



HELPING BUSINESSES TO IMPROVE THE WAY THEY USE ENERGY – CALL FOR EVIDENCE

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 £200bn of AUM in the UK, and via the Managing Agents Partnership, property managers managing over 30,000 buildings.

The responses provided within this submission have primarily focussed on those relating to Chapter 3: Buildings, given the nature of our expertise.

Whilst the UK has attempted to be a global leader in the energy efficiency policy agenda, we believe that existing policy and regulatory instruments have focused too closely on energy efficiency by way of building fabric. This has resulted in a design-for-compliance culture, whereby buildings are designed to meet the required compliance standard, but no attention is paid to how the building actually performs in operation. There is a clear opportunity for Government to address this issue by following three principles in the development of any new energy efficiency policy:

- **Provision of a long-term trajectory:** real estate investment operates on longer timeframes than parliamentary cycles, therefore, a clear long-term view of how a policy will evolve is critical to the success of that policy, as it provides the assurance and confidence required for real estate owners to plan and invest appropriately to meet the regulatory requirements.
- **Public disclosure of energy data:** there is a lack of visibility and understanding of how buildings use energy. The disclosure of operational energy data will go a long way to incentivising performance improvements and facilitating bespoke sector benchmarking and analysis. This follows the principles of disclosure policies within the US and the proposed Building Passport idea within the Call for Evidence.
- **Outcomes based operational ratings:** linked to the disclosure of energy data, requiring buildings to benchmark their actual operational performance, providing a valuable communication tool to investors, owners and users of buildings to understand performance and drive improvements. Government already has experience in this area with the creation of Display Energy Certificates, and access to international best-practise via the Australian NABERS rating.

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

Membership

BETTER BUILDINGS PARTNERSHIP MEMBERS



MANAGING AGENTS PARTNERSHIP MEMBERS



Call for Evidence Response

1. What do you see as the key developments and trends that will impact on the energy efficiency market over the next 10 years?
 - The following items are all key trends the Better Buildings Partnership believe will impact on the energy efficiency market for commercial property over the next 10 years:
 - **Increase in electric vehicles:** having the potential to significantly increase electricity consumption of commercial buildings and, as a result, the total consumption attributed to the ‘commercial’ sector. The Government should be mindful of this potential shift when forming future policy.
 - **Increase in availability and use of on-site battery storage:** allowing for smoothing of peak electricity demand from the National Grid and maximising the potential of on-site renewable technologies e.g. Photovoltaics.
 - **Increase in energy prices:** supporting the business case for energy efficiency measures.
 - **Heightened energy security risks:** incentivising the installation of on-site energy generation capacity.
 - **Use of big data and smart controls:** providing landlords and tenants with a greater understanding of energy use within commercial buildings and the automated responses to improve operational efficiency.
 - **Growth of green finance:** providing new finance streams and access to capital for energy efficiency measures and ‘green’ buildings.
 - **Increasing investor and regulatory pressure for greater transparency and disclosure:** the growth of voluntary reporting initiatives such as GRESB and CDP, TSD recommendations and regulatory corporate reporting requirements are increasing the ESG data real estate owners collect and disclose.
 - **Climate change:** increasing summer temperatures causing an increased cooling demand within commercial buildings, as well as market demand for space that has air-conditioning.
 - **Rise of co-working:** with the role of the property owner evolving to provide a fully serviced and flexible workplace, including wrapping up energy costs in a service offering, there are greater opportunities and incentives for property owners to improve energy efficiency.
 - **Growing interest in health and wellbeing impacts of the workplace:** increasing pressure on businesses to provide workplaces that positively impact on employee health and wellbeing. This has the potential to inadvertently increase energy consumption e.g. increasing the requirement for mechanical ventilation.
4. What evidence do you have on how increasing building standards could drive improved energy efficiency, or how energy efficiency improvements in buildings have resulted in wider benefits? Is there any evidence that increasing building standards would not drive improved energy efficiency?
 - The energy efficiency of new developments and major refurbishments in the UK has no doubt been improved as a result of Building Regulations Part L. It is also anticipated that the use of Minimum Energy Efficiency Standards, represented in market transactions by Energy Performance Certificates (EPCs), will help improve the energy efficiency of existing buildings. However, both these policy mechanisms are limited in their approach as they only focus on the design and technology installed within a building and

how that should impact the predicted energy performance of a building. This approach fails to highlight and assess how a building actually performs in-use i.e. it's operational performance.

- The current regulatory framework which mandates the use of design ratings and predicted performance has led to a design-for-compliance culture, whereby buildings are designed to meet the required compliance standard, but no attention is paid to how the building actually performs in operation. The lack of a feed-back loop in the process of building design has led to the creation of a 'performance gap' between how much energy a building is theoretically envisaged to use and how much energy a building actually uses. Actual buildings use is very much influenced by factors such as the commissioning and control of building management system and occupier activities which are not captured within design based ratings. Voluntary schemes such as BREEAM New Construction have reinforced this mentality, with only BREEAM Outstanding requiring performance in-use to be monitored.
- There is strong evidence to show that the continued use and ratcheting up of design ratings will not deliver the full energy efficiency potential available for UK commercial buildings. Each year, the Better Buildings Partnership, through its [Real Estate Environmental Benchmark \(REEB\)](#), collects energy data from its members managed real estate portfolios to assess energy performance and trends, and publish publicly available industry benchmarks. When looking at the relationship between EPC ratings and operational energy intensity, the data shows no correlation between how efficiently a building uses energy and its EPC rating. Further details can be seen within the joint Better Buildings Partnership & JLL report [A Tale of Two Buildings](#), as well as the Figure 1 & 2 below containing the latest REEB data.

