

Energy Company Obligation (ECO) Deemed Scores Consultation Questions

Background

The questions below relate to the ECO2 consultation on deemed scores which can be found on our website :

<https://www.ofgem.gov.uk/publications-and-updates/eco2-consultation-deemed-scores>

Notes For Completion

Please complete all relevant sections of the document by selecting an answer for the question and then providing reasons/evidence for your response in the box provided. The questionnaire should be completed in typeface and returned via email to eco.consultation@ofgem.gov.uk by **close of business on 8 July 2016**.

1. Respondent Details

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2. Methodology

Q1. Do you agree with our selection of the key variables to use as the main inputs for calculating the deemed scores?

- ☐ Strongly Agree
- ☐ Agree
- ☐ Neither Agree Nor Disagree
- ☐ Disagree
- ☒ Strongly Disagree
- ☐ Don't Know

If not, please clarify which aspect you do not agree with and suggest an alternative, with reasoning.

We fundamentally disagree with the assertion that these variables explain most of the variation in savings across different measures, simply because our evidence shows that it is very difficult to ascertain the strength (and, critically, a causal effect) of any relationship between these variables and dwelling energy consumption where measured (as opposed to modelled) energy data is analysed. This belief in modelling means current policy making vastly over-emphasises the robustness of how well modelled energy savings are reflected in the real world. In reality, there are only a limited number of factors for which there is conclusive evidence of a strong and causal relationship exists with energy consumption. Floor area (as in all habitable floors, not the dwelling footprint) is the strongest of these, with studies of annual energy data finding the strength of the correlation (r^2) typically being 0.6-0.7. Stronger correlations found for any other factors should therefore be treated with some suspicion as regards the quality of the underlying data and any assumptions or proxies used.

As an example of how a common assumption has been found unproven in practice, the first city-scale study of actual dwelling energy consumption data (Baker, 2007; Baker 2008) found no evidence of property type being a significant factor in explaining the variation in dwelling energy consumption. A more extended critique of modelling, and particularly how the use of SAP and rdSAP further disadvantage rural Scottish households, is given in Maiden et al., 2016.

References

Baker, K.J., & Rylatt, M., 2008. Improving the prediction of UK domestic energy demand using annual consumption data. *Applied Energy*, Volume 85, Issue 6, June 2008, pages 475-482.

Baker, K.J., 2007. Sustainable Cities: Determining indicators of Domestic Energy Consumption. PhD thesis. Institute of Energy and Sustainable Development (IESD), De Montfort University, Leicester, UK.

Maiden, T., Baker, K.J., & Faulk, A., 2016. Taking the Temperature: Review of Energy Efficiency and Fuel Poverty Programmes in Scotland. Report for Citizens Advice Scotland by CAG Consultants, Glasgow Caledonian University, and the Energy Agency. Available at: http://www.cas.org.uk/system/files/publications/taking_the_temperature_-_a_review_of_energy_efficiency_and_fuel_poverty_schemes_in_scotland.pdf

3. Property Archetypes

Q2. Do you agree with the method used in developing typical property archetypes in order to remove the need for measuring property dimensions?

- ☐ Strongly Agree
- ☐ Agree
- ☐ Neither Agree Nor Disagree
- ☐ Disagree
- ☒ Strongly Disagree
- ☐ Don't Know

If not, please clarify which aspect you do not agree with and suggest an alternative, with reasoning.

See Q2. This would abstract the value of the results to the point of being near-fictional. Furthermore, if resources cuts have to be made, we would argue that the time and resources saved would be minimal and it has long been possible to calculate robust (enough) figures for individual dwelling floor areas by extracting dwelling perimeter data from GIS coverages and using this and limited other data (i.e. the number of floors, which can be gathered from online maps or drive-by surveys). Obviously this is more difficult for flats, but there are also other difficulties with surveying multiple occupancy buildings, and arguably they require different approaches to leveraging greater energy efficiency and demand reduction.

4. Primary Heating Sources

Q3. Do you agree with the approach to accounting for all primary heating sources present in the housing stock?

- ☐ Strongly Agree
- ☐ Agree
- ☐ Neither Agree Nor Disagree
- ☐ Disagree
- ☒ Strongly Disagree
- ☐ Don't Know

If not, please explain your reasoning and evidence your preferred approach.

Again, a further level of abstraction that is neither needed nor helpful in reconciling the predicted and actual benefits of measures delivered, and dwelling energy consumption in general.

Q4. Do you agree that we have appropriately accounted for heating systems present in the housing stock either as an input for the deemed scores or in Table 1?

- ☐ Strongly Agree
- ☐ Agree
- ☐ Neither Agree Nor Disagree
- ☐ Disagree
- ☒ Strongly Disagree
- ☐ Don't Know

If not, please clarify which additional heating systems you believe need to be accounted for.

The first, of many, examples is the treatment of gas and oil boilers as 83% efficient, when there are known variations between England and Scotland, at least partly due to the difference in the time the Building Standards / Regulations were amended to promote condensing boilers.

