

Environmental review

OUR NET ZERO CARBON STRATEGY

2020 was a pivotal year. As the world came to a standstill following imposed lockdown restrictions across the globe, greenhouse gas (GHG) emission rates dropped. According to Science Magazine, there was approximately a 7% decline in the rate of GHG emissions.

As part of our Climate Change Commitment with the Better Buildings Partnership, in 2020, we published our Net Zero Carbon Pathway Framework, outlining our plans for net zero carbon for both our new and existing buildings. Our progress is as follows:

CLIMATE CHANGE AND CARBON

This rate is actually what we would need year on year until 2050 to keep to the Paris Agreement. The reality, however, is that this was achieved while significant temporary disruption altered patterns of energy demand.

Despite a drop in the rate of emissions, global temperatures kept rising due to the continuous emission of GHG globally, leading to unprecedented weather events, such as a record 38°C recorded in June in the Russian tundra, north of the Arctic Circle.

Amidst a pandemic, responding to climate change is still the top priority for governments and forward-looking businesses. Investor requirements for disclosure of climate change risks and opportunities kept increasing and our customers set ambitious climate commitments of their own, from science-based carbon reduction targets to net zero carbon commitments.

The Committee on Climate Change warned in its 2020 Progress Report to Parliament that emissions from the built environment have barely dropped in the UK, so a lot more progress is needed.

During 2020, through thought leadership and advocacy, Landsec has been driving our industry forward in its response to the climate emergency. We've published our net zero carbon pathway, in line with the BBP Climate Change Commitment, participated in the UK Green Building Council net zero carbon

framework development on renewable energy procurement and offsets, and responded to the GLA New London Plan consultation and the Planning White Paper on sustainability.

CLIMATE RESILIENCE

Landsec considers climate change a principal risk and material issue. In line with the Task Force on Climate-related Financial Disclosures' (TCFD) recommendations, since 2017 we've committed to assessing and reporting on material climate change risks across our portfolio, ensuring we have the appropriate strategy and mitigation plan in place. We provide our TCFD disclosure in the risk section on pages 76-77, with further details in the 2021 Sustainability Performance and Data Report.

This year, we have worked again with Willis Towers Watson in assessing and quantifying climate-related risks. This study has provided us with an updated view of these at portfolio and asset level, and allowed us to understand the potential financial impact of transition risks, such as policy and legislation changes and shifts in market preferences. This is informing our approach to managing climate risks across our portfolio, including new developments.

Through our net zero carbon strategy, we're managing the transition risks, supporting our transition to a low carbon world. This strategy is helping ensure we remain resilient and relevant in the long term. Here we provide an update on how we are managing our net zero strategy, and progress to date.



1 REDUCE OPERATIONAL ENERGY USE AND CARBON EMISSIONS

a) Progress towards our science-based target (SBT)

The first step to achieving net zero is to reduce our operational carbon emissions. For that reason, as part of our net zero carbon strategy, in 2019 we increased the ambition of our SBT, aligning our carbon reductions with a 1.5°C scenario. Our current target is to reduce our absolute carbon emissions by 70% by 2030 from a 2013/14 baseline. Our target includes scope 1, 2 and a portion of scope 3 emissions from downstream leased assets. This year we reduced our carbon emissions by 55%.

b) Energy efficiency across our operational portfolio

It has been a turbulent year for energy management, and the lockdowns have naturally had an impact on how we operate buildings. With the fall in occupancy rates, we made an even bigger push towards lowering our energy use by maximising building efficiency while ensuring the health and safety of our occupants. To do this,

we use smart technology to gather data from our building management systems in several of our offices, and having this detailed data helps us decide how we control energy-intensive service equipment in our buildings, and the services that we provide in our buildings are now running in line with occupancy. Consequently, this year we have been able to undertake various actions to improve the building-management systems at our London assets. For example, we have improved the efficiency and lifecycle of our cooling systems, as they now react more optimally to external temperatures. Our energy intensity has decreased considerably this year, by a further 29% compared with last year, and is now 43% below our 2013/14 baseline. Although this figure suggests that we've already achieved our target to reduce energy intensity by 40% by 2030, we recognise that energy consumption has been significantly impacted by lower occupancy and operational hours due to Covid-19 restrictions and doesn't reflect portfolio energy performance in normal conditions. For that reason, we'll continue tracking our performance against this 2030 target.