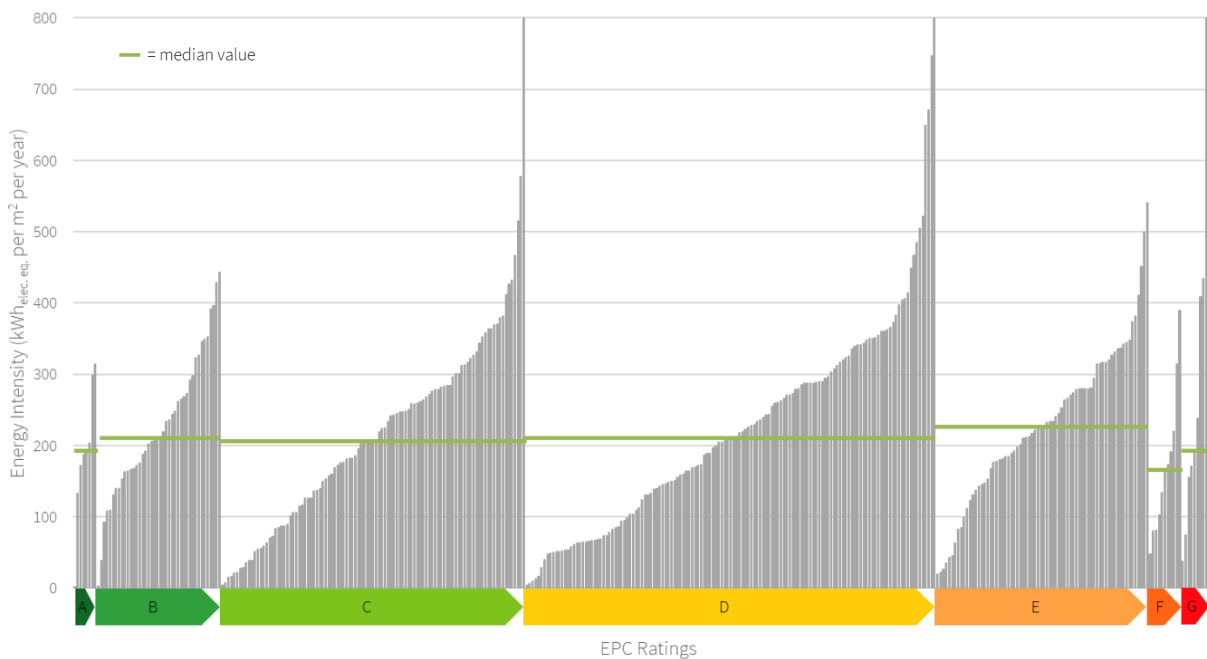


Figure 1 Office energy intensity ($\text{kWh}_{\text{elec. eq.}} \text{ per m}^2 \text{ (NLA) per year}$) by EPC rating. Each grey bar represents a single office building's energy intensity over the course of a year. (Source Real Estate Environmental Benchmark 2017, Better Buildings Partnership)

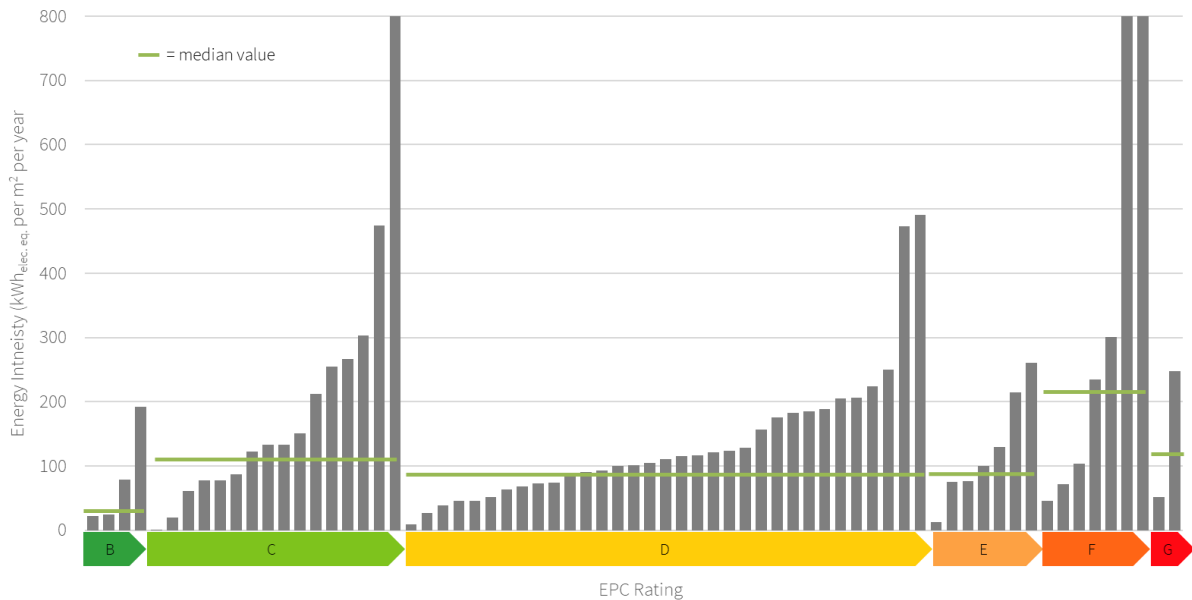


Figure 2 Shopping centre energy intensity ($\text{kWh}_{\text{elec.eq.}} \text{ per m}^2 \text{ (CPA) per year}$) by EPC rating. Each grey bar represents a single shopping centre's energy intensity over the course of a year. (Source Real Estate Environmental Benchmark 2017, Better Buildings Partnership)

