THE NON-DOMESTIC PRIVATE RENTED SECTOR MINIMUM ENERGY EFFICIENCY STANDARDS: THE FUTURE TRAJECTORY TO 2030 CONSULTATION RESPONSE

January 2020

Better Buildings Partnership

The BBP is a collaboration of the UK's leading commercial property owners and managers who are working together to improve the sustainability of existing commercial building stock. Our members represent over £250bn of AUM, and via the Managing Agents Partnership, manage over 30,000 buildings.

This year the BBP and the Managing Agents Partnership have continued an extensive programme of work to support our members in line with the objective of improving the sustainability performance of their portfolios. In September 2019 we launched our Climate Change Commitment, which saw 24 members covering over £300bn AUM commit to delivering net zero carbon buildings by 2050. We have also begun pioneering our Design for Performance programme, which focuses on more accurately rating the sustainability of assets based on performance, rather than modelling. Members have introduced their own voluntary sustainability commitments and we have introduced new working groups focused on climate resilience and achieving net-zero emissions.

High-level Response

The BBP members welcome the Government's intention to set an ambitious and clear trajectory for MEES. This provides certainty for the market and can enable property owners to plan for and implement the changes required to meet the minimum standards. It is, of course, important that any legislation takes into account the diverse nature of the UK commercial real estate market and the constraints and challenges that organisations may have in compliance. Furthermore, the nature of EPCs mean that MEES alone are not likely to achieve the impact required unless they are accompanied by policy measures that address actual operational energy performance.

The main challenges that we foresee regarding the implementation of an EPC rating B by 2030 trajectory are as follows:

- The questionable adequacy of EPCs as a tool to support the transition of the UK to a low-carbon economy. The BBP has highlighted on numerous occasions of the failure of EPCs to link to operational performance and it is comforting to see the Consultation recognise this challenge with a commitment to release a consultation on the topic later this year. However, Government must also note the failure of the MEES regulations, via the use of EPCs, to take into consideration the embodied and whole-life carbon impacts of upgrade works.
- Our belief that the costs and resources required by the industry to meet the trajectories have been significantly underestimated.
- The lack of an adequate monitoring and enforcement regime providing the necessary tools for enforcement officers.
- The inconsistency in assessor quality and the quality of certified ratings received by property owners.
- The lack of Government guidance regarding the process around tenant fit-out and the impact that fit-out works can have on EPC ratings when space is provided as "shell & core". This issue is pertinent to the retail sector.
- The cumbersome process of exemptions in requiring three quotations, as well as the resources required for

property owners of Listed Buildings to gain exemptions where it is clear upgrades are not possible.

- The implications and unintended consequences the use of generic EPC recommendations can have on property types that the EPC was not designed to cover. In particular, the negative impacts EPC recommendations can have on the ventilation of heritage properties.

We hope the following responses to your queries prove useful. It is worth noting that the BBP has performance data, case studies and market knowledge that could be very helpful to the Government in formulating effective policy in this area and would be happy to provide more details and briefings on this to Government to assist in this process.

Should you require any further information on any aspect of this submission please contact Christopher Botten, Programme Manager at c.botten@betterbuildingspartnership.co.uk.

Membership

BETTER BUILDINGS PARTNERSHIP MEMBERS

MANAGING AGENTS PARTNERSHIP MEMBERS

Call for Evidence Response

1. Do you have any evidence which can improve the Government's understanding of energy use in the non-domestic building stock?