In addition, we acknowledge we must do more to further reduce our energy use and reach our net zero goal by 2030. We are therefore working to 'future-proof' our portfolio, so we can continue to operate in line with our ambition and meet the commitments we have made. To do this, we have mapped out the level of investment needed to reach our net zero target and identified the priority projects needed.

We see increased customer engagement as having significant potential for energy savings. We are developing an engagement programme for increasing collaboration with our occupiers on initiatives to improve energy performance.

c) Energy efficiency at new developments

The formal launch of NABERS UK in November 2020 was an important milestone, and Landsec has been supporting it over a number of years as Pioneers of the Design for Performance initiative led by the Better Buildings Partnership (BBP). NABERS UK is a new energy-efficiency rating scheme for in-use performance that will help commercial office developers and owners deliver and operate energy-efficient buildings and disclose their actual performance.

We've chosen Portland House and Timber Square as our two official Design for Performance Pioneer projects. Following the NABERS UK Design for Performance approach, the energy performance of our development projects has been independently verified to targeted ratings. We're targeting operational energy performance for our new developments in line with those published by the UKGBC in its Net Zero Carbon Framework.



2 INVEST IN RENEWABLE ENERGY

Since 2016, all the electricity we procure is REGO-backed renewable through our corporate contract with Smartest Energy, and we are looking to move our procurement towards direct purchasing from renewable projects, through Power Purchase Agreements (PPA).

We also aim to increase the amount of renewable electricity we generate on our sites. Our current on-site renewable electricity capacity is 1.4 MW, and we are running feasibility studies for installing solar PV at three of our assets.

3 USE AN INTERNAL SHADOW PRICE OF CARBON

As part of our net zero strategy, we've set an internal shadow price of carbon to help us consider the cost of carbon emissions in our investment decisions. We established our price of carbon at £80 per tCO₂e based on the required investments in carbon and energy reduction to meet our science-based target. This price is also consistent with the United Nations Global Compact guidance on carbon pricing and the Department for Business, Energy and Industrial Strategy's forecast of carbon prices through to 2030.

We're using our internal shadow price to quantify financially the long-term environmental risks associated with business decisions. For instance, deciding to redevelop an asset comes with a much larger environmental cost than keeping most of the building's structure. We will take a large number of implications into account, such as financial returns, benefits to the local area and community, flexibility offered by the asset and overall quality of the experience; but it's crucial we quantify the environmental impact of our decisions and translate it into a well-understood metric – such as a financial metric.



4 REDUCE CONSTRUCTION IMPACTS

Across our development pipeline, we've continued to prioritise reducing the embodied carbon in our supply chain.

From early design to developed design, Timber Square demonstrated a 15% reduction in embodied carbon intensity, for an intensity just over half that of the typical benchmark. Timber Square uses an embodied-carbon Value Engineering schedule to track all proposed design decisions to the defined carbon budget set at developed design stage.

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continued

Portland House will have an embodied-carbon intensity of around 342 kgCO₂/m² GIA, a third of embodied carbon compared to a typical new building, as we reposition the existing asset, retaining the existing structure. This approach reduces the extent of construction or demolition required and uses fewer materials, driving down both cost and carbon emissions. On our live development sites at 21 Moorfields, Lucent, The Forge and n2, we've also been tracking closely the embodied carbon information arising from materials purchased and activities undertaken on site to date. We create this 'as-built' embodied carbon model for each project and match it against assumptions and specifications made at the design stage.