- Figures 1 & 2 provide evidence of the 'performance gap' that currently exists. Not only is the average energy intensity of buildings by EPC rating almost identical, the range in energy intensity across each EPC bands is also similar. This is most clearly shown in Figure 1 for offices where the data set is larger. This scenario has evolved as there has been no policy or market-based drivers that require or incentivise the disclosure or rating of operational energy performance. As a whole, property owners and tenants in the UK do not have a good understanding of how their buildings are using energy and whether they are being operated efficiently or not.
- Government has the opportunity to overcome this industry challenge by adopting two principles within new energy efficiency policy:
 - The public disclosure of operational energy data.
 - The use of rating tools that focus on performance outcomes i.e. operational energy performance ratings.
- The Call for Evidence highlights the trend seen within the US where major cities and States have introduced mandatory disclosure policies. Such policies have resulted in the energy performance of commercial buildings being made publicly available online. The Better Buildings Partnership strongly endorses an approach by Government in creating an online accessible database similar to the US based Portfolio Manager, whereby utility companies are required to make energy consumption data available online for use by property owners, managers and occupiers. This idea is very much aligned to the concept of a Building Passport referenced within the Call for Evidence.
- 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. When monitoring performance via the [Real Estate Environmental Benchmark](#), over the past 6 years our members have reduced the energy intensity of their

real estate portfolios by 18%, and over the past 4 years, the 146 properties that have remained consistent within the database have reduced like-for-like consumption by 16% (see [Real Estate Environmental Benchmark Update: 2017 Snapshot](#)).

- The use of publicly disclosed operational energy performance can then also be used by ratings tools to benchmark and compare buildings. The Better Buildings Partnership, along with many others in the industry, has been a long proponent of the mandatory roll-out of the Government’s own operational rating tool, Display Energy Certificates.
- The Better Buildings Partnership strongly recommends the introduction of operational ratings for commercial properties. A tool that is currently missing from Government policy. Such an approach will provide greater transparency around how buildings use energy and shift the industry from a design-for-compliance culture to a design-for-performance culture. The continual feedback by annually reviewing performance encourages improvements and identifies poor performance, as well as providing a feed-back loop to inform future design decisions. Such an approach can complement minimum standards by providing the review process to ensure that the design actually performs as it was intended.
- It is encouraging to see that the Government acknowledges the importance of operational performance and ratings, and has looked abroad for best-practice, referencing the use of the Australian NABERS scheme. The Better Buildings Partnership views the NABERS scheme as the most successful international example of how an operational rating can improve energy efficiency of commercial buildings on a national scale. Since it’s mandatory introduction in 2010/11 it has brought about significant improvements in energy efficiency, improving average energy intensity of Australian rated offices by 28% and increasing the average Star Rating from 3.2 to 4.4. It has also created a culture change in the approach to designing new buildings – fostering one of design-for-performance as oppose to one of design-for-compliance.

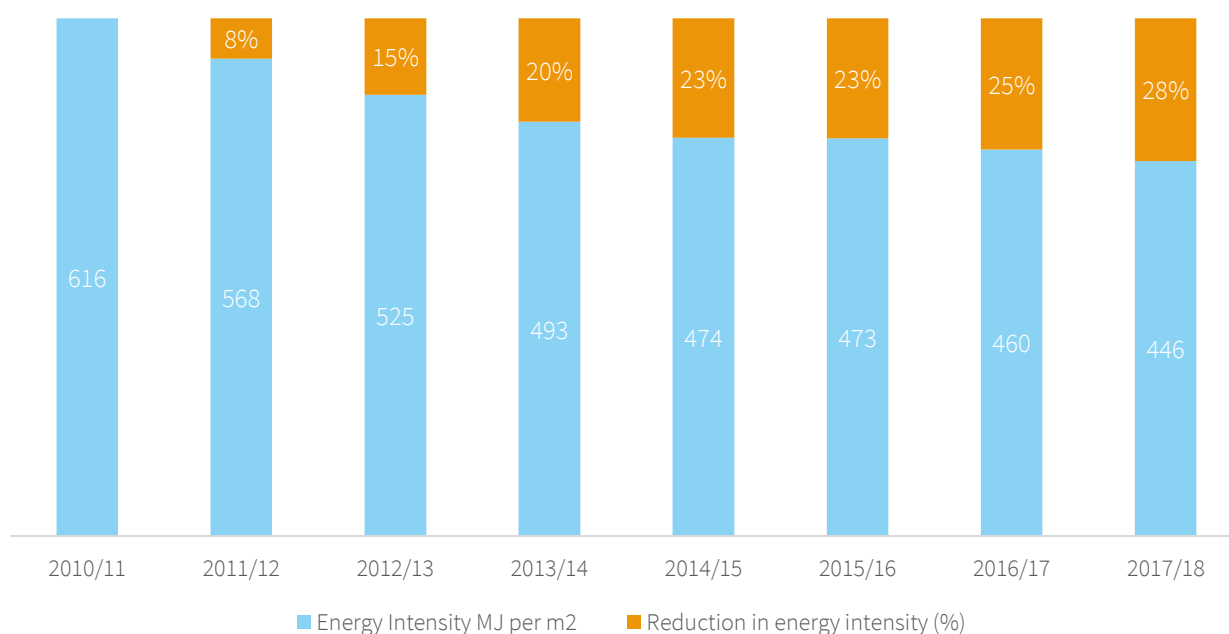


Figure 3 Average energy intensity over Australian office buildings and the respective % reduction over time. Source NABERS 2018.

