

The Building Performance Series

DECODING BUILDING PERFORMANCE ENGINEERING

ISSUE 1 | SEPTEMBER 2026



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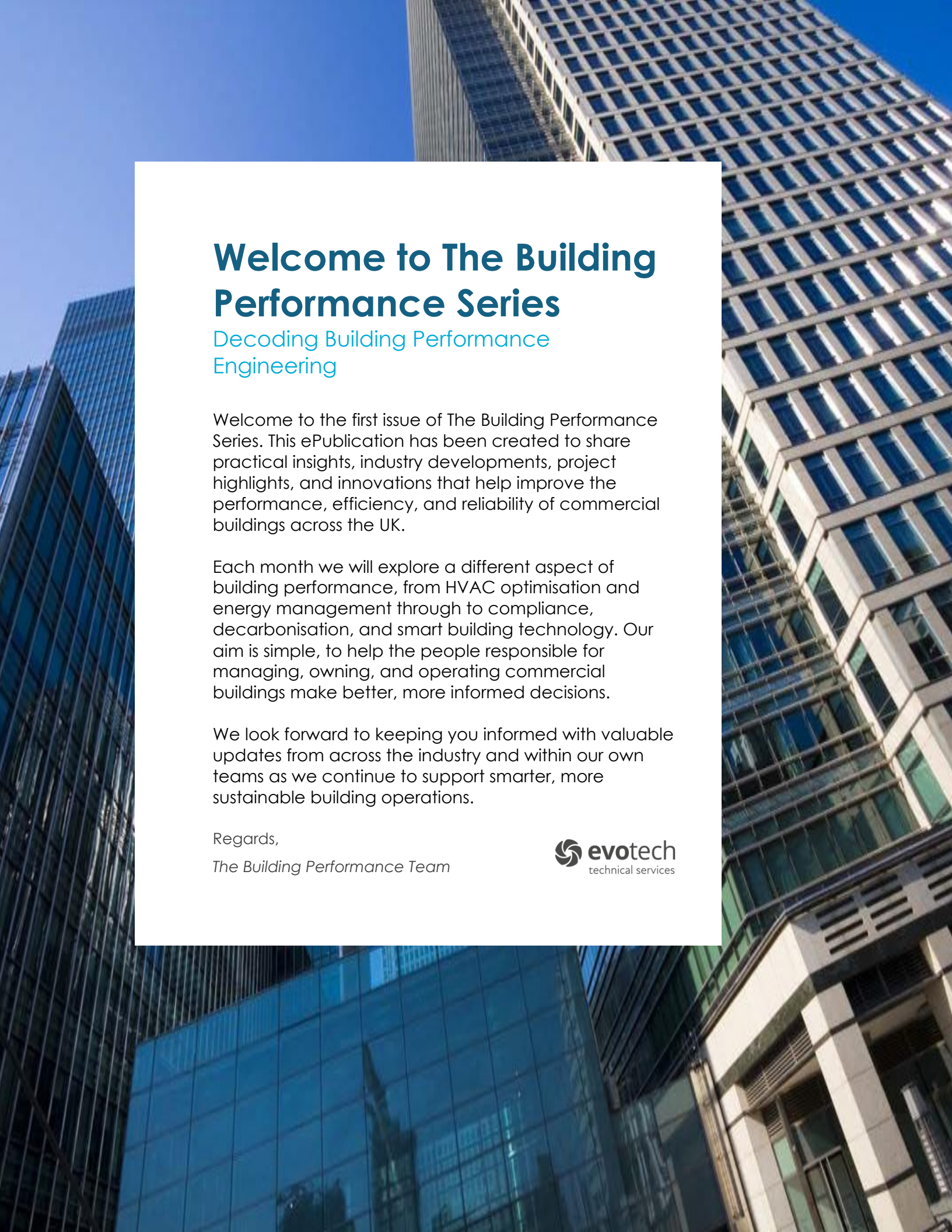
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Welcome to The Building Performance Series

Decoding Building Performance Engineering

Welcome to the first issue of The Building Performance Series. This ePublication has been created to share practical insights, industry developments, project highlights, and innovations that help improve the performance, efficiency, and reliability of commercial buildings across the UK.

