2.29. We anticipate that the FPS and PPS deemed scores will remain based on SAP 2012 throughout the scheme unless legislation is changed to require an update to the scores. If

⁹ Standard Assessment Procedure can be found here: <https://www.bregroup.com/sap/>

an update to the scores is potentially required, Government will consult on this ahead of any decision.

3. Determining the finishing SAP rating

Section summary

In part 1 of our scoring consultation, we presented two options for determining the finishing SAP rating at the end of a project. One was to require a post-retrofit SAP/RdSAP assessment, and the other was to calculate the finishing rating based on the measures installed. This section provides further details on the options. Option 1, a post retrofit SAP/RdSAP assessment, remains our preferred option.

Questions

Question 3: Do you agree with our proposal to require a post-retrofit RdSAP assessment to determine a project's finishing SAP rating (option 1)? Responses will be considered alongside those received on this topic during part 1 of our scoring consultation.

Options for determining the finishing SAP rating

3.1. In ECO4, full project scores (FPS) are based on a home's SAP rating before and after a project is carried out. BEIS's consultation on the design of the scheme proposed that the starting SAP rating should be determined by a pre-retrofit SAP assessment within the PAS 2035 framework, or an EPC. Ofgem will set requirements for determining the finishing SAP rating.

3.2. In part 1 of our scoring consultation, we presented two options for determining the finishing SAP rating and outlined the advantages and disadvantages for both options. Our preference remains option 1. Additional detail and discussion of the options is set out below. We will confirm which option we will take forward in our decision document following this consultation.

Option 1 - SAP assessment

3.3. To determine the finishing SAP rating of a premises, an updated SAP or RdSAP assessment would be carried out at the end of the project. This was presented as our preferred option in part 1 of our ECO4 scoring consultation.

Option 2 - Calculated SAP rating

3.4. The premises' finishing SAP position would be estimated using the PPS and the starting SAP rating. PPS give the heating cost saving of a measure in pounds, but a typical single-measure SAP rating improvement is also produced.

3.5. To calculate the finishing SAP rating, each measure's typical SAP rating improvement would be added to the starting SAP point of the premises.

Discussion of the options for determining finishing SAP rating

Option 1 - SAP assessment

3.6. A disadvantage we raised in respect of option 1 is the risk that scores are more open to misrepresentation as SAP inputs could be manipulated to achieve a higher FPS.

3.7. Since our first consultation on scoring, TrustMark have informed us that they intend to require RdSAP to be used for pre-retrofit assessments as part of PAS 2035. They will require the underlying data (RdXML file) to be lodged with them. Under option 1, a post-retrofit RdSAP assessment would also be required, and the underlying data from this would also be lodged¹⁰. This would allow the pre and post-retrofit assessments to be audited together, and compared to the measures installed.

3.8. This proposal would mean that unexpected differences in inputs not related to the installed measures are flagged. This reduces the risk of inaccuracy of RdSAP assessments due to variation or misrepresentation.

3.9. We are aware that some energy suppliers consider the likelihood of inaccuracies in SAP/RdSAP assessments would mean that they need to carry out checks of assessments to manage risk, and that this would increase administrative burden.

3.10. We anticipate the plan to require lodgement of underlying data will reduce this need and the associated administrative burden. Manipulation of assessments would be discouraged as it is more likely to be quickly detected. The plan also promotes an approach whereby the pre-retrofit assessment's data file is used as the basis for the post-retrofit assessment, reducing the potential for error.

¹⁰ Projects comprising only of measures not covered by the PAS 2035 framework, such as the connection of a home to a district heating system, would not be limited to RdSAP. Full SAP assessments could still be used for these options.

3.11. An updated SAP/RdSAP assessment would ensure the actual post-retrofit SAP rating for each specific premises is known. This would give greater certainty that the FPS, based on the starting and finishing intermediate SAP band, is correct for each premises.

3.12. A post-retrofit SAP/RdSAP assessment provides greater confidence that both the minimum requirement and the core objectives have been met.

3.13. It is also likely that an updated SAP/RdSAP assessment will be produced at the end of the project for the householder's benefit, to help demonstrate the impact of the improvement.

Option 2 – Calculated SAP rating

3.14. In part 1 of our scoring consultation, we set out our view that a calculated finishing SAP position may provide additional certainty regarding the final scores and simplify administration. Our consultation also set out that this option may result in a smaller PPS deflator¹¹.

3.15. However, BEIS's core objective is to improve as many fuel poor homes to EPC C as is cost-effective and practicable by 2030. If a calculated approach based on average scores determines the finishing SAP rating, we will not have certainty this objective has been met.

3.16. This is because PPS are based on averages taken across the national housing stock, and therefore will not accurately represent actual SAP improvements in each case. We expect that this representation would even out as the scheme progresses, but if delivery favours certain projects then the calculated SAP improvements and actual SAP improvements may no longer match.

3.17. A calculated SAP approach could result in premises which are assumed to have met the minimum requirement within ECO. However, if further SAP/RdSAP assessments are completed, such as for renting or selling, the premises may not have reached the desired SAP band in practice. If this objective is not achieved, then it risks significant pushback from households as well as potentially failing in the delivery of BEIS' core objective.

