

STBA

SUSTAINABLE TRADITIONAL
BUILDINGS ALLIANCE

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BEIS

*The Non-Domestic Private Rented Sector Minimum Energy Efficiency Standards
Implementation of the EPC B Future Target*

31st May 2021

Dear BEIS,

Introduction to STBA for reference

1. The Sustainable Traditional Buildings Alliance (STBA) is a UK-wide collaboration of sustainability, heritage and construction industry organisations that acts as a forum for sustaining and improving [traditional buildings](#). We work together to minimise risks and maximise benefits to traditional buildings and their occupiers. We combine technical expertise with a holistic approach promoting quality of life.
2. STBA has produced [research reports](#) and [guidance](#) for DECC and BEIS. Our 2012 [Responsible Retrofit](#) report for DECC led to it commissioning the [BRE Solid Wall Study](#). This identified approximately 35% of dwellings in the UK as heritage buildings. Historic England has published STBA's [Gap Analysis in the Energy Efficiency of Traditional Buildings](#). Our work has changed awareness of performance of solid wall buildings, and of [moisture](#) in them, prompting the formation of the [UK Centre for Moisture in Buildings](#).
3. STBA pioneered the Whole-House approach to retrofit. This was embraced in the Each Home Counts report which led on to PAS 2035. We are acting as technical advisor to BEIS for the new Social Housing Decarbonisation Demonstrator Fund, which takes a Whole House approach. We are piloting a large-scale Whole-House retrofit project under the [BEIS Thermal Innovation Fund](#), in partnership with Melin Homes.
4. STBA contributed to development of [PAS 2035:2019](#) which sets the standard for domestic retrofit and is mandatory for publicly funded projects. In this, STBA was instrumental in getting the health of buildings and occupants, and heritage considerations embedded into energy efficiency guidance. We have written the new Annex E for the PAS on Significance Assessment for non-protected traditional buildings. We are now contributing to PAS 2038 for non-domestic buildings, which is currently under development.
5. In contrast to the costly Government guidance (PAS 2035 etc) which is only available from the British Standards Institute, STBA has produced freely-available web-based guidance including the [Retrofit Guidance Wheel](#) and the [Whole house approach](#).

6. STBA is independent, inclusive, and not aligned to any pressure group or commercial entity.

7. STBA is contributing to the work of the international Climate Heritage Network in the lead up to COP 26.

8. While STBA's technical work has focused on individual buildings, our approach is holistic, and our research and collective experience have prompted reflection and review at a much broader scale. This includes places as well as buildings, and the value (or lack of it) given to the heritage and quality of life in solutions being promoted for tackling climate change.

9. We are particularly mindful of the need for a whole-life approach which takes account of embodied carbon in existing buildings, and of the carbon and financial costs of retrofit measures.

Question 1: Should listed buildings and those in conservation areas which are to be rented out be legally required to have an EPC?

As a very short answer, the STBA has no real objection to all buildings having an EPC. EPC's inherently are just a measurement device that can help government understand the wider energy efficiency of the nation's building stock. EPCs are widely recognised as being a reasonable way of aggregating data to give an overview for decision makers. EPC's though are not particularly reliable or accurate in terms of individual buildings. So care must be taken in terms of what happens to the EPC once it has been calculated. Virtually all buildings can be thermally improved and having a measure of this is useful, however there must also be some recognition of the limitations of modelling and certainly they should not be used as a design tools This is especially true for traditionally built structures. Listed and Conservation Area requirements to however mean that planning and specialist design are required in order to make any significant changes to buildings with this protection. There is little risk therefore associated with the design issues that have tended to flow from EPC ratings and their associated, automatically generated, suggested improvements.