Each month we will explore a different aspect of building performance, from HVAC optimisation and energy management through to compliance, decarbonisation, and smart building technology. Our aim is simple, to help the people responsible for managing, owning, and operating commercial buildings make better, more informed decisions.

We look forward to keeping you informed with valuable updates from across the industry and within our own teams as we continue to support smarter, more sustainable building operations.

Regards,

The Building Performance Team



Decoding Building Performance Engineering



1. What Is Building Performance?

Building performance is a term that gets used frequently across the property and facilities management sector, but what does it actually mean in practice, and why does it matter so much right now?

At its most fundamental level, building performance refers to how effectively a building fulfils its purpose. A building exists to provide a safe, comfortable, functional environment for the people who use it, whether that is office workers, retail customers, students, healthcare patients, or any other group of occupants. It also exists to serve the commercial interests of its owner, generating rental income, retaining asset value, and minimising the cost of ownership over time.

Building performance encompasses everything that determines how well a building achieves those twin objectives. It is not a single metric but a composite of many interacting factors including the efficiency of the heating, cooling, and ventilation systems; the quality of the building fabric and its ability to retain heat in winter and stay cool in summer; the reliability of the electrical infrastructure; the effectiveness of the building controls; the air quality inside the

building; the carbon emissions associated with its operation; and the cost of maintaining all of these systems over time.

When we talk about a high-performing building, we mean one where all of these factors are working in harmony, where the systems are well-maintained and correctly configured, where energy is used only where and when it is needed, where occupants are comfortable and productive, and where the building meets its regulatory obligations without constant reactive intervention.

When a building underperforms, the consequences are felt across all of these dimensions simultaneously. Energy bills are higher than they should be. Occupants complain about temperature, air quality, or reliability. Maintenance costs increase as systems work harder than necessary and wear out faster. Regulatory compliance becomes harder to demonstrate. And the long-term value of the asset is quietly eroded. A building that performs well costs less to run, is more comfortable to occupy, is easier to manage, and is worth more as an asset. Building performance is not a technical niche, it is a core business and commercial priority.

2. Why Does Building Performance Matter?

The case for taking building performance seriously has never been stronger, and it is being driven by a convergence of financial, regulatory, environmental, and market pressures that are fundamentally changing how commercial property is owned, managed, and valued.

The Financial Case

Energy is one of the largest controllable costs in commercial property management. For a typical commercial office building, energy typically represents between 20% and 35% of total operating expenditure, and in energy-intensive buildings, that figure can be significantly higher. With energy prices remaining volatile and structurally higher than they were a decade ago, the financial incentive to reduce energy waste has never been greater.

The good news is that the majority of energy waste in commercial buildings is not caused by old or inefficient equipment, but in how buildings are managed. Studies consistently show that most commercial buildings can reduce their energy consumption by 20- 30% through operational improvements alone, without replacing a single piece of equipment. That represents a very significant financial opportunity for building owners, facilities managers and managing agents.

Beyond energy, the cost of reactive maintenance, responding to breakdowns and failures as they occur, is substantially higher than the cost of planned, preventive maintenance. Buildings that are poorly monitored tend to accumulate small faults that escalate into significant failures. For example, a sensor that has drifted out of calibration causes a BMS to maintain incorrect setpoints, leading to comfort complaints, which lead to reactive callouts, which lead to costs that could have been avoided during a routine maintenance visit.

The Regulatory Case

The UK's regulatory framework for commercial buildings is undergoing its most significant transformation in a generation. Minimum Energy Efficiency Standards (MEES) currently require commercial let properties to hold a minimum EPC rating of E, but the government has made clear that this threshold will rise to EPC B by 2030 for new leases and renewals, with existing leases following by 2035.

For the majority of the UK's older commercial building stock, achieving EPC B will require meaningful, and in some cases substantial, investment in building fabric and systems.



20-30%

Energy savings
achievable through
operational
improvements
alone



23%

Of UK built
environment carbon
emissions from
non-domestic
buildings



£15bn+

Annual UK
commercial
building
energy spend



The Energy Savings Opportunity Scheme (ESOS) requires large organisations to carry out energy audits at regular intervals. Display Energy Certificates (DECs) are required for public buildings. And the government's net zero commitments, a legally binding 68% reduction in emissions by 2030, and net zero by 2050, create a clear and legally enforceable direction of travel for the entire built environment sector.