¹¹ ECO4 scoring consultation part 1 – page 27: <https://www.ofgem.gov.uk/publications/energy-company-obligation-eco4-consultation-scoring-methodology-part-1>

Decision on determining the finishing SAP rating

3.18. Whilst this issue was already included in part 1 of our consultation, we have returned to it here to give stakeholders further opportunity to comment. We will analyse responses to this consultation together with responses to part 1, and confirm which option we will take forward in our published decision in early 2022.

4. Notification in ECO4

Section summary

This chapter covers our proposals for notification in ECO4. We are considering a new system for ECO4 where measures and projects exist separately on the register and are also notified to Ofgem separately. The project notification would contain key project information gathered prior to measures being installed. Measures could be notified before the project but will not be able to pass eligibility checks until the associated project has already done so.

Questions

Question 4: Do you agree with separate measure and project notifications? If not, would you prefer a single notification? Please suggest any pros and cons to either approach that have not been included above.

Question 5: Do you agree with our proposal to award deflated PPS to the final measure in a project? If not, please suggest an alternative.

Question 6: Do you agree that in ECO4 we should continue to require supplier generated MRNs to for all measures? If not, please propose any alternative options.

Question 7: Do you agree with our proposals for determining the point of completion for the project? Can you suggest any alternatives to determine that a project has been completed?

Notification

4.1. In ECO4, an initial SAP/RdSAP assessment will be carried out followed by, inter alia, the development of a Medium-Term Improvement Plan defining a project. Subsequently, one or more measures will be installed before the project is complete. This additional complexity will mean that we will need to adjust our data structures and notification systems to account for the introduction of project information.

4.2. BEIS propose partial project scores are awarded for each measure approved while full project scores are awarded once the entire package is approved and found to meet the minimum requirement. Under ECO3, measures are submitted individually to the ECO register.

4.3. To accommodate BEIS's proposal, we are considering a new system for ECO4 where measures and projects exist separately on the register and are notified to Ofgem separately

as well, mirroring the relationship and sequencing of the project itself as well as the evidence collected by the Retrofit Co-ordinator and installer(s).

4.4. The project notification would contain key project information gathered prior to measures being installed including the project ID, starting SAP rating and floor area, and other household data such as the address, occupier eligibility route, etc. Projects would need to have passed initial eligibility checks before any measures are approved. Measures may be notified before the project but will not be able to pass eligibility checks until the associated project has already done so.

4.5. Once all measures in the project have been notified, a final project notification (using the same project notification template) would be updated with the TrustMark Project Completion Certificate ID. Once all the measures in the project have been approved, we would determine if the project has met the minimum requirement and potentially award an FPS, either through the updated SAP/RdSAP assessment or using the calculated SAP rating improvements of the measures (as discussed in Chapter 3).

4.6. The alternative is to use a single notification template for measures like in ECO3, and all project data would be included for each measure. The end of project data (eg TrustMark Project Completion Certificate ID) may need to be notified alongside the final measure in the project.

4.7. We believe the proposed separate notification system has several advantages over a single template system:

- It provides greater clarity by mirroring the sequential approach of the project with the first SAP assessment, development of the project, installation of measures, completion of the project, and final SAP/RdSAP assessment (if we proceed with Option 1 discussed in Chapter 3).
- It would allow suppliers to view projects separately on the ECO register, providing greater clarity around project status and details.
- There will be an alignment with TrustMark's Data Warehouse which will store data in a similar way.
- It could be confusing to attach a single FPS value to a group of measures. It is easier and clearer to award FPS to projects and PPS to measures.
- Most project level data would be notified at the beginning of the project and the remaining project data would be notified at the end of the project, removing the

need to notify redundant information and the risk of mismatches between measures in the same project.

- If project data was included in the measure template, then end of project data would be subject to the measure notification deadline. A separate project notification would not have this limit.
- The two templates would have fewer fields than a combined and arguably messy single template, resulting in faster checks and improved register performance.

4.8. The disadvantage of having separate notifications is that it would result in a more complex data structure. Having two notification templates would require a greater adjustment from the supply chain to adapt to the new system.

4.9. Included below are some examples of the data that could be provided on each template. These lists are not exhaustive and are subject to change.

4.10. Project template:

- Address details and postcode
- Eligibility route and associated requirements (HTH verification method, DWP reference number, LA flex details etc)
- Starting and finishing SAP/RdSAP assessments¹² and floor area
- Tenure details
- Is the property rural?
- Is the property connected to the gas mains?
- Supporting projects for in-fill
- Details for any project uplifts
- TrustMark details related to the project, eg TrustMark Project ID

4.11. Measure template:

- Measure type
- Date of completed installation
- Scoring methodology (for PPS)
- POPT

¹² If we were to proceed with Option 1 outlined in Chapter 3.

- Pre and post main heating sources
- Details for any measure specific uplifts
- Trustmark details related to the measure

Awarding scores

4.12. We will award deflated PPS to individual measures after they have been approved on the ECO register, provided the notifying supplier is below their PPS cap¹³ for measures that count towards it. This process will be similar to ECO3, where a measure is moved to approved status after it has passed all eligibility checks, including validation against TrustMark data. Approval is not permanent and can be revoked at any time if a measure is later determined to have been approved in error, or due to other internal processes, such as technical monitoring.

4.13. Once a project is awarded a FPS, the PPS will be superseded and no longer apply to the measures. If the FPS is later revoked (eg through a measure being rejected and the project no longer meeting the minimum requirement) then all approved measures in the project will have PPS scores reapplied.

