

# 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](mailto:eco.consultation@ofgem.gov.uk) by **close of business on 8 July 2016**.

## 1. Respondent Details

Organisation Name:	Elmhurst Energy
Completed By:	Stuart Fairlie – Head of Technical
Contact Details:	stuart.fairlie@elmhurstenergy.co.uk

## 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 at Elmhurst object to the key variables on the following grounds:

The defined 'key variables' are so high level that the 'results' obtained are nowhere near accurate. If this is used for deemed scores then there is no point in claiming that this policy is delivering carbon or cost savings worth 'x' amount, as it is simply not true. The methodology is far too simplistic; it doesn't cater for ages of properties and in our opinion will simply drive the 'industry' to install measures in the smallest properties that are already currently energy efficient. This is completely counter-productive to the fact that this policy claims it will help families out of fuel poverty. Larger, energy inefficient homes will not be insulated as there are cost savings of installing in smaller than average houses, that already have energy efficient measures.

Fundamentally the new proposal has gone far too far, and is now not appropriate to claim the carbon or monetary savings are made to families in the UK. This is now a tick box approach to spend some money from utility companies – with no relevance to the homes it is trying to make more energy efficient.

To group all properties in the UK together based on simply house style, number of bedrooms and fuel type alone is averages of averages of averages. So a 100m<sup>2</sup> semi detached property built in 1900 would obtain the same carbon and cost savings for 'a new boiler' as a 100m<sup>2</sup> semi detached built in 2012! This can't be true, and simply does not stack up.

Point 2.5 suggests that other variables such as 'property age' would only provide 'limited' increase in scoring accuracy, whilst increasing the complexity of selection and risk error. This statement is factually incorrect in the above example a 1900 semi could have a SAP rating of F or G and easily have fuel bill or over £2,000. The relatively modern home would have a SAP rating of B and fuel bill of under £1,000. Please explain to us how this is only going to add a 'limited' increase in accuracy? A home owner would significantly benefit from ECO measures in the old, leaky inefficient home, but deemed scores will give nobody in the industry any reason to go after the home which needs the help.

Elmhurst believes that the policy would no longer be about families and making their lives better. It is simply a tick box exercise which can't ever claim with any level of accuracy what difference it has made to these people's lives. It would of course deliver installs, but nobody could ever say to the family what difference they have made....this is a major concern.

As we know we all would like to raise people out of fuel poverty, have warmer homes, and as a country use less energy. If adopted, the deemed scores, will tick boxes about seeing to be doing something about this, but actually not answer any questions from Government through to the home owners of

what actual difference and improvements it has made. In our opinion this is a retrograde step back to the dark ages and as long as we install stuff we must be helping is not an argument in the 21<sup>st</sup> Century.

Deemed scoring is fundamentally flawed. If a homeowner has loft insulation installed, then followed by wall insulation, then a boiler. NONE of the calculations take effect of the improvement(s) to the property. The same carbon and money can be claimed. This is wrong.

This policy should aim to show people that their home is getting better. In fact Minimum Energy Efficiency Standards dictate that a rental property can't be let, if it is F or G rated – nobody involved in ECO can tell the landlord or tenant if what they have installed will mean they can legally rent the property?

Under Affordable Warmth, one of the criteria is in fact if the property has an energy rating (EPC) of F or G. Under the proposed deemed scores there doesn't appear to be a requirement for EPCs, therefore this can't be ascertained.

Ofgem quote on their website "Our principal objective when carrying out our functions is to protect the interests of existing and future electricity and gas consumers"

"We do this in a variety of ways including:

- promoting value for money
- promoting security of supply and sustainability, for present and future generations of consumers, domestic and industrial users
- the supervision and development of markets and competition
- regulation and the delivery of government schemes."

This policy direction is not geared towards 'consumers' it is only intent on delivery with least resistance a scheme. We think it needs to put the consumer at the heart of it.

A policy whose intent and we quote: "The Energy Company Obligation (ECO) is a government energy efficiency scheme in Great Britain to help reduce carbon emissions and tackle fuel poverty." With the proposed new deemed scores methodology, nobody will be able to tell how much carbon emission it has saved and also how much money it has saved people, to drag them out of fuel poverty.

Elmhurst propose that if deemed scores are adopted because they make installations 'easier' to install, then there must be a measuring tool enacted for the benefit of the dwellings and occupants. Deemed scores can be used as the currency of ECO; but the EPC must be created at the end. Not to interrupt the install process or trading process, but to leave the truthful position of the dwelling at the end. This way the installers and the process can trade on what they need to get funding, but the homeowners are left with a result showing how much warmer their home is, and importantly the other measures that could be taken, that would reduce energy and carbon.