The cost of non-compliance is rising, penalty notices, unlettable properties, and reputational damage are all real consequences for building owners and managing agents who fall behind the regulatory curve. Understanding your compliance position, and having a credible plan to improve it, is no longer optional.



The Market Case

ESG (Environmental, Social, and Governance), has moved from a corporate buzzword to a genuine driver of commercial property investment and leasing decisions. Institutional investors, corporate occupiers, and increasingly smaller businesses are requiring evidence of sustainability performance from the properties they invest in or occupy.

Buildings with poor EPC ratings or high carbon footprints are facing rental voids, lease renegotiations, and

downward pressure on valuations. Green leases, which include obligations on both landlord and tenant around energy performance and data sharing, are becoming standard in new commercial transactions.

The market is also pricing in stranded asset risk. Properties that cannot demonstrate a credible pathway to EPC B or beyond are increasingly viewed as liabilities rather than assets by sophisticated investors and lenders. For managing agents responsible for commercial portfolios, this

is a conversation that is already happening, and the buildings that perform well are the ones commanding premium rents and attracting the best tenants.

Building performance is no longer a facilities management concern alone. It is a board-level commercial issue, one that directly affects asset values, occupier retention, regulatory compliance, and the long-term viability of commercial property portfolios.



3. The Building Performance Challenge for Commercial Property Professionals

Understanding why building performance matters is one thing. Understanding why it is so difficult to achieve, and sustain, in practice is quite another. The reality facing most facilities managers, property owners, and managing agents is that improving building performance is genuinely complex, resource-intensive, and frequently underestimated.

The Performance Gap

One of the most well-documented phenomena in the built environment sector is the 'performance gap' - the difference between how a building was designed to perform and how it actually performs in operation. Research from CIBSE and the UK Green Building Council consistently shows that this gap is substantial, with many commercial

buildings consuming 50-100% more energy than their design specifications would suggest.

The performance gap arises for a number of interconnected reasons. Buildings are commissioned at a point in time that rarely represents normal operational conditions. Controls are set up for a specific set of assumptions that change as tenants come and go, as spaces are repurposed, and as occupancy patterns evolve. Sensors drift. Equipment wears. And the people responsible for managing the building, often under pressure and dealing with multiple competing priorities, simply do not have the time or the tools to stay on top of a system that is quietly becoming less efficient with each passing month.

The Data Problem

A fundamental challenge for most commercial building operators is that they simply do not know how their buildings are performing.

They see the monthly energy bill, which tells them what they spent, but not why. They receive maintenance reports that tell them what was fixed, but not what is running inefficiently. They respond to tenant complaints about comfort, which is a lagging indicator of a problem that has been present for some time.

Without granular, real-time data on how energy is being consumed, how systems are operating relative to setpoints, and where faults and inefficiencies are accumulating, it is impossible to manage building performance proactively.

You cannot optimise what you cannot measure. And without measurement, every decision about where to invest in improvement is based on assumption rather than evidence.

The Complexity of the Commercial Relationship

Commercial property adds a further layer of complexity that residential property does not face to the same degree - the landlord-tenant split incentive problem. In many commercial leases, the landlord pays for the building fabric and systems, whilst the tenant pays the energy bills. This creates a misalignment of incentives, the landlord has limited direct financial motivation to invest in energy efficiency improvements if the savings accrue to the tenant, whilst the tenant has limited ability to make changes to systems they do not own.

Green leases are beginning to address this, but they are not yet universal. Managing agents sit at the intersection of this relationship, often responsible for day-to-day building management without the authority to approve the capital expenditure that might be needed to make significant improvements. Navigating this requires clear communication, good data, and the ability to make a compelling business case to both landlords and tenants.



The Resource and Skills Gap

Many organisations responsible for managing commercial buildings are working with stretched resources. Facilities management teams are often lean, with a wide range of responsibilities and limited time for the systematic performance analysis that effective building optimisation requires.

