

Bird & Bird



Driving Energy Efficiency in Commercial Property Portfolios





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GLOSSARY

BPP – Better Building Partnership
CCAs – Climate Change Agreements
CCC – Committee on Climate Change
CCL – Climate Change Levy
CDP – Carbon Disclosure Project
COP21 – UN Congress of Parties 21 (the ‘Paris Agreement’)
CRC – Carbon Reduction Commitment Energy Efficiency Scheme
CSR – Corporate Social Responsibility
DECC – Department for Energy and Climate Change
EA – Environment Agency
EIC – Environmental Industries Commission
EPC – Energy Performance Certificate
ESOS – Energy Savings Opportunity Scheme
GRESB – Global Real Estate Sustainability Benchmark
JRC - EU Joint Research Council On Energy Efficiency
MEES – Minimum Energy Efficiency Standards
NABERS – National Australian Built Environment Rating System
REIT – Real Estate Investment Trust
RICS – Royal Institute of Chartered Surveyors
UCL – University College London

FOREWORDS

Before settling this report's terms of reference the EIC's taskforce considered a range of potential issues that could be addressed herein. The taskforce acknowledged the depth of existing academic (including as far back as Hirst and Brown's analysis of the 'Energy Efficiency Gap' in 1990) and professional (such as those mentioned in this report) thinking. It also considered Whitehall's own analysis of this issue such as DECC's November 2012 report entitled 'The Energy Efficiency Strategy: The Energy Efficiency Opportunity in the UK' which made recommendations relating to four main categories of barriers or 'market failures' that stand in the way of energy efficiency, namely: (1) embryonic markets, (2) (lack of) information, (3) misaligned fiscal incentives and (4) a general undervaluing of energy efficiency. However, the taskforce concluded there was a dearth of published thinking on the unique barriers to deploying energy efficiency at a property portfolio level and the potential solutions to those barriers.

The stakeholder interviews evidenced a diversity in opinion on the barriers to energy efficiency in property portfolios and the solutions to those barriers. Diversity also existed in the extent to, and manner in, which each stakeholder is deploying energy efficiency solutions to its property portfolio. The recommendations in this report reflect this diversity, including the importance of public policy balancing multiple considerations particularly the benefits of standardisation which still enable adaptation to suit situational needs.

While Brexit has led to a mood of cautiousness, it is hoped that with the right policy signals this will only temporarily abate the positive momentum in energy efficiency investment in commercial properties. Some interviewees expressed concern that such momentum is too slow, with many energy efficiency investments being undertaken on a site by site basis rather than at a portfolio level. The right mix of targeted policy and market solutions has the potential to stimulate increased energy efficiency investment at portfolio level. It is with this ambition that EIC has prepared this report and we are pleased to have had a role.



Michael Rudd, Partner and co-head of
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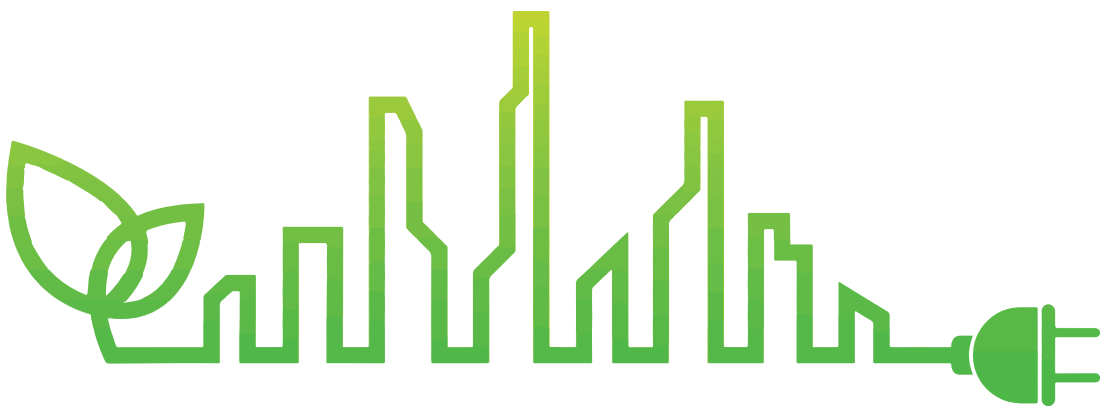
I am delighted to introduce this EIC report to you. For possibly the first time, here is a study which focuses on those who own and manage portfolios of non-domestic buildings, asking them to identify the drivers and the challenges encountered when planning energy efficiency programmes on a portfolio-wide basis.

The report highlights the apparent contradiction between strengthened international climate change agreements, and current uncertainty over the forward implementation of carbon and energy policies in the UK to deliver these ambitions. The Government urgently needs to take steps to address that perception, to drive delivery of the maximum benefits from proposed legislation, and to encourage companies once again to take energy management and carbon reduction seriously – for mutual gain.

This study was started before the EU referendum, and although the context has changed, the challenges and drivers to portfolio-wide energy efficiency uptake remain valid. Indeed the “Brexit” outcome provides an opportunity for the UK to design a more bespoke approach to energy efficiency, reinforcing our business-minded and environmental credentials in the world market.



Alison Crompton, AECOM,
EIC Task Force Chair



1. INTRODUCTION – BREAKING THE DEADLOCK

Combating climate change is both a moral and a legal imperative. The positive outcome of the United Nations' CoP 21 in Paris in late 2015 showed renewed vigour in driving for a global transition to a low carbon economy, and set a politically-driven pathway toward climate change mitigation. The 'Paris Agreement' commits the international community to a long-term goal of keeping the increase in global average temperature to 'well below' 2°C above pre-industrial levels, and to pursue efforts to limit temperature increase even further to 1.5°C where possible. Participating nations have also agreed to come together every 5 years to report on progress and set more ambitious targets as required by science.

Domestically, the Climate Change Act has, since 2008, committed the UK to a legally binding carbon emissions reduction target of 80% by 2050 against a 1990 baseline, and is also based on limiting global temperature rises to 2°C. In July of this year Parliament also signed off the 5th Carbon Budget, committing the UK to an interim target of a 57% reduction against 1990 levels by 2032. This should, in theory, give the UK a head start on the more recent UN ambitions – although we still await further detail on both how these ambitions will be met, and the raft of policy drivers which will unlock necessary action across the economy.