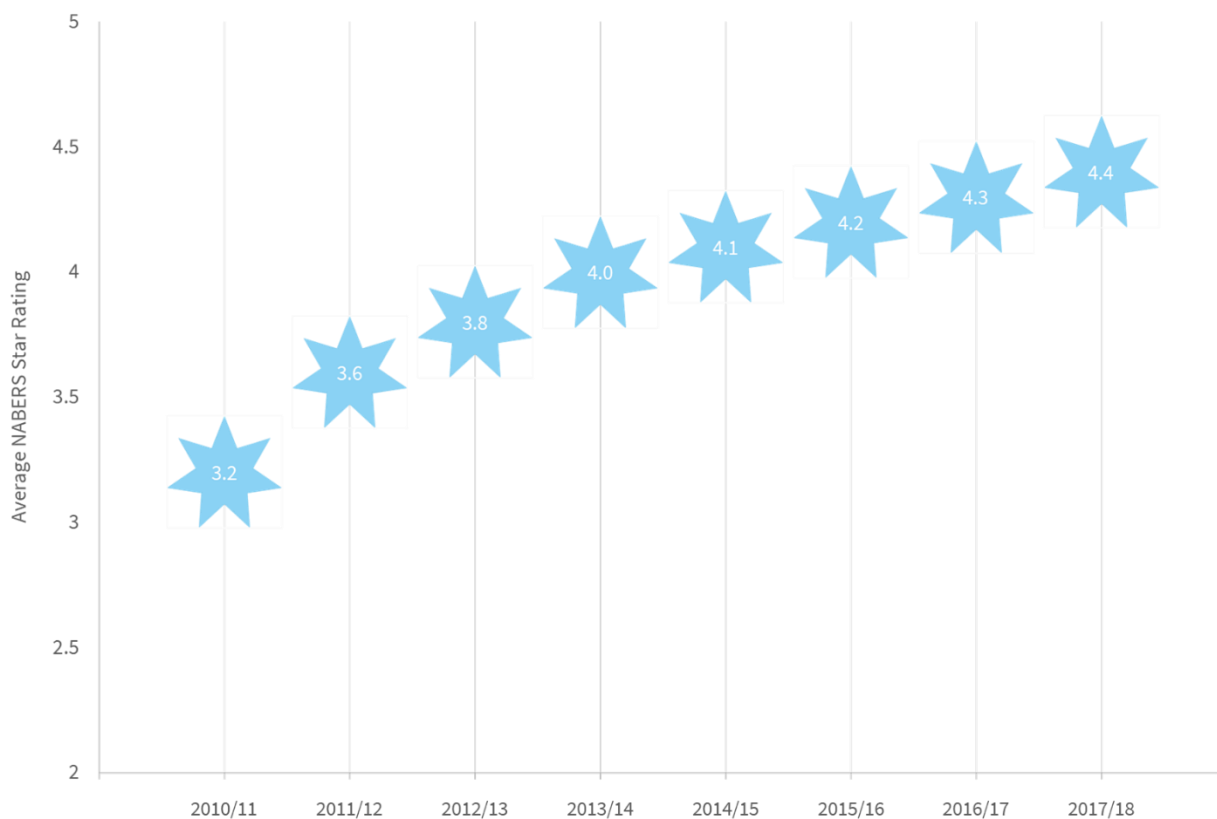


Figure 4 Change in average NABERS ratings for Australian offices overtime. Source NABERS 2018.

- Via the industry backed Design for Performance project, the Better Buildings Partnership is currently working with the Office of Environment and Heritage for New South Wales to assess the applicability of introducing a NABERS-type scheme in the UK. The project is aiming to overcome the ‘performance gap’ by linking design intent to operational performance in-use via a process of enhanced modelling and requirement to monitor operational performance post-construction. It is recommended the Government consider how the findings of the project could inform the future development of Building Regulations Part L. The Better Buildings Partnership would be very happy to explain the opportunities in further detail.
- Policy that focuses on performance-based outcomes, as appose to design standards, has many wider benefits:
 - It overcomes needing to consider the nuanced detail of how blanket minimum standards affect the complex variety of building types and uses, as focus is on the performance outcomes rather than the specific method to achieve it. This approach provides industry with greater flexibility, scope and potential for innovation to meet a performance outcome.
 - It provides greater transparency to those actors that drive market change. For the case of real estate investment, this centres on the occupiers that use space and the investors that invest in commercial property companies and funds.
 - It provides a platform for specific industry initiatives to use the operational performance data to build on. E.g. additional benchmarking or rating tools, technology providers, additional government reporting policies.

