

# ECO4 scoring methodology: part 1

## British Gas response

### Exec Summary

We applaud Ofgem for meeting the challenging brief set by BEIS in a relatively short space of time.

However, we strongly believe that having two scoring systems is unnecessarily complex and will add administrative burden on the supply chain, energy suppliers and Ofgem.

We believe it would be better to use the partial project scores (we prefer the term: measure scores) without deflators when the MR is met or exempt.

In our simplified version, the scoring system would comprise of:

- **PPS measure scores** based on floor area and starting SAP band.
- **Global measure scores.** This is for broken efficient heating and 'hard to treat'. BEIS call these 'uplifts' but they are additive and absolute. They should just be called 'scores'. We call these scores global as they apply across all floor areas and bands (subject to BEIS eligibility).
- **Innovation uplift.** Applies to the innovation PPS only.
- **Global uplifts** such as Scotland & Wales non gas uplift, a percentage uplift applied to the package.

For projects in progress we would use the PPS system as proposed by Ofgem, which includes deflated global measure scores and innovation uplifts but not the global uplifts.

On completion of project, one of the following applies\*:

Score:	Measure scores without any deflation; uplifts if applicable	Measure scores w or w/o deflation; uplifts if applicable	Measure scores w or w/o deflation; uplifts if applicable
Eligible projects	<ul style="list-style-type: none"> <li>• Project complete in time frame and MR met</li> <li>• Project complete in time frame and MR not met but valid exemption</li> <li>• Project complete and MR met but time limit fail (measures completed)</li> </ul>	<ul style="list-style-type: none"> <li>• In-fill</li> <li>• Project complete and MR met but time limit fail (late measures)</li> </ul>	<ul style="list-style-type: none"> <li>• Everything else</li> </ul>
Capped as a 'partial project':	Not capped	Not capped	Capped on completion

\*We don't believe that deflators are needed if there is a cap on 'non MR' or that in-fill should be deflated. We also do not believe that imposing a 3 month time limit is helpful. We responded to BEIS accordingly on all these points and more. However we include all three in the table to show that PPS can work cleanly across all BEIS policy requirements.

We support the use of **deemed SAP points** alongside the accompanying measure scores, which is very compelling for its simplicity and transparency for energy suppliers, installers and Ofgem. We also support the 'data light' process for measures not in SAP, which fits seamlessly into the above framework.

**Question 1: Do you agree that full project scores should be based on starting and finishing intermediate SAP bands?**

No.

We agree that ECO should target band D, E, F and G homes, which is in line with the aspiration to bring as many homes as possible to band C by 2035.

We agree, subject to a fair and comprehensive list of exemptions, to the aspiration for band F and G homes to be improved to at least a SAP band D, and band D and E homes to be improved to at least a SAP band C (the 'minimum requirement' MR).

We also agree that projects meeting the MR should have higher reward than projects that don't.

However, none of those statements infer the creation of a separate scoring methodology that applies in some circumstances (including but not exclusive to meeting the MR) and not in others.

The fundamental question to be answered is: What benefit is there in having two scoring systems?

There should be one set of scores. The methodology developed for the 'partial projects' (PPS) can be used for the full project scores. The opposite is not true. Therefore, PPS methodology should prevail.

**Question 2: Do you agree that scores should be segregated into four floor area segments?**

No. We would support the use of 3 categories.

The largest floor area category (over 200m<sup>2</sup>) has such a significant uplift in scores compared to the category below (98-200m<sup>2</sup> floor area) as to raise concerns on fraud and gaming.

This outcome is driven by the average floor size assumption used. The table below is taken from the BRE methodology document published alongside this consultation which shows the largest floor area is more than double the size of the preceding group.