In both cases these are demanding targets, and they become exponentially more difficult to achieve the longer they remain unmet – putting greater pressure on the government to go further, and faster.

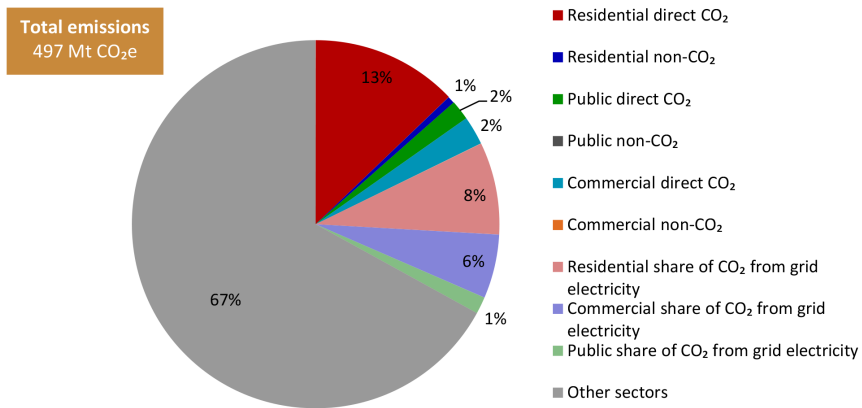




The full potential of the built environment's contribution to our carbon reduction targets has not yet been taken advantage of: for the commercial property sector in particular, the Committee on Climate Change (CCC) confirms that this is the only portion of the building stock in which direct emissions have not reduced since 2007, and its technical report – ‘Sectoral scenarios for the Fifth Carbon Budget’ (published November 2015)¹ – goes on to argue that ‘emissions in public and commercial buildings are...forecast to remain flat to 2035.’ Flat-lining is not good enough: not good enough to meet even existing targets, let alone any ratcheting up of action which may be required by future governments.

In its 2016 progress report on meeting the UK’s carbon budgets, the CCC states that, in 2015, direct emissions from buildings accounted for 18% of the UK’s total GHG emissions, with electricity consumption in buildings accounting for an additional 15%. Further, ‘non-residential building emissions have fluctuated, but have failed to show meaningful reduction over time. Non-residential building emissions dropped to a low in 2007 (likely associated with recession), but have increased 6% since, leaving them not far below 2003 emission levels’. Indeed, non-residential emissions continued to rise in 2015.

Exhibit 1: GHG emissions from buildings in the context of total UK emissions (2015)



Source: Committee on Climate Change, 'Meeting Carbon Budgets - 2016 Progress report to Parliament' (June 2016)

De-carbonising the commercial buildings sector, whether new build or retrofit, will be vital if statutory targets are to be met. The European Commission has also highlighted both the importance of energy efficiency in making this happen, and the sluggish progress made to date. In its 'Europe 2020' strategy for sustainable growth, one of its five headline targets refers to energy and climate. Whilst progress is on track across Europe to reduce GHG emissions by 20% and increasing the share of renewables in the energy mix to 20% by 2020, the EU 'will not meet its energy efficiency target unless further efforts are made'².

Recent years have seen many changes to the environmental policies and regulations aimed at meeting these challenges, leaving the overall framework in a relative state of flux. Following analysis, global consultancy firm Deloitte concluded that there are 'significant limitations within the existing framework of energy and carbon policy instruments...[but] there are a number of positive attributes too that can be developed further to improve the effectiveness of the policy framework as a whole'³. It is these improvements that we look at in this report.

More recently, the 2016 Budget⁴ announced further changes to the policy framework. Despite continued effort by Government to create effective penalties and incentives for the commercial buildings sector, the scrapping of flagship policies like the Carbon Reduction Commitment Energy Efficiency Scheme (CRC) and the Green Deal have left the policy landscape uncertain – and even more so following the Government's confirmation that the European Communities Act will be repealed⁵ as a result of the Brexit vote. This will see all existing EU legislation converted into domestic law 'while allowing Parliament to amend, repeal or improve any law after appropriate scrutiny and debate'. For the moment, however, it remains unclear as to how energy management policy and legislation may or may not be effected.

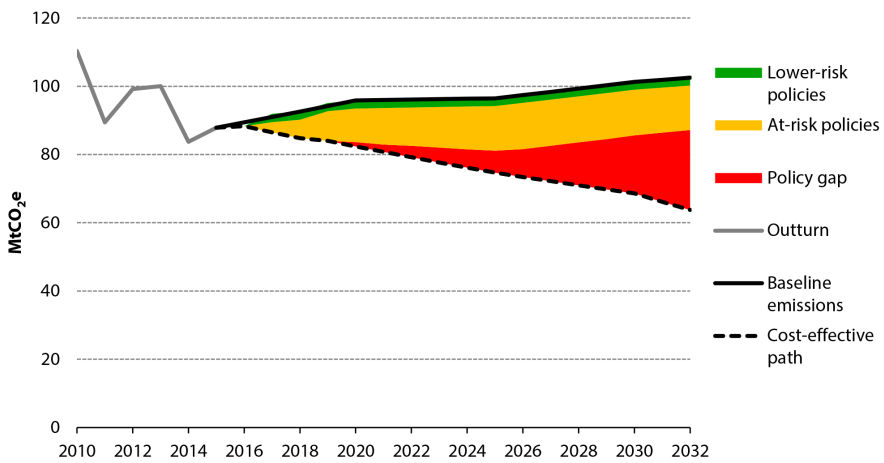
A new approach to an old challenge

It is within this context that there is a need for us to find new, innovative ways to approach our decarbonisation challenge. The Environmental Industries Commission's (EIC) member companies are concerned that the remaining policies,

if left un-modified, will be insufficient to kick-start the necessary energy efficiency progress. For the commercial buildings sector, one such innovative approach is to look at policy and financial interventions from the perspective of a portfolio rather than individual buildings on the basis that it is easier, for example, to persuade one portfolio owner to make fifty buildings more energy efficient than it is to persuade fifty individual owners to carry out works to their property.