In April this year the National Audit Office (NAO) produced a report on Green Deal and ECO. It recommended that:

"In designing and implementing energy efficiency policies the Department should:

a) be clear about the purpose of schemes from the outset, setting realistic priorities and clear success criteria, developed with stakeholders, including other government departments. If the Department's schemes are ambitious and support multiple desired outcomes, it should be clear what constitutes success for each outcome. The Department needs to develop goals based on evidence. It should also plan what to do in the event of underperformance, such as reducing the scope of the programme while minimising the impact on outcomes;

b) understand and plan for how the desired outcomes will be delivered in practice. For energy efficiency schemes this means, in particular, testing designs with consumers to ensure policies have the desired impact on behaviours, and being realistic about the motivations of energy companies in fulfilling their obligations;

c) ensure it has sufficient information to track progress of the schemes towards each of its desired outcomes. It needs to regularly validate its assumption that market forces ensure cost-effectiveness. It should also collect sufficient information to evaluate the costs and benefits over time, and establish interim measures where evidence of effectiveness is delayed; and

d) consider the long-term impact of its decisions on the overall progress towards increasing household energy efficiency. This means establishing a clearer long-term vision for household energy efficiency, based on engagement with the main stakeholders involved in achieving it, which gives greater clarity over how one scheme will transition into the next."

In fact only this week, the Annual Fuel Poverty Statistics Report 2016 was released. Indicating a headline that there has been an increase in households in fuel poverty from 2.35m to 2.38m. It constantly refers to the fact "that band E, F and G rated properties have a much higher likelihood of being in fuel poverty". It sets as a Government Policy that "there is a target to ensure that as many fuel poor homes as reasonably practicable achieve a minimum energy efficiency rating of a band C by 2030." The Strategy even has interim milestones to lift as many fuel poor homes to band E by 2020, and Band D by 2025" "alongside a strategic approach to developing policy to make progress towards these targets". So the major policy ECO which from 2017 will be aiming more and more towards getting people out of fuel poverty will remove the requirement to rate properties on this scale (i.e. remove the EPC)? This seems out of kilter. The E,F and G rated properties need to be targeted ahead of the better more energy efficient stock, deemed scores will not achieve this aim on its own. The Policy needs to spend the limited funds on the poorest properties, and use the measuring tape that is the EPC to get to the heart of the problem.

Elmhurst believe that the proposal to move solely towards 'deemed scoring' removing any national methodology for energy rating people's homes (RdSAP) – is a backwards step, removing any meaningful measurement, removing accuracy and removing the consumer from the Policy Goals. The policy will be set up for 'volume', and some vague carbon and monetary savings and will not deliver on any of the highlighted points above from the NAO.

### 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.

The property archetypes are also significantly flawed.

3.2 claims that some measurements have been found to be prone to error. So therefore to simplify this would reduce the risk. This strikes to us that the current method is correct, but that in some instances where it is wrong that it is OK to throw it away. The new method will also be applied incorrectly in some instances, so if you remove 'this new deemed scores' we should just give every measure the same value and do away with any form of measurement....as any good management theory tells us. If you can't measure it, then you can't manage it. This looks very much like throwing the baby out of the bathwater approach to policy.

3.6 "For Park homes use the carbon and cost scoring for detached bungalows." This is clearly nowhere near accurate, as building regulations and standards are 'totally' different for these two quite clearly different property types.

The number of Bedrooms, this will clearly be the obvious area for fraudulently activity. A study or a box room, walk in wardrobe etc, will always be a bedroom. Unregulated rooms in the roof will become bedrooms. The document states: "It meets the SAP definition of a habitable room"; who is going to know this, as the people involved will not be trained assessors. The habitable room definition is a complex area for trained for qualified assessors, which involves access issues to the room, the style of the room and the activities within the room.

The analysis that flats can all be combined to be the same, and that a top floor flat is indicative of all flats. That it doesn't matter how many heat loss walls there are, and if the corridor is heated or not; these are all major influences on the heat loss area of these flats, and to suggest that a top floor flat will be the 'average' again shows that the aim to 'simplify' deemed scores has gone far too far, how difficult is to ascertain if a flat is top middle or bottom and the very least? This particular analysis is in our opinion highly misleading and defies the laws of physics.

It is claimed that the English Housing Survey is the data that the BRE have used. The DCLG website claims that the properties inspected for the English House survey: "The physical survey involves a physical inspection by qualified surveyors of a subsample of around 6,200 properties per year."

