ENERGY PERFORMANCE CERTIFICATES IN BUILDINGS – CALL FOR EVIDENCE

Written Evidence Submitted by the British Property Federation

British Property Federation

The BPF represents the real estate sector – an industry that contributes significantly to the UK economy. We promote the interests of those with a stake in the UK's built environment to government, and our membership comprises a broad range of real estate owners, managers, developers and supporters. Their investments help drive the UK's economic success; provide essential infrastructure and improve society by creating great places where people can live and work.

The BPF has a committee dedicated to sustainability issues, reflecting the priorities that its leading members place upon issues of environmental enhancement, climate change and resource efficiency. We also provide secretariat support to the Green Property Alliance, a group of the leading organisations representing both landlord and tenant interests (membership includes: the Association of Real Estate Funds, Better Buildings Partnership, British Council of Shopping Centres, British Council for Offices, BPF, Investment Property Forum, Royal Institution of Chartered Surveyors, UK Green Building Council and the Urban Land Institute).

We welcome the government's long-term commitment to improving the energy performance of the UK's existing and future building stock. The Prime Ministers recent announcement launching the Industrial Strategy Grand Challenge mission to halve the energy use of new buildings by 2030 whilst halving the cost of reaching the same milestone in existing buildings, is laudable for its ambition and long-term view. However, the introduction of minimum energy efficiency standards, the associated requirements for EPCs, and the respective guidance is subject to a number of ongoing challenges. Particularly with regard to the implications for listed buildings, the methodology used to assess performance ratings, and the focus on building design over performance.

We have, through this submission, responded to a number of the questions posed. Whilst the Sustainability of the UK's building stock is high on the policy agenda, we believe that existing policy and regulatory instruments have not kept up with the necessary pace of change, and greater clarity is needed around the timescales for the update of energy efficiency assessment methodologies and future trajectories for minimum standards. Whilst the consultation document references the purpose of EPCs as allowing consumers/buyers/tenants to effectively benchmark energy performance in buildings, our submission is principally concerned with the additional purpose of EPCs, namely the intention to ensure adherence with Part L of the Building Regulations (and not necessarily efficiencies beyond this) and to encourage efficiency improvements in the Private Rented Sector.

We would note within this submission that the energy efficiency policy landscape is a complex one and at the time of writing a number of separate but associated consultation exercises are being undertaken or have been committed to by the government. We would therefore highlight that we have responded to the recent BEIS consultation on *Helping businesses to improve the way they use energy,* and intend to contribute to a future MHCLG consultation expected on a review of Part L of the building regulations, and a future expected consultation on energy efficiency in the non-domestic Private Rented Sector, and that - such is the crossover in policy amongst these consultations – our submissions should be considered as a whole and as complimentary to each other.

The comments provided within this submission are from the perspective of property owners, developers, sustainability consultants, and advisors.

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Should you require any further information on any aspect of this submission please contact Alex Green (Assistant Director), on either agreen@bpf.org.uk, or 020 7802 0107.

BPF Response to the Questions within the Call for Evidence on Energy Performance Certificates in Buildings

Q1 - Have we captured all of the current uses of EPCs? Are there any existing or emerging uses we should be aware of?

1. The consultation document captures the principal current uses of EPCs.

Q2 - Do you agree that we have identified the key attributes for EPCs? Are there other important attributes we have not listed? Please indicate below how important you consider each attribute and provide details to explain your answer.

2. Whilst the attributes identified within the consultation document are complete, we would raise a number of points with regard to the success of these attributes in practice. The introduction of MEES and the associated requirement to ensure EPC ratings of E or higher for new leases and lease renewals as of 1st April 2018 was supported due to its intent. In the lead up to the launch of the regulations, and since they have been active, a number of practical issues have arisen with the effect of limiting the success of desired outcomes. We have outlined some of these issues below and in relation to the relevant attributes listed in the consultation document.

   2.1. **Encouraging Action/Improving energy performance –** The consultation document states that EPCs were designed to encourage building owners to make improvements to the energy performance of their buildings. It is acknowledged that to date, over 18 million EPCs have been recorded on the central register, and to this effect the initiative has been somewhat successful. However, the transposition of this number into concrete energy performance improvements has been limited, as the consultation document notes, surveys show that between 8-17% of those obtaining EPCs have reported acting on the respective recommendations. We have provided more detailed comments on some of the continued barriers to energy performance improvements within this submission, but note that some principle deficiencies exist with regard to: the split incentives for landlords and tenants particularly in non-domestic buildings; the associated friction between the impact of tenant fit outs and landlord compliance obligations driven by regulations; uncertainty around the requirements for listed buildings; and a continued emphasis on design for compliance over design for operational performance.