There is therefore little risk associated with listed buildings and those in conservation areas having an EPC, although they may be of little practical use in terms of identifying appropriate improvements. The process will generate some information in terms of 'stock modelling' that, from a Governmental perspective, has some value. The STBA would suggest that there is greater value in undertaking a PAS2038 assessment so that the building can have a 'pathway' for improvements that have been designed by a qualified person. This type of process will be more practical, informed and really help landowners identify routes to making the stock as efficient as it can be. This is of course the trajectory that is required for all buildings. Making buildings better using a risk assessment process will ultimately be more beneficial in terms of carbon as there will be fewer mistakes. The process to achieve this would be via PAS2038, so the STBA would recommend that all buildings

within this protected status band must have a PAS2038 Assessment undertaken by 2030 and any recommendations (subject to other considerations) are undertaken.

We understand that PAS2038 cannot be 'legally' referred to at the moment as it is yet to be published, however it is such a key document in terms of energy efficiency in non-domestic buildings that it might seem prudent to wait until this process standard has been agreed and published before setting EPC targets. EPC's have historically been interpreted by the construction industry to undertake hasty measures that have been inappropriate for the traditionally built stock. Each Home Counts demonstrated this for the domestic stock and it may well be a similar response for non-domestic if there is no qualification on the methods required to improve ratings. If PAS2038 is to be adopted that it may be that the industry finds it confusing to have two different metrics operating at the same time. Clarity for the industry is really important and EPC's whilst appearing to be simple and straight forward, are less so for the types of buildings that are listed.

If EPC's are to be used, then it appears from reading the literature that Dynamic Simulation Modelling (DSM) gives much better accuracy to any EPC assessment (compared to SBEM). The research seems to indicate that the SBEM calculations are giving EPC scores that are too low and hence will require much more intervention and hence costs than when a DSM methodology is used. The use of DSM for traditional and listed buildings is therefore likely to give them a better EPC score and hence may well help to discount some of the more inappropriate measures being 'recommended'.

This has an impact on listed / traditional buildings as they tend to have more 'thermal mass' and this is not well catered for by SBEM.

Traditionally constructed buildings (most of the Listed stock) do require specialist knowledge, skills, and materials for their improvement, and this is not well catered for in the EPC recommendations. It is vital therefore that if EPCs are used that PAS2038 processes are recommended rather than a limited one-size-fits-all target, as this will help the wider traditionally built structures that are not protected.

Question 2: Do you support the Government's proposal to introduce an EPC C interim milestone in 2027? If so, are there any amendments you would make to the proposals? If you disagree with the proposal, please explain why and what your preferred approach would be. Please provide evidence where you can.

The use of PAS2038 will probably include the creation of a system that mirrors the PAS2035 Options Appraisal and Medium Term Improvement Plan (MTIP). There will probably also be something along the lines of a Trustmark verified building passport that then stores this information and records progress towards the 'final outcome' for the building. If this is the case, then again all of this target setting becomes meaningless, and a better metric is to follow the MTIP. This may be split up into Fabric Improvements and Service Improvements. Each building could then have targets set for it that reflect the overall aim to reduce carbon by certain dates. This would then tie in with periods when the works can be undertaken, for example, periods of void / in-between lets.

The trouble with any target dates is that works need to be done when there is an opportunity to undertake them. Targets are also made more difficult by the fact that certain works will be undertaken by the lessee and others by the lessor.

There was an aim within this consultation that the domestic and non-domestic regulations tie in together. This makes sense especially given that many properties will have a mix of residential and commercial functions within them. However, Domestic MEES regulations have different dates associated with them, so surely if these two pieces of MEES regulations are to be consistent then their timelines and requirements should be the same.

Question 3: Do you support the Government's proposal to improve the implementation and enforcement of non-domestic MEES by introducing compliance windows? If so, are there any amendments you would make to the proposals? If not, please outline why, stating what your preferred approach would be. Please provide evidence where you can.

See above as consistency is required across non-domestic and domestic regulations, especially for landlords who have diverse property portfolios.

Question 4: Do you support the introduction of a six-month exemption for shell and core let properties? If so, are there any amendments you would make to the proposals? If you disagree with the proposal, please explain why and what your preferred approach would be. Please provide evidence where you can.

