



# Energy Management at Landsec

**In this regular feature, we focus on how organisations across different industries approach energy management. In this issue, we are exploring the world of property management with Charles Sainsbury, Energy Manager at Landsec.**

As the largest commercial real estate company in the UK, Landsec takes the impact of its operations on the environment very seriously, while also recognising that the sustainable economy provides an opportunity to deliver economic savings to the customers and communities it serves. Managing a mixed-use portfolio of shopping centres, offices and leisure destinations worth £14.4bn and an annual energy bill of over £20m brings its challenges, but consuming natural resources efficiently is a key part of our sustainability strategy, with a view to both mitigating the risks presented by climate change and reducing operational costs for our customers. Delivering our active energy management programme ensures we do just that, which is important given our stakeholders told us that energy and carbon was one of the issues that mattered to them most.

## What does energy management mean at Landsec?

Our buildings use a lot of energy, so reducing consumption is an integral part of managing the portfolio; be it through utilising natural ventilation at Bluewater Shopping Centre or optimising the heating plant at our Head Offices in London. Active energy management is one of our key tools in reducing our carbon emissions and we've set ambitious science based targets to drive performance. These targets mean

we have committed to reducing energy and carbon intensity by 40% by 2030, compared with 2013/14 levels. With a fluctuating portfolio, using an intensity metric of kWh per/m<sup>2</sup> is the best way to assess and compare the performance of our assets. We have made good progress to date reducing our energy intensity by 13.2% and our carbon intensity by 18.5%. Our approach to carbon reduction is three-fold:

- Use less energy – fine-tuning our buildings for performance and upgrading assets. For example, we have implemented retrofit



lighting programmes in a number of our retail centres.

- On-site generation – maximising the opportunity for our assets to self-generate through low-carbon technologies and renewables – we've committed to increase our portfolio of renewables by setting a target of 3MW of installed capacity by 2030, which is an increase from our current 0.6 MW. New installations of solar panels at Trinity and White Rose shopping centres in Leeds will increase our capacity to 1.4 MW.
- Procuring renewable energy – we are committed to always purchasing 100% renewable electricity and we were the first

property company to sign up to RE100.

Energy also represents a huge opportunity for us to be innovative and creative with the technologies we utilise at our properties. Sustainable design and innovation is a key element of our strategy, and arguably our biggest opportunity to reduce our environmental impact – getting the right technologies at the design and construction phase is crucial in ensuring our assets perform efficiently from day one. We've installed some bold technologies at new developments, such as the first

hydrogen fuel cell and a large ground source heat pump system in the City. We're seeing the benefits of these two, three and four years in to full operation through lower energy bills and RHI income.

## How do Landsec deal with energy management?

We were rare amongst our peers in that we opted to go down the ISO 50001 route in order to comply with ESOS, but it was the obvious choice for us as it complemented our existing environmental management system. We're now reaping the rewards of this approach, systematically managing energy, which embeds auditing as a 'business as usual' activity, allowing us to continually identify opportunities to reduce energy consumption. For us, this was clearly the best way to drive ongoing performance across such a large and diverse multi-asset portfolio. Adopting a 'plan, do, act, check' approach has allowed for consistency across the company, empowering sites to implement their own innovative energy reduction initiatives. The Landsec Energy

Management System (EMS) is implemented as follows:

- Analyse performance – we analyse and interpret a host of data points from our buildings to identify areas for improvement.
- Partnering with experts – we sit down with our service partners who are empowered to make strategy changes and incentivised to improve performance.
- Engaging our customers – ultimately, any improvements we make benefit our customers, so we continually update them on progress and seek to engage with them on initiatives they'd like to implement in their space.
- Action – finally we make decisive interventions to reduce energy at our properties to drive continual improvement using measurement and verification techniques to validate and report the benefits.

In simple terms, the implementation of our EMS is assured by site specific Energy Reduction Plans and we are committed to ensuring every asset has a plan to reduce consumption. We carried out in depth assessments at our highest consuming properties to identify a number of energy saving opportunities that will make inroads to our ambitious targets. In London, across our commercial offices we have focussed on clever, quick-win, fine tuning strategies such as free cooling and heating plant temperature glides. In retail, across our shopping centres we have much greater opportunity for true 'spend to save' measures and we are implementing a number of exciting projects such as retrofitting solar PV, as well as a number of LED lighting upgrades. There is 'no one size fits all' solution across the portfolio, as each property is different. However, we now have a firm idea on what reduction strategies will work at our assets.

It's not just technical interventions that will help us achieve our targets – our people are critical in delivering our energy management system on the ground. To build resilience and sustainability skills

across the business, we delivered a comprehensive training programme last year called Sustainability Matters. The programme focussed on role specific modules to enhance the diverse range of skillsets and professions we have at Landsec. I delivered elements of our Efficient Operations module on how to measure and optimise the operational performance of our buildings and how to set energy and waste reduction strategies. It was highly rewarding to deliver the training and on average, across all of the modules delivered, participants increased their knowledge by 40%. In-house training is hugely important in giving our staff the knowledge and



support their own sustainability objectives. To get things done you must be determined, be personable and adapt to your audience when trying to get buy-in for energy reduction projects. As energy professionals, often the key to this is being able to distill the technical case in to a meaningful business case, that is compelling to everyone regardless of knowledge level. In simple terms, partnership and collaboration is key and we challenge our service partners to move away from the typical client/customer relationship – working in true partnership allows ambitions to be aligned and targets to be achieved.

Another constant challenge for us is managing data – we look after complex buildings with multiple data sources and thousands of meter points! Fortunately, in order to manage this, we have our own in house Energy Bureau to manage our data streams, billing and procurement. This removes a lot of the risk associated with outsourced or third party solutions, meaning we have direct control of our data sources. We share reports with our internal teams and our service partners to constantly monitor and improve building performance – as any energy manager will testify, data is useless unless it is acted upon!

#### Author's profile:

Charles Sainsbury is an Energy Manager at Landsec, responsible for the performance of its London portfolio. He is a trained internal auditor in ISO management systems and has over 5 years cross-sector experience in energy & environmental management, delivering energy and carbon reduction programmes across multi-site portfolios.

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skills to embed sustainability in their day to day roles. Attending the level 2 modules is mandatory for key roles across asset, development, project management, engineering and operations teams.

#### What areas of every day's business at Landsec are most challenging in terms of energy management?

One of the most challenging yet exciting aspects of our industry is engaging the range of stakeholders that are involved in property management. This is particularly the case in a landlord occupier setting, where there are often multiple service providers delivering M&E to both parties. Our energy and carbon targets include our occupier's energy use - this is a key point of differentiation between Landsec and other organisations - so we realised we must engage our customers to