We measure supply chain carbon consistently, at every design stage and at regular points throughout the year for our projects on site. This allows us to see whether the procurement decisions made by our supply chain align with, or are better than, our contractual targets. That's how, for our four projects currently on site, we've been able to save more carbon through our procurement decisions than in the design-stage specifications. Across the materials purchased to date, we've reduced 2,452 tonnes CO₂ more than anticipated. This represents a further 1.5% reduction across the four projects. While small given the limited scope to date, this will keep growing as works progress, and is further helping us meet our reduction targets.

In addition to monitoring the projects' carbon intensity, we also set for each project a reduction target for its design stage. Across our six live developments we are achieving a 15.6% reduction in embodied carbon from our design-stage baseline.

5 OFFSET REMAINING CARBON

To be truly net zero carbon in construction, we will need to offset emissions once we have minimised all those on site. We are buying our first carbon offsets for the Forge through a third-party provider. We ensure our offsets meet the eight principles laid out by the UKGBC to safeguard the environmental integrity and guarantee the quality of the offset.

WASTE MANAGEMENT

We continue to divert all our operational waste from landfill, and have recycled 65% across our portfolio, performing below our target of 75% recycled and reused by 2020. Due to our diversified portfolio, our waste management performance varies significantly across our assets. We have achieved this target across our office portfolio, outperforming it for the last two years, achieving 82% in 2020/21. In 2018/19, our shopping centres also outperformed our target, at 76.8%, leaving only the outsourced managed leisure and retail parks as the portfolio segments not achieving 75% recycled and reused.

Since we set our waste target, we've seen a significant improvement in the accuracy of waste data. Using actual waste data rather than estimated data, and a better understanding of offsite Material Recovery Facility (MRF) outputs, has resulted in a minor decrease in the reported recycling rates, especially within the retail portfolio.

Finally, and most significantly, this year the recycling rate across our retail portfolio has decreased to 67% from 72% in 2019/20, as a direct consequence of Covid-19 restrictions. A reduction in recyclable materials produced by brand partners and F&B (such as packaging materials, cardboard and glass) and a change in operational procedures to minimise infection risk to operational staff, has had a direct impact on the amount of waste collected as well as that recycled.

The 75% recycling target is still achievable, albeit challenging in the current climate. We are therefore extending our commitment for 75% recycling to 2030 to align with our expanded new construction-waste commitments announced last year. We will support this by working with our employees and customers to reduce, reuse and recycle waste, running campaigns and incentives across the business, building upon our successes of recent similar campaigns.

Additionally, we are running an in-depth waste auditing exercise at the third-party managed retail and leisure portfolio on sites that produce a significant amount of waste but are not achieving our recycling target. We will use this information when retendering for the waste service in this portfolio.

As part of our commitment to our community partners, we also donate any Surface Pros we no longer need to some of the charities we support.

MATERIALS

In early 2020, we published our Prohibited Materials List. This sets the minimum requirements for sourcing materials on our projects. Since then, we have expanded its scope to provide guidance to design teams on materials that we would avoid, prefer and those that would be ideal. We circulate this guidance at the start of any project. From avoiding laminated glass to recommending air purifying paints, the list states clearly our expectation of high-quality and thoughtful design.

With construction progressing on four of our sites, our procurement has been a lot more varied in 2020. Despite this, we remain on track to source 100% of our core construction materials with responsible sourcing certification, and exclusively from the UK and Europe.

CIRCULAR ECONOMY INITIATIVES

Closed-loop glass recycling

Glass is infinitely recyclable to its highest environmental value (that is, as glass) if it is segregated properly, so at Portland House we're working with our demolition contractors, Erith, to segregate it carefully. To date, we've removed just under 100 tonnes of glass from site, avoiding an estimated 29 tonnes of CO₂. We anticipate recovering an estimated additional 200 tonnes of glass from the project as it progresses. The glass then goes on to a specialist contractor, eventually to be re-melted as float glass. This improves on the traditional approach of mixing it with other waste to be used as aggregate.