   2.2. Influencing property decisions – The consultation document states that EPCs should enable consumers to make more informed decisions and potentially place financial value on the energy performance of a building. Whilst this attribute may have had some success in the domestic building sector and in particular with regard to new builds (see government report DECC, 2013), there remain a number of obstacles associated with EPCs that have resulted in slower progress on the commercial property front. The rate of new builds in the commercial property sector remains between 1-2% per annum and as such highlights the importance of improvements to existing building stock. We have provided more detailed comments on some of the continued barriers to energy performance improvements with this submission and note that these are particularly acute for the retail and industrial sectors.

2.3. We would however note that the introduction of MEES has had an impact on investors, asset managers, banks and other financial entities over time. This impact is driving real estate practitioners to secure compliant EPC ratings of E or higher. The introduction of the MEES regulations have promoted a new culture of genuine efficiency improvements, where EPCs alone (before the introduction of MEES) were seen as a tick box compliance consideration. Further, voluntary reporting platforms such as GRESB have driven improvements in ratings and integration with many organisations' corporate plans.

2.4. Access to data – The consultation document states that to make best use of EPCs it needs to be possible to share and access data effectively. To this point we would raise the issue of instances where EPCs are hidden or concealed upon request by the respective occupier and cannot be found on the register. If minimum energy efficiency standards and associated improvements are to be based on EPCs then transparency is needed across the board. We would suggest that in the first instance interested parties should be able to see whether an EPC exists in relation to a property, notwithstanding the ability to view the full certificate.

2.5. Further, the process of attaining the correct EPC can be complicated by the inclusion of historic and/or superseded EPCs remaining on the register. As noted later in this submission, difficulties can also arise in tracking down EPCs because of differences in addresses used for given properties and the associated postal/commonly used address for the building. We would suggest that across all of the EPC registers there is a requirement for active management in order to ensure the best quality of data.

2.6. Coverage – The consultation document states that for EPCs to be an effective tool it must be ensured that the legal requirements for EPCs are complied with. We have provided more detailed comments on the issue of enforcement within this submission, but note that from the experience of our members and now confirmed through research undertaken by the Environmental Industries Commission (see EIC report, 2018) little to no enforcement has been carried out to date with regard to the display of EPCs and DECs. We would also note that the guidance on EPCs still offers ambiguity in relation to the status of listed buildings and confusion over the coverage of EPCs in mixed-use buildings, and that this may incur consequences in legal terms in due course.

2.7. Simple and low cost – The consultation document states that the requirement to produce an EPC should not be a barrier to the process of selling or letting a building. Our members have offered working examples of instances in which this attribute does not perform. Namely, there exist examples of landlords seeking to ensure that a vacant unit meets the minimum requirement of an E rating prior to leasing the space, but finding that the EPC process creates a paradox due to the split responsibility between landlord and tenant. One example would be an instance in which the heating in a vacant retail unit is identified as the reason for non-compliance, and that a suitable upgrade will deliver an E rating. However, the responsibility for the final fit out of the unit will be held by the tenant, and should the landlord fit a new heating system, this will be stripped out and replaced by the tenant at their discretion. Notably, whilst the unit is vacant, energy consumption is effectively zero and there is therefore no payback period to be achieved. The result of this is that by the letter of the minimum energy efficiency regulations the unit cannot be let due to its current non-compliant rating, but the reason for the non-compliant rating is that the unit is untenanted. This and wider limitations to the EPC conventions are issues that could proliferate in existing and/or refurbished shell and core schemes, ultimately resulting in additional costs, complexity, and delays to lettings, and therefore requires a suitable resolution.

Q3 - Which attributes are important for which uses and why?

3. We refer to the representations made under question 2.

Q4 - What evidence do you have relating to the reliability of EPC assessments? Do you have any information on how reliability varies across different properties, and/or the likely sources of variation in assessments? It would be helpful to indicate how recent this is.