<u>Dwelling Archetype</u>	<u>Band</u>	<u>Average Area (m2)</u>
Small 2 ext. Wall Flat	TFA < 73	63.2
Medium Semi-detached 3	73 ≤ TFA < 98	83.5
Medium Semi-detached 4	98 ≤ TFA < 200	120.6
Large Detached	200 ≤ TFA	252.9

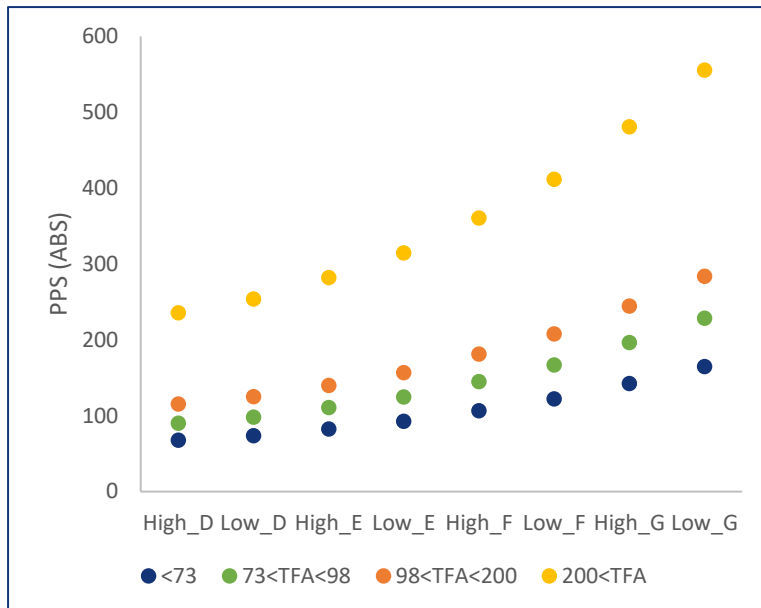
**Table 1: Dwelling types and areas**

The consequence on FPS is as follows:

Floor area move	Increase in FPS
73>TFA to 73≤TFA<98	19%
73≤TFA<98 to 98≤TFA<200	29%
98≤TFA<200 to 200≤TFA	80%

NB. This relationship holds regardless of start and end band

And there is a similar observation on partial scores. The chart below shows the average PPS at each SAP band for the proposed floor areas. The three main floor area categories have reasonable improvements as floor size increases. The largest floor area category offers up to double the return.



We can see how the group makes sense analytically, in the models. However, we have concerns of unintended consequences in practice. Whilst there may be homes with such large floor areas in the housing stock, we don't believe that these are proportionately represented in the ECO eligible population.

### Question 3: Do you agree with the methodology used to determine the full project scores?

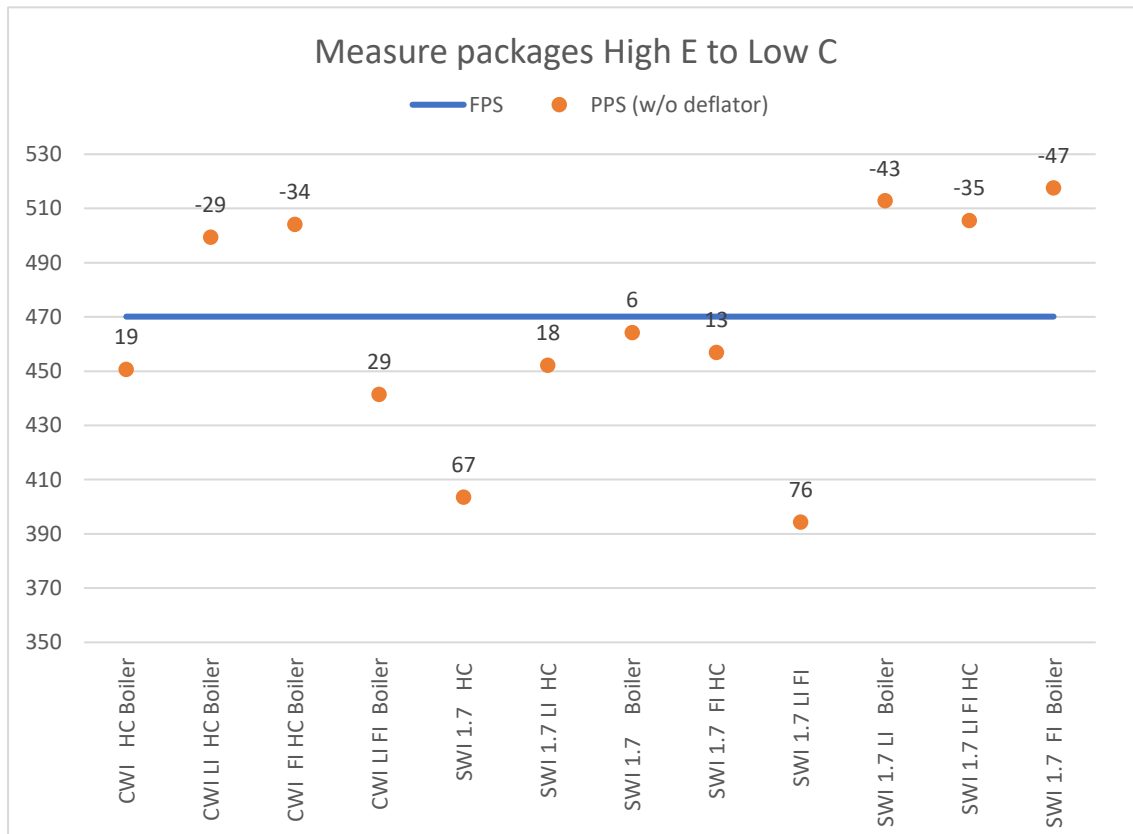
No. We strongly believe that having two scoring systems is unnecessarily complex and will add administrative burden on the supply chain, energy suppliers and Ofgem.