4.14. We considered not awarding a PPS to the final measure in each project, particularly if we choose to implement the single notification template, on the basis that it would result in multiple approvals being sent by Ofgem. It could also lead to confusion over the final score for the project, ie the sum of deflated PPS or the FPS. Minimal delay between the approval of the final measure and approval of the completed project could prevent this from inconveniencing the supply chain.

4.15. However, we cannot guarantee that FPS will be awarded shortly after the final measure has been awarded PPS. The final measure installed may not be the last one to be notified to Ofgem, and even it may not be the last one to be approved. This could create a significant gap where a PPS would be required. Even in the ideal scenario, where the final measure results in a completed project, the timings on our administrative

¹³ BEIS propose in their ECO4 consultation (Chapter 4) to place a cap on the share of a supplier's obligation that can be comprised of scores from partial projects.

processes may result in a gap between the project being completed and being awarded FPS.

4.16. We could potentially award PPS to the final measure in some circumstances but not others, for example only awarding PPS when there are other measures in the same project that are not in an approved state or awarding PPS to measures after the project remains incomplete for a certain period, but this would complicate administration.

4.17. Finally, a FPS is only awarded where the project meets the minimum requirement (barring exemptions). Where no FPS is awarded, or is later revoked, deflated PPS will be the final score for each measure, meaning a PPS is needed for the final measure.

4.18. Therefore, it is our preference to award deflated PPS to every approved measure in a project.

Reference numbers

4.19. In ECO3, every measure is associated with a unique Measure Reference Number (MRN). This is supplier-generated and contains the supplier prefix in the format XYZNNNNNNN. Every measure lodged with Trustmark must also be notified with a Unique Measure Reference (UMR) generated by Trustmark at the point of lodgement.

4.20. For ECO4, we considered removing the MRN and using the UMR as the unique measure identifier. This could remove a potential source of mismatch between Ofgem and Trustmark data, and reduce the amount of data required.

4.21. However, we are unlikely to implement this as measures not lodged with Trustmark (eg DHS measures), would require their own reference number. Having separate systems for different measure types could cause confusion. It is also helpful to have a measure identifier that contains the supplier prefix to easily identify the owner of the measure, assisting the measure transfer process.

4.22. FPS will only be awarded once the project is complete, and the minimum requirement has been met. This will be verified through the 'Project Completion Certificate ID' issued by TrustMark after a project has been completed, or for projects which do not involve any PAS measures, a post-retrofit EPC.

4.23. However, we are exploring options for the most appropriate way to determine when a project is complete so we can then verify and validate the Project Completion Certificate ID.

4.24. If we have separate project and measure notifications, as discussed above, we propose that the post-retrofit project data is notified in the second project notification submitted after project completion, which would inform us of project completion.

4.25. If there are no separate project notifications, we propose that the post-retrofit project data could be notified with the last measure. We would classify the last measure in the project as the measure with the latest 'Date of Completed Installation'.

5. Updates to existing ECO measures

Section summary

This section outlines the proposed changes to the partial project scores for existing ECO measure types. We have updated measures to reflect the whole-house approach and to simplify administration and delivery. For heating measures, we propose: the removal of the wall type variants; changes to heating controls; alterations to the notification of rarer heating systems. For insulation measures, we propose: the removal of the pre-main heat source; simplification of the solid wall insulation u-value variants; a combined park home insulation measure.

Questions

Question 8: Do you agree with the assumptions used to develop the partial project scores? If not, please suggest where the assumptions should be changed.

Question 9: What are your views on our proposal to remove the wall type distinction for heating measures?

Question 10: Do you agree with our proposal to split the standard heating control measure into a programmer and room thermostat measure and a TRV measure?

Question 11: Do you have any suggestions on how heating control measure category could be further simplified?

Question 12: Do you agree with the proposed changes to the notification of rare heating systems? If not, please provide alternative suggestions.

Question 13: What are your views on our proposal to remove pre-main heat source for insulation measures?

Question 14: Do you agree that the number of u-value variants for solid wall insulation measures should be reduced? If not, please provide alternative suggestions.

Question 15: What are your views on our proposal to have a combined park home insulation measure?

Question 16: Do you agree with our proposal to retain the distinction between single and double park homes by creating a "PHI single" and "PHI double" measure?

5.1. Annual bill savings for individual improvement measures have been generated for ECO4-applicable measures, for all floor area segments and each starting intermediate SAP

band¹⁴. The standard SAP 2012 fuel prices¹⁵ were used to calculate all ECO4 savings, to ensure consistency between partial and full project scores.

5.2. We have updated certain existing ECO measures to better reflect the PAS 2019:2030¹⁶ and the whole-house approach. We have also attempted to streamline the number of variants for some measures to simplify administration and delivery.

Heating measures

Pre-main heat source

5.3. In ECO3, the deemed scores reflect the fact that savings from the installation of energy efficiency measures vary depending on the heat source of the premises prior to installation (the “pre-main heat source”). Different scores are provided for different pre-main heat sources.

5.4. We propose to retain the pre-main heat source distinction for heating measures in ECO4. This is because the pre-main heat source of the premises greatly influence the cost saving of the heating measure installed.

5.5. We considered basing the scores on the weighted average of cost savings across the mix of pre-main heat sources in each intermediate SAP band. However, there are significant barriers to developing heating scores using this approach. A key difficulty was establishing a reasonable approach to weighting averages, given that some heat source changes increase rather than reduce costs.

