

PPN 06/21 - Carbon Reduction Plan FY24

Lendlease Europe
Holdings Limited

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COMMITMENT TO ACHIEVING NET ZERO

Lendlease Europe Holdings Group is committed to achieving Net Zero Carbon by 2025 for Scope 1 and 2 emissions; and targeting Absolute Zero Carbon for Scopes 1, 2 and 3 emissions by 2040, with no carbon offsets.

BASELINE EMISSIONS FOOTPRINT

Baseline emissions are a record of the greenhouse gases that have been produced in the past and were produced prior to the introduction of any strategies to reduce emissions. Baseline emissions are the reference point against which emissions reduction can be measured.

Baseline Year: 2014 (Our baseline is based on our Financial Year (FY) 2014 performance which covers the period 1st July 2013 to 30th June 2014)	
Additional Details relating to the Baseline Emissions calculations.	
FY14 has been selected as our baseline carbon performance as this formed the baseline for our 2020 targets. However, it should be noted that it only includes Scope 1 and 2 emissions, with Scope 3 estimates only starting in FY21.	
Baseline year emissions: FY14	
EMISSIONS	TOTAL (tCO₂e)
Gross Scope 1	6,461
Gross Scope 2 (Market-based)	12,631
Scope 3 (Included Sources)	NA (Scope 3 data not captured in baseline year)
Total Emissions	19,092 (exc. Scope 3)

CURRENT EMISSIONS REPORTING

Reporting Year: 2024 (1st July 2023 to 30th June 2024)	
EMISSIONS	TOTAL (tCO₂e)
Gross Scope 1	573
Gross Scope 2 (Market-based)	28
Scope 1 & 2 Offsets	16
Net Scope 1 & 2 emissions	585
Scope 3 (Included Sources)	Scope 3 Total – 261,167 Capital Goods – 76,005 Purchased Goods and Services – 160,468

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	<p>Fuel and energy Related Activities – 472 Upstream Transport and Distribution – 7,400 Waste Generated in Operations – 88 Business Travel – 957 Downstream Leased Assets – 14,574 Employee Commuting – 15 (emissions from employee commuting represent <0.1% of our Scope 3 emissions and have been excluded from Lendlease’s corporate reporting on the basis of materiality) Downstream Transportation & Distribution - Lendlease's primary activities involve construction, development and investment management of property assets. Our business is not involved in the distribution of raw materials or finished products to end customers therefore this has been excluded.</p>
Total Net Emissions	261,752

Lendlease’s environmental data disclosure aligns with our financial reporting programme which runs from 01 July – 30 June. KPMG audited full year environmental performance data can be found in the [ESG Databook](#).

EMISSIONS REDUCTION TARGETS

Informed by the UN Sustainable Development Goals, Lendlease has a Sustainability Framework that focuses where the impact of our work is greatest. This sets us intentionally ambitious targets for limiting global warming to 1.5°C and creating lasting social value.

We have set a target to be a 1.5°C aligned company, which means we strive to achieve:

- Net Zero Carbon by 2025 for Scope 1 emissions, produced directly from the fuels we burn, and Scope 2 emissions from the power we consume.
- Absolute Zero Carbon by 2040, eliminating all emissions, including Scope 3 generated indirectly from our activities, without the use of offsets.

In 2018, Lendlease became a supporter of the Task Force for Climate-related Financial Disclosures recommendations. As part of this process, we committed to disclosing our climate-related risks and opportunities under the TCFD framework, which begun transforming the way we respond to the climate crisis. We adopted scenario planning as a means of testing our strategic resilience against different plausible and science-based climate scenarios, which alongside deep consideration and costing, helped inform the type, ambition, extent and timing of our carbon targets.

We elected to target Absolute Zero Carbon by 2040 for all Scopes (1, 2 & 3), removing the ‘safety net’ of purchasing carbon offsets beyond 2040. This is to focus our efforts on eliminating carbon emissions, not just reducing them. We call this commitment our Mission Zero and we believe this approach will inspire the kind of transformation needed by our industry. We recognise that we do not have all the answers for eliminating our Scope 3 emissions yet, however we are committed to working with the wider industry to innovate and find new solutions.