This report therefore aims to analyse possible policy improvements for commercial portfolios, and the challenges that must be met to achieve carbon reduction through improved energy efficiency at this level. To guide this project EIC established a task force of senior members and undertook a series of detailed interviews with key industry stakeholders – including portfolio owners, investors, facilities managers, sustainability professionals, and policy makers.

Exhibit 2: Assessment of current and planned policies - all buildings (2015)



Source: Committee on Climate Change, 'Meeting Carbon Budgets - 2016 Progress report to Parliament' (June 2016)

The concept of a portfolio approach has received little attention from policy makers despite CCC analysis showing the pressing need for new measures (see graph), and the 'policy gap' which exists between the existing framework and where we need to be.

But greater uptake of portfolio energy management in this sector is not without difficulty: from disparity of building age and quality within a single portfolio, to the role of finance and regulation, through to changing societal attitudes to sustainability, these are all challenges that policy and regulation would need to account for if it is to be successful.

The benefits of energy efficiency improvements within portfolios of commercial properties are significant – going beyond cost savings, protection of competitiveness, climate change targets and alleviating (to a degree) energy security concerns. There are major export opportunities around the selling of environmental monitoring and energy auditing services and expertise – an area in which the UK is already well regarded internationally – and we believe there is scope for the energy management sector to become a global market-leader.

BREXIT – A CAUSE FOR CONCERN?

Policy uncertainty rarely encourages investment. In the initial aftermath of Britain's decision (in June 2016) to leave the EU there was concern as to what this would mean for the environmental industries given the important role of regulation in correcting market failures, and the many commitments we have to meeting EU standards.

The environment played a minor role in the public referendum debates, and there is little to suggest there is an appetite for rolling back on our current commitments as we look to set a path outside of EU membership.

Despite an initial period of flux, the foundation of the UK's commitment to greenhouse gas emissions reduction remains unchanged. The Climate Change Act, for example, continues as before. Indeed, the 5th Carbon Budget (covering the period 2028-2032)⁶ was signed off by the Government *after* the outcome of the referendum was known. The day before its ratification in Parliament, the then Secretary of State for Energy and Climate Change, Amber Rudd MP, said that "however we choose to leave the EU, let me be clear: we remain committed to dealing with climate change"⁷. The message of continuity on climate action was made clear.

And our international commitments under the Paris Agreement should provide further clarity on our direction of travel (if not the detail), with Prime Minister Theresa May confirming in a speech to the United Nations in September 2016 that "in demonstration of our commitment to the agreement reached in Paris, the UK will start its domestic procedure to enable ratification of the Paris Agreement, and will complete these before the end of the year."⁸

On the issue of energy efficiency regulations in particular, it is true that much is currently derived from EU legislation, particularly demand management. But it is also true that domestic policy is strong and independent in many areas – the lead the government is taking on demand response and distributed energy, for example.

Analysis in this report shows there is a need for some of these existing regulations to be evolved and improved if we are to meet our targets. If political will allows, Brexit in fact provides us an opportunity to take the policy framework as it stands and modify it based on our own bespoke needs and circumstances - at a much faster rate. In this regard, ministers are provided with a renewed opportunity to enhance these foundations, and show early and strong environmental leadership.

2. CHALLENGES TO PORTFOLIO-WIDE ENERGY EFFICIENCY IMPROVEMENTS

Across the range of stakeholder interviews undertaken as part of this project a number of common themes emerged when discussing the challenges to portfolio-wide uptake of energy efficiency actions. Later in this section, we set these out.

However, much research has been undertaken previously on the barriers to energy efficiency more generally, and it would be remiss not to cite these wider issues here before looking at the portfolio approach more specifically.

In late 2013 the (now abolished) Department for Energy and Climate Change published the Government's Energy Efficiency Strategy⁹. The Strategy highlights four main barriers, or market failures, which slow down the necessary progress:

- **Embryonic markets:** Although there is some semblance of an energy efficiency market, it has not yet become mainstream. This has led to constraints on the development of financial products to support energy efficiency investment, resulting in high transaction costs.
- **A lack of information:** An off-shoot of an embryonic market is a lack of access to trusted and appropriate information. Financing of energy efficiency projects can be undermined by the absence of standardised monitoring and verification processes, meaning the benefits of energy efficiency investments are not always trusted. While information on overall energy consumption is available, it can often be difficult to relate this back to individual activities to identify opportunities for efficiency improvements.
- **Misaligned financial incentives:** It is not always the case that the person responsible for making energy efficiency improvements is the person who will directly benefit. In the classic landlord/tenant scenario, the tenants are responsible for their own bills (and it is therefore in their interest to reduce them) but contractual obligations with the landlord or facilities management may inhibit investment. Similarly, landlords are unlikely to make an investment if monetary reward is not explicit. This leads to a lack of necessary prioritisation for energy efficiency projects.
- **Undervaluing energy efficiency:** Energy efficiency changes may involve significant disruption to those carrying out the investment – such as disruption caused by building works or disruption to production lines. It may also not be seen as a strategic priority for many non-energy intensive industries where bills only account for a small percentage of running costs.

Indeed, as a 2016 study by University College London's Energy Institute explains, 'the central dilemma of non-domestic energy efficiency policy is that most companies and public bodies do not invest in it even when the investment is cost effective'¹¹ – the so-called 'energy gap'. Although progress has been made since 2012 in some of these areas, many continued to be raised in our stakeholder interviews and are fleshed out in more detail later in this report.

In their 2009 report 'Building the future, today'¹⁰, the Carbon Trust developed these multilateral barriers into what they call the 'circle of inertia' – the idea being that inaction in one area leads to inaction in another. The mutually reinforcing nature of many of the interlocking barriers highlighted in DECC's Energy Efficiency Strategy makes the removal of each one individually more difficult.