What standards are applied? What rules are they following? Are they RdSAP surveys completed by DEAs? If not how can the data be used to suggest that 3 bed houses have a floor area of 'x' and then attempt to align it to RdSAP/SAP. We have over 17million RdSAP based EPCs with the full RdSAP data, which should be used for this. The data would then align to RdSAP not using 'apples' and 'pears'.

Finally it is rather ironic that the measurement of properties "is difficult and prone to error", when this is actually a very small issue in terms of QA on the millions of EPCs created. Insulation companies will still continue to estimate areas, as this is how they 'cost up' a job, and will walk away from the large 3 bed roomed houses of the 1940s in favour of the small 1980s 3 bed roomed homes.

#### 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.

Heating systems are the most complex areas of any energy assessment in domestic dwellings and deemed scores has again used 'averages of averages' to obtain some very basic principles. The warnings and caveats in the BRE documents that the actual savings are 'significantly' affected by insulation values around the property, which deemed scores has also averaged out, make this values in our opinion worthless in terms of any accuracy.

Firstly 4.4 is the single most complex area for trained, qualified and accredited experts. The fact anyone will be able to understand the 'main form of heating' in a dwelling is categorically going to fail. The 'deemed scoring persons' will not know the conventions and apply them consistency. How they will apply the complex and correct RdSAP conventions is clearly not going to occur.

Will these people be trained? By who? Who do they call if they are in doubt? The paper says 4.6 they contact 'us' – who is this BRE or Ofgem? In our opinion this broad brush approach is not accurate or indeed the way forward, if in doubt the answer will always be 'the one with the most carbon please.'

The logic that the default is based on a Standard boiler with hot water cylinder seems to avoid the fact that most installs have been combination boilers, which do not have cylinders and thereby less heat losses. The default assumption will give incorrect over estimates on carbon and cost. The accuracy here is extremely questionable.

Houses with multi (or single) point water heaters have no answer for deemed scores. They will all be counted as if they have a cylinder.

The paper in section 2 states many times "an average insulation level is used and as a result the saving calculated for a heating measure is unlikely to match the saving for an individual dwelling" So we do not know how much a measure saves a home owner from this policy. Surely this is wrong.

The heating system must be more reflective of the reality and also the ages of heating system need to be accounted for. Old floor standing boilers are much less inefficient than modern wall hanging boilers; however zero account will be made of these in terms of ECO.

**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.

Answer as above.

It is illogical to suggest that if you have Heat Pumps, the carbon/cost will use Mains Gas. So a 300% efficient system will be modeled using an 83% gas boiler. Major energy efficiency technology is simply ignored, Biomass is ignored, PV is ignored, Solar Panels are ignored.

It is illogical for Biomass to be treated the same as Solid Fuel – the same amount of carbon savings when the property is already using a low carbon resource.

The document states that as 'community heating' is difficult, that industry should use RdSAP/SAP. Surely we should allow RdSAP/SAP always, especially for these particular 'workarounds'.

## 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.

It claims that not all the measures are catered for, but we couldn't see a simple list with the measures that were in and those that were out.

We couldn't see a differentiation on 'virgin loft' or 'top up loft', which if not is madness. This effectively gives the same credit to 'top up' as to having zero insulation in the first place. Installers will look for 'top up' as it costs less to install, and again those families in most need, will be left behind.

Again if RdSAP or SAP can be used as an alternative then this statement is not required.



**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.

Only 2 are actually broken down:

Cavity Wall is just Thermal conductivity 0.04 or 0.033 (blown fibre v beads) of the improvement measure. So by taking a relatively modern wall built to building regulations, which means that the internal block is lightweight and meets the elemental u-value required by the building regulations at the time i.e. it is energy efficient, an installer can put in wall insulation and claim the same carbon and cost savings as a 1940s cavity wall which is clearly inefficient – again this absolutely makes no sense what so ever. Why would the policy claim that it had made a difference to fuel poverty, if all the 'post 1983' walls were filled with insulation, when they can leave all the older properties that desperately need insulating alone?

Solid Wall is broken from a base position of 2.4 through to 0.45 – with improvement from 0.6 to 0.14 We like the fact that solid wall can be 'looked up' via wall type and also the age. But some of the averages are very wide e.g. a cavity wall in from 1900 until 1975. However this approach is required for all of the other measures where averages of averages, just do not add up.

None of the other measures appear to have any consideration to anything other than the extremely broad brush averages. Also the fact that the measures can all be claimed independently of each other is again simplification gone mad. The measures can all be done on the same day, and the same amount of carbon/cost can be claimed even though law of diminishing returns shows that the impact gets less and less.

The proposed regime does not allow for any 'product differentiation', it stifles innovation. There is no commercial advantage for high performing materials. Deemed scoring will start the drive to the bottom for standards. The cheapest, worst performing materials and products will be used. Ultimately the homeowners will be the biggest losers.