We believe it would be better to use the partial project scores (we prefer the term: measure scores) without deflators when the MR is met (or exempt). In some cases the summation of the measure scores will be higher than the FPS model, in some case lower. We show examples in the graph below based on floor area 73-98m<sup>2</sup>, starting band E, packages totalling 18-24 SAP points.

The variance between the two models is small and not material enough to justify switching to a separate scoring system.

We recognise that Ofgem is trying to deliver an extremely challenging brief given by BEIS. The question to be answered is: What benefit is there in having two scoring systems? Furthermore two systems which are both deemed averages and therefore neither technically 'accurate'. It should not be down to stakeholders to be finding arguments *not to have* two scoring systems but for government to explain the benefits of *why we should*.

The reality of delivery is that measure specific scores are a necessity. The approach developed for PPS (which we applaud Ofgem for turning around in such a short space of time) can be used for all scenarios. There is no need for a separate FPS system – it just adds more complexity and administrative burden on the supply chain, energy suppliers and Ofgem.



**Question 4: Are you aware of any further advantages or disadvantages in respect of the options presented to determine the finishing SAP band?**

We strongly support the use of deemed SAP points to determine the finishing SAP band.

We believe Ofgem has listed most of the advantages and disadvantages. Our builds:

- Deemed points mean no impact when SAP is updated to 10.2 in 2022 and 11 in 2024/25.
- Deemed points will enable non-ECO funded measures to be installed alongside ECO. For example: window glazing (double to triple) or lighting which are either not cost effective or not allowed under ECO, or a heat pump funded by the SHDF, an example used by BEIS<sup>1</sup>.
- The impact of POPT <100% on the finishing point will be easier to determine with deemed SAP points.

**Question 5: What are your views on the advantages and disadvantages identified?**

We strongly support the use of deemed SAP points to determine the finishing SAP band (referred to as the 'calculated finishing SAP rating' in the consultation).

The administrative simplicity of this should not be underestimated. The expected end position would be easily determined at the start of the project and easily validated afterwards, regardless of whether measures had been rejected or not, or if checked one month or one year after.

The idea that an updated SAP assessment is an "Accurate finishing SAP band" is mistaken. There is industry-wide consensus that the EPC is subject to 'human variation'. A modelling paper

<sup>1</sup> Para 138 ECO4 consultation

published by University College London in 2019 attempted to quantify this measurement variation<sup>2</sup>. The results were stark: the analysis suggests an error of one standard deviation which at Band E is 7 points, narrowing to 4 at Band C. The consequence of this is misclassification. The researchers estimated that there is a 15% probability that “true ‘D’ dwellings” are rated at C or above, and 19% probability that “true ‘C’ dwellings” are rated at D or below.

That deemed points “will not accurately represent bill savings and SAP improvements in each individual case” overplays the accuracy of the theoretical model versus the actual savings for the household. This subject has been assessed from multiple angles. BEIS analysis emphasises the underheating of homes at the lower EPC bands<sup>3</sup>. Whilst other research points to the inadequacy of how well traditional materials like solid stone walls retain heat in the RdSAP model or use of shutters which are commonplace on old sash windows<sup>4</sup>.

Data light measures are easy to incorporate. Innovation will reward better performing measures.