Secondly, "wood central heating" and "wood room heating" (i.e. biomass) should under no circumstance ever be considered as having the same carbon savings as "solid". This is adding greater error to the results of emissions calculations for which there is already a very high level of uncertainty.

All other criticisms stem from this high level of abstraction and the high level of danger of bringing further, deeply flawed, assumptions into common practice. This approach to policy making is fundamentally unable to address the complexity of leveraging real emissions reductions from the built environment.

5. Measure Types

Q5. Do you agree that the deemed scores include all main measure types?

- ☐ Strongly Agree
- ☒ Agree
- ☐ Neither Agree Nor Disagree
- ☐ Disagree
- ☐ Strongly Disagree
- ☐ Don't Know

If not, please clarify which additional measure type you expect will be installed.

With the caveat that, due to the differences in the housing stock, a significantly greater proportion of 'non-main' measures will need to be installed in Scottish housing.

Q6. Do you agree with our proposals for differentiating within measure types?

- ☐ Strongly Agree
- ☐ Agree
- ☐ Neither Agree Nor Disagree
- ☒ Disagree
- ☐ Strongly Disagree
- ☐ Don't Know

If not, please clarify where alternative differentiation should be applied.

This is insufficient and needs much greater granularity across the board, where sufficient evidence exists. For example, the type (as in material used) of insulation used will affect both the dwelling operational emissions and its lifecycle emissions. When the latter is considered, along with the downstream benefits of promoting alternative materials (e.g. rural economic regeneration) the marginal energy efficiency benefits of promoting highly processed materials (e.g. oil/plastic-based insulation, mineral wool) become highly questionable. See www.neesonline.org for examples of natural and sustainable materials approved by an independent panel of European experts.

Q7. Are there any measure types where you think that further differentiation is warranted? If so, please clarify which measure type could benefit from further differentiation and suggest an approach.

The short answer would be 'almost all of them', but there is a fundamental problem that the baseline data (the quality of which we would anyway dispute), uses the results of the English House Condition Survey as a baseline, and the whole approach so does not differentiate between England and Scotland.

Q8. Are there any areas where you could benefit from further guidance in using deemed scores?

No. We appreciate the benefits of simplification in terms of reducing time and resource needs, providing of course these are then recycled into resources for the much more important task of funding support workers to deliver more measures on the ground. However, from both a technical and welfare point of view we do not view the method as a valid one.

6. Scores

Q9. Do you agree with the deemed scores produced?

- ☐ Strongly Agree
- ☐ Agree
- ☐ Neither Agree Nor Disagree
- ☐ Disagree
- ☒ Strongly Disagree
- ☐ Don't Know

If not, please clarify which particular score(s) that you believe do not accurately reflect the savings for a measure.

See previous.

Q10. Do you agree that it would be useful to also provide the deemed scores as lifetime savings (i.e. after applying all relevant multiplication factors), to make the relative value of each measure easier to identify?

- ☐ Strongly Agree
- ☐ Agree
- ☒ Neither Agree Nor Disagree
- ☐ Disagree
- ☐ Strongly Disagree
- ☐ Don't Know

7. Percentage of property treated

Q11. Do you agree with the proposal to use 'percentage of property treated' to identify whether 100% of a score should be claimed?

- ☐ Strongly Agree
- ☐ Agree
- ☐ Neither Agree Nor Disagree
- ☒ Disagree
- ☐ Strongly Disagree
- ☐ Don't Know

If not, please explain your reasoning.

Again, this is too simplistic, particularly the use of a 50-50 split where more realistic adjustments could be made according to the measure and basic dwelling details.

8. New Scores

Q12. Do you agree with our proposed approach for applying for a new score from April 2017?

- ☐ Strongly Agree
- ☐ Agree
- ☐ Neither Agree Nor Disagree
- ☐ Disagree
- ☒ Strongly Disagree
- ☐ Don't Know

If not, please explain your reasoning, which specific parts of the process you do not agree with and inform us of your preferred approach.

See previous. We question the validity of the whole approach.

Q13. Do you agree that we should determine whether or not to accept an application, and specifically what is a 'significant' improvement in score, on a case-by-case basis?

- ☒ Strongly Agree
- ☐ Agree
- ☐ Neither Agree Nor Disagree
- ☐ Disagree
- ☐ Strongly Disagree
- ☐ Don't Know

9. Score Monitoring

Q14. Do you agree that a DEA is not required to check inputs used when identifying a deemed score for a measure?

- ☐ Strongly Agree
- ☐ Agree
- ☐ Neither Agree Nor Disagree
- ☐ Disagree
- ☒ Strongly Disagree
- ☐ Don't Know

If not, please clarify why you do not agree and provide an alternative approach with your reasoning.

The evidence for this is in the reams of complaints about installations funded from energy efficiency schemes. DEAs have the experience to spot non-obvious flaws in installations that may be affecting performance (as opposed to the more obvious classics such as 'oil tank installed in middle of lawn') and, we would argue, also serve as a deterrent to less scrupulous installers and a benefit to customer confidence in the quality of the installation.