Exhibit 3: The non-domestic buildings 'circle of inertia'



Source: Carbon Trust, 'Building the Future, today: transforming the economic and carbon performance of the buildings we work in' (2009)

The Carbon Trust concludes that a one-size-fits all approach is therefore contradicted. Flexibility in approach is essential; which is best achieved through a diverse range of policies which are both consistent and cohesive.

In our discussions with interviewees it became clear that although our focus was on portfolio rather than site-specific barriers, a number of the issues raised related to both. If each individual property within a portfolio faces a site-specific barrier however, then it becomes amplified and a portfolio-wide concern.

Actively-traded Portfolios

Properties across a portfolio are not bought and sold in unison; some are more actively traded than others – a portfolio of properties is rarely constant. This can make a unilateral cross-portfolio approach to the deployment of an energy efficient technology at one point in time more difficult as individual properties may be at different points in the sales and retention cycle.

Further, many portfolios include a wide range of building ages and qualities, meaning that there can be difficulties in providing and installing 'one size fits all' solutions as not all buildings within the portfolio will necessarily require the same degree of retrofit.

Return on Investment

Return on investment was consistently highlighted by interviewees as a major barrier, particular in the aforementioned actively traded, transitional portfolios. When it is not clear how long a building will be owned for, it is quite possible that it will be sold before the full payback period has passed – with any direct return on investment being lost at the point of sale. This can make it more difficult to persuade a board to undertake the initial investment required. Within this context, small, replicable investments with shorter payback periods are seen as being more attractive at the portfolio level, as opposed to deep retrofit.

This is a concern. If the low-hanging fruit is done quickly and separately, it can be more difficult to justify longer term, more difficult retrofit at a later date. It can make more sense to blend solutions with short and long term payback periods into one holistic energy efficiency strategy.

It is important to note however that irrespective of the payback length, technological reliability remains key to investment – with performance gap concerns being raised by interviewees as a potential blocker to the release of funds. This concern is not particularly new however, with industry-led initiatives such as CBxchange¹¹ and the Government's Green Construction Board¹² working to meet this challenge through the facilitation of data sharing and collaborative research.

Prioritisation of funds within this context can therefore be a factor. In the retail sector for example, opening a new store may yield a greater, and faster, profit for a growing business than reducing energy costs within the existing property portfolio. But it should be remembered that although they may impact on one another there are different solutions for different issues – investment in energy efficiency is for reducing bills, improving energy intensity/productivity, and meeting company-wide carbon targets (as well as other potential benefits, including in relation to reputation, competitiveness and employees), whilst opening up a new store is more targeted at meeting a company's growth ambitions.

Building Value

Even at times where it is prudent to make a portfolio wide investment in energy efficiency, the issue of investment value was raised, and the need to link energy efficiency investments to a building's sale price. A building's energy efficiency *should* affect its value, but this is not always the case. Similarly, a more sustainable building does not mean automatically that higher rents can be charged. Although the Royal Institution of Chartered Surveyors (RICS) do refer to the benefits of sustainability in their 'Sustainability and Commercial Property Valuation' guidance note¹³ as recommended best practice, RICS valuers do not currently factor 'sustainability' into the cost of a building in a formal way.

However, our interviewees were clear that for landlords, energy efficient and sustainable buildings are more attractive to tenants and get let quicker – with greater occupancy rates and less a down time leading to a better and more consistent return. This can be used to justify investment in energy efficiency improvements. To this end, even if an investment does not by default make a direct profit, it is an important contributory factor to limiting losses resulting from dormant properties.

Landlord/Tenant

Perhaps unsurprisingly, landlord/tenant issues were raised on numerous occasions throughout the stakeholder interviews. In the retail sector for example, it was highlighted that the shopping centre owner has no remit over the actions of the tenant within each rented unit – which accounts for approximately 80% of the energy used within the building. The building owner only has direct responsibility and control over the common areas and car parks (where applicable). Furthermore, because many retail chains are built to a centrally-decided specification, control over energy efficiency is often divorced from the on-site store manager.



Beyond this, the often aggressive nature of lease negotiations was emphasised as being unhelpful in creating a collaborative relationship between landlord and tenant – and one company may have many different tenants across its stores, making company-wide consistency difficult to achieve.


While various structural options have been created to deal with the split energy efficiency incentives between landlords and tenants, it still remains an unsolved key challenge. The party often paying for the energy management improvements (the landlord) is often not the party paying the energy bills (the tenant), and so the argument for cost-saving has lost impact.

Article 19 of the EU Energy Efficiency Directive¹⁴ expressly references this, arguing that in developing policy Member States must take account of the ‘split incentives between the owner and the tenant of a building... with a view to ensuring that these parties are not deterred from making efficiency improving investments that they would otherwise have made by the fact that they will not individually obtain the full benefits or by the absence of rules for dividing the costs and benefits between them.’

Article 19 has led to a raft of thinking about how the industry might overcome this challenge. For example the European Commission’s Joint Research Centre on Energy Efficiency (JRC) published in 2015 the outcome of a workshop looking at split incentives, which included participants from Italy, the Netherlands, the UK, Denmark, Sweden and the United States¹⁵.

Whilst again confirming that there is no one-size-fits-all solution – particularly across different countries, let alone building sectors – a number of potential conclusions and solutions were highlighted which could have a beneficial impact on the commercial rented sector:

-  To overcome misaligned incentives for tenants and building owners, the splitting of costs and benefits should be considered in a balanced way, with a share of cost savings allowed to be used for investment repayments. While this means that tenants could be subject to a repayment fee in their utility bills, landlords should also take part of the investment cost in view of the property’s value increase as a result of the energy efficiency upgrade.
-  Energy Performance Certificates (EPC) have failed to create a strong impact on the market, with quality problems, lack of enforcement and poor implementation in practice being highlighted as some of the issues which need addressing. A distinction between building and user related energy consumption – where the responsibility of the first lies with the landlord and the second with the tenant – is increasingly needed.

 Traditional lease agreements create asymmetries in the relationship between landlords and tenants and do not set the ground for energy efficiency investments. In the commercial sector, 'green leases' can bridge these differences by splitting the costs and benefits between the parties in such a way that both parties can benefit from energy retrofit. However, despite their potential, green leases are not currently widely used in Europe (by comparison to other parts of the world, such as Australia). Sharing standard green leasing guidelines would increase awareness among key interest groups.