5.6. We have developed PPS for the more common pre-main heat sources in the national housing stock (Table 1). These are a subset of the heat sources listed in SAP 2012. It would not be proportionate to create scores for all possible pre-main heat sources. Instead, we propose a system whereby heating measures involving the replacement of rare pre-main heat sources are scored using one of the common pre-main heat sources as a proxy. A

¹⁴ The partial project scores for each measure have been published alongside this consultation.

¹⁵ Fuel prices can be found in the SAP 2012 document - table 12:
https://www.bre.co.uk/filelibrary/SAP/2012/SAP-2012_9-92.pdf

¹⁶ PAS 2035/2030:2019 can be found here: <https://shop.bsigroup.com/products/retrofitting-dwellings-for-improved-energy-efficiency-specification-and-guidance-1/standard>

table of rare pre-main heat sources and associated proxies would be published as part of ECO4 guidance. A draft of this table is included in the methodology document, published as part of this consultation.

Table 1: List of common pre-main heat sources for which scores are provided

Common pre-main heat sources
Biomass boiler
Bottled LPG boiler
Bottled LPG room heaters
Condensing gas boiler
Condensing LPG boiler
Condensing oil boiler
Electric boiler
Electric room heaters
Electric storage heaters
Gas back boiler to radiators
Gas fire with back boiler
Gas room heaters
Non-condensing gas boiler
Non-condensing LPG boiler
Non-condensing oil boiler
Solid fossil fuel boiler
Solid fossil fuel room heaters

5.7. Proxies were also used for rarer pre-main heat sources in ECO3.¹⁷ We propose to make two changes to the ECO3 approach, with the aim of simplifying the system.

5.8. Firstly, suppliers will be required to notify the actual heat source listed in the proxy table, rather than the proxy as is the case in ECO3. The proxy will be automatically assigned within the register based on the final version of the table from BRE’s methodology report, which will be published in our ECO4 guidance.

¹⁷ Information on ECO3 proxies can be found in the ECO3 Delivery Guidance - pages 149-151: <https://www.ofgem.gov.uk/publications/energy-company-obligation-2018-22-eco3-guidance-delivery>

5.9. Secondly, the way that the proxy table is developed will be adjusted. In ECO3, the proxy assigned to a rare heat source is the pre-main heat source with the closest running costs. In ECO4, we propose that rare heat sources that are central heating systems are paired with a proxy which is also a central heating system, and vice versa.

5.10. These changes together will remove the need for dedicated proxy versions of each score (denoted by "*" in the ECO3 deemed scores matrix). They will also allow us to improve the automatic validation checks within the register.

Wall type

5.11. In ECO3, there are different scores for heating measures, depending on whether the property has solid or cavity walls. This was designed to account for the difference in savings based on the property's wall type.

5.12. However, in ECO4 we propose to remove the distinction between solid or cavity walls for heating measures. This is because a heating measure's PPS will take account of property's starting intermediate SAP band, and the calculation to determine the starting SAP band considers the wall type of the property.

Broken heating replacements and repairs

5.13. In their consultation¹⁸, BEIS propose to incentivise the repair of efficient broken heating systems with new uplifts that are based on the expected costs of repairing boilers and electric storage heaters (ESH) respectively. The new uplift is intended to enable the repair of efficient heating systems to take place in the absence of SAP improvements associated with heating repairs. SAP/RdSAP assessments don't consider whether a heating system is working or broken, and therefore repairs don't affect a premises' SAP rating.

5.14. BEIS also propose that the like-for-like replacement of broken efficient boilers and ESH will also receive uplifts to account for the absence of sufficient SAP improvements associated with, for example, replacing a broken condensing boiler with a new condensing boiler.

¹⁸ BEIS ECO4 consultation can be found here: <https://www.gov.uk/government/consultations/design-of-the-energy-company-obligation-eco4-2022-2026>

5.15. There are no PPS for efficient broken heating system replacements and repairs, instead there is a fixed score uplift based on the estimated cost of replacing the heating systems. These uplifts do not count towards the minimum requirement. As outlined in section **Error! Reference source not found.**, we propose these uplifts are notified as measures. Where inefficient broken heating systems are replaced with a more efficient system, a PPS will be awarded instead of an uplift as the SAP rating for the property would increase.

Heating controls

5.16. Throughout ECO, the heating control measure category has grown and the rules for combining heating controls have become more complex. We aim to simplify the rules for combining measures in this category in ECO4.

5.17. The standard heating control measure in ECO3 includes a timer, a room thermostat and thermostatic radiator valves (TRVs). This has led to complexity when claiming the score alongside other types of smart heating controls.

5.18. For example, the standard heating controls score cannot be claimed where a property has or is receiving a smart thermostat. If TRVs are fitted alongside a smart thermostat installation or if a property has a pre-existing smart thermostat, only the separate TRV (smart thermostat) score can be claimed.

5.19. In ECO4, we propose to replace the standard heating control measure type with a TRV measure and programmer & room thermostat measure. The TRV measure can be installed alongside a standard programmer and room thermostat or a smart thermostat.

5.20. We have also removed the 'smarththerm_noP&RT' score, which was used in ECO3 when a smart thermostat was installed in a property without an existing programmer and room thermostat. In ECO4, if a property without an existing programmer and room thermostat receives a smart thermostat, we propose both the 'smarththerm' and 'p&RT' scores can be claimed. This change reduces the number of score variations and ensures better consistency across the heating controls measures.