Shell and core let properties where the landlord has little or no control over major energy efficiency factors (e.g. the services) can still be modelled and assessed. If undertaking an SBEM or DSM assessment it is possible to model the physical structure without the 'lessee dictated services'. It is also possible to assess the different options available for the lessee and to inform the lessor of the effects of this. This may then be able to be built into the legal contract between the two. So if the lessor knows that the building requires a heat pump to be installed in order to comply with the 'EPC rating / PAS2035 MTIP' then this can be stipulated as part of the contract. There may well be financial instruments that the parties then use to incentivise installation / changes etc within set timescales. Penalties may be able to be used as well as incentives, so for example if certain works have not been undertaken within set timescales there could be fines etc imposed.

Question 5: We welcome views on where improvements could support the transition from the current EPC E requirement, to the proposed new implementation and enforcement framework.

There appears to be a lot of EPC calculations involved and checking and rechecking. This is an expensive business as each assessment will cost around £500-£600. The PAS2035 process envisages that there would be one assessment, and this then generates a MTIP that is followed and lodged to the Trustmark Data Warehouse. If this were to be the case with non-domestic then it too could have

an agreed pathway completed and then assessed on an ongoing basis from the lodgements on the Data Warehouse.

If a building were to wish to divert from the agreed pathway (due to the lessee wanting to do something different) then a re-assessment could take place, but it would make sense to have a more holistic and comprehensive PAS2038 assessment undertaken first with a corresponding EPC and MTIP. The progress of the MTIP will inform any regulators of the associated EPC rating.

Having EPC after EPC undertaken, especially with the discrepancies already mentioned between the DSM and SBEM methodologies, could cause no end of confusion as results will vary between assessors, as well as methodologies. The domestic market has seen this a lot where EPC ratings vary wildly dependent on the competence of the assessor. This could mean a lot of complaints as well as a muddled and confused market despite what should be standardised systems.

Question 6: Do you agree with the proposals to strengthen enforcement requirements to support non-domestic MEES under the PRS Regulations? If not, please explain why.

The same arguments apply here regarding the potential ability to use the MTIP or equivalent from PAS2038 as a way of tracking improvements rather than constantly undertaking EPC assessments. The cost of obtaining a valid Non-Domestic EPC is significant even for small properties, any additional investment required may not be financially feasible therefore risking these low rental properties leaving the rental market. In many areas, these units fulfil community spaces, provide affordable units for start-up businesses, and enable local trades to work locally, therefore the reduction of these commercial units would have significant impact. So using a system that updates a good quality assessment rather than constantly reassessing with potentially less accurate methods would appear to make more sense financially and also in terms of disruption to business etc. Using this system also encourages businesses to use Trustmark approved installers so that the improvements can be lodged into a Data Warehouse rather than 'black-market' traders undertaking energy efficiency measures.

Question 7: Do you support the introduction of a PRS property compliance and exemptions database to support enforcement of the PRS Regulations under the new EPC B framework? If not, please explain why.

Absolutely this could be a really useful tool if it were able to be structured in a manner that follows the PAS2038 MTIP and were able to track improvements in a manner that also 'updated the EPC rating'. If this EPC were then checked every 10 years to see whether all the work had been completed, then it could act as a compliance tool too. If any works that had been lodged in the Data Warehouse had in fact not been carried out, then this would automatically lead to a compulsory full re-assessment and the PAS2030 installer being summoned to account.

Just having a record of whether a property has an EPC and whether it is compliant or exempted is a bit of a waste of a database when it could be so much more.

Question 8: Do you agree with the proposed landlord registration fee for the PRS property compliance and exemptions database? If not, please explain why.

I would agree with a fee if it were to be a comprehensive Data Warehouse style database that works in a PAS2038 style manner that actually gives better functionality. If it is just to store EPCs then it would have to be cheap to register a property (in line with domestic one would assume).

Question 9: Do you agree that £5,000 is a suitable maximum limit to set as the penalty for non-compliance with the new framework requirements? If not, please explain why.