A key challenge is how to accurately predict the energy savings resulting from the energy efficiency upgrade. In New York City, tenants that enter into a green lease can use a 20% 'performance buffer' which allows them to pay only 80% of the predicted cost savings and thereby protects them against any risk of under performance.

 Landlords should be forbidden from renting properties with low energy efficiency levels to send a clear signal to the market. This has already been implemented in the UK with Minimum Energy Efficiency Standards (discussed later in this report), but it is not always standard practice internationally, and EIC supports the findings of the JRC.

These issues are of paramount importance in the commercial office and retail property sectors where it was estimated by the Carbon Trust in 2009 that 90% of the former and 50% of the latter has some form of landlord-tenant agreement in place¹⁶. If we are to achieve the necessary reduction in energy use across portfolios, these barriers will need to be overcome.



Diluted and Disparate Responsibilities

Within an organisation, property portfolio or even an individual building there is often no single person with a direct remit or responsibility for energy management. Many of the participants in the energy management process undertake related activities – paying the bills, reporting the data – but without necessarily having any compulsion to *reduce* energy use. This issue becomes more acute in service industries where energy bills only account for a small fraction of company expenditure.

One suggestion to bring about a more holistic approach and increase the importance of effective energy management within an organisation or property portfolio would be to introduce a requirement for the role of ‘energy manager’ to be recognised at board level – or, alternatively, to require energy management to be covered as a specific item in a company’s report. Taking account of our recommendations for the Energy Saving Opportunity Scheme later in this report (see page 20) there is the potential that participating companies – who, by the nature of the regulations, will be larger energy users – could also be required to include their ESOS update reports in their formal company reports. This would highlight progress (or lack of) to a different, and wider, audience without the need for any additional work or expenditure beyond what is already required.

Referring back to the UCL Energy Institute’s study into non-domestic energy efficiency linked to earlier in this report, it is argued that ‘internal drivers influence how energy efficiency is noticed, perceived and acted upon. Salience (and therefore, action) is more common in organisations where there are strong connections between energy teams and senior managers.’

Ultimately, there is a need to better recognise the unique role and skillset required for effective energy management, and introduce a mechanism which brings greater focus and importance to energy use and management within a company and across the portfolio - replacing the fractured ‘multi-headed’ approach with something more holistic.



3.DRIVERS TO PORTFOLIO-WIDE ENERGY EFFICIENCY IMPROVEMENTS

As well as challenges for portfolio-wide energy management, our research also looked at the drivers – those things which engage portfolio owners, investors, and managers and encourage energy management improvements.

Risk Mitigation – Financial and Regulatory

Management of risk – whether financial or regulatory – was highlighted at times as both a barrier and driver to action, but there was a consensus that solutions which ‘de-risk’ a property will see greater buy-in.

Following public consultation, the 2016 Budget announced a series of changes to UK carbon policy, including:

- The abolition of the CRC with effect from the 2018-19 compliance year.
- An increase in the main Climate Change Levy (CCL) rates from 1 April 2019 to account for the lost revenue from the CRC abolition.
- An increase in the CCL discount for sectors with Climate Change Agreements (CCAs) to compensate for the increase in CCL.
- A rebalancing of the CCL for different types of fuel to reflect recent data on the fuel mix used in electricity generation.
- A commitment to consult later in 2016 on a simplified energy and carbon reporting framework, for introduction by April 2019.

These changes will see a shift in where the risk falls for a portfolio investor, owner or manager, and our analysis is that these changes will see an increase in the importance of two key pieces of energy efficiency regulation which still remain: Minimum Energy Efficiency Standards (MEES), and the Energy Savings Opportunity Scheme (ESOS).

We believe that both policies have the potential to see a positive impact on the energy efficiency of non-domestic property portfolios, but must be strengthened if they are to reach their full potential – with Brexit providing an opportunity to achieve this more quickly as the government may have more freedom to act away from the framework of EU directives.



MINIMUM ENERGY EFFICIENCY STANDARDS

MEES¹⁷ regulations make it unlawful to let non-domestic private rented sector properties with an F or G Energy Performance Certificate (EPC) (unless certain exemptions are met). The regulations come into effect from the 1st April 2018 for new leases or lease renewals where there is an existing EPC, and will be extended to all existing leases from 1st April 2023.

It is these exemptions that are a cause for concern among industry practitioners. Under the regulations as currently drafted F or G rated properties will still be able to be rented out if the tenant refuses consent for energy efficiency work and/or where the works would have a negative effect on rental or capital value.

Whilst the principle behind MEES is sound, and encouraged, a clear trajectory for the ratcheting up of the standards to include D and E rated properties would provide the policy certainty investors require; move us more quickly toward our carbon reduction targets; and arguably see bigger energy efficiency investments made more quickly rather than a piecemeal approach.

This managed increase approach has been very effective in other areas, such as with the Climate Change Levy and the Landfill Tax, and there is no reason to suggest that this principle should not be equally effective here.

However, effective policing of MEES will be vital if the policy is to be successful – and the government must set out a credible plan of action for achieving this. While the legislation for the scheme is now in place and broadly understood, there is some doubt over its practical application and enforcement. Recent turbulent changes to the wider policy framework; the perceived lukewarm approach of the current government to energy efficiency issues; and a General Election (with possible change in governing party) between now and the time MEES come into full effect in 2023, leaves some scepticism among our interviewees as to whether the policy will be enforced effectively. It is believed that this lack of trust or faith has led to some of the laggards within the industry ‘taking their chances’ and delaying more immediate investment.

One potentially positive outcome from the Brexit decision is that whilst MEES stem from domestic legislation (the Energy Act 2011), their driving metric

– the EPC – stems from EU legislation (the Energy Performance of Buildings Directives). Whilst not perfect EPCs were the best mechanism available, but we are now afforded greater freedom to improve them and devise a more bespoke, fit-for-purpose solution with more robust assessment protocols.