4. Whilst not perhaps an answer to the form of 'reliability' that this question is concerned with, we would like to make a broader point about the reliability of EPCs as a means by which energy efficiency is measured and subsequently addressed. The overarching goal of minimum energy standards and energy performance ratings is to signpost the energy efficiency of buildings, to recommend suitable improvements, and ultimately advance the energy performance of buildings. The use of EPCs alone are not however wholly reliable in pursuit of these aspirations. The Better Buildings Partnership in collaboration with JLL in 2012 produced a detailed report which analyses, details, and compares the Energy Performance Certificates (EPCs) of commercial buildings against their actual energy performance (BBP/JLL, 2012). The findings support the conclusion that buildings built to the appropriate building standards, and confirmed to have respectively high ratings through EPCs, do not necessarily correlate with in-use efficiency. The focus of EPCs on 'theoretical' energy efficiency over 'actual energy performance' has contributed to a culture of design for compliance, i.e. to achieve – in the terms outlined by current regulations – an EPC rating in line with the building regulations. In addition to this, EPCs currently only estimate carbon emissions from regulated energy sources. Including unregulated (or small power) emissions would help with EPC accuracy. Many of the reasons for the gap between asset and operational performance arise from the split responsibilities, the differing access to information on actual energy performance and the differing incentives available to landlords and tenants which are present in rented buildings. There exist significant variations in the energy consumption from one building 'occupier' to another (particularly in the commercial property sector), where differences exist in the energy loadings of tenant fit outs, the intensity of energy used, and respective operating hours. EPCs do not take these complexities into account and can therefore be seen as an unreliable measure for true energy efficiency. We note that these issues are acknowledged in the consultation document, but would emphasis the importance of moving to a system that captures in-use performance. We continue to support the expansion of Display Energy Certificate requirements for public buildings to private commercial properties, and additionally provided some more detail on good examples of design for performance initiatives later in this submission.

5. One issue that can affect the ultimate reliability of an EPC is the commoditisation of the certification process itself. Our members have highlighted that EPCs can be procured at low cost and completed without proper knowledge of how buildings work. Additionally, inaccurate modelling can result in an incorrect usable area subsequently skewing the resultant rating. We note that certificates/ratings can be procured at a very low cost from a qualified assessor that may not necessarily have the requisite (accurate) data to hand and therefore may be using default inputs. This would of course limit the potential reliability and accuracy of a given rating. We would suggest that reviewing and tightening the current quality assurance procedures in place for EPC assessors would be of value.

6. Thought must also be given to future updates to building regulations and associated energy modelling methodologies. Changes to these mechanisms can also affect the outcome of ratings. A notable example being that following the update of Part L of the building regulations in 2010 properties were reassessed and some consequently saw their ratings downgraded by one or two bands.

7. Further, our members' experiences of commissioning EPCs has been that there is at times a lack of consistency and quality in assessments. This situation has arisen because of the way energy performance certificate methodologies (and in particular SBEM) permit a degree of flexibility of interpretation on the part of the assessor which can lead to significant deviation in the result obtained dependent upon the competence and decisions of the assessor. Some variance is to be expected, but there have been instances where our members have submitted the same building for multiple assessments and have received scores with deviation of up to two rating grades.

Q5 - Which of the suggestions provided above do you think would be effective in improving the reliability of EPC ratings? Do you have any other suggestions for improving EPC reliability? Please provide reasoning and any evidence you have to support your response.

8. Firstly, we would support initiatives to address the reliability issues caused by different levels of training and experience amongst EPC assessors. We would suggest that the remedies for the quality of training lie in; more robust auditing of training courses, the continuation of auditing by accreditation schemes of assessors, and random auditing of certificates on the EPC register by government. Organisations such as CIBSE offer a good example of rigorous training, accreditation, and auditing. It undermines faith in the certification regime if quality is not upheld. Some accreditation schemes audit their own assessors and certificates granted by them, which we think is something that should be undertaken widely, whilst consideration should also be given to independent auditing to this effect. In addition, we would urge closer scrutiny of the training courses being offered to assessors, and refinement of the guidance they are given, in order to ensure their quality and consistency.

9. The consultation document suggests that measures should be implemented to reduce the potential for gaming. Our members have noted that one example of gaming may arise in situations where an EPC assessor incorporates an unconditioned space such as a semi-open car park within the usable area of a property, which would naturally affect the rating outputs.

Q6 - What evidence do you have on the accuracy of the models used to produce EPCs (SAP, RdSAP, SBEM, DSM) in comparison to other methods such as the co-heating test?

10. It is important to consider the purpose and limitations of current calculation methodologies. When doing so, the focus must be on what it is that an EPC is designed to achieve and through the implementation of minimum standards, what form of change it is trying to drive.