- The non-domestic building stock in the UK is unquestionably moving towards being more energy efficient, regardless of whether the government sets prescriptive mandates. At the time of writing, 24 corporate members of the Better Buildings Partnership have signed the BBP Member Climate Change Commitment—committing to net-zero carbon emissions by 2050 and disclosing pathways to achieving this in 2020. This provides an indication of the strategic significance that property owners have placed on delivering net zero carbon buildings.
- The BEES energy survey is a good start to providing an overview of the UK commercial building stock, but the reality is that commercial buildings are very diverse and therefore assumptions made based on this data need further careful examination and interrogation. For example, the consultation states that for most buildings "… only 33% of energy consumption is related to sector specific activity end uses." BBP's engagement with its members suggests that tenant consumption (and the nature of end uses) varies significantly from sector to sector. Therefore, care should be taken with formulating policy responses based on such data sets; the government should seek to understand in greater detail specifics about the sub-sectors of occupiers and the important influence that they have on the energy performance of buildings in terms of both energy demand and end-use. In this regard, the BBP welcomes the Government's intention to issue a consultation on mandatory disclosure of performance in-use next year, and strongly advocates for policies based on the disclosure of performance outcomes to drive market transformation and much improved transparency on the energy performance of buildings.
- The Better Buildings Partnership has been measuring the in-use energy performance of its members' managed portfolios for approx. 10 years through its Real Estate Environmental Benchmark. In 2019, it gathered data on over 1,000 commercial properties. This dataset provides a vital insight into the energy performance of buildings in the commercial sector and is also used to develop energy performance benchmarks that property owners can use to compare their properties and set improvement targets. The BBP would be happy to provide BEIS with more details of this data and analysis.
- The Better Buildings Partnership's own experience has highlighted that measuring energy performance and benchmarking against industry peers can help drive energy efficiency improvements. It provides an improved understanding of how efficiently a building is being run and helps identify energy efficiency measures and changes to management practices. Over the past nine years of monitoring performance via the Real Estate Environmental Benchmark, our members have reduced the energy intensity of their real estate portfolios by 22%, and continuously made year-on-year reductions across their like-for-like portfolios.

2. It has now been over a year since the minimum energy efficiency standards for the non-domestic private rented sector were introduced. What have been the positives and areas for improvement of their introduction?

- The introduction of Minimum Energy Efficiency Standards has arguably been the most ambitious and bold energy efficiency related policy introduced in the U.K. to date, which has had numerous impacts within the real estate investment market.
- Firstly, MEES has raised the topic of building energy efficiency beyond the remit of the corporate sustainability teams into core business risk management strategy. There is now a greater understanding of and appreciation for the importance of energy efficiency beyond the sustainability teams within property companies and real estate investors.
- Large commercial property owners have implemented processes within their business activities to manage compliance risk. In general terms this includes:
    - Reviewing EPCs across their property portfolio to assess risks of non-compliance and re-certify properties where there are concerns over EPC quality.
    - Undertaking cost appraisals of properties at risk to understand the cost implication of bringing the properties up to a compliant standard.
    - Requiring fund and asset managers to feed in compliance requirements and upgrade costs into their fund and asset management strategies.
    - Setting minimum EPC targets for major refurbishment works.
    - Implementing appropriate clauses within leases to assess tenants' plans, as part of fit-out and alteration requests, to determine potential impacts on EPC ratings.
    - Integrating a review of EPCs within acquisition and disposal strategies. Reviewing the quality of an EPC is now part of the due diligence process of any new acquisition. We are aware of instances where the purchasing party will arrange for their own EPC assessment to be undertaken to be confident of the rating, as well as understand any costs associated with upgrading the property. We have heard anecdotal evidence of price chipping as a result of an EPC rating. The BBP has produced guidance on how to integrate MEES risk management within the acquisition due diligence process within its Acquisitions Sustainability Toolkit.
- Two case studies demonstrating how two of our members have addressed MEES risk compliance can be viewed here:
    - CLS Holdings De-risks Entire UK Portfolio for MEES
    - Reducing Risks of Minimum Energy Efficiency Standards
- The introduction of MEES has required property owners to implement upgrades to F and G rated properties. The improvement of the worst energy performing properties in England and Wales is a big positive. However, it should be noted that decisions to upgrade equipment is often done on a least cost basis without considering the wider costs of embodied carbon. It is recommended that whole life carbon costs incorporated into EPC recommendations and pay-back period assessment to counteract these decisions and the unintended consequence of increasing emissions in the supply chain.