Knowledge of building systems, particularly controls, BMS configuration, and energy data analysis, is a specialist area that not all FM teams have in-house. This is where specialist support from M&E engineering partners with expertise in building performance analysis, controls optimisation, and smart building technology can make a significant practical difference.

The expertise that might take years to develop in-house can be accessed immediately through the right partnership, delivering results faster and at lower cost than trying to build that capability from scratch.

The building performance challenge is real and substantial. But it is also addressable, with the right data, the right expertise, and a structured approach to improvement. The organisations that are making meaningful progress are those that have stopped treating building performance as a background activity and started treating it as a strategic priority.



4. Why Improve Building Performance? The Case for Acting Now

Given everything we have covered - the financial opportunity, the regulatory imperative, and the operational challenges - it is worth being direct about why this matters right now, and why organisations that have not yet started their building performance journey should be taking action today.

The Window for Low-Cost Improvement Is Still Open

The single most important thing to understand about building performance improvement is that the majority of the opportunity does not require significant capital investment. Operational improvements, schedule optimisation, setpoint rationalisation, controls configuration, sensor calibration, and real-time monitoring can deliver energy savings of 20-30% in most commercial buildings without touching the physical infrastructure.

This window of low-cost, high-impact improvement will not stay open indefinitely. As regulatory standards tighten and the market increasingly prices in energy performance, the bar for what is considered acceptable will rise. Acting now, when operational improvements are sufficient to make a meaningful difference, is significantly less expensive than waiting until capital investment in fabric and systems becomes unavoidable.

Compliance Deadlines Are Real and Approaching

The EPC B by 2031 deadline for new commercial leases is not a distant aspiration. It is less than five years away. For buildings that currently sit at EPC D or below, achieving EPC B by that deadline will require a programme of improvement that takes time to plan, fund, and deliver. Organisations that start that process now have options. Those that wait until 2029 or 2030 will find themselves under pressure, facing higher costs, reduced contractor availability, and the very real risk of unlettable properties.

Similarly, whilst the government has confirmed that new-style EPCs will now launch in the second half of 2027, following engagement with industry on delivery timelines, the direction of reform is confirmed and unchanged. Understanding your current EPC position, and how your buildings will perform under the new multi-metric framework, is a practical and pressing concern that should not wait for the reformed regime to arrive.



Green Building Certification Schemes - Going Beyond Compliance

For building owners, facilities managers and managing agents looking beyond minimum compliance, green building certification schemes provide a recognised, independently verified framework for demonstrating sustainability performance to occupiers, investors, and lenders.

BREEAM (Building Research Establishment Environmental Assessment Method) is the UK's leading standard and the world's first green building rating system, launched in 1990. Now in Version 7, released in 2025, BREEAM rates buildings across 10 categories - energy, water, materials, ecology, health and wellbeing, transport, waste, pollution, management, and innovation - on a five-tier scale from Pass to Outstanding. Around 600,000 buildings worldwide are BREEAM certified, with another 2.3 million registered. Key updates in V7 include expanded Whole Life Carbon requirements, a restructured Energy category with a focus on electrification and the elimination of on-site fossil fuels, new daylighting standards, and alignment with the EU Taxonomy.

For existing commercial stock, BREEAM In-Use is the most relevant pathway, a certification route specifically designed for operational buildings rather than new developments.

LEED (Leadership in Energy and Environmental Design) was developed in the US but is increasingly relevant for UK commercial buildings, particularly in London's premium office market. LEED v5, launched in April 2025, represents the most significant overhaul in over a decade, restructuring credits around three impact areas: Decarbonization (50% of all points), Quality of Life (25%), and Ecological Conservation and Restoration (25%).

Its emphasis on embodied carbon and all-electric systems aligns closely with the UK's net zero trajectory.

WELL is a complementary standard that focuses specifically on occupant health, wellbeing and productivity rather than overall environmental sustainability. It is increasingly common on premium commercial fit-outs and a building can hold both a BREEAM Excellent rating and WELL Platinum simultaneously, the two schemes are designed to work together rather than compete.