11. A domestic EPC currently presents an Energy Efficiency (EE) and an Environmental Impact (EI) rating, with the EE rating used as the basis for Minimum Energy Performance Standards (MEES):

    11.1. The EE rating is based on energy costs associated with space heating, water heating, ventilation and lighting, less cost savings from energy generation technologies.

    11.2. The EI is based on the annual CO2 emissions associated with space heating, water heating, ventilation and lighting, less the emissions saved by energy generation technologies.

    11.3. Both EE and EI are adjusted for floor area so that they are essentially independent of dwelling size for a given built form.

12. A non-domestic EPC presents an Energy Performance Asset Rating (AR). The AR is the ratio of CO2 emissions from the actual building (i.e. the Building Emission Rate) to the Standard Emission Rate (SER) with the result normalised such that the SER is equivalent to an Asset Rating of 50.

13. Currently therefore, whilst non-domestic ratings are designed to assess CO2 emissions, and via MEES, to reduce those emissions, domestic EPCs are designed and minimum standards are designed to reduce cost, which is not in line with the requirements of the EPBD. This could be rectified through the application of the EI rating for compliance with MEES.

Validity Implications

14. An EPC lasts for 10 years but utilises cost and emission factor data that relates to a three-year average set when the national calculation methodology is updated (2005, 2009, 2012); with the level of decarbonisation currently being delivered by the power sector, this causes several problems:

    14.1. **Increasing differential between EE and EI Rating for domestic EPCs:** Historically, Energy Efficiency (EE) and Environmental Impact (EI) ratings were broadly similar, and tended to result in the same rating bands. As the power sector decarbonises, the relationship between energy cost and energy emissions is changing. Tables 1 and 2 below, show the differences between the two ratings for a gas and an electricity-heated dwelling, where the only changes made are those that relate to Table 12 of SAP, which addresses fuel prices, emission factors and primary energy factors. Under the proposed SAP 10.0, an electrically heated dwelling would result in emissions at a level similar to a gas-heated dwelling, but this would not be recognised via the EPC. Further, as electricity emissions are projected to reduce by a further x% by 2020 and x% by 2025, with no such reduction anticipated from gas, the differential is likely to increase and bear no relation to emissions, undermining the domestic EPC.

    14.2. **Potential for movement between ratings:** An EPC produced in 2009 will have utilised the three-year rolling emission factors set in 2005. This EPC will soon require renewal (2019), where if Part L of the building regulations is updated (as anticipated) and the newly proposed SAP 10.0 emission factors are applied, there will be a significant jump in emissions for some fuels. Where significant decarbonisation is anticipated, emission factor projections are applied by BEIS for other purposes, and it would make more sense if a 10-year rolling average, that is updated annually, covering the period of validity of the EPC (i.e. 10 years) was applied instead. This would be more representative of anticipated emissions over the validity period of the EPC and would avoid a potentially misleading jump in EPC rating.

    14.3. **Short-term thinking and inappropriate technology selection:** The length of time between updates to SAP and emission factors encourages short-term thinking and the selection of technologies that may only be appropriate for a short period of time rather than the life of the system. Currently this is relevant to gas CHP, which demonstrates significant improvements over Part L and good EPC ratings, but if current and future emission factors were applied, would no longer demonstrate savings anywhere near those currently being calculated; alternative and potentially more cost-effective solutions would result in increased emission reductions and be lower in cost to run.

Table 1: Gas Heated:

Version	Primary Energy Use, kWh/m2	Cost, £	SAP kgCO2/ m2	EE Rating	EI Rating
SAP 2009	93.31	258.36	17.71	82.17 (B)	87.5 (B)
SAP 2012	108.16	346.37	18.95	78.64 (C)	86.6 (B)
SAP 10.0	90.60	360.75	16.20	80.340 (C)	88.57 (B)

Table 2: Electricity Heated:

Version	Primary Energy Use, kW/m2	Cost, £	DER kgCO2/ m2	EE Rating	EI Rating
SAP 2009	222.70	437.02	39.43	69.84 (C)	72.19 (C)
SAP 2012	234.14	556.99	39.58	65.65 (D)	72.08 (C)
SAP 10.0	132.55	703.12	17.77	61.80 (D)	87.47 (B)

Methodological limitations

15. For new construction, and as noted elsewhere in this submission, there is a widely reported performance gap between predicted performance via the calculation methodologies, and subsequently the rating reported in the EPC, and real-life performance in use. We would highlight several potential reasons for this:

16. **The use of standard assumptions regarding occupancy and levels of usage (e.g. hours of operation, number of people):** It is sensible that consistent assumptions are made in relation to usage patterns, but in reality, energy use and the efficiency of systems within a building are determined by how a building is used, and in particular by the occupation patterns of a building. Where building occupiers are known, then methods such as CIBSE's TM54, which allow for adjustments of SBEM parameters such as occupation and operating conditions to be made, have been shown to produce more accurate estimates of energy usage in buildings. However, often an occupier for a building is not known at design stage or when a building is being sold, so this would be difficult to apply as a national standardised approach. Rather than rating the building, it begins to rate the occupants, which would also be problematic. Measures such as CIBSE's TM54 can also be time consuming and costly, and may not therefore be tenable for all projects.

17. **Build quality:** If products and systems that are specified are not correctly installed, then they won't perform as expected. Building Control checks are often insufficient, particularly where components are hidden (e.g. insulation and thermal bridges, ductwork); it is not uncommon for shortcuts to be made that will affect the

as-built performance of a building. The performance gap is thought to be lower in Passivhaus buildings in part due to the increased level of checking carried out during construction.

18. **Commissioning:** Complicated systems and controls are installed in many buildings to meet increasing energy efficiency requirements, many of which facilities managers, building operators and occupiers are not familiar with. The commissioning and operation of those systems can have a significant effect on energy use, costs and emissions. If systems are not properly commissioned or operated, then levels of energy efficiency estimated at design stage will not be delivered in operation. Again, this could be improved with increased checks during construction and post-completion.

19. **Incorrect assumptions:** In existing buildings, unless data can be provided to demonstrate otherwise, the EPC assessor is required to make assumptions of construction methods and systems based on the age of the building, construction methods in place at that time, and systems that are visible. The quality of output is affected by the quality of input which is dependent on the skill level of the assessor and is often variable.

Alternative Methodologies

20. We note that the consultation document offers the co-heating test as a potential alternative methodology. Although this may provide a more accurate indication of building fabric performance, it is not capable of measuring the efficiency of other building systems, so would not provide an indication of overall energy efficiency. Further, the test is carried out over a period of around three weeks whilst a building is empty and no mechanical systems are in use; this would delay handover and could have significant cost implications. On balance, whilst the test would help to determine the quality of build and fabric performance, it would not resolve issues around the use of assumptions or the commissioning and use of systems, which have as much impact on the final energy performance of a building, so would not resolve the issues with the current methodology.

21. In relation to current methodology, it is important to ensure that emission factors reflect the nature of the grid and are forward planned, covering the life of the system. However, if emissions factors are not updated more regularly than the current rate, the methodology will subsequently be limited in its productive output.

Q9 - What evidence do you have on how frequently people are likely to make updates to their properties which would change the EPC score?

22. As previously noted, MEES regulations are driving improvements and awareness amongst consumers and asset owners, which in turn is resulting in more regular (voluntary) updates of EPCs. This is particularly apparent in retail properties where LED lighting retrofit programmes are being implemented by retailers. To this effect EPCs are performing well in signposting the minimum standards and the benefit of efficiency improvements.

Q12 - What evidence do you have on how useful the EPC recommendations are to consumers when they are considering making changes to a property? How effective are they at encouraging consumers to take action?

23. Whilst we are unable to provide evidence to this effect, our members have noted that EPC recommendations can often result in inactivity as they are too simplistic, often not suitable for the property, or not cost effective in certain circumstances. This is largely due to the recommendations in a given EPC report being generated from a generic list held within the relevant database, filtered based on the data entered by the assessor. The recommendations are not therefore based on any calculations of actual buildings, how system and services are running in practice and operational performance.

Q14 - What are your views on introducing operational performance ratings for non-domestic buildings, either on the EPC or separately?

24. We support policies that promote building design for performance in addition to suitably robust building regulations. To this effect, the introduction of operational performance ratings should be considered by government. The example of the NABERS commitment agreement scheme implemented in Australia, is often cited as a noteworthy case of an initiative that has promoted a culture of design for performance with successful outcomes. Not only has this resulted in more energy efficient commercial buildings, but it has resulted in greater energy and cost savings for businesses (tenants and landlords) whilst delivering a broader cultural change. We note that in order to create a significant step change in the energy efficiency of business premises more binding commitments are needed.