- The introduction of MEES has also helped to drive an improvement in the quality of EPC assessments. With business decisions now being influenced by EPC ratings, much greater weight is being placed on ensuring the quality and accuracy of new assessments, and old assessments are being re-certified to ensure their accuracy. However, there remains an issue of quality control with EPCs: in theory, someone procuring an EPC assessment should be confident that any two assessors will come up with the same EPC rating and that the recommendations report will contain recommendations that are meaningful for that specific property and do not lead to unintended consequences. However, this is often not the case, which has led to duplication of effort where a prospective owner may get a new EPC assessment if they are unsure of the quality of an EPC for a property they are considering acquiring. A significant issue is the level of default values that an assessor has used to generate an EPC and the lack of visibility regarding these input values. If EPCs clearly stated the percentage of default values used to generate the certificate, that would provide a clear, instant indication with regards to the quality and reliability of that EPC. Training of assessors is equally important. It is essential that there are professional standards and quality assurance measures in place to enable the market to have confidence in the quality of EPCs and the associated recommendations.
- Many real estate lenders are now incorporating EPC ratings into the due diligence process for new lending decisions. In addition, beyond this risk management strategy, some more forward-thinking lenders are taking a more progressive stance and developing new finance products relating to the energy performance of the properties they lend against. This is a significant positive with regards to finance availability for the upgrade of the existing building stock.
- Feedback from our members is that compliance and the upgrades across their property portfolios has not be overly arduous. However, it should be noted that our view is biased towards large property owners with access to finance; the same view may not be true for SME property owners. It is also important to note that compliance to date has been through self-policing with very little oversight from enforcement bodies. One of the key areas for improvement is to ensure an effective and fair enforcement regime is in place. At the moment, the information required for effective enforcement is not available to enforcement officers. As a minimum, a system is required where an EPC is reported alongside every lease event. This would provide the ability for enforcement officers to easily identify if and where there's been a breach of the regulations. At present, it is not clear how an enforcement officer is able to ascertain such information.
- An area of improvement that would significantly benefit from government guidance is the process around tenant fit-out and the impact that fit-out works can have on EPC ratings when space is provided as “shell & core." In such situations, the regulations have resulted in unintended consequences. These include:
    - delays to leases being agreed on due to lengthy discussions relating to the role the tenant has in terms of providing fit-out works that meet the required EPC rating before the lease can be signed.
    - services being installed by the landlord simply to allow an EPC assessment to be undertaken and a lease signed, only for the tenant to remove such services and install their own when they move into the space. Such a situation increases cost, waste and embodied carbon - all undesired effects.

  Guidance is required from Government in relation to what is an acceptable process to follow in instances where a "shell & core unit" is being provided to an occupier and a new EPC rating is required. For example, the ability to sign a lease based on a 'draft' EPC assessment that includes the tenant fit-out specification, and a requirement to lodge a full EPC on completion of the fit-out. Such guidance would provide confidence and assurance from the industry as how to best manage compliance risk.

- One of the most important considerations to reflect on is whether the achievements to date and future proposals will meet the desired outcomes in terms of reducing energy consumption across the non-domestic building stock. The consultation document explicitly recognises that EPCs are not an indicator of actual energy use and therefore do not drive reductions in energy consumption. This is a critical message the BBP has stressed for many years. It is our view that the MEES regulations should be used by Government to ensure that the most energy inefficient properties across the country are continually upgraded over time with more energy efficient systems and fabric. This ensures the opportunity for a building to be run efficiently, but it does not directly result in efficient operations. An equally important component of any suite of energy efficiency policies is the addition of the disclosure and rating of operational performance. With those two policy instruments combined, the real estate industry has a rating that indicates how theoretically well a building *should* perform via an EPC, as well as how that building *is* performing based on an operational rating, e.g. a Display Energy Certificate. The BBP therefore welcomes the announcement from Government that a consultation on mandatory operational ratings will be published in 2020 and strongly argues that any such policy be considered a valuable tool to drive energy reductions that sits alongside MEES.

3. Do you agree that 2030 is the appropriate date to set the future trajectory? Does this allow a long enough lead in time for landlords and businesses to plan effectively, as well as providing the energy efficiency market with medium to long-term certainty of demand?

- The BBP has previously recommended that the Government set goals around 2030 and maintains that this is an appropriate timeline for the real estate sector to plan for. The BBP has also recommended that any changes to the trajectory should be published at least five years in advance of implementation. Feedback from our members is that a long-term trajectory helps them to respond appropriately and align upgrades across their portfolio with key intervention points within individual property lifecycles where upgrades are most appropriate, and the opportunities are greatest.

4. To what extent do you think an EPC B trajectory provides sufficient certainty of demand to encourage suppliers in the energy efficiency market to grow, scale and innovate?