5.21. We have proposed the above change to simplify the rules for combining measures in this category. However, we would welcome suggestions on how the rules could be further simplified.

Methodology to develop heating measure scores

5.22. The methodology used to develop PPS for heating measures is described in full in the methodology document published as part of this consultation. For convenience, it is also summarised here.

5.23. The PPS for heating measures were developed by calculating the 'cost of heat' for each type of heating system, which was used to infer a dwelling's heat requirement from the starting SAP rating and floor area.

5.24. A dwelling in every floor area segment and starting SAP band was modelled with each pre-main heat source (see Table 1). The SAP rating formula was used to calculate the approximate heating cost (£/yr) of the dwelling.

5.25. The cost of heat (p/kWh) for the pre-main heat source was derived using the tariffs from SAP 2012 and the efficiency of the pre-main heat source. The heat requirement (kWh/yr) of the dwelling was then calculated using the heating cost and the cost of heat.

5.26. Following the same steps as above, the cost of heat for the post-main heating system was calculated. The dwelling's heat requirement and the post main heating systems' cost of heat was then used to calculate the new heating cost (£/yr).

5.27. The individual measure savings for the post-main heating system installed were derived by subtracting the new heating cost from the original heating cost.

5.28. The final step in the proposed methodology is the application of a correction factor to the individual measure saving. Our reasoning for the inclusion of a correction in PPS is described in chapter 3 of our scoring consultation part 1,¹⁹ as well as our approach to determining its value. We continue to analyse responses to this consultation.

5.29. To develop the draft PPS which form part of this consultation, we have used the same preliminary value for the correction factor as was determined for our first consultation

¹⁹ <https://www.ofgem.gov.uk/publications/energy-company-obligation-eco4-consultation-scoring-methodology-part-1>

(6.8%). The actual value of the correction factor will be recalculated once the final individual measures savings are available, subject to the outcome of these consultations.

Insulation measures

5.30. The partial project scores for insulation measures were derived by modelling a typical property archetype in each floor area segment with a range of fabric efficiency standards, designed to cover the full spectrum in the housing stock.

5.31. Each dwelling was modelled with and without the fabric improvement measure applied, allowing the measure's cost savings to be calculated. The savings were then averaged to give a single figure for each starting intermediate SAP band.

5.32. The above modelling was repeated using different heating systems, with the savings weighted by the heating system mix for homes in each intermediate SAP band. This is an important step as the heating system has an impact on the savings for fabric improvement measures and the heating system mix is substantially different in homes with high SAP ratings compared to low ones.

5.33. Adjustments were applied to smooth the results and account for discontinuities in the modelling. This process is described further in the methodology document published with this consultation.

5.34. Assumptions used for calculating the savings for fabric measures, eg the u-values before and after an improvement measure, were unchanged from those used to generate the ECO3 deemed scores.

Pre-main heat source

5.35. We propose retaining the pre-main heat source distinction for heating measures in ECO4. However, we believe the distinction is no longer needed for insulation measures.

5.36. For insulation measures, the PPS will take account of property's starting intermediate SAP band; and the calculation to determine the starting SAP band considers the heating system that is currently in the property.

5.37. As outlined above, the savings for insulation measures were derived using a weighted mix of heating systems for dwellings in each intermediate SAP band.

Solid wall insulation variants

5.38. We propose that in ECO4 partial project scores relating to internal, external and hybrid insulation measures are differentiated by pre-and post-installation u-values. This follows the same approach taken for ECO3.

5.39. However, we aim to streamline the number of variants. In ECO3, there are 26 combinations but only 10 are regularly notified.

5.40. Alongside the delivery numbers, we looked at building regulation requirements. Currently, walls should achieve a u-value of at least 0.30 W/m²K. However, in traditional buildings where a vapour open design might be required, or where the interior of the building is listed, or where there is restricted floor area, finishing u-values of 0.35 to 0.7 W/m²K might be more commonly achieved. Therefore, higher finishing u-values may still be required to account for these scenarios.

5.41. Installing less insulation and achieving higher finishing u-values may also be more appropriate in properties where thermal bridges are unavoidable and over-optimising the thermal performance would increase the risk of condensation and mould.

5.42. Considering delivery numbers, building regulations and installation best practice. In ECO4, we propose the following starting and finishing u-value combinations (Table 2).

Table 2: Starting and finishing u-values for solid wall insulation

Starting u-value	Finishing u-value			
2	0.6	0.35	0.3	0.25
1.7	0.6	0.55	0.3	0.23
1	0.6	0.45	0.3	
0.6	0.3	0.24		
0.45	0.21			

Park home insulation

5.43. In ECO3, park home insulation (PHI) is divided into three measures - PHI wall, PHI floor and PHI roof. This division was a result of responses to the ECO3 deemed scores

consultation²⁰. Some respondents felt splitting the deemed score into separate scores for the individual elements would result in greater uptake as installers specialise in individual components.

5.44. However, a park home insulation annex²¹ within PAS 2030:2019 has subsequently been introduced. This annex contains no sub-divisions and suggests all elements should be installed together. BEIS are also working on the development of an industry guide for the installation of PHI.

5.45. The treatment of the whole park home can ensure that the benefit gained from one measure is not detrimental to the integrity of another measure and that the structure of the park home will not suffer as a result.