25. Performance ratings and commitment agreements structured like the NABERS programme – through setting KWh targets early in the design phase which are subsequently independently validated once the building is operational – can foster a built environment where designing for optimal operational performance becomes the norm. In relation to this specific theme, we would highlight the work being done through the *Design for Performance* project, through which the Better Buildings Partnership (BBP) and industry organisations are working with the new South Wales Office of Environment and Heritage to assess the applicability of introducing a scheme similar to NABERS in the UK. Most recently, the initiative has incorporated 7 UK property developers commit to pioneering design for performance principles in at least one building within their development pipelines (BBP, 2018). We would support the use or incorporation of performance ratings for non-domestic buildings either through alterations to the EPC format or through the wider use of Display Energy Certificates.

26. We would highlight the potential benefits of the wider use and implementation of Display Energy Certificates (DECs). As DECs are not currently mandatory save for where there is a public authority occupying the building, the coverage of DECs in the non-domestic sector is relatively low and is largely confined to market leading firms with developed approaches toward corporate social responsibility and/or with public sector occupiers. Voluntary reporting and disclosures tend to create better practice and efficiencies amongst those that are already well performing businesses rather than the desired effect of driving energy efficiency higher amongst the worst performing elements of the market and across the whole sector. DECs have been a requirement for public sector buildings commonly frequented by the public, occupying spaces over 1000 m^2 since October 2008. The adoption of DECs for private sector buildings could have a range of benefits:

    26.1. it could highlight the effect of management on building energy performance;

    26.2. it could highlight the performance of both existing and new non-domestic buildings;

    26.3. the cost of a display energy certificate would be relatively modest, and would contain recommendations for improvement;

    26.4. the display energy certificate could provide incentives for low and zero carbon on-site renewables which, in turn, would provide an additional incentive for local generation from renewables;

26.5. comparison with the rating for the building's energy performance certificate could act as a neat barometer of potential versus actual energy performance, driving improvement and promoting understanding of this issue;

26.6. it could assist in the generation of a database of true building energy performance, which would inform better policy; and

26.7. it could permit the Building Regulations to concentrate on promoting better standards of asset performance as well as providing a driver for greater efficiency in the management of energy.

27. We would however note that in order for DECs to result in best outcomes, the associated banding and/or methodology may need to be revisited to provide sufficient incentive for action on the part of owners and occupiers within the commercial sector.

28. Lessons may also be learned from continental counterparts. We would bring the government's attention to the RT 2012 Energy Performance Certificate (DPE) system implemented in France, through which certificates can be produced on the basis of either predicted energy use or actual performance/consumption (based on past energy bills).

Q16 - Do you have any evidence on consumers' understanding of the energy efficiency rating used in EPCs? Do you think a different rating such as carbon emissions or primary energy would have a better impact for consumers?

29. The format of both EPCs and DECs is broadly sound and follows a similar approach to appliance labelling (through the A-G rating model) with which consumers are widely familiar. The additional information on the certificates was the subject of extensive consultation prior to the original introduction of certification and also the subject of consumer research and stakeholder groups. In the event that no new substantial initiatives are implemented (namely performance-based ratings), we believe that it will be important to retain the shape and feel of current certification, for reasons of market familiarity and reduction in burden on business through recertification, unless there are significant reasons why the design of certificates should be changed.

30. We would however highlight the importance (as noted above) of robust and regular consumer engagement with regard to the structure and content of ratings/certificates, particularly in an ever-changing regulatory environment which above all else must respond and react to a changing climate and different geopolitical circumstances. Lessons can usefully be learned from other European countries, where both similar and alternative practices are implemented. One such example can be found in the German system, in which large scale field tests were undertaken which included assessing the design of certificates (IEA, 2010). The German field tests led to a certificate design that is significantly different from most other European countries which have followed more closely the existing format of appliance labelling. Whilst we believe that consistency in the format of energy ratings and the design of certificates is crucial for market familiarity, it should not be assumed that the rating system cannot be improved.

Q17 - Which of the suggestions provided above do you think would enable prospective buyers and tenants to make more effective decisions based on the information on the EPC? Do you have any other suggestions? Please provide reasoning and any evidence you have to support your response.