**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.

All of the measures need more pre-questions, to ascertain age of the property and energy differentials

applied. Especially the big three measures where most of the installs have occurred on previous rounds of ECO

- Cavity Wall
- Loft Insulation
- Boilers

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

N/A

## 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.

As mentioned previously the deemed scores are 'averages of averages of averages'. Real RdSAP data should have been used not the EHS data.

Very simply Elmhurst believe that users should have the ability to use RdSAP or SAP as an alternative to the deemed scores.

'The weighted average factor' -It is not clear whether the spreadsheets contain the CO2 or that the factor still needs to be applied?

**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

Yes. All the values need to be produced in the spreadsheets, so that they are fully transparent, thereby workings out can be seen by those that need to audit the trail. But the values currently indicated are extremely misleading in our opinion.

## 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.

Deemed scores is too simplistic.

So a typical solid wall mid terrace house with a new(ish) cavity wall extension at the rear. The installer follows the guidance wanting to install solid wall insulation. They claim that it is 50%, but the extension is actually more surface area, than the main house – how will this % be policed and effectively and consistently be applied.

Another installer goes to the same property to provide the cavity wall insulation and they take ZERO account of the other (solid) walls now being insulated and appropriately guesstimate the % figure for the cavity wall insulation at the rear. This whole area is open to fraud.

We agree that a % should be allowed, but the way deemed scoring works with it tiny number of variants, make this very unreliable and wildly incorrect.

## 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.

We do not know why this entire section is so complicated. If the measure(s) can be dealt with in RdSAP or SAP then this should be used. This process is written and is slow and bureaucratic. We understand this may be required for 'brand new widgets' that are not dealt with in RdSAP (or SAP) – but give Industry the ability to use the proven industry standard i.e. RdSAP/SAP to work out carbon or cost savings for these.

By all means have a procedure to create 'new measures', but do not restrict the Industry who can very easily create carbon and cost savings using already proven RdSAP and ECO calculation tools – which we may add have all been created and approved by the Industry at cost.

**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.

Elmhurst and the wider Industry and Government recognise that RdSAP/SAP is the proven methodology to use in a plethora of policies to ascertain the energy efficiency of dwellings. It has been around for over 20 years and has been improved beyond recognition. Indeed there are over 17million EPC created for house sales and lettings alone.

Deemed scores if they go ahead using averages or averages is one thing. If this satisfies power companies and installers to get installing measures then this is one thing. An EPC should be created at the end of the process, not to work out carbon or cost to trade with utility companies, but to tell the truth to the homeowner and to also drive that family towards other energy efficiency improvements that they can possible make.

Why would a company who only install one measure, advocate to a home owner what else they could do to help keep their home warm. And even if they did they would have no measure or numbers to show them. The EPC is fit for purpose, if taken out of the carbon/cost justification for ECO trading, however as a part of the process to help drive out fuel poverty, it has to stay. There can be no justification not to have a DEA create this document at the end of the process, to ensure we as individual families and as a nation can use less energy.

RdSAP and the EPC should be an alternative route for any ECO measure, especially for complex and unusual dwellings as well as supporting the adoption of innovative solutions and the industry that wants to better minimum standards.

The EPC will provide 3<sup>rd</sup> party oversight and QA, without getting in the way as it will not be on the critical path.

The EPC Industry is aware of some issues with ECO based EPCs and are working with Government and other Industry partners, for a more flexible dynamic auditing regime – which is called 'Smart Auditing'. The QA framework was set up initially for house sales and rental market and wasn't aware of the fraudulent activity associated in this market area. However we as an Industry are currently working to solve this to ensure that unscrupulous individuals are not bending the rules.

The focus of the ECO Policy should not be on 'Volume' but must focus on 'Quality'. The continuation of the EPC, but at the right stage, adds quality to the policy.

The DEA can provide oversight and third party objectiveness to help consumers make good decisions. In fact the policy should use the data the EPC creates to drive to the next energy efficient measure that could be installed. After all the processes with deemed scores appears to be all about the 'process' and pays absolutely no attention to the families who occupy now or future occupants, this has to be wrong.

The family and the home should be first and the process should fit to help them.

EES want more ECO measures to be installed:

- We want it to be less burdensome on the process - BUT
- We want the 'home' and the persons in it to be the most important part of the process.
- Is the home warmer, will I have a smaller fuel bill, how much CO2 have I saved?
- If deemed scores do go ahead, then surely homeowners deserve to know the improvement that has been made to their home (which an EPC displays)
- They should be made known of other measures that they could undertake and what difference that these would make.