7 More London Riverside - the first office building in England to achieve **BREEAM 'Outstanding' accreditation**



SKA is a UK-specific scheme developed for office and retail fit-outs and refurbishments. Simpler and quicker than BREEAM, it is well suited to projects where BREEAM is too heavyweight for the scope, making it a practical option for managing agents overseeing tenant fit-out programmes.

NABERS UK is rapidly gaining traction as a performance-based certification that measures actual operational energy performance rather than design intent. This makes it particularly relevant in a buildings-in-use context, it rewards buildings that perform well in practice, not just on paper. The commercial case for green building certification is well evidenced. Certified buildings consistently command rental premiums, achieve higher occupancy rates, attract higher calibre tenants, and are increasingly required by institutional investors managing their own ESG obligations. Buildings without a recognised certification pathway are facing growing scrutiny from lenders and investors.

[Read it here](#)

Evotech has published a practical guide to choosing the right green building certification for your portfolio.

The Competitive Advantage Is Real

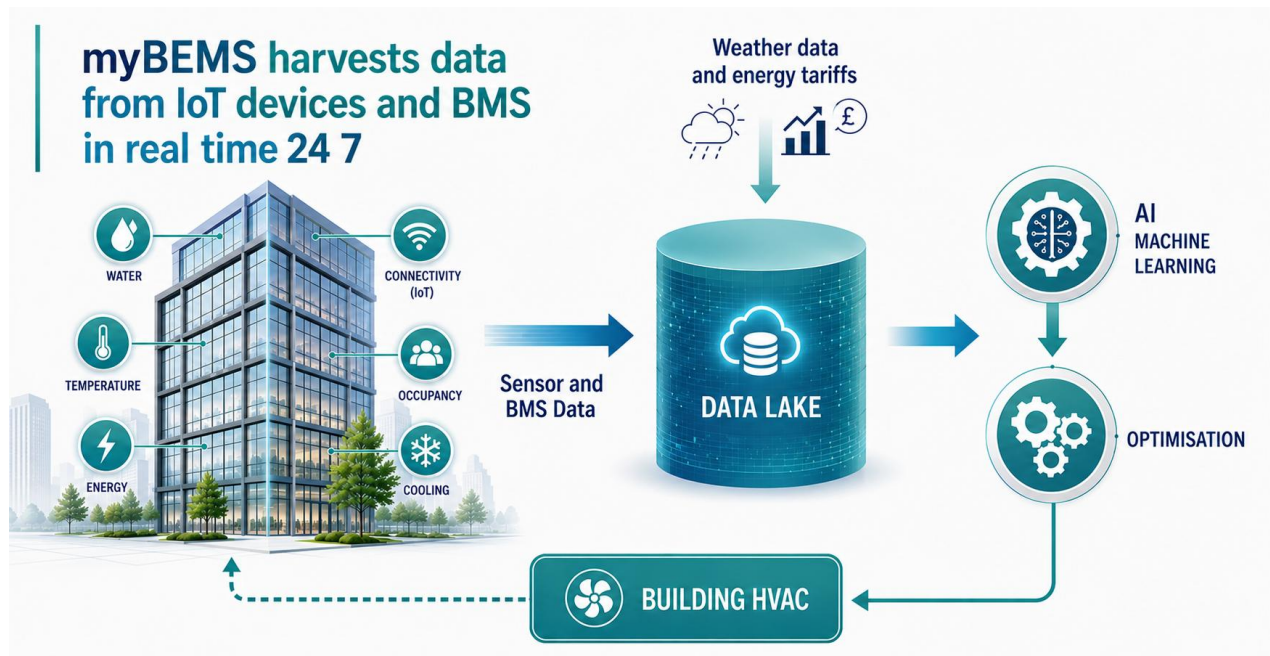
Buildings that perform well are not just cheaper to run and easier to let. They are actively preferred by the most valuable occupiers, the corporate tenants with strong ESG commitments and the institutional investors with sustainability mandates who are increasingly setting the pace for the commercial property market.

A building with a strong EPC rating, low energy consumption, good air quality data, and a clear improvement trajectory is a more attractive proposition, and commands better

rents and lower vacancy rates, than a comparable building that cannot demonstrate those qualities.