31. We have through previous government consultations highlighted the importance of existing policy and regulatory instruments keeping up with the necessary pace of change, and the need for greater clarity around the timescales for the update of energy efficiency assessment methodologies and future trajectories for minimum standards. This will not only provide certainty for industry, but can also help consumers to make more effective decisions. We would reiterate the importance of clarity around future methodologies and trajectories for minimum standards and to this effect the suggestion to add information about policy goals and minimum standards into EPCs could have benefits for forward planning and cultivate a culture in which a property's sustainable credentials are of greater importance. We would note however, that in order for this to be effective, the respective future goals and minimum standards must be realistic, achievable, and viable.

Q18 - What evidence do you have on how easy it is to access EPC data or Open Data? If you are currently a user of the Open Data Communities website, what do you use the information for and how valuable is this website as a source of data?

32. The consultation document states that to make best use of EPCs it needs to be possible to share and access data effectively. To this point we would raise the issue of instances where EPCs are hidden or concealed upon request by the respective occupier and cannot be found through a search of the register. If minimum energy efficiency standards and associated improvements are to be based on EPCs then transparency is needed across the board. We would suggest that in the first instance interested parties should be able to see whether an EPC exists in relation to a property, notwithstanding the ability to view the full certificate.

33. In the commercial property sector, address level data, mapped to Investment Property Databank (IPD) financial data, could be of enormous assistance in tracking any nascent relationship between energy performance and value. There is considerable industry interest in this topic, not least because of the way in which a positive relationship between sustainability and value would help to overcome some of the market failures inherent in energy procurement and use in rented buildings. Namely, if the landlord pays for an energy efficiency improvement, the tenant will benefit from lower energy bills but the landlord may not necessarily be able to recoup the cost of the improvement from the tenant. If energy performance was intrinsically valued, then landlords might be able to recover the cost of retrofit. Improving the information available to valuers could stimulate a greater move in this direction, though it is important to bear in mind that valuers are only able to judge the prevailing market direction and not to direct the market.

34. We have also received representations that highlight a lack of conformity of addresses on the EPC register. This has led to circumstances in which users are unable to marry the address on an EPC with the actual property or part of a property that is subject to sale or letting.

35. We would reiterate that the quality of data is also adversely impacted by the continued existence of historic and superseded EPCs.

Q19 - Which of the suggestions provided above do you think would improve the ability of building owners and other stakeholders to make effective use of EPC data? Do you have any other suggestions? Please provide reasoning and any evidence you have to support your response.

36. We would again use this opportunity to highlight the beneficial role that in-use building performance data could play in enabling effective benchmarking. This change in approach could result in better decisions being made around efficiency measures when compared to those made currently based on the theoretical performance of buildings.

Q20 - How useful do you think a 'data warehouse', 'building log book' and/or 'green building passport' would be in increasing take up of energy efficiency improvements or supporting existing initiatives? What kinds of data might usefully be included in addition to EPC data and how could these proposals best be implemented? How might more comprehensive assessments be encouraged without making them a requirement for homeowners?

37. We support the Green Finance Taskforce's recommendation for the introduction of Green Building Passports, as it begins to address the issue of operational energy use and the often-cited challenges associated with maintaining and efficiently operating commercial buildings when assets are sold or there is a change in ownership.

38. The key benefit that such an initiative would have is that it could provide detailed guidance on the actions required to improve the building, based not only on the fabric of the building, but also on operational data captured over time. The passports would be transferable across asset owners and would help to maintain a longer-term trajectory for the decarbonisation and energy efficiency of that building. This longer-term view and codification of landmark data relating to the building could also provide greater certainty and continuity with regard to costs, incentives, and payback periods against each possible energy efficiency measure.

Q21 - What evidence do you have on compliance with the requirement for providing an EPC when purchasing/letting a property, or the requirement to display the EPC rating in property listings. Does this differ by tenure type or by any other subset of the building stock? What evidence do you have on the reasons for lack of compliance with the requirement for an EPC?

39. We have stated through our response to question 26, a number of continued barriers to compliance, but note that the principle issues contributing to lack of compliance include a lack of clarity over the requirements for listed buildings, EPC requirements for self-contained/separately serviced units, and the split responsibility for EPCs post-fit-out of new buildings.

Q22 - What evidence do you have on what enforcement work is currently being done to ensure that EPCs are being produced?

40. In the experience of our members and now confirmed trough research undertaken by the Environmental Industries Commission (see EIC report, 2018) little to no enforcement has been carried out to date, in relation to the display of EPCs and DECs.