The Government had previously convened an industry taskforce (pre-referendum) to investigate what these improvements to MEES and EPCs might look like. In a report to Government setting out their concerns and recommendations¹⁸ the taskforce placed emphasis on the need for greater monitoring and enforcement of EPCs, recommending that:

- Trading Standards Officers be given greater support to carry out their role of enforcing EPC compliance and providing credible sanctions for those who do not comply.
- Consideration be given as to whether it would be practical for an EPC to state whether a building is compliant with MEES or exempt – and if exempt, how long the exemption should last for.
- Industry-leading owners and occupiers should help to build the case for the benefits of better performing buildings, and industry trade bodies and the Government should promote them in order to encourage EPC and MEES compliance among SMEs.
- As compliance with MEES can only apply to those buildings where there is an EPC, there is a risk that this creates a perverse incentive to not acquire one, and might discourage property owners from voluntarily obtaining an EPC. Government should take steps to mitigate this risk through credible penalties and more resourcing devoted to enforcement.

Ultimately, MEES provides base level standards for entire commercial portfolios, and places requirements on portfolio owners (if policed properly) to ensure that all of their properties meet at least some level of energy efficiency. EIC believes that these recommendations remain valid.

ENERGY SAVINGS OPPORTUNITY SCHEME (ESOS)

ESOS¹⁹ – the UK Government’s approach to implementing Article 8 of the EU Energy Efficiency Directive²⁰ – is a mandatory energy assessment scheme for large organisations. Every four years, qualifying organisations must carry out an ESOS assessment of the energy used by their buildings, industrial processes and transport to identify cost-effective energy saving measures.

EIC supports the principle behind the policy, and it acts as a useful nudge to those organisations that may have considered making an efficiency intervention but not yet done so.

The weakness in the policy however is that there is no obligation to act on the recommendations proposed, turning the policy into a tick box exercise both for those that do not wish to engage, and for those at the leading edge. Those who do not wish to engage may simply carry out a perfunctory audit with no real consideration of the recommendations, whilst those portfolio owners who place importance on energy efficiency will most likely have already made improvements beyond the audit’s baseline recommendations. There is a danger that ESOS compliance can become an administrative exercise only, rather than an audit that adds value.

This scepticism is not unfounded, with press reports highlighting the Environment Agency beginning to investigate a large number of non-compliant participants. Indeed, 40% of the roughly 10,000 businesses qualifying for a required ESOS assessment were not compliant when the scheme went live in February 2016²¹.

Encouraging businesses to engage more actively with their ESOS recommendations is vital if the policy is to be effective, and monitoring the uptake of actions (perhaps by the Environment Agency as administrator of the scheme, or by a third party) is recommended as a sensible step forward.

Further analysis beyond this would also be helpful in understanding the effectiveness of ESOS policy; how much of a difference it is making; its contribution to energy efficiency and consequently emissions reduction; and its impact on other energy management policies. At present, the best we are able to do is take an educated guess.

Holland’s approach is to require any recommendation in an ESOS audit with a five year payback or less to be ‘acted upon’ – not necessarily fully implemented, but given due consideration. Progress is reported on annually, and formally audited every four years. This is an example of international best practice which could, and should, be implemented in the UK.

Working in tandem, improved ESOS and MEES policies have the potential to provide an effective driver to action – with MEES forcing landlords to address low energy efficiency, and ESOS providing companies with a mechanism to do this through the provision of practical support and guidance.

Reputation

Reputation remains a key driver for those at the upper end of the property development and management market. Base level regulation – like MEES – was felt by interviewees to be of limited value as developers at this level argue they already operate well above and beyond what is required.

‘Market leader’ portfolio owners and managers were much more interested in policy drivers that related to, and provided some measurement for, reputation as a way of differentiating themselves from their competitors. In this regard, the scrapping of the CRC league table has proved unhelpful as it provided such a mechanism for leveraging positive brand promotion.

A number of international best practice initiatives were highlighted by interviewees which could be better promoted to more effectively exploit the reputational benefits of a holistic approach to energy efficient property portfolios.



GLOBAL REAL ESTATE SUSTAINABILITY BENCHMARK (GRESB)

With a focus on property portfolios, GRESB²² is a global, industry-led organisation which assesses the environmental, social, and governance (ESG) performance of real estate portfolios and infrastructure assets. More than 200 companies (about 60 of which are pension funds) use GRESB data in their investment management processes as a way of optimising the risk and return profiles of any investments. This work includes data collection and validation, and provides a system for annual ratings and industry benchmarking.

As argued in GRESB's 2015 annual report²³, a higher GRESB rating directly correlated with better financial performance, and a University of Cambridge study²⁴ showed a significant link between a portfolio's sustainability indicators and Real Estate Investment Trust (REIT)²⁵ performance on the stock market. The study concluded that "REITs with higher GRESB scores have higher returns on equity, higher returns on assets, and stronger risk-adjusted stock performance."

BETTER BUILDING PARTNERSHIP (BBP)

The Better Building Partnership²⁶ is a not-for-profit collaboration of the UK's leading commercial property portfolio owners, working together to improve the sustainability of the existing commercial building stock.

The BBP aims to use the industry's collective strength to enable knowledge sharing, demonstrate leadership, promote innovation, and support collaboration. By using their influence, BBP's members seek to stimulate the wider commercial property sector – across the UK and globally – to follow their example, share best practice and annually monitor, report and set targets in relation to the sustainability performance of their commercial property portfolios (using standardised industry metrics where possible).

NATIONAL AUSTRALIAN BUILT ENVIRONMENT RATING SYSTEM (NABERS)

NABERS²⁷ was also highlighted as an example of international best practice which could be replicated domestically in the UK.

NABERS is a national rating system used in Australia that measures the environmental performance of buildings, tenancies and homes based on energy efficiency, water usage, waste management and indoor environment criteria. It does this by using measured and verified performance information and converting this into an easy to understand star rating scale from one to six stars – with a six rating demonstrating market-leading performance. Introduced over ten years ago, the system helps property and portfolio owners, managers and tenants to improve their sustainability performance and drive forwards their reputation.