- The BBP does not have an informed opinion on whether the EPC B trajectory would provide the levels of certainly required for energy suppliers to become more innovative or grow their business. This would need to be informed by direct engagement with the suppliers of energy efficiency products and services. However, given the scope of buildings that would require upgrades within the timeframe set, it is believed that it would provide sufficient certainty.
- However, it should be noted that there is a risk that such policy changes result in unintended consequences that shift focus away from what the market is voluntarily doing. Currently, there is a large and growing movement towards Net-Zero Carbon that is increasingly focusing on operational energy use and the most appropriate ways of reducing in-use energy and carbon emissions. There is a risk that requirements to align to EPC recommendations force building owners and suppliers down a specific design route, which potentially diverts action away from more appropriate solutions and stifles innovation. This highlights why MEES regulations should focus on improving the designs of the worst performing buildings,

and operational ratings should be used to encourage solutions that drive energy efficiency solutions and innovations that are most appropriate and cost effective for the sector.

5. What do you think are the opportunities and challenges of the Government's preferred 2030 EPC B trajectory?

- Key opportunities:
    - The vast majority of the commercial building stock in England & Wales will be updated in terms of building fabric and systems.
    - High levels of investment into energy efficient technology, with knock on effects into employment.
    - Certainty for suppliers to upskill their workforce and improve competencies.
- Key challenges:
    - The BBP supports the ambition of a B rating, which recognises the extent and pace of change required for the move to a low-carbon economy. However, we have reservations with regards to the extent and detail of the modelling undertaken as part of the Impact Assessment, and question whether the scale of the investment is possible. We believe the assumed costs to upgrade a building to a B rating have been significantly underrepresented. This will undoubtedly lead to instances where buildings are unable to achieve the rating without being demolished and rebuilt, and where some owners cannot finance upgrades. This could also lead to situations where the carbon emissions of demolition and redevelopment will be greater than necessary, when taking embodied carbon into consideration. The Government therefore needs to acknowledge that within their proposals there will be "winners and losers" where some businesses will be severely economically hit and where others will prosper.
    - Given it is known that EPC improvements do not reduce in-use energy consumption and carbon emissions, it is hard to justify the scale of upgrades and cost to business that will be required when that money could be more appropriately and effectively spent on energy efficiency management practices and controls systems, reducing actual energy consumption.
    - Even though a 10-year timeframe is provided, this typically only provides one widow (maybe two for some properties) for major refurbishment works to be undertaken. There will be some buildings where leases already extent beyond 2030. Given that the opportunities to implement deep retrofits occur when the building is vacant (before a new tenant occupies the space), it is questionable whether a trajectory that follows the initial implementation of MEES would be more appropriate and provide a smoother journey for the industry to learn how to appropriately comply (i.e., setting a date initially for new leases, followed by a secondary data for all existing leases). For example, this could mean a B rating by 2030 for new leases, followed by a B rating by 2035 for all leases. This would provide the opportunity for owners and occupiers to learn how best to upgrade their properties at the point of least resistance, and then take that learning and apply it to buildings where the tenant is already in situ.
    - There is no centralised system in place for Government to accurately monitor compliance.

6. We estimate an EPC C trajectory will only bring 42% of the nondomestic PRS building stock into scope of the regulation. Are there any alternative approaches that could complement an EPC C trajectory that would guarantee the necessary action across the remaining stock to drive clean growth and deliver sufficient energy and carbon reductions?

- As mentioned in answers to a number of the consultation questions, the BBP believes, irrespective of whether a trajectory of B or C is selected, the greatest tool for driving energy efficiency within the non-domestic private rented sector is the introduction of operational ratings. The BBP eagerly anticipates the release of the consultation on this topic in 2020 and would be happy to provide any form of support that would be useful for the Government in developing its thinking on this topic.
- However, if Government was seeking additional policy levers to incentivise early adoption, it may wish to consider exploring:
    - Tax breaks on energy efficiency equipment/works;
    - Linking the energy performance of space to Business Rates;
    - Enhanced Capital Allowances for works to improve energy efficiency; and
    - Incentivising the financial sector to offer 'green financing' products that will support the roll-out of energy efficiency works across the real estate industry, e.g., grants or low-interest loans.

7. Can you identify any issues regarding the current administration of the seven-year payback test which could be improved to support the goals that a tightened regulatory trajectory to 2030 aims to deliver?