For building owners, facilities managers and managing agents, the ability to demonstrate building performance credentials, and to evidence the improvements being made, is increasingly a competitive differentiator. The firms that can show prospective clients a systematic, data-driven approach to performance management are the ones winning mandates.





Technology Has Never Been More Accessible

One of the most significant changes in the building performance landscape over the past five years is the accessibility of the technology needed to monitor and optimise building systems.

AI enabled platforms like Evotech's myBEMS, continuous sub-metering, smart sensors, and cloud based BMS analytics are no longer the preserve of Grade A trophy buildings. They are practical, cost-effective solutions that can be deployed in standard commercial stock,

delivering payback periods measured in months rather than years.

The combination of accessible technology, immediate financial returns from energy savings, and a tightening regulatory environment means that the argument for starting a building performance programme is stronger now than it has ever been.

The question is not whether to act, but how to act most effectively.



MIKE'S HVAC OPTIMISATION TIPS



Mike Howarth *IENG ACIBSE MASHRAE*
Building Performance Manager



Mike Howarth, Building Performance Manager at Evotech Technical Services is a time-served engineer and has more than 22 years' experience in building services. Each month Mike shares his practical insights here...

5. Tip of the Month - Optimise Operating Schedules

HVAC systems are often the largest energy consumers in commercial buildings, frequently accounting for 40-50% of total electricity use in a typical office environment. The following two interventions represent the most immediately impactful and cost-effective actions available to facilities managers and building operators, and in most cases neither requires any capital expenditure at all.

Of all the improvements available to a facilities manager, getting the operating schedule right is the one that consistently delivers the fastest and most measurable return.

The principle is straightforward; your HVAC system should run only when and where it is needed. In practice, many commercial buildings are operating systems for two, three, or even four hours beyond actual occupancy every day. A system that starts at 06:00 for a building that isn't occupied until 08:30, or that runs until 20:00 when the last occupant left at 17:30, is consuming energy, and generating cost and carbon, for no reason whatsoever.

The same applies to weekends and bank holidays. It is remarkably common to find HVAC systems running to full schedule on days when a building is completely unoccupied, simply

because the schedule was set at commissioning and never updated.

The starting point is a simple audit. Pull the BMS schedule and compare it against actual occupancy data. If you don't have occupancy data, access control records or car park data will give you a reasonable proxy. The gap between what the system thinks is happening and what is actually happening is often striking.

Once identified, the fix is straightforward, update the schedule to reflect actual occupancy, build in optimum start controls so the system brings the building to temperature just in time rather than running at full output for hours beforehand, and implement out-of-hours overrides that require active selection rather than defaulting to on.

On a typical commercial office building, schedule optimisation alone can reduce HVAC energy consumption by 10-15%. On buildings with particularly poor existing schedules, savings of 20% or more are achievable, with zero capital expenditure and minimal disruption.

UKGBC REPORTS HIGHLIGHT MAJOR OPPORTUNITIES TO CUT ENERGY USE AND ACCELERATE NET ZERO IN NON-DOMESTIC BUILDINGS



6. UKGBC Publishes Two Major New Reports on Net Zero & Energy Optimisation for Non-Domestic Buildings

April and May 2026 have seen the UK Green Building Council publish two significant new reports with direct practical relevance for anyone responsible for managing, owning, or operating commercial buildings in the UK.

Delivering Net Zero: Practical Actions for Optimising Energy Use - published April 2026 - provides detailed, actionable guidance specifically aimed at reducing the energy use and carbon emissions of operational non-domestic buildings.

The report outlines key steps for success and lists practical interventions applicable across a wide range of building types and sectors.

The starting point is a statistic that should focus minds across the commercial property sector:

non-domestic buildings account for 23% of the UK's total built environment carbon emissions, with the majority of those emissions arising from day-to-day building operation.

The report makes clear that on average, energy use in these buildings can be reduced by a quarter through optimisation actions alone, without wholesale replacement of building fabric or mechanical systems.

The report covers a structured approach to energy optimisation across three key areas - HVAC performance, lighting upgrades, and smarter building controls - alongside guidance on data-driven decision making, stakeholder collaboration, and the importance of measuring and evidencing improvement over time.