5. Are there certain sectors that might respond to different approaches and what might they be?

- The range of different commercial building types and their respective uses and typical leasing arrangements can create challenges in attempting to roll-out policies that target design standards (in-input based assessment criteria) that capture all building types. For example:
 - Industrial and logistics are building types where the ‘performance gap’ can be the greatest, whereby operational activities that can be particularly energy intensive are not captured within design rating assessments. Focussing on design ratings for such properties can incentivise improvement measures that may not be the most appropriate for the operational activities that are occurring, as in-use performance is not reflected in the decision making.
 - 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 ongoing in-use operational performance once the retailer is operating within the unit.
 - 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 current use of Building Regulations and EPC recommending improvement measures for heritage properties that are tailored towards modern construction techniques and in reality, inappropriate and detrimental to the building fabric.
- The use of an out-comes based assessment criteria, such as operational energy ratings, has the advantage of overcoming many of these sector specific issues. Outcomes based policies can actually be very simple in nature and provide individual sectors the flexibility to respond in the most appropriate and cost-effective way, rather than follow a rigid and limited route to compliance.

6. What level of minimum standards and supporting trajectories could work for the wide range of business buildings? What are the key risks?

- In relation to Minimum Energy Efficiency Standards, the communication of a long-term trajectory is critical to the policy’s success. Real estate investment operates on longer timeframes than parliamentary cycles, therefore, a clear long-term view of how the policy will evolve is required to provide assurance and confidence for real estate owners to plan and invest appropriately to meet those future requirements.
- It is recommended that at least a 2030 trajectory is set now, and any incremental changes to the ‘Minimum Standard’ (currently EPC band E) to be published at least five years in advance of its implementation.

- In terms of the level of the trajectory, caution is urged with regards to the Green Finance Taskforce recommendation of a 2035 target of EPC B rating. The Better Buildings Partnership was involved in a Taskforce sub-committee that put forward the recommendation, and whilst it is a proponent of a long-term trajectory, there is currently no evidence to suggest B is economically feasible or a clear rationale for why it has been chosen. The selection of a B rating was simply rolled over from the target proposed for domestic buildings, yet the EPC methodology for commercial buildings differs greatly. It is, therefore, recommended a detailed scoping study should be undertaken to assess the current commercial building stock, the EPC distributions across different property types, and understanding typical costs for upgrade to set an appropriate target accordingly. The IPF's [*Costing Energy Efficiency Improvements In Existing Commercial Buildings*](#) is a recommended starting point to support such a study.
- Key risks associated with Minimum Energy Efficiency Standards include:
 - The use of EPCs (ie. design rating) as a measurement indicator only reinforces a design-for-compliance culture.
 - The use of EPCs (ie. design rating) as a measurement indicator may not result in reductions of actual energy consumption. See Figure 1. and Figure 2. within the response to Question 4 for further detail.
 - The inability for some property owners to be able to finance improvements which can result in increased obsolescence rates and the creation of a two tier-market whereby assets are 'mothballed' by investors who cannot justify the investment case for improving performance or the capital costs of redevelopment. Particular consideration should be given to those secondary properties outside main urban centres and the adverse impact it could have on the local economy.
 - The current EPC methodology does not treat all property types equally or necessarily propose appropriate improvement measures e.g. for heritage properties and industrial units.
 - A lack of access to data and resourcing for enforcement bodies can undermine the success of the policy.
 - The increase in C&D waste and additional resources for redevelopment required can have a significant impact on the UK carbon emissions and waste industry if embodied carbon and closed loop recycling opportunities are not considered.
- It should be noted that other forms of 'minimum standard' exist as a policy tool for Government that could also be considered for future policy making. For example, incorporating Design for Performance project principles within the future development of Building Regulations Part L. This would include placing a greater influence on modelling predicted energy performance and combining that with a requirement to monitor operational performance post-construction as a feed-back loop.

7. We would welcome your further views on how we can address the challenges of moving to higher building standards across the diversity of businesses and their buildings.

- As mentioned in the response to Question 6 above, the communication of a long-term trajectory is critical to the success of improving minimum standards across the diversity of business that exist across the real estate sector. Real estate investment operates on longer timeframes than parliamentary cycles, therefore, a clear long-term view of how the policy will evolve is required to provide assurance and confidence for real estate owners to plan and invest appropriately to meet those future requirements.

- It is recommended that at least a 2030 trajectory is set now, and any incremental changes to the ‘Minimum Standard’ (currently EPC band E) to be published at least five years in advance of its implementation.
- In addition, the use of an out-comes based policy instruments such as the use of operational energy ratings has the advantage of overcoming many sector specific issues, and therefore applicable to a wide range of business activities. Outcomes based policies can actually be very simple in nature and provides individual sectors the flexibility to respond in the most appropriate and cost-effective way, rather than follow a rigid and limited route to compliance.

8. What type of data is important to you for measuring operational energy ratings of business buildings to help support or drive any future minimum standards?

- The Better Buildings Partnership’s own work on monitoring and benchmarking energy consumption of our members’ UK portfolios through the [Real Estate Environmental Benchmark](#) has clearly demonstrated the energy savings that can be achieved when owners understand and can compare the performance of their buildings. Over the past 6 years, the energy intensity of our members’ real estate portfolio has reduced by 18%, and over the past 4 years, the 146 properties that have remained consistent within the database have reduced like-for-like consumption by 16% (see [Real Estate Environmental Benchmark Update: 2017 Snapshot](#)).
- A relatively simple set of data KPIs are required to undertake an operational energy rating. The Government has already identified these requirements through the development of Display Energy Certificates – namely:
 - Property Type
 - Floor area
 - Annual energy consumption data
 - Hours of operation
 - Occupancy (e.g. full time equivalents for offices and footfall for retail)
 - Occupancy density
 - Separables consumption (abnormal uses that can be excluded from comparison)
- Naturally, as the level of sophistication of any operational rating increases so does the level of data required. For example, looking at different occupier types or the types of HVAC installed within a building.
- The split incentive between property owner and tenant whereby neither party is incentivised to invest in energy efficiency measures is often cited as a major barrier in the commercial property sector. This issue can be tackled by requiring operational ratings to split out and report separately the energy each party is responsible for. The British Property Federation led [LES-TER programme](#) and BBP led [Landlord Energy Rating](#) details solutions to this issue as voluntary programme, and the Australian NABERS rating takes the same approach in its application. This additional granularity helps each party to focus and improve the areas each have respective responsibility for e.g. owner supplied HVAC and tenant fit-outs.
- It should be recognised that in developing an operational rating, that the sophistication can develop in time. It would be unrealistic for a tool to cater for and have considered all possible eventualities on initial launch. The success of the NABERS scheme, for example, has been built on years of development and refinement over the last decade.