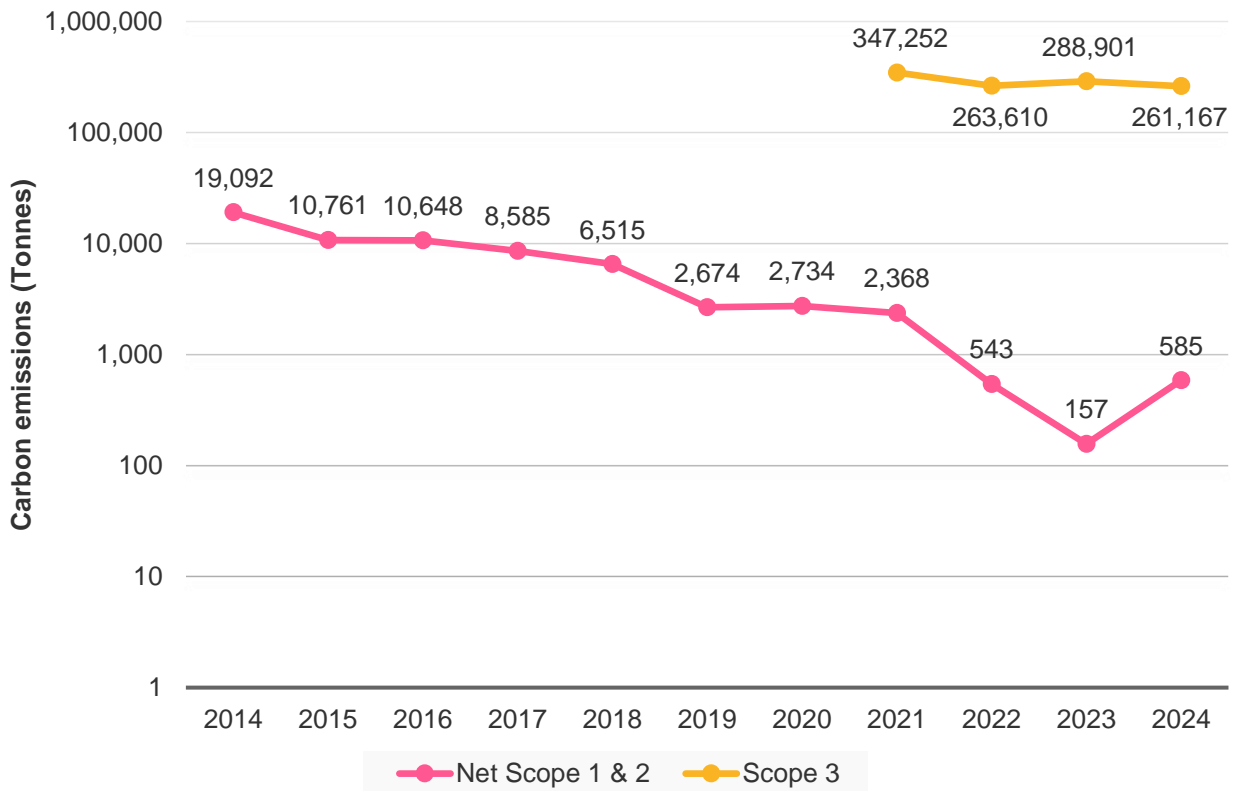
To ensure our interim efforts align with limiting global rising temperatures to 1.5°C, we joined the Business Ambition for 1.5°C commitment from the Science Based Targets Initiative (SBTi), and had our targets validated by the SBTi in 2023.

In 2020, the Lendlease Europe business published a Roadmap to Absolute Zero Carbon, detailing how we intend to achieve Net Zero and Absolute Zero Carbon across our Europe operations. This

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set interim actions and milestones which we aim to achieve over the next 20 years, addressing both operational and embodied carbon emission reductions. We report progress against our Roadmap annually, sharing details on the steps we are taking, case studies and lessons learnt along the way. The latest report can be found via our website¹, which provides further detail on all the steps we are taking as a company.