- The strongest feedback we have received from members with regards to the seven-year payback test was concerned with the requirement of three quotes. There was unanimous consensus that this is an overly onerous exercise. In addition, it has led to situations whereby consultants know they are undertaking quotations for work that will never come to fruition and therefore avoid such exercises or require high fees to undertake the quotations. We therefore believe a scenario whereby one quotation is required from an accredited supplier would serve the desired purpose and overcome this issue. If Government had concerns with regards to gaming of the system, then perhaps a system of three quotes are required if the pay-back period of the first quote is between 8-9 years.
- We also believe it is a missed opportunity that pay-back assessment is based on individual installation items. We believe there is significant opportunity to increase the number of installations by requiring a package of works to be combined and have a "blended" pay-back of 7-years.
- It should be noted that feedback from our membership is that the payback test is not a route that has been actively sought and that costs are viewed with the wider lens of impact on value. These are very distinct perspectives, but as a result, more likely upgrade works are undertaken. However, it should be noted that this view may not be representative of the wider real estate investment industry.

8. Would a single backstop date in 2030 or phased milestones to 2030 be the more effective method for implementing the trajectory options? Does it depend on the trajectory option? If a single backstop were favoured by the Government, what type of financial and non-financial incentives could encourage landlords to install measures earlier than the 2030 deadline?

- We believe a single backstop date of 2030 provides the greatest level of flexibility in allowing property owners to factor upgrades into their asset management strategies. It is the simplest option and the one that provides the greatest level of clarity. Parties will inevitably need to plan for internal milestones to reach this goal, so implementing phased milestones would not provide much added value in this process—and indeed could ultimately hinder compliance if companies are more focused on short-term rather than long-term goals.
- In addition, the BBP would recommend that the Government review progress towards the 2030 trajectory at key milestones, enabling the Government to 'check-in' on progress and identify specific challenges that may compromise the ability to deliver the MEES target.
- However, we wish to reiterate the point raised in Question 5, and question whether a trajectory that follows the initial implementation of MEES would be more appropriate and provide a smoother journey for the industry to learn how to be appropriately comply, i.e., setting a date initially for new leases, followed by a secondary data for all existing leases. For example, this could be a B rating by 2030 for new leases, followed by a B rating by 2035 for all leases. This would provide the opportunity for owners and occupier to learn how best to upgrade their properties at the point of least resistance, and then take that learning and apply it to buildings where the tenant is already in situ.

9. Are there any reasons why any of the current exemptions will be less effective under a tightened trajectory?

- Feedback from members is that exemptions are rarely sought. The potential valuation impacts in situations where a property needs to be disposed of quickly property are too great and therefore the preference is to ensure the property is compliant. It's therefore likely that the number of exemptions is weighted towards the SME market / smaller property owners.
- Specific feedback from members is that the exemption process needs to be improved for Listed Buildings. It is still unclear as to how and when Listed Buildings need to comply in line with their requirements to obtain an EPC or not. Currently, owners of Listed Buildings attempting to comply with the regulations are often incurring unnecessary fees, spending time and resources to submit planning requests that will ultimately be refused, in order to gain exemption. Owners and Local Authority Planning Officers would benefit from clearer guidance on the compliance requirements for Listed Buildings and, where compliance is required, how the planning application process can be streamlined to reduce unnecessary costs.
- It is worth noting that with the tightening of the regulatory requirements it's highly likely a greater number of organisations will try to gain exemptions, as well as potentially look for opportunities to game the system. This highlights the importance of an effective and fair enforcement regime.

10. Are there any ways in which the market can overcome situations where the tenant has fit-out requirements and is willing to fund the improvement of the building at the start of the tenancy?