The NABERS scheme believes it is unique internationally in its approach to measuring the environmental impacts of a building as it is the only tool to provide a reliable benchmark for actual environmental performance, and the scheme administrators argue that it has now become 'an essential component of the building management cycle for most commercial property portfolios'²⁸ in Australia.

As a result of NABERS uptake, the UCL Energy Institute state that 'NABERS has transformed the market. 80% of base buildings are now rated and the average has risen from 2.9 stars in 2000 to 4.2 in 2014...investors are reporting significant improvements in key asset value indicators such as lease length and vacancy rates. Average rents are 9% higher and operating costs 8% lower'.

It is argued that NABERS works because performance-based labels allow tenants to choose efficient buildings in response to salient drivers such as reputation. The demand created by tenants increases the asset value for developers, and a virtuous circle is set up with supply and demand feeding from one another - as opposed to a 'circle of inertia' as mentioned earlier.

Legal & General Investment Management, in conjunction with the BBP, are actively investigating the possibility of introducing a NABERS type system in the UK.

CARBON DISCLOSURE PROJECT (CDP)

The Carbon Disclosure Project²⁹ is a voluntary, globally-recognised, not-for-profit carbon reporting system, including data related to climate change, water and forest-risk. The CDP aims to help inform global system companies, investors and cities better able to mitigate risk and make evidence-based decisions which drive action toward a more sustainable world. The CDP currently works with 4,500 companies, 110 cities across 80 countries, and with 767 institutional investors.

With such a large number of investors involved, there is a reputational and financial imperative. For leading companies, the annual CDP reports submitted by scheme participants provides a useful mechanism for better understanding, reporting on, and managing portfolio-wide GHG emissions and energy use in a holistic way.

Reputationally driven approaches such as these were highlighted by a number of stakeholders at the top end of the portfolio market as being most beneficial, with many feeling that traditional approaches like blunt regulation have little to no effect given that their properties already exceed what is required. They believe that this reputational element helps to benchmark themselves against, and differentiate themselves from, their competitors, and provides a mechanism with which to justify ongoing investment in portfolio-wide sustainability to retain the top spots.

The Millennial Effect and new approaches

One of the most interesting yet difficult to quantify drivers across the stakeholders interviewed was the 'millennial effect' – the idea that a focus on sustainability will be driven by generational shifts in attitude as much as, or perhaps even more than, policy or government intervention.

Global accountancy firm PWC, who have undertaken some comprehensive research³⁰ into the effect of this generational shift on workplaces, argues that in order to foster a greater sense of commitment from 'millennials' (those born between 1980 and 1995) 'it will be necessary to transform the core dynamics of the workplace'.

Across our stakeholder interviews, we found that in the commercial building sector this has manifested itself in leading companies placing greater emphasis on sustainability and improved internal office space environments, reflecting the demands of a new generation. This is not only done for CSR purposes, but also to allow those companies to attract and retain leading, younger talent.

This has seen the beginnings of a shift in the way forward thinking companies are approaching staff management and wellbeing, with a greater focus being placed on internal building environments to create a more productive and healthy workforce. As these companies take root and branch reviews of building and portfolio sustainability performance in the broadest sense, it would be an opportunity missed not to include energy efficiency in the mix as an important contributory factor to overall employee well being and satisfaction.

The challenge is how to harness and accelerate this change. Whilst the millennial effect may in itself be positive, our looming emissions reduction targets do not allow us the luxury of time to wait for a generational shift.

This more holistic building approach has been recently codified in the voluntary WELL Building Standard, which seeks to review the performance of whole buildings (beyond but including energy efficiency) as a means to improving company productivity.



THE WELL BUILDING STANDARD

The Well Building Standard³¹ is a holistic performance-based system for measuring, certifying and monitoring features of the built environment which impact on human health and wellbeing, including indoor air quality, water quality, nourishment, lighting, fitness, comfort and mental health. Collectively, addressing these issues can lead to greater economic outputs for the organisation as result of increased staff productivity from healthier employees who are more effective in their jobs and take fewer sick days.

Although not directly related to energy efficiency, the WELL standard is a 'codification' of the generational shift and changing attitudes toward 'healthy buildings' in a complete sense – of which energy efficiency plays an important role. The standard is currently in place for office spaces, and is being piloted in the retail sector, schools and warehousing.

The Standard has been promoted as a 'complementary tool to promote transparency and leadership on health and wellbeing' by GRESB³² and leading global engineering firms such as AECOM have started to train employees to become WELL Accredited Professionals to increase their offering to clients, and in response to growing interest³³.

It is recommended that the government considers what it can do to encourage "healthy buildings" (and we would argue that should encompass energy efficient buildings), as a potential boon to UK productivity.

4. CONCLUSIONS AND RECOMMENDATIONS

As this report shows, there is great potential for delivering better energy management technologies and solutions at property portfolio level. It is not without difficulty – from disparity of building age and quality within a single portfolio to the role of policy and regulation – but the potential benefits to built environment decarbonisation from this approach are significant. Further, finding a successful formula would reap rewards beyond climate change: it would save companies money, create jobs, and create major export opportunities for environmental monitoring and energy auditing companies – an area in which the UK is already highly regarded and on which it could capitalise further.

At present the potential implications of Brexit dominate almost all policy and regulatory discussions but, as we have shown, it also affords us the flexibility to improve existing regulation more quickly. Environmental and climate change issues played a very minor role in the referendum debates and there is little sense of popular support for rolling back of standards in these areas. To the contrary, the UK is now free to show even greater leadership and reap the rewards of first mover advantage when developing new policy.

This report highlights a number of barriers to a portfolio approach, highlighting issues around actively traded portfolios, return on investment, sustainability and building value, landlord-tenant concerns, split incentives, and the diluted and disparate responsibility for energy management within an individual building let alone across a portfolio.

Below we set out a series of recommendations which we believe will help overcome these hurdles. There is no one size fits all solution, and not all solutions will be relevant on all occasions, flexibility will be necessary in deployment, and different stakeholders will be required to act at different times and in different ways.