A second life for used raised-access floor tiles

Raised-access floor tiles are standard products in the real estate industry, of standard size and specification. They're also typically wasted, discarded during strip-outs and demolition, only to be replaced by new tiles serving exactly the same function.

This is costly and environmentally wasteful, especially as the tiles will sit underneath a floor covering. Tiles can be salvaged, cleaned, re-tested and re-installed. We work with one of the UK's largest recycling companies for raised floors, developing a product where refurbished second-hand tiles can be painted with low-VOC paint, to ensure visual consistency on show floors. We created a prototype during the works at Dashwood this year, which proved acceptable to many leasing and technical partners. We estimate the recycled tiles are at least 50% less carbon intensive than new ones which can significantly contribute to further reduce the embodied carbon of new developments.



WELLBEING

Health and wellbeing has been a central theme of our sustainability programme for a number of years, so we were well positioned to respond to the changes brought about by Covid-19.

We've formalised our approach by registering and assessing our live development schemes against the WELL Building Standard. This was a natural step as we have embedded health and wellbeing principles into our projects for a number of years.

In the past year, at Dashwood, we've also experimented with the WELL standard in our office products Blank Canvas, Customised and Myo, creating three wellness offerings to suit our customers' needs. For Blank Canvas, we are aiming to ensure any customer can achieve a WELL Core certification if they wish. For Customised, we've created a specific WELL fit-out option for customers, including a handbook imparting the knowledge we have acquired over the years to help them fulfil their own wellness aspirations. For Myo, we are hoping to be the first flexible office space in the City to achieve full WELL certification.

This year we also committed to pursuing the WELL Portfolio Programme across our existing managed office portfolio, in addition to our new schemes. This will enable us to further improve the health and wellbeing of our customers by applying the 10 principles of the WELL Building Standard at scale. As part of this work stream we undertook an extensive review of our assets as well as our operational procedures which revealed a consistent level of quality. We will be testing our assets to establish their internal conditions and implement remedial measures where required to ensure the safety and wellness of our customers.

We've also created a comprehensive health and wellbeing brief for our commercial development projects and we're doing the same for our mixed-use Urban opportunities. These briefs set out the minimum requirements we expect our design teams to meet, ensuring we maintain the same level of quality and diligence across all our development activities, from apartment layouts and daylight, to the design of the public realm.



BIODIVERSITY

In 2020, we expanded the scope of our Biodiversity Brief to include our mixed-use assets, and set an overarching goal to make our strategy more comprehensive across our entire portfolio. Our live developments remain on track to achieve significant biodiversity improvements in line with the brief.

This spring we also worked with an ecologist to conduct site visits to evaluate progress against our 2016 baseline. The results of this evaluation will help us identify further enhancements for the sites to help us reach our 2030 target.



BUILDING CERTIFICATION BREEAM IN-USE

This year we undertook a pilot certification of BREEAM In-Use at four key assets (Bluewater, Nova, 80-100 Victoria Street and One New Change). BREEAM In-Use assesses the operational impact of a building by key sustainability criteria including energy usage, environmental management, and health and wellbeing. All assets received a rating of 'Very Good', providing an effective yet simple way to communicate the assets' sustainability credentials to customers and investors.

Digitising construction

As part of digitising our construction methods, we trialled QFlow, a cloud-based software, at the Forge. This automates site data collection and uses artificial intelligence to provide accurate and immediate insights into waste and material movements to and from the construction site. It has proven extremely effective at minimising environmental risk. We have set a number of responsible procurement targets at the Forge. Since starting on site, QFlow has identified 159 risks early by flagging any non-compliance at the site gate, removing any human handling errors and minimising the time needed to address them.

It has also given us insights into waste movements off site, allowing us to think how we can manage our waste more efficiently. It is making our supply chain more transparent and has proven vital to staying on track to achieve our sustainability targets at the Forge. The trial was so successful we have extended it for the duration of the construction, and are now working with QFlow to increase use of their data in our reporting and planning.