41. While the Trading Standards bodies of Local Weights and Measures Authorities are tasked with enforcing the Energy Performance of Buildings Regulations, we would raise the concern of how they will be resourced to do so and whether or not the eventual enforcement is carried out fairly and on an even basis. As far as we have been informed to date, the resources gathered from penalties will be retained at a local level but will not be hypothecated for the purposes of enforcement and given the wider narrowing of local government funding across the country, questions may arise around the incentives for enforcement across the board. Will the enforcement bodies be disincentivised to chase resource intensive but low yield enforcement action, instead prioritising fewer more lucrative examples of non-compliance?

42. Further, it is unclear whether when exercising the right to appeal a penalty notice to the First Tier Tribunal, a landlord is required to settle any financial penalties prior to appealing. This is commonly the case with HMRC disputes that are arbitrated by the First Tier Tribunal.

Q23 - Which of the suggestions provided above do you think would be effective in improving compliance with the requirement for an EPC, bearing in mind the other changes to EPCs being considered. Do you have any other suggestions? Please provide reasoning and any evidence you have to support your response.

43. We suggest that meaningful penalties imposed and enforced, alongside the retention of associated income by local authorities – to then be used for the promotion of energy efficiency measures – would improve compliance amongst a broader constituency of property owners, occupiers, and operators.

Q24 - What evidence do you have on costs of EPCs, how easy it is to procure an EPC or on consumer attitudes about EPC costs?

44. As stated previously, an issue that can affect the ultimate reliability of an EPC is the commoditisation of the certification process and the respective costs involved. Our members have highlighted that EPCs can be procured at low cost and completed without proper knowledge of how buildings work. A certificate/rating can be purchased at low cost from a qualified assessor that may not necessarily have the requisite (accurate) data to hand and therefore may be using default inputs. This would of course limit the potential reliability and accuracy of a given rating.

Q26 - This Call for Evidence has outlined a number of options for making improvements to EPCs. Of the suggestions discussed in this document or which you have put forward, is there one or more you think is particularly important, or are there any other suggestions you have or comments you want to make about EPCs?

45. We welcome this opportunity to address some of the wider issues that persist with regard to the implementation of minimum standards and EPCs, principally through the respective guidance issued by MHCLG. Whilst we acknowledge that this consultation is concerned with the operation and effectiveness of energy performance certificates and ratings, the remaining issues highlighted below are of equal significance when considering the aspiration to improve energy efficiency in the UK's building stock. If those responsible for implementing change, are unable to do so with certainty, ease, and in a cost-effective manor, the Energy Performance of Buildings Regulations will be limited in their effect. Alongside the remaining issues highlighted below we would restate the importance of reviewing Part L of the building regulations and providing clear and workable trajectories for efficiency standards sooner rather than later.

46. A definitive resolution is needed as to whether an EPC is required for listed buildings and whether they therefore fall within the MEES regulations. We acknowledge that the EPC guidance was updated in December 2017 which included alterations to the guidance on listed building exemptions, however for the purpose of legal challenge the wording pertaining to protected buildings (e.g. listed buildings or buildings in a conservation area) remains ambiguous. At best the ambiguity may result in unnecessary time and resource spent engaging with local conservation officers or EPC assessors, at worst the guidance could result in either non-compliance or the character or appearance of a protected building being unacceptably altered. Clarity on this issue would be welcome.

47. A significant number of our members develop, own and manage 'shell and core' buildings, which are common for retail and industrial uses. The current structure of the minimum standards and EPC conventions result in a scenario in which some property owners are effectively required to obtain two EPCs,

one to market the given property – which is likely to result in a poor EPC rating due to the use of default/worst case values – and another to allow for a lawful lease to be granted once the occupier has completed their bespoke fit-out. This problem is particularly acute for existing/refurbished buildings where the occupier fit-out resolves the issue as opposed to changes to the fabric of the building. We have noted elsewhere within this submission that the split of responsibilities poses a significant paradox in the pursuit of efficiency improvements and a sustainable resolution is needed.

48. The split responsibilities for the MEES Regulations and the operation of EPCs between DBEIS and MHCLG respectively are seen by many of our members as an obstacle to effective implementation. One such example is that the current EPC guidance issued by MHCLG suggests that lease renewals do not require EPCs, however this is contrary to the MEES regulations. It is noted that the EPC guidance does not have legal effect and is therefore creating confusion around the need to obtain an EPC for a lease renewal. With this in mind, and more broadly, we would suggest a longer-term consideration to house the responsibilities for MEES and EPCs under a single government department to allow for greater flexibility and swifter change.