5.46. To align with PAS 2030:2019 and industry guidance, we propose a combined PHI measure for ECO4.

5.47. PAS 2035 allows for a phased approach to installation through the medium-term improvement plan, where this is in line with the overall design and does not lead to thermal bridging or a higher risk of moisture problems. Whether a phased approach is appropriate for PHI should be considered for each project by an appropriately qualified retrofit professional following the processes set out in the PAS 2035.

5.48. Assumptions used to calculate the ECO4 savings for PHI, including the before and after u-values, are unchanged from ECO3. We propose maintaining the distinction between "single" and "double" park homes, based on a floor area of 36m² and 72m² respectively.

5.49. Park homes are likely to be within the smallest floor area segment²², but a "single PHI" score could be claimed for smaller park homes (36m²) and a "double PHI" score could be claimed for larger park homes (72m²). In line with our ECO3 policy, where the total floor area is different to the standard dimensions the score for the closest floor area should be selected.

²⁰ Ofgem ECO3 deemed scores decision: <https://www.ofgem.gov.uk/publications/eco3-deemed-scores-decision>

²¹ PAS 2030:2019 - annex B13

²² Total floor area range <73m²

6. New measures added for ECO4

Section summary

This section outlines the new measure types proposed for ECO4. We have added new measures to better reflect the PAS 2030:2019 and the whole-house approach. We propose creating partial project scores for the following measures: pitched roof insulation, hybrid wall insulation and district heating system connections.

Questions

Question 17: What are your views on the addition of partial project scores for pitched roof insulation, hybrid wall insulation and district heating system connection measures?

Question 18: Do you agree with the approach and assumptions used to derive the scores for the pitched roof insulation measure? If not, please provide alternative suggestions.

Question 19: Do you agree with the approach and assumptions used to derive the scores for the district heating system connection measure? If not, please provide alternative suggestions.

6.1. We have developed partial project scores (PPS) primarily based on the measure types delivered under ECO3. However, we have added new measures and updated certain measures to better reflect the PAS and the whole-house approach. This section outlines the new measure types proposed for ECO4.

Pitched roof insulation

6.2. Loft insulation is the application of insulation material between and overlaying the joists at the base of the loft space.

6.3. Pitched roof insulation (PRI) is the application of insulation at rafter level to the sloping ceiling of a roof. Pitched roofs can be upgraded by adding insulation between the existing rafters. Insulation can also be added either above or below the rafter zone. Pitched roof insulation can be applied in an uninhabited loft space, as well as a vaulted ceiling with no loft space.

6.4. In ECO3, pitched roof insulation is notified as a loft insulation measure but this notification approach may not be appropriate for technical monitoring, guarantees, and building control approval.

6.5. Loft insulation and PRI use different installation methods, the latter is challenging to apply correctly and requires building control approval. The complexity is reflected in PAS 2030:2019, where loft insulation and PRI have separate annexes²³ with differing competency requirements. PRI also has different technical monitoring requirements compared to loft insulation.

6.6. We propose creating a new pitched roof insulation measure type for ECO4. A PRI measure better aligns with the PAS annex and provides assurance that the appropriate technical monitoring, guarantees and building control requirements are met.

6.7. To calculate the savings associated with pitched roof insulation, the 'before' position assumed an average amount of existing insulation, approximately 25mm. The before u-value assumed was 1.0, being improved in to a u-value of 0.185 after the installation of PRI.

Hybrid wall insulation

6.8. Hybrid wall insulation (HWI) combines more than one type of wall insulation on a single dwelling.

6.9. A hybrid approach is most prevalent with external (EWI) and internal wall insulation (IWI) to ensure all external walls are insulated. For example, it may be used where IWI is required on the front façade and EWI is used on the rear, ensuring the junction between the two systems includes appropriate overlap to avoid thermal bridging.

6.10. In ECO3, HWI measures are notified as their separate EWI and IWI components and the measures table²⁴ references the relevant PAS 2030 annex for each type of insulation.

6.11. However, HWI has separate installation techniques, guarantees and technical monitoring requirements. If HWI is notified as a combination of other insulation measures, we do not have the assurance of the appropriate guarantees or monitoring.

²³ PAS 2030:2019 – loft insulation is annex B9 and pitched roof insulation is annex B10

²⁴ ECO3 Measures Table: <https://www.ofgem.gov.uk/publications/eco3-measures-table>

6.12. Furthermore, an annex for HWI is included in PAS 2030:2019²⁵. This annex covers the combination of external and internal wall insulation, regardless of whether the two systems meet or not. The IWI best practice guide²⁶, recently published by BEIS, also includes HWI as an option where less than 100% of IWI can be installed.

6.13. TrustMark allow combinations of insulation measures to be notified either as an HWI measure or as two separate measures, depending on how the solution is specified in the design. If HWI was introduced as an ECO measure, it could be notified to TrustMark as HWI to ensure the appropriate guarantees and technical monitoring were in place.

6.14. The introduction of an HWI measure in ECO4 would better align with the PAS 2030:2019 and would also provide clarity for suppliers and the supply chain on the requirements for HWI. The PPS for a HWI measure would be the same as the scores for IWI and EWI measures.

District heating system connection

6.15. In ECO3, there are three district heating system (DHS) measure types: new connection, heat meter, and combined heat and power (CHP) upgrade. The ECO3 legislation requires that DHS measures are scored using pre-installation and post-installation SAP assessments. DHS measures in ECO3 do not have deemed scores.