- We are aware of anecdotal evidence where close collaboration between the owner and the tenant have resulted in the 'sharing' of costs and where these issues are addressed in the lease Head of Terms. However, these examples are few and far between and usually require a knowledgeable and committed owner and occupier who are able to engage and negotiate shared costs, outcomes and benefits.
- The industry would significantly benefit from government guidance on the process that should be followed with regards to tenant fit-out, where the landlord is providing a "shell & core" unit and significant services installed as part of the tenant fit-out will have a material impact to the EPC rating. In these situations, the current MEES regulations has, in many instances, led to unintended consequences. These include:
    - delays to leases being agreed due to lengthy discussions relating to the role the tenant has in terms of providing fit-out works that meet the required EPC rating before the lease can be signed.
    - services being installed by the landlord simply to allow an EPC assessment to be undertaken and a lease signed, only for the tenant to remove such services and install their own when they move into the space. Such situations increase cost, waste and embodied carbon - all undesired effects.
- Guidance is required from Government in relation to what is an acceptable process to follow in instances where a "shell & core" unit is being provided to an occupier and a new EPC is required. For example, the ability to sign a lease based with 'draft' EPC assessment based on the tenant fit-out specification that meets the minimum requirements, and a follow up requirement for a full EPC to be lodged on completion of the fit-out. Such guidance would provide confidence and assurance from the industry as how best to manage compliance risk.

11. Are there any unique challenges that the tightened trajectory will pose to SMEs or any individual sector? How could the sector look to overcome those?

- The range of different commercial building types with their varying uses and leasing arrangements can create challenges in attempting to apply the MEES regulations. For example:
    - The retail sector presents unique challenges associated with the short-term nature of leasing agreements and the extensive works undertaken as part of individual retail unit fit-outs. Retail leases tend to be short term and a unit will be offered to the retailer as a 'shell' that is then fitted out with the retailer's own equipment. The use of EPCs as a policy tool to set a minimum energy efficiency standard produces specific challenges as EPCs will typically be undertaken when the unit is a 'shell', and therefore fails to capture the equipment installed unless a new EPC is commissioned following fit-out. There is currently no policy in place that requires the retailer to consider the energy efficiency of equipment it installs within the retail unit, or a requirement to monitor the ongoing in-use operational performance once the retailer is operating within the unit. The proposed option of a 'draft' EPC followed by a full assessment following fit-out would overcome such issues.
    - Heritage properties often have characteristics that challenge contemporary technical interpretations of energy efficiency. For example, most of them are not insulated and have a high

rate of air permeability but are built using high-quality construction techniques and heavy thermal mass materials that are designed to breathe. In contrast, modern buildings are very well insulated and use mechanical ventilation to control moisture. This can result in the EPC Recommendations Report suggesting improvement measures for heritage properties that are tailored towards modern construction techniques when in reality, they may be inappropriate and detrimental to the building fabric. The BBP has published the following report that highlights such risks: Minimum Energy Efficiency Standards and Heritage Properties.

- The tightened trajectory is likely to post greater challenges for those sectors already under wider market pressure (e.g., retailers). The government should give consideration as to how compliance with the proposed trajectory is incentivised through other policy and fiscal mechanisms. The most significant impact would be through reviewing business rates and rewarding retailers by providing reduced business rates for early compliance. This enables the occupier to justify any additional on-costs, to reap the benefits of reduced operational expenditure (thereby also contributing to greater business robustness) and also to reduce their own risk by reducing emissions of the spaces they occupy.

12. At this stage we welcome views on how the Government could most effectively improve enforcement of minimum energy efficiency standards under an EPC B or C by 2030 trajectory.

- The current issue is not that the enforcement needs improving, but that an enforcement regime actually needs to exist. Compliance to date has been through self-policing with very little oversight from enforcement bodies. With the ratcheting up of requirements to an EPC rating of B or C, it is critical that an effective and fair enforcement regime is established. At the moment, the information required for effective enforcement is not available to enforcement officers. As a minimum, a system is needed whereby an EPC is reported alongside every lease event for enforcement officers to easily identify if there's been a breach of the regulations. At present, it is not clear how an enforcement officer is able to ascertain such information. From this entry level point, KPIs (e.g., enforcement rates) can be used to monitor success and progress.