- The introduction of operational ratings should also have the knock-on benefit of improving the extent and accuracy of sub-metering in commercial buildings. Firstly, those businesses required to undertake a rating will want to ensure the data is correct. Sub-metering supports data validation, and act as an effective tool to understand energy use in a building and where opportunities exist to reduce energy consumption through a combination of effective management and equipment replacement. Examples of this are shown in Figures 3 & 4 below, demonstrating how Transport for London use sub-metering data at one of their head office buildings to assess energy performance at a building system level to identify inefficiencies.

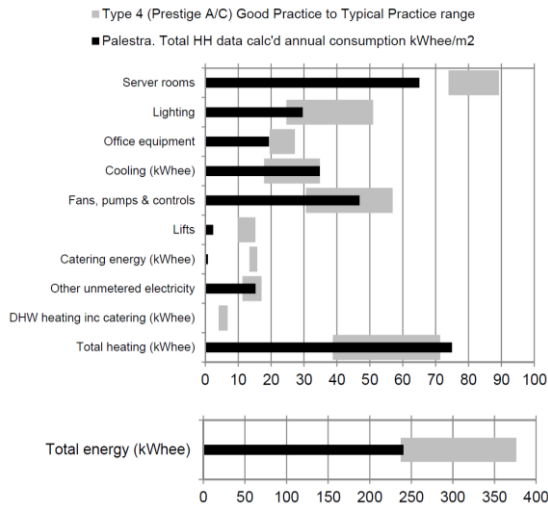


Figure 6 Palestra Comparison to CIBSE ECON19 Energy (kWh_{elec.eq}) Benchmarks (Sept 2017-Sept 2018)

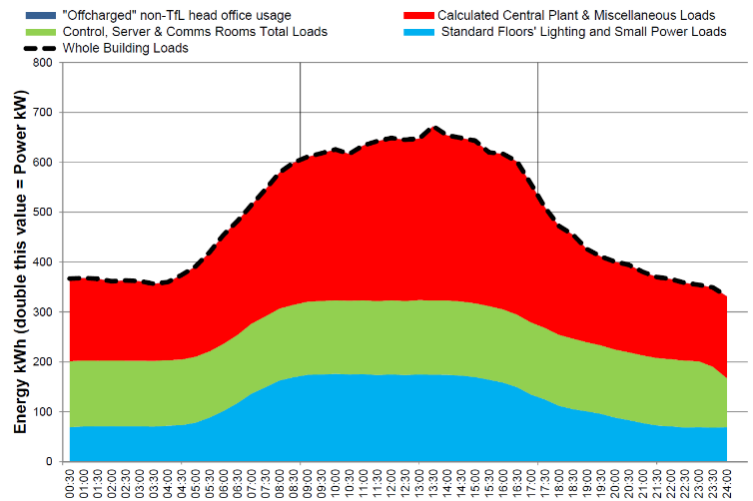


Figure 5 Palestra Weekday Average Electricity Consumption for Whole Building Load (Sept 2017-Sept 2018)

9. What evidence is there to support the effective use of voluntary standards within the UK? What opportunities exist for expanding voluntary standards?

- Numerous voluntary standards and schemes exist that focus on the energy performance of commercial buildings. These include design ratings such as BREEAM New Construction, to management standards such as ISO 50001, BREEAM-in use and reducing energy consumption such as the Carbon Trust Standard. Such voluntary standards are and will continue to be used by the leading edge of the industry - those companies with strong CSR commitments and those looking to distinguish themselves from competitors.
- The challenge with voluntary standards is that they will only drive change at the leading edge of the market, where as mandatory standards have the benefit of impacting the entire market, therefore having a much greater overall impact on a national scale.
- Most voluntary schemes available to property owners and occupiers tend to apply at a company level rather than a building level, and those that do apply at the building level are typically design ratings. The only operational energy rating available on a voluntary basis is the Government developed Display Energy Certificate (DECs).
- The Better Buildings Partnership explored the possibility of using DECs on a voluntary basis, however, came to the conclusion that it would not be appropriate on a voluntary basis as:
 - Limitations in the methodology meant it was not applicable to a number of commercial property types – specifically retail which is one of the most intense operational energy users.