- 1. Landlord/tenant:** To overcome misaligned incentives between landlords and tenants, green leases should be further encouraged to the benefit of both parties – with a more balanced split between energy management investment costs and the money saved. Greater knowledge sharing and the development of standardised green leasing guidelines is encouraged and, once mainstreamed, would help overcome issues around one company potentially having many different landlords. There is an important role for trade organisations and industry-leading companies to continue raising awareness and show leadership on this approach.
- 2. Role of the energy manager:** To bring about a more holistic approach to energy management within a company and across a portfolio, we recommend the government introduce a requirement for the role of ‘energy manager’ to be recognised at Board level – or, alternatively, for energy management to be covered as a specific item in a company’s report. This would provide a mechanism for bringing greater focus and importance to energy management – which requires a defined skill set which is often under-appreciated and misunderstood – and provide something more unified than the current ‘multi-headed’ approach.



- 3. Minimum Energy Efficiency Standards:** MEES should be retained and improved in any post-Brexit action as a way of providing a base level for portfolios, and to bring up industry laggards. A clear trajectory is required for ratcheting up the standards to include D and E EPC rated properties, and the Government must put forward a plan for the effective policing of the policy if it is to have real success.
- 4. Energy Performance Certificates:** Further to this, EPCs need to be upgraded. Government should give consideration to the possibility of EPCs stating whether a building is MEES compliant (or exempt), and have them account for a better distinction between building consumption and energy user consumption – where the responsibility of the first lies with the landlord and the second with the tenant.
- 5. Energy Saving Opportunity Scheme:** ESOS is another piece of EU-derived regulation which should be retained and upgraded post-Brexit as, at present, it is often little more than a tick box exercise. Government should introduce a requirement for participating companies to actively engage with the recommendations proposed in the ESOS report following assessment. We would recommend following the Dutch model whereby any recommendation with a payback period of five years or less must be acted upon (if not fully implemented), with a formal audit taking place every four years. There would be greater benefit from deeper analysis by the Environment Agency or a third party to ascertain the effectiveness of the policy and its contribution to energy/emissions reduction.

Working in tandem, improved ESOS and MEES policies have the potential to provide an effective driver to action – with MEES forcing landlords to address low energy efficiency, and ESOS providing companies with a mechanism to do this through the provision of practical support and guidance.

- 6. Reputational drivers:** MEES and ESOS are less relevant to those at the leading edge of the portfolio market, who already go above and beyond the requirements of these regulations. For these portfolio holders, reputational drivers are far more effective as a way of differentiating themselves from their competitors. Our report highlights many different examples of international best practice – GRESB, Better Building Partnership, NABERS, and the Carbon Disclosure Project – and we recommend portfolio owners, managers and investors use these tools more proactively as a way of sharing best practice, pushing the industry forward, and ensuring greater occupancy rates. Further, the promotion of these schemes will continue to foster a more (financially) tangible link between sustainability and building value.
- 7. Performance gap:** Further work is required to minimise the performance gap, particularly when looking to secure investment confidence in new technologies – pay back periods, even when long, need to be reliable. We recommend the Government continues to build on the work of the Green Construction Board, and that Industry support initiatives such as Carbon Exchange which aims to narrow the performance gap through the sharing of data, information and best practice.
- 8. New approaches:** Both Government and Industry should give serious consideration to new and cutting edge approaches to more holistic building management, such as the WELL Standard, and investigate ways to promote these as best practice. These approaches include, but go beyond, energy management to look at internal office environments in more detail and account for the health and well-being of the people work within buildings – leading to a healthier and more productive workforce.
- 9. Government delivery agency:** In its report 2016 report on new approaches to non-domestic energy efficiency, the UCL Energy Institute argue that effective policy depends not just on which policies are used, but also how they are used together and managing their evolution over time as business responds and markets change. Many governments address these issues in partnership with a delivery agency, but the UK Government withdrew funding from their equivalent bodies, the Carbon Trust and Energy Savings Trust in 2012. EIC would support UCL's recommendation that the Government review this decision, and perhaps use a model similar to Germany's energy agency, DENA, which does not provide direct advice or provide finance and deliver projects, but instead sets standards, provides information to businesses, and passes on market expertise and intelligence to local traders and professionals.

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ENDNOTES

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- ² <http://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:52011DC0112&from=EN>
- ³ Deloitte, 'Carbon Penalties and Incentives', <http://www2.deloitte.com/uk/en/pages/real-estate/articles/carbon-penalties-and-incentives-report.html>
- ⁴ <https://www.gov.uk/government/publications/budget-2016-documents>
- ⁵ <https://www.gov.uk/government/news/government-announces-end-of-european-communities-act>
- ⁶ <https://www.gov.uk/guidance/carbon-budgets>
- ⁷ <https://www.gov.uk/government/speeches/amber-rudd-speech-to-the-business-climate-summit>
- ⁸ <https://www.gov.uk/government/speeches/theresa-mays-speech-to-the-un-general-assembly>
- ⁹ https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/65602/6927-energy-efficiency-strategy--the-energy-efficiency.pdf
- ¹⁰ https://www.carbontrust.com/media/77252/ctc765_building_the_future__today.pdf
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- ²¹ <http://www.edie.net/news/6/ESOS-Energy-Savings-Opportunity-Scheme-audit-compliance-deadline-2016/>
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- ²³ 2015 GRESB Report, <https://gresb-public.s3.amazonaws.com/content/2015-GRESB-Report.pdf>
- ²⁴ 'Building Returns: Investing in sustainability pays off', published June 2015. <https://gresb-public.s3.amazonaws.com/content/2015-GRESB-Report.pdf>
- ²⁵ A REIT, or Real Estate Investment Trust, is a company that owns or finances income-producing real estate. Modeled after mutual funds, REITs provide investors of all types regular income streams, diversification and long-term capital appreciation.
- ²⁶ <http://www.betterbuildingspartnership.co.uk/>
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About EIC

The Environmental Industries Commission (EIC), founded in 1995, represents the businesses which provide the technology and services that deliver environmental performance across the economy. In short, we are the voice of the green economy. Our members are innovative and the leading players in their field, and include technology manufacturers, developers, consultancies, universities, and consulting engineers.

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