This figure is not really an incentive to 'difficult' landlords to comply. It should be that the MEES is seen as a facilitating service rather than a compliance one. If the service were designed to give a good initial assessment (using BSM) that also provided guidance / requirements for lessors and lessees by modelling base structures so the core and shell lets could comply by knowing what services are appropriate for that shell and also by tracking improvements and issuing updated EPCs as they are lodged with Trustmark, etc. At this point, if a landlord is giving false information, it would appear more appropriate to raise the fine by around 10x the current figure to £50k.

If landlords and industry think and know that they are getting a quality service that is convenient, reactive to their improvements, rewarding them with new updated EPCs, non-intrusive by only having inspections every 10 years etc then I think that they should bear the brunt of any non-compliance if they are proved to have given falsehoods.

Also having smaller fines that take time and have legal costs associated with them for the Local Authorities will just mean that fewer will be undertaken, as it will not be worth the time and energy to prosecute.

Question 10: We welcome views on the clarity of the current PRS Regulations in relation to enforcement of penalties for non-compliance with MEES.

Having a larger fine available for items like falsely accounting / reporting etc should help to stop this type of behaviour, especially if the fine can be repeated for each breach. Having an ability to recoup costs for local authorities also means that they are more likely to prosecute companies who are in breach and so having the clarity that this is possible is more likely to be effective.

Question 11: Should the Government allow local authorities to issue a request to landlords and tenants to inspect properties for compliance under the PRS Regulations? If not, please explain why.

This needs to be available so that checks can be undertaken, but again by using a high-quality assessment and then a Trustmark style Data Warehouse that can recalculate EPCs etc will remove all the costs and inconvenience of having to visit site numerous times for new EPCs, inspections etc. This makes the whole programme look and feel like a real imposition for landlords and occupiers. The ability to do site inspections is necessary, but it could be a last resort in terms of non-compliance.

Question 12: Do you agree that all exemptions should be reviewed at the start of each compliance window? If not, please explain why.

Again if a PAS2038 style assessment is undertaken and the MTIP makes it clear that a building will not comply but that it can be better (i.e. it may be that a building might be 'as good as it can be' at a D rating – noting that this might improve to an A or B once the grids decarbonise) then this is known at an early stage. There is then no need to review it all as the MTIP has already done its work and this can then be assessed in real time using the Trustmark Data Warehouse lodgements.

There needs to be a smarter way than constantly going back to properties doing EPCs at the landlords' expense, especially when we have a model system in the domestic market that could be enhanced for the purpose.

The domestic market has also shown that there is a great variation in the ratings applied to the same building by different assessors. Having more EPCs may well sow the seeds of confusion if this is repeated in the non-domestic market. With buildings having at least two main approved methods of compliance that appear to be very different in their accuracy may well mean that a well performing building may appear worse even after improvements have been made. If this happens then there may well be a push-back from the industry as this sort of news travels fast.

Question 13: Do you support the introduction of a standardised calculator to simplify the requirements for the payback test? If not, please explain why.

All calculations should be standardised, but they must also consider the whole building and its occupants. Purely energy focused calculators are simple and hence both useful and useless. It is understanding that this is the case that needs to be borne in mind. They can be useful as they provide a simple to 'understand' in a very superficial manner. However, they are useless because in the real world we need to consider a much wider range of factors including (and not exhaustively) the following:

- Condition
- Context
- Significance
- Health
- Moisture

- Embodied Carbon
- Skills
- Maintenance requirements
- Design
- Daylighting
- Ease of access

Payback (and money) is not the only factor that determines decisions. The health, comfort and wellbeing of the workforce may well also be important to the lessee. Long term deterioration / maintenance / moisture movement / condition etc may well be a major determinant to the lessor. Assuming that everything is driven by financial concerns alone is a hindrance to progress. This is why we must use a more holistic assessment at the start of the process, so that we are not blinded by the pursuit to the lowest common denominator.