Whole Life Carbon Framework - published May 2026 - updates and significantly expands UKGBC's original Net Zero Carbon Buildings Framework Definition, first issued in 2019. The new framework provides a comprehensive set of principles and actions to guide the minimisation of whole life carbon across a building's full life cycle, from design and construction through to operation, maintenance, and eventual refurbishment.

Crucially the framework moves beyond operational carbon alone, addressing the embodied carbon associated with building materials, construction activity, and fit-out. For property owners and managing agents planning significant investment in retrofit or refurbishment, understanding whole life carbon is increasingly important, both for genuine sustainability performance and for meeting the expectations of institutional investors and corporate occupiers with net zero commitments.

What This Means for Building Owners, Facilities Managers and Managing Agents

The emphasis on immediate, low-cost operational actions sits well alongside the longer-term investment narrative. The focus on data and measurement provides a practical starting point for organisations that may not yet have a clear picture of how their buildings are actually performing.

For those managing commercial portfolios, the message from both reports is consistent, operational excellence comes first, investment follows, and data underpins everything. Buildings that are already being monitored and managed proactively are significantly better placed to demonstrate

compliance, attract quality occupiers, and protect long-term asset value.

Evotech has reviewed both reports in full and published a summary of the key findings with practical commentary for UK commercial building operators.

Both reports are available to download free of charge from UKGBC



Click to Read

Delivering Net Zero

Practical Actions for Optimising Energy Use



Click to Read

Whole Life Carbon Framework





In The News...

7. Government Confirms Major EPC Reforms With Implementation Delayed to Second Half of 2027

The Government has published its partial response to the Reforms to the Energy Performance of Buildings regime consultation, confirming significant changes to how EPCs are measured, issued, and enforced across England and Wales. Following engagement with industry on delivery timelines, the government has since confirmed that new-style EPCs will now launch in the second half of 2027 rather than October 2026 as originally announced, but the direction of travel on all key reforms remains unchanged.

New-Style EPCs Confirmed for Second Half of 2027

Whilst the implementation date has moved, the government remains committed to the reformed EPC regime. For non-domestic buildings, the single carbon-based Environmental Impact Rating (EIR) will be retained as the headline metric, providing continuity for commercial property owners, investors, and managing agents.

EPCs Required at Point of Marketing

A significant practical change confirmed in the response: EPCs will be required at the point of marketing a property, removing the current 28-day grace period. For managing agents, EPC compliance must be built into pre-marketing workflows as standard.

More Properties Brought Into Scope

EPC requirements will expand to cover Houses in Multiple Occupation, short-term rental properties, and heritage buildings, categories previously exempt or unclear. Combined with the point-of-marketing change, this signals tighter, earlier, and more comprehensive compliance obligations across the built environment.

What This Means for You

The delay to 2027 does not reduce the urgency of acting now. The reforms are confirmed, the direction is clear, and buildings that are not on a pathway to EPC B face increasing risk of unletability, reduced valuations, and regulatory exposure. Now is the time to review your portfolio's compliance position, before the regulatory pressure intensifies further.





NEXT ISSUE | Issue 02 | October 2026

Is Now the Time to Move to AI-Supported Building Management?

In Issue 02 we examine the growing role of AI and smart building management systems in commercial property, what they can realistically deliver, what the business case looks like, and how to make the transition without disruption.

- ✓ Real-world results from AI-enabled BMS optimisation - what buildings are actually saving
- ✓ How to assess if your current BMS is holding your building back
- ✓ Evotech myBEMS case study: Chapel Street - results, timeline and ROI
- ✓ MEES and BMS: how smart controls are helping buildings reach EPC B
- ✓ A practical guide to commissioning your first building performance review

**The Building Performance Series is brought to you by Evotech Technical Services...
Building Performance Specialists since 2003**

At Evotech Technical Services, we help organisations reduce operating costs, improve building performance, and lower carbon emissions through smarter engineering, maintenance, and energy solutions. Whether you are looking to improve efficiency across your estate or need support with a specific challenge, our team is here to help.

Get in touch to discuss how we can support your building performance goals and help create more sustainable, cost-effective environments.

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