6.16. To align with the ECO4 project scoring methodology, we propose the creation of PPS for new DHS connections. SAP 2012 has the capability to model two types of tariff for DHS connections - non-CHP and CHP tariffs. The DHS scores are based on the methodology outlined in paragraph 5, using the non-CHP and CHP tariffs available in SAP.

6.17. The fuel costs used for this approach were taken directly from SAP 2012²⁷. DHS connections were modelled as having a cost of heat of 2.97p/kWh where CHP is used, or a cost of 4.24p/kWh for other heat generation types.

²⁵ PAS 2030:2019 - annex B7

²⁶ Retrofit internal wall insulation best practice guide can be found here:

<https://www.gov.uk/government/publications/retrofit-internal-wall-insulation-best-practice>

²⁷ Fuel prices can be found in the SAP 2012 document – table 12:

https://www.bre.co.uk/filelibrary/SAP/2012/SAP-2012_9-92.pdf

6.18. We propose to combine the savings associated with the installation of a heat meter with the new DHS connection measure. We do not believe there will be any circumstances where a property receives a new connection without a heat meter. It is a requirement for registered Heat Trust²⁸ participants to ensure that heat meters are installed to premises connected to a DHS²⁹, and we will continue to require DHS connections to be registered with Heat Trust (or equivalent).

6.19. Furthermore, the heat meter measure has never been claimed in ECO3 which suggests heat meters are not installed independently.

6.20. The DHS scores also assume that a programmer and room thermostat are installed. This contrasts with other heating measures, where savings from the installation of heating controls are not included and must be notified separately. We are forced to adopt a different approach for DHS connections due to the way they are handled in SAP. Savings from the installation of TRVs are not included in the DHS connections scores, and would be claimed separately.

²⁸ Information on Heat Trust can be found here: <https://heattrust.org/>

²⁹ This is a requirement under the Heat Network (Metering and Billing) Regulations 2014 No.3120 on the installation of Heat Meters. Found here: <https://www.legislation.gov.uk/uksi/2014/3120/made>

Appendices

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Appendix 1

Example of scoring a standard project within ECO4

We have developed an example to demonstrate the steps a standard ECO4 project will go through. We have outlined the chronological steps below.

As part of PAS 2035, a pre-retrofit RdSAP assessment will be carried out. This is used to inform the design of the retrofit project and the required measures. The home used in this example has a starting SAP rating of **25** and a premises total floor area of **80m²**, with a **gas fire with back boiler** as the current heating system.

Example home – pre-retrofit details	
Starting SAP rating	25
Starting intermediate SAP band	Low F
Floor area segment	73 – 98m ²
Minimum requirement	Band D

The pre-retrofit assessment identifies two measures to be installed in the premises to enable it to reach the minimum requirement of an improvement to a band D: solid wall insulation and the installation of a biomass boiler. The measures are installed in the order set out by the PAS retrofit design and the supplier notifies each measure individually to the ECO4 Register.

It is important to note the PPS scores for each measure in the associated PPS table is un-deflated. The PPS will be deflated by a fixed percentage before the PPS are awarded to suppliers. In this example, we have applied a 40% deflator to the PPS, which is the same deflator used whilst illustrating PPS in the first part of our consultation. The actual deflation rate to be used in the scheme will be set by BEIS, and is not available at this time.

Measure	Un-deflated PPS (£/yr)	Deflated PPS (£/yr)
IWI_solid_1.7_0.3	318.3	191.1
Biomass boiler	576.9*	346.1
Total interim PPS score	-	537.2

*PPS score if a gas fire with back boiler is the current heat source in the premises.

We will approve individual measures as they are notified, in a similar manner to approvals in the current scheme.

As set out in section 3 of this consultation, the finishing SAP band will either be determined by an updated SAP/RdSAP assessment or a calculated SAP rating. In this example, once both measures are installed, the premises moves from a low F starting SAP band to a low D finishing SAP band. Once all measures in the project have been notified, the project is given a final project notification.

In this example the minimum requirement has been met. The project will receive a full project score (FPS) of **1079.8**. The score is determined from the premises' starting and finishing intermediate SAP band, using the draft FPS table published alongside this consultation.

Once a project meeting the minimum requirement is approved, the FPS supersedes the PPS. Only the FPS will be counted towards the energy suppliers' obligation. If the project approval is later revoked (e.g. through a measure being rejected and the project no longer meeting the minimum requirement) then the PPS for all approved measures would again apply.

Appendix 2

A

Annual bill savings is the money that would be saved by a measure or project over a year in heating domestic premises to 21 degrees Celsius in the main living areas and 18 degrees Celsius in all other areas.

B

BEIS means the Department for Business, Energy and Industrial Strategy

BRE means the Building Research Establishment

C

A **Certificate of Lodgement** is required for measures to be approved as a qualifying action. TrustMark will issue a Certificate of Lodgement once the project retrofit coordinator has signed off the project and submits a lodgement.

A **correction factor** is a fixed percentage decrease of all partial project scores. A correction factor is implemented to avoid a higher saving being awarded to the installation of an individual measure than would be due when installed as part of a package of measures.

D

Deemed scores are pre-calculated scores that can be selected from a table based on the intermediate SAP band before and after the retrofit project, with consideration to the total floor area of the premises.

All partial project scores will be subject to a **deflator**, to maintain the incentive on industry to complete the confirmed projects and reach the minimum requirement for each premises. The deflator is in addition to the correction factor

Dwelling is a structure being used as a home.