Progress against these targets can be seen in the graph below:



CARBON REDUCTION PROJECTS

COMPLETED CARBON REDUCTION INITIATIVES

The following environmental management measures and projects have been completed or implemented prior to and since the 2014 financial baseline presented within this report.

We have targeted reduction in carbon since 2014 as part of our previous commitments to reduce energy, water and waste intensity by 20% by 2020. During that period, we achieved:

- 75% reduction in absolute emissions (tCO₂e) for Lendlease Europe from FY15 to FY20.
- 87% reduction in emission intensity (tCO₂e / m²) for Lendlease Europe Investment Management assets.
- 37% reduction in emission intensity (tCO₂e / working hour) for Lendlease Europe Construction sites.

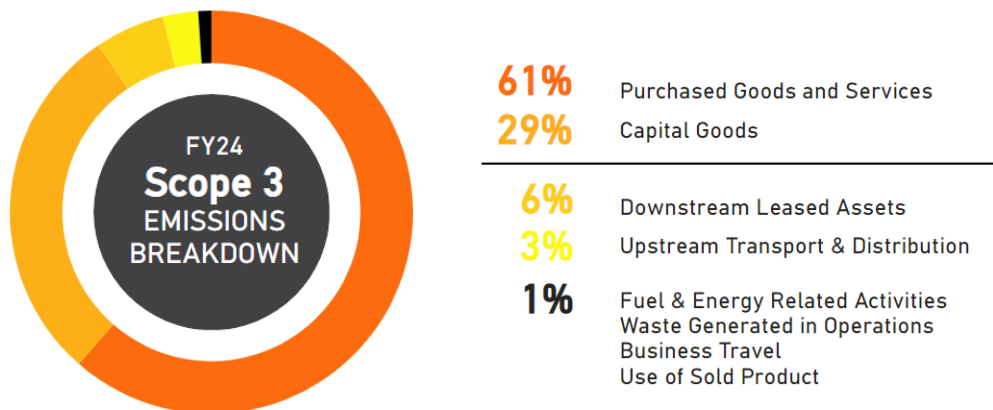
¹ <https://www.lendlease.com/uk/sustainability/climate-and-environment/>

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Since the launch of our new carbon targets in 2020, we have made progress towards eliminating our Scope 1 & 2 emissions, including:

- Reducing Scope 1 emissions by 62% in FY24 compared with FY21. This has primarily been achieved by switching traditional diesel used in our construction operations with low carbon alternatives, such as Hydrotreated Vegetable Oil (HVO), a renewable diesel derived from used cooking oil, as well as the electrification of plant and machinery. In our most recent reporting period, 99% of our fuel use was renewable, compared to 96% in FY23 and 77% in FY22.
- Cutting Scope 2 emissions by 97% in FY24 compared to FY21, achieved primarily by sourcing 99% of our electricity from Renewable Energy Guarantees of Origin (REGO) backed renewable contracts.

However, we recognise that Scope 1 & 2 emissions only represent a small portion of our emissions. Our Scope 3 emissions for FY24 represented 99% of our total carbon footprint, of that, 91% is estimated to be from the embodied carbon associated with the materials we put into our buildings.



Our Absolute Zero by 2040 target includes eliminating Scope 3 emissions, without the use of offsets. Whilst there is consistency and clear guidance on how to account for Scope 1 and 2 emissions across our sector, the same clarity is not yet in place for Scope 3 emissions. For us to achieve Mission Zero, our business needs clear boundaries to track, measure and report Scope 3 emission sources across our value chain. This is defined by the Lendlease Scope 3 Emissions Protocol². The Protocol provides our current view on the Scope 3 emission categories that we have determined to be most material and relevant to our value chain and which will form part of our Absolute Zero by 2040 target.

Beyond supporting how we as a business define Scope 3 emissions, it is also intended to contribute to broader efforts to help define a global approach to the measurement and reporting of Scope 3 emissions associated with real estate investments, development and construction activities.