- The inability to separate out landlord and tenant consumption made it difficult to easily communicate to occupiers and investors the reasoning behind individual building performance.
- The property industry backed Design-for-Performance Project is aiming to provide the UK commercial office sector a new voluntary standard relating to the design of new offices and how it results in actual operational performance i.e. aiming to overcome the ‘performance gap’. As part of this project, the Better Buildings Partnership is currently working with the Office of Environment and Heritage for New South Wales to assess the applicability of utilising their NABERS platform as the basis for UK focused scheme in the UK. We’d be happy to provide further information on request as to how Government could be involved and support the project.
- Opportunities to encourage and expand the use of voluntary standards stem from data availability. Utility data in the UK is not easily accessible and not stored centrally. When looking at international best-practice, the development and administration of Portfolio Manager in the US has led to:
 - Increased visibility of energy consumption for property owners and occupiers.
 - The creation of mandatory disclosure legislation by local governments, which in turn has led to reductions in energy consumption.
 - A more detailed understanding by Government, at a federal and state level, in how energy is being used by buildings.
 - Additional industry specific schemes using this information for bespoke analysis and ratings e.g. energy management systems, academic research, industry benchmarking initiatives.

10. How can government support more widespread voluntary standards and other mechanisms including green leases? What are the barriers to development of such standards and products?

- The Government certainly has the opportunity to support voluntary standards. Examples include:
 - Using voluntary standards within Government’s own procurement decisions e.g. requiring the landlord and tenants to produce Display Energy Certificates when taking space in any multi-let property; requiring Design-for-Performance principles and BSRIA Soft Landings to be incorporated in the design process.
 - Endorsing the use of voluntary standards or running voluntary competitions, such as the US Energy Dept. [Better Buildings Challenge](#).
 - Allowing voluntary standards to be used as alternative compliance pathways to specific legislative requirements.
- The BBP does not view green leases as a specific tool that the Government should explore to incentivise actions that improve energy efficiency measures between property owners and tenants. Rather than prescribing and setting what should be included within a lease, which in turn will provide a rigid structure that may not always be appropriate, Government would be best focussing on policies that incentivise the desired outcomes i.e. focussing on the ‘what’ rather than the ‘how’. By introducing outcomes focussed policy the real estate market will determine itself whether the lease is the most effective tool or not to comply with any specific piece of legislation, or whether another avenue is more appropriate.

16. Would digitalisation and data analytics offer opportunities to improve the way businesses manage their energy use and make investment decisions? Please provide any evidence of whether this is already having an impact on the market for energy efficiency.
- The BBP would fully endorse actions by Government to increase the transparency and accessibility of energy data within the UK. Recommendations by the Green Finance Taskforce for a Building Passport that mirrors Portfolio Manager within the US is an excellent opportunity for the UK to take a leading front in providing business with the basic information needed to drive their own energy reductions. Such a solution also has the added benefit of improving the Government's own understanding of energy use to support further evidence-based policy making.
 - Energy use data is critical to understanding performance and identifying improvement opportunities. The Better Buildings Partnership's own work on monitoring and benchmarking energy consumption of our members' UK portfolios through the Real Estate Environmental Benchmark has clearly demonstrated the energy savings that can be achieved when owners understand and can compare the performance of their buildings. Over the past 6 years, the energy intensity of our members' real estate portfolio has reduced by 18%, and over the past 4 years, the 146 properties that have remained consistent within the database have reduced like-for-like consumption by 16% (see [Real Estate Environmental Benchmark Update: 2017 Snapshot](#)).
 - The more granular the data, the greater the understanding and improvement potential. The NABERS scheme focusses on separating out energy consumption between property owner and tenant, therefore enabling each party to address the energy use over which they have responsibility for. Furthermore, half-hourly monitoring of data at a system level provides an even greater insight into how and where within a building energy is being used, and where efficiencies are available.
 - Transport for London, one of our members, has benefitted significantly from improving sub-metering of buildings systems so that energy data is automatically collected, collated and reported. See Figures 3 and 4 in response to Question 8 for further details.
17. Would the ability to benchmark against similar businesses in the same sector be an effective means of spurring businesses to take action? Please provide evidence you have from industry initiatives or international examples.
- Yes, the ability for business to benchmark against industry peer-groups can provide a competitive element to drive business's further in improving energy efficiency.
 - Specific sector benchmarks are also important to provide a more granular assessment of performance that is tailored to specific business requirements. The Better Buildings Partnership, via its Real Estate Benchmark, publish energy and water benchmarks for key commercial property types as a free, publicly available industry resource (See [2017 Real Estate Environmental Benchmarks](#) for the latest benchmarks).

- The Australian based NABERS rating system is a clear example of where an operational rating tool and spurred and driven competition within the Australian property market. NABERS ratings are heavily used within marketing material to attract occupiers, but the most obvious example is where developers have historically competed to be the first company to achieve the next highest rating. For example: Mirvac's Sirius House in Canberra announced becoming the first building in Australia to achieve a 6 Star NABERS Energy rating, a 6 Star NABERS Water rating and a 6 Star Green Star Performance rating¹.
- The BBP fully endorses how the use of operational ratings can lead to healthy competition between businesses at a building by building level but urges caution to government exploring how it can create bespoke KPIs and benchmarks for the huge variety of UK businesses that exist. Sector specific benchmarking can become incredibly complex and specific. Such initiatives are best developed by the sectors themselves. Rather than attempt to create sector specific benchmarks, the most appropriate role for government to ensure or facilitate access to the underlying energy data, which then in turn allows sector initiatives to use that data to create their own sector specific benchmarking initiatives to drive competition.