The PAS2038 assessment and its subsequent Options Appraisal will take this into account to a certain extent as certain options should be struck out due to the risks associated with them. It is also the case that certain measures can rarely pass a 7-year economic test because of the associated enabling works with them (scaffolding, repairs etc). However, if repairs are deemed to be necessary anyway and hence the scaffolding etc is required for them, it could be discounted as an enabling work cost associated with an energy improvement. Thus assessors could be empowered to make certain improvements into larger packages rather than individual work packages. E.g. looking at EWI on its own may not pass a 7-year test, however if the scaffolding costs etc were to be allocated to the repairs budget and hence the EWI were seen as a measure without the scaffolding expenditure it might be viable. Getting landlords to think this way rather than in isolated and work packages may be a way of encouraging more rapid uptake.

Use of a standardised calculator may well be a doubled edged sword, therefore. People who don't wish to undertake measures will be able to use it legitimately to show that measures are not viable. So it creates an easily accessible loophole. However, people who do not wish to undertake measures will find a reason why it is not possible whichever way Government approaches it. People who do wish to do measures might also be discouraged if its simplicity indicates that measures are not financially incentivised. Most people who will want to make improvements to their stock will be driven by other metrics rather than economic ones. So providing a single 'test' is potentially too simple. Maybe raising simple questions around issues like occupier satisfaction, customer perception, health, moisture, maintenance and long-term sustainability need to sit alongside any economic calculator.

Question 14: What are your views on whether the three quotes requirement should be kept for certain circumstances, where landlords wish to dispute the standardised costs, and how would the requirement work in such circumstances?

This is where the argument in Q 13 becomes more powerful as people will be bidding for a larger package of works, not all EEMs. Given that a lot of the costs are not standardised it is impossible to

make comparisons unless you take the non-standard enabling works out of the equation. This work should be identified by a good initial assessment and could then be costed separately. Once this has been done then you can start to assess EEMs using standard sq. m / linear m costs. If one knows from the outset that certain works are required (due to damp / structural defects etc) then you can legitimately take them out of a calculation, as they need to be done anyway regardless of any EPC rating.

Question 15: Should the Government seek primary powers to introduce tenant responsibilities duties for MEES compliance under the PRS Regulations for nondomestic properties, and to introduce duties of mutual cooperation for landlord and tenant? If not, please explain why. If so, what do you think these duties should consist of? Please explain your reasons and give examples where possible.

As stated above in Q4 if issues like shell and core can be modelled in a manner that facilitates lessee and lessor obligations in terms of EEMs so that they are built into contracts then it becomes clear as to who is responsible and by when. This can either be reviewed in contract (after 3,5 years etc) between the two parties and if one of them has not held up their side of the contract then penalties can be triggered.

It is impossible to insist on mutual co-operation, but if the tools for compliance are given from the initial assessment and modelling then a contractual requirement can be created. It maybe that BEIS provides a common set of wording that can be inserted into a standard contract format.

Question 16: Do you think that smart meters could play a role in supporting landlords to meet Government energy efficiency requirements such as the PRS Minimum Energy Efficiency Standard under the PRS Regulations? What are the key benefits/barriers of smart meters playing a role?

There is whole other argument here that could be applied to the process. That of using DEC rather than EPCs. DECs can report on actual usage and are much cheaper to assess. This could be done remotely in terms of smart meters, but the key here is energy use associated with the building rather than the processes undertaken there. This requires complicated wiring / re-wiring of premises to capture elements like heat load for occupation purposes, electrical load just for occupancy purposes (lighting etc) as opposed to manufacturing / business purposes. How is this done, who decides, who monitors that it has been done correctly,

Whilst therefore smart meters etc are useful one fears that it would lead to a false sense of security unless complex and secure systems were designed and installed. How would this change as businesses change, adapt, expand, contract etc.

Smart meter information though can be aggregated and add to an extensive countrywide based set of data that can help inform decision / direction into the future.

STBA

SUSTAINABLE TRADITIONAL
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Yours sincerely,

A handwritten signature in black ink, appearing to be 'Peter Draper', written in a cursive style.

Peter Draper – Director
On behalf of the STBA