In focusing on the embodied carbon associated with the materials we buy, we have begun tackling this through innovative design and construction approaches, specifying lower carbon building

² <https://www.lendlease.com/uk/sustainability/climate-and-environment/>

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materials across our own and clients' developments and collaborating with our supply chain to drive industry transformation.

At a project level, embodied carbon targets are set for new developments are tracked throughout the development lifecycle. Opportunities to reduce embodied carbon include efficient design principles reduce massing and improve form factor, as well as lower carbon materials such as mass timber, low carbon concrete, steel and aluminium. Some recent examples include:

- **Cracking the concrete challenge:**

Concrete remains one of our highest-emitting materials and is a major focus area for our Mission Zero. Lendlease Europe is a member of ConcreteZero and has committed to using 30% low carbon concrete by 2025, 50% by 2030 and 100% net zero concrete by 2040. We are active participants in ConcreteZero's reporting workstream and have helped shape the initiative's reporting requirements that will support the consistent tracking of concrete carbon emissions across the industry. Accurately and consistently measuring the carbon content of our concrete mixes is the first step in working towards using zero carbon concrete. During FY24, we piloted ConcreteZero's reporting requirements, helping better understand the carbon impacts of concrete in our projects and, in turn, allowing us to better predict environmental impacts for future projects, understand common obstacles, and identify key decarbonisation opportunities.

In tandem with consistent measurement and reporting, our path for concrete decarbonisation includes:

- Lean design: reducing the quantity of materials required in the design e.g. piling and slab thickness.
- Supply chain engagement: developing strategic partnerships with aligned supply chain partners to overcome barriers and capture opportunities for innovation and decarbonisation.
- Cement manufacture: gaining transparency of the emission factors of the cement kilns in our supply chain and understanding our supplier's decarbonisation plans.
- Cement replacements: replacing cement with supplementary cementitious materials and balancing this with performance requirements.
- Material innovations: identifying novel concrete technologies and alternative binders.

We are already proactively replacing cement with a more sustainable by-product called Ground Granulated Blast-Furnace Slag (GGBS) on a number of projects. Our most recent development at Elephant Park - Park & Sayer achieved a 43% cement replacement in its concrete mixes. This is a significant improvement over the UK average of 18% cement replacement, according to the Department for Energy Security and Net Zero³.

We are also proactively seeking out decarbonisation opportunities beyond GGBS due to its global supply levels. This includes alternative cement replacement materials, with promising options being calcine clay and limestone fillers.

- **Accelerating timber construction**

We are helping to drive industry uptake of engineered timber as a low-carbon alternative to traditional building materials, but there are still perceived barriers preventing largescale adoption. We have been supporting action research projects in

³ <https://assets.publishing.service.gov.uk/media/6564cae8888c06000dfa7dc2/unlocking-resource-efficiency-phase-1-cement-and-concrete.pdf>

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the UK and Italy, such as the 'Perceptions of Timber' project at the Milan Innovation District, where we developed a prototype timber building⁴ and The Alliance for Sustainable Building Products, where we supported the development of the *Mass Timber Insurance Playbook*⁵.

Over the past year we also worked closely with GBC Italia and Built by Nature to support the creation of the TimberForward Italia network.

- **Sourcing steel sustainably**

Steel is another vital material that we need to decarbonise on our Mission Zero journey. As a member of both ResponsibleSteel and SteelZero, we are helping to drive industry supply and demand for more sustainable steel, alongside other leading organisations. We know that moving away from traditional coal-powered steelmaking will require substantial changes in manufacturing processes. We are already working with our strategic suppliers to identify and specify more responsibly sourced, low carbon steel on our projects. We are also finding ways to reduce the carbon impact of building structures through design opportunities, such as encouraging the use of high-strength steel that results in less material needed for construction.