13. As illustrative examples, do the costs, bill savings and private payback periods that our modelling assumes for these building types approximate your experience? (p.29)

- We received strong feedback from our members that the representative costs, bill savings and payback periods *do not* provide an accurate representation of the costs that are likely to occur as a result of the EPC B trajectory, with costs understated by at least 50%.
- As an example, one of our members had a small office of approx. 110m2 set over several floors. This had T12 and T8 lighting, some fan heaters and some old heat pumps. It had an EPC rating of G183. To do the bare minimum to obtain an E rating, the cost to convert the lighting to T5, strip out the fan heaters and heat pumps, and install an electric panel heater in each room (7 rooms) was approx. £6,800. The estimates within the consultation document suggests an upgrade of an office space of 157m2 from an E to a C or B will cost approx. £3,900 and £4,700 respectively.
- The consultation document states that "*We estimate the EPC B trajectory would require an investment cost of approximately £5 billion between 2019 and 2030*", however, some very crude analysis suggests this

figure appears very conservative and potentially orders of magnitude lower than reality. Within the REEB data set, there are 343 offices with EPC ratings. Assuming conservative estimates of upgrade costs for these properties, we estimate it will cost almost £250m to bring the 343 offices to the required standard of B (see table below). It is therefore questionable how the country's entire non-domestic sector will only total £5bn.

Table 1 Estimated upgrade costs of offices within the REEB database for 2018/19

EPC Rating	Property number	Floor area (m^2)	Estimated upgrade cost per m^2 (£)	Total cost (£)
F	6	46,324	200	9,264,748
E	58	519,051	150	77,857,677
D	163	1,168,361	100	116,836,081
C	116	824,575	50	41,228,731
Total	**343**	**2,558,310**		**245,187,237**

14. The table lists the costs and benefits we have identified as a result of the proposals. Are there any impacts relevant to your sector or organisation/business (e.g. SME, Civil society organisations) that are missing? If so, can you provide us with any supporting evidence?

- Properties that are subject to the sub-surface rail regulations are limited in the materials that can use for retrofitting. For example, new generation of DX or VRF/V heat pumps are not permissible if they contain R32 – which is flammable and therefore not permitted anywhere on a sub-surface station.

15. We understand that there are natural void periods when leasing a property, due to finding a tenant and refurbishing a building. Is there any evidence to suggests the proposals are likely to increase void periods and if so by how long? Please provide as much detail as you can.

- The BBP does not have any evidence to suggest whether void periods will increase or fall. Increased void may occur on a property-by-property basis during the period of renovation/refurbishment to bring the property up to standard; however, as long as there is sufficient supply and demand, it is not envisaged that the regulations will have a significant impact on void rates for the industry as a whole over a 10-year period.

16. Under both trajectory options, landlords of buildings below EPC B or C will be required to invest money upfront to improve the energy efficiency of their building. If you are a landlord, what are the key factors that would determine the pass-on cost to the tenant, and the length of time under which you would seek a return on your investment? We anticipate key factors could include: investment cost, bill savings delivered by the measure, payback period of the measure, lifetime of the measure, maintenance costs and market forces. If you are not a landlord, we also welcome any evidence you could provide.

- The ability for costs to be passed on from landlord to tenant are predominantly determined by individual leases and the RICS Service Charge Code. However in the case of mixed-use buildings, in which there are also Long Leasehold (LLH) domestic Tenants, the ability to "upgrade" the building is usually prevented by the LLH lease and the Landlord and Tenant Act and therefore renders costs to common parts improvements irrecoverable in part or in full. There is, therefore, no common solution that can be applied across the board. In addition, the ability to recoup costs will be more substantially influenced by wider market forces.

- It should be noted by Government that, as the regulations currently stand, the burden of cost is firmly placed with the landlord. Therefore, landlords will need to absorb the upfront costs and attempt to recoup through rental income; however, as mentioned above, the rental income is influenced by much greater market forces, and therefore the ability for the landlord to recover the costs explicitly associated with MEES compliance is significantly reduced and depended on wider market sentiment.

17. Is there a possibility that under certain types of lease arrangements (for example green leases) the costs of improvements might be shared between landlords and tenants?

- The real estate market will determine itself whether the lease is an effective tool for reducing compliance risk regarding any specific piece of legislation. MEES is no different, and the real estate sector is currently learning as it goes with regards to how requirements between owner and occupier should be referenced within the lease, in particular regarding the approval of works and cost sharing arrangements.
- The onus of regulatory compliance and associated costs is currently placed on the property owner; however, it is our view that the occupier should be expected to pay for some of the improvement costs, particularly in the instances of long-leases where the energy savings are accrued directly to the occupier. In the case of tenant-driven fit-outs, it is expected for the tenant to bear the whole cost. The costs associated with meeting the regulation requirements will no doubt initially ebb and flow but will reach an equilibrium as the market understanding matures.