18. What more could be done to facilitate the availability of better data on energy use for businesses?

- Government have several options to improve the availability of data on energy use for businesses:
 - Place a requirement on utility companies to send data into a centralised database akin to Portfolio Manager in the US. This data could then be accessed by a variety of stakeholders for differing uses, as well as facilitate a mandatory disclosure policy if the Government elected to make the data publicly available.
 - Place a requirement on businesses themselves to disclose energy consumption via operational ratings for commercial buildings. This could be either through the use of Display Energy Certificates, as well as sector specific schemes such as NABERS.
 - Place a requirement on new developments to disclose energy consumption post-construction as a requirement of Building Regulations and planning applications, building on the principles set out within the industry backed Design for Performance project e.g. annual disclosure the following three years of operation.
 - Ensure the successful and timely roll out of AMR main utility meters to provide businesses with access to half-hourly consumption data.

20. What types of incentive might help de-risk energy efficiency financing and stimulate lenders to provide commercially viable and attractive energy efficiency financing? Do you have evidence of where it has worked in other countries or other sectors? Please provide details.

- The commercial real estate lending sector has been slower than the real estate equity investment sector when it comes to incorporating sustainability into business strategy. Lenders are simply not as close to the buildings as their owners, cannot exert comparable influence and are a step removed from the economic

¹ <https://www.architectureanddesign.com.au/news/mirvac-s-sirius-house-setting-sustainability-stand>

consequences of improvement measures. However, the industry is now witnessing a marked change in the uptake and action from a number of leading lenders.

- Starting from an appreciation of the risks of paying insufficient attention to sustainability, a number of forward-thinking lenders are going a step further and trying to seize the opportunities. Innovative products and services are being developed to reward and incentivise more sustainable buildings, often providing new lending opportunities and allowing better market data to be captured. Industry best-practice include:
 - Lloyds Bank's Green Lending Initiative
 - ABN AMRO's Sustainable investment tool for borrowers
 - ING Bank's Sustainability app for borrowers
 - Fanny Mae and Freddie Mac's Green Financing Loans
- A summary of the current sustainability drivers impacting the real estate lending market, coupled with a detailed case studies on the examples mentioned above is provided with the 2017 BBP report [*Beyond Risk Management: How sustainability is driving innovation in commercial real estate finance.*](#)
- The concept of incorporating sustainability within lending decisions is still in its infancy but drivers and interest are growing rapidly, as can be seen with the growth in interest of green bonds. The market is going through a period of change in terms of product development and testing. The challenge for lenders is not the willingness or even the demand. Two challenges are highlighted by lenders are:
 1. How a 'sustainability' or 'green' product can be developed when the cost of capital and the margins that can be made on a loan are at an all time low.
 2. The lack of 'sustainability' data available in which to base lending decisions.

Government policy within BEIS only has the ability to tackle item 2.

- A consistent feedback from lenders within the BBP Commercial Real Estate Lending Working Group is that, whilst design ratings such as EPCs from a MEES risk management perspective and BREEAM from a market leader perspective are helpful on initial transaction, they also want to understand how the buildings they lend against perform in operation i.e. their annual operational energy performance.
- The public disclosure of operational energy data or requirement for operational energy ratings would provide a new data source by which lenders could assess performance, identify new investment opportunities and could be used as evidence for green bonds. The BBP believes such a policy shift would have the greatest impact in terms of driving the energy efficiency agenda within the real estate lending community.
- The BBP is also supportive of industry initiatives such as the GRESB Debt Survey that is raising the profile of how debt funds and real estate lenders incorporate ESG into their management and lending practices, and the Task Force on Climate-related Financial Disclosures that are looking to standardise the way financial institution report their risk exposure in relation to climate change.

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22. Are lenders and the supply chain already utilising existing datasets (for example the energy performance certificates database) in the development of products and services? If so, is this data sufficient? What more is needed?
- In November 2015, the Better Buildings Partnership published its Industry Insight [*Sustainability Bites? The Impact of Minimum Energy Efficiency Standards for Commercial Real Estate Lending*](#). The paper explored how the sustainability agenda was beginning to impact on UK commercial real estate lending practices, focusing on how banks and alternative lenders were addressing legislative requirements around Minimum Energy Efficiency Standards (MEES) in their due diligence, underwriting and risk management practices.
 - The collection of EPC data as part of any new lending decisions, as well as part of risk monitoring for an existing loan book is now becoming common practice. As outlined in the response to Question 20, forward thinking lenders are exploring new opportunities by developing new lending products that are influenced by sustainability information.
 - A consistent feedback from lenders within the BBP Commercial Real Estate Lending Working Group is that, whilst design ratings such as EPCs from a MEES risk management perspective and BREEAM from a market leader perspective are helpful on initial transaction, they are unable to understand how buildings perform in operation in advance, and over the course of a loan. The public disclosure of operational data or requirement for operational ratings would provide a new data source which lenders could use to assess performance, identify new investment opportunities and use as evidence for green bonds. The BBP believes such a policy shift would have the greatest impact in terms of driving the energy efficiency agenda within the real estate lending community.
23. Could property fund managers and their investors be encouraged to deliver energy efficiency in their buildings? What are the opportunities and barriers to this model developing?
- As a membership organisation containing 30 real estate owners the BBP can confirm that its members and many other real estate investors are actively improving the energy efficiency of their real estate portfolios. The BBP does not feel a specific policy or action is required that directly focuses on property fund managers as this sector will naturally respond to wider policy and market demand.
 - Companies that invest in commercial real estate respond to market factors. This is primarily dictated by occupier demand, investor demand and government policy. Investors are already having a significant impact via initiatives such as GRESB (an ESG benchmarking initiative for real estate owners and investors).
 - If Government policy is developed that encourages increased transparency of energy data and outcomes-based ratings that measure operational energy performance in use, this will provide the information necessary for the market to naturally respond i.e. more informed decisions from occupiers and potential investors.