We are working collaboratively to break down barriers often associated with recovering and reusing steel from existing buildings. Circular economy solutions for steel require early engagement and close collaboration with all parties involved on a project. A great example of this is the work being done on 2 Aldermanbury Square, where we worked with the client, GPE, structural engineers, Arup and Elliott Wood Partnership, sub-contractor, Keltbray and steel stockholder, European Metal Recycling (EMR) to develop a strategy to carefully remove, test, treat and re-install steel from City Place House, the existing building being redeveloped. Some of the steel not directly reused for 2 Aldermanbury Square will be used by GPE for another project in their pipeline, 180 Piccadilly. This new project was designed specifically with the steel from 2 Aldermanbury Square in mind and targeting 90% of the steel in the structure to be reclaimed. This is a prime example of using buildings as material banks in practice.

- **Focus on façades**

We have a focus on low carbon procurement. At our most recent development at Deptford Landings, we reduced embodied carbon by using low carbon aluminium in the façade. This is manufactured using renewable energy and a minimum 75% post-consumer scrap metal, such as old window frames and doors, helping it to achieve a low carbon footprint of 2.3 kg CO₂e/kg aluminium – 80% less than the European average for primary aluminium.

Another example includes our final residential development at Elephant Park where we have procured Saint-Gobain Glass's ORAE low embodied carbon glass. We estimate a 75 tCO₂-eq saving in embodied carbon by using ORAE glass on the project, providing a replicable model for deployment on future projects.

Downstream Scope 3 emissions are produced from the energy used by our commercial, residential and retail tenants. Our Mission Zero not only focuses on supplying our buildings with low carbon energy, but also running those buildings efficiently. Within our development pipeline, we are

⁴ https://builtbn.org/knowledge/documents/1_674_pot-report-eng_final230316-002.pdf

⁵ https://builtbn.org/knowledge/documents/mass-timber-insurance-playbook_asbp.pdf

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attempting to bridge the energy performance gap between design and actual operation by using advanced modelling tools, such as NABERS Design for Performance for office developments, and CISBE TM54: Evaluating Operational Energy Performance of Buildings at the Design Stage and the Passivhaus Planning Package (PHPP) for residential developments. These tools help us to gain a more accurate understanding of anticipated operational energy consumption.

In Europe, we have a small but growing operational real estate portfolio. Where tenants are responsible for purchasing their own utilities, work is undertaken to try to gain an accurate account of the total energy consumed. Where whole building energy data is available, we benchmark performance against industry benchmarks such as the Carbon Risk Real Estate Monitor (CRREM) and the Real Estate Environmental Benchmark (REEB).

Where residual emissions remain, independently verified carbon offsets are purchased for our Construction business activities. This totalled 16 tCO₂e for FY24.

INDUSTRY COLLABORATION

We are a signatory to the Better Buildings Partnership (BBP) Climate Commitment and the World Green Building Council (WGBC) Net Zero Carbon Buildings Commitment. We are also members of the UN Race to Zero campaign and a Partner of the Global Cooksafe Coalition. We also continue to support industry initiatives that use the collective purchasing power and influence of organisations to drive market transformation towards a low carbon economy, this include ConcreteZero, SteelZero and Responsible Steel.

During FY24 we also provided embodied carbon data for 12 projects to the Net Zero Carbon Building Standard initiative, which is working towards the development of a net zero carbon evaluation framework.

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DECLARATION AND SIGN OFF

This Carbon Reduction Plan has been completed in accordance with UK Government's *Procurement Policy Note (PPN) 06/21: Taking account of Carbon Reduction Plans in the procurement of major government contracts*⁶, and associated guidance and reporting standard for Carbon Reduction Plans.

The boundaries of this Plan covers measured emissions from all real estate assets and operations held by Lendlease Europe Holdings Limited and its subsidiaries (the "Lendlease Europe Holdings Group").

Emissions have been reported and recorded in accordance with the published reporting standard for Carbon Reduction Plans and the Greenhouse Gas (GHG) Protocol's Corporate Standard⁷, and uses the appropriate Government emission conversion factors for greenhouse gas company reporting⁸.

Scope 1 and Scope 2 emissions have been reported in accordance with UK Government