E

Eligible premises is a domestic premises which meets ECO's eligibility criteria.

F

Final or **finishing intermediate SAP band** is the intermediate SAP band of a premises once all energy efficiency measures in a project have been installed.

Full SAP band is the band determined by the SAP rating, a numerical value between 1 and 100 based on calculated energy costs for the premises. The energy efficiency of a domestic premises is expressed by assigning it a band from A to G, as illustrated in a full SAP assessment.

Full project scores are proposed to be awarded in respect of packages of measures installed in eligible premises. Full project scores would be based on the difference in expected annual energy costs between the premises pre-retrofit starting intermediate SAP band and its post-retrofit finishing intermediate SAP band.

We propose to divide eligible premises into four **floor area segments** when awarding full project scores. We have produced a set of full project scores for each segment.

I

Innovation measure is a product which we consider demonstrates a moderate or significant improvement on other products within the same measure type. We will set out an application process for products to be recognised as innovation measures in subsequent consultations.

An **intermediate SAP band** is the division of a full SAP band into 'low' and 'high' sub-bands based on the full SAP band's midpoint.

M

Measure types are categories of ECO-eligible energy efficiency measure, each of which will have distinct partial project scores.

A **measure** is a qualifying action, including adjoining installations.

The **minimum requirement** is a legislative requirement proposed by BEIS, where the SAP band improvement achieved by premises treated under ECO4 must reach a certain threshold. It is proposed that band G and F premises should be improved to at least a band D, and band E and D premises should be improved to at least a band C.

P

A **partial project score (PPS)** is an interim score that is awarded as each measure within a project is notified. Partial project scores represent a proportion of the full bill saving improvement of the measure.

PAS means Publicly Available Specification

Policy deflator (see deflator)

Pre-installation SAP assessment is a SAP assessment carried out at the start of a project and before the installation of energy efficiency measures.

Q

A **qualifying action** means a heating qualifying action (HHCRO).

R

A **rejected measure** is an individual measure that does not comply with scheme requirements.

S

SAP rating a numerical value between 1 and 100 based on calculated energy costs for the premises. The SAP rating is expressed on a scale of 1 to 100, the higher the number the lower the running costs.

A **score** is the contribution that a measure makes towards a supplier's total obligation in pounds sterling (£). The score is calculated using the annual fuel bill saving and the relevant uplift, where applicable.

The **Standard Assessment Procedure (SAP)** is a methodology developed by the Building Research Establishment (BRE) on behalf of the Government, to calculate the energy and environmental performance of dwellings. References to SAP in this document should be taken to include RdSAP.

Starting intermediate SAP band is the intermediate SAP band of a premises prior to the installation of energy efficiency measures under ECO4.

T

TrustMark means the scheme of that name operated by TrustMark (2005) Limited, a company registered in England and Wales with company number 05480144.

U

Un-deflated in relation to scores, is the partial project score without the policy deflator applied.

Uplifts are applied to scores where required by legislation and mean that the score for a measure is higher than would be the case were it based on bill savings alone.

V

Valid EPC means an EPC which has been lodged and is less than ten years old and has been produced in accordance with the SAP/RdSAP methodology.

W

Whole-house approach is a concept which considers the house as an energy system with interdependent parts, each of which affects the performance of the entire system.

Appendix 3 – Privacy notice on consultations

Personal data

The following explains your rights and gives you the information you are entitled to under the General Data Protection Regulation (GDPR).

Note that this section only refers to your personal data (your name address and anything that could be used to identify you personally) not the content of your response to the consultation.

1. The identity of the controller and contact details of our Data Protection Officer

The Gas and Electricity Markets Authority is the controller, (for ease of reference, "Ofgem"). The Data Protection Officer can be contacted at dpo@ofgem.gov.uk

2. Why we are collecting your personal data

Your personal data is being collected as an essential part of the consultation process, so that we can contact you regarding your response and for statistical purposes. We may also use it to contact you about related matters.

3. Our legal basis for processing your personal data

As a public authority, the GDPR makes provision for Ofgem to process personal data as necessary for the effective performance of a task carried out in the public interest. i.e. a consultation.

3. With whom we will be sharing your personal data

We will not share your personal data with any organisations outside of Ofgem.

4. For how long we will keep your personal data, or criteria used to determine the retention period.

Your personal data will be held for until 6 months past the beginning of the scheme.

5. Your rights

The data we are collecting is your personal data, and you have considerable say over what happens to it. You have the right to:

- know how we use your personal data
- access your personal data
- have personal data corrected if it is inaccurate or incomplete
- ask us to delete personal data when we no longer need it
- ask us to restrict how we process your data
- get your data from us and re-use it across other services

- object to certain ways we use your data
- be safeguarded against risks where decisions based on your data are taken entirely automatically
- tell us if we can share your information with 3rd parties
- tell us your preferred frequency, content and format of our communications with you
- to lodge a complaint with the independent Information Commissioner (ICO) if you think we are not handling your data fairly or in accordance with the law. You can contact the ICO at <https://ico.org.uk/>, or telephone 0303 123 1113.

6. Your personal data will not be sent overseas.

7. Your personal data will not be used for any automated decision making.

8. Your personal data will be stored in a secure government IT system.

9. More information For more information on how Ofgem processes your data, click on the link to our "[Ofgem privacy promise](#)".