Fundamentally, we believe there is no benefit to having both FPS and PPS when PPS can be adapted for both scenarios. In this light, the use of deemed SAP points alongside the accompanying measure scores is very compelling for its simplicity and transparency.

**Question 6: Do you agree with the proposal to use pre-calculated deemed partial project scores based on the floor area, and starting intermediate SAP band?**

Yes.

This is the steer from BEIS and as such fits the policy intent.

It is simple to understand. All the installer needs is those two inputs to find the list of deemed scores for each measure and associated SAP points.

**Question 7: Do you agree with the process used to develop the partial project scores?**

Yes.

We appreciate that the brief given by BEIS to Ofgem was not straightforward and we compliment Ofgem on production of a reasonable methodology in a relatively short space of time.

**Question 8: Do you agree with the use of a single fixed correction factor to account for interactions between measures?**

Yes.

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<sup>2</sup>[https://www.researchgate.net/publication/335805949\\_Quantifying\\_the\\_Measurement\\_Error\\_on\\_England\\_and\\_Wales\\_EPC\\_Ratings](https://www.researchgate.net/publication/335805949_Quantifying_the_Measurement_Error_on_England_and_Wales_EPC_Ratings)

<sup>3</sup> <https://www.gov.uk/government/collections/fuel-poverty-statistics#other-documents>

<sup>4</sup> <https://journal-buildingscities.org/article/10.5334/bc.94/>

**Question 9: Do you agree with the use of the actual percentage of property treated to determine the partial project score for a measure?**

No.

The proposal appears to be the same used at the start of ECO2t in 2017.

Following significant feedback from industry about the administrative burden, Ofgem launched a research project in late August 2017 to try and understand how POPT worked in practice. In the report published in November of that year, Ofgem "...now appreciate that the implementation of POPT within the supply chain has been more burdensome than we intended, with suppliers and other parties in the contractual chain requiring more validation checks than we had envisioned." (paragraph 1.16).

Ofgem committed to investigating the possibility of changing the approach to POPT in ECO3. The outcome, following consultation, is the solution we have today whereby actual POPT is only applied where less than 67%.

What is changing under ECO4 that the administrative burden of this POPT solution will not be the same as in 2017? Suppliers will be again compelled to check every calculation. Rounding will inevitably be questioned. Ofgem will trigger audits.

We strongly urge Ofgem to reconsider. This proposal is disproportionate effort for the number of true mixed build properties. We strongly recommend that Ofgem continue with the ECO3 solution. Whatever the decision, it is imperative that POPT is captured in the TrustMark lodgement.

**Question 10: Do you agree with our proposal to calculate the innovation measure uplift by using the partial project score for the innovation measure?**

Yes.

However, it is more coherent if all measures used PPS (i.e. FPS is dropped).

**Question 11: Do you agree with our proposal to have two routes for new measures to enter the ECO4 scheme – a standard alternative methodology route and a new "data light" route?**

No. There should only be one route: the data light route.

We don't believe that there is a need for an alternative methodology route for measures which are already included in SAP. If BEIS remove the 'materially different criteria' then applications can be made for innovation status if it is believed specific products have greater benefits. There should only be one route: the data light route. Keep it simple.

**Question 12: Do you agree with our proposed evidence requirements for the data light route? If not, please inform us of your preferred requirements.**

Broadly speaking yes. We understand that each item will be reviewed on a case-by-case basis, but it would be helpful to have greater steer on what constitutes evidence that is "scientifically robust and sufficiently independent of commercial bias".

**Question 13: Do you think we should have additional mechanisms, such as a review stage or an open call for evidence, to account for the inherent risk associated with data light scores?**

In general, no. Data light measures will be capped at 5k across the 4 years of the scheme which is less than 2% of the expected households treated.

However, it is quite possible that after a data light score is created, another company comes forward with better savings evidence or has at face value a similar product but challenges inclusion in the incumbent measure group. Thus, we flag to Ofgem to have these scenarios in mind.

Ofgem should not be overly worried about risk. They will end up failing the policy as to err on the side of caution could mean no measures will ever be approved.

Whatever decision is taken on governance it must be proportionate. Measures that receive funding of just a few hundred pounds should get less scrutiny than those reaping £1000s.

We'd also ask for greater transparency about acceptance of products that depend on user behaviour (with reference to paragraph 4.20). This applies to both data light measure types and the innovation products (which we accept is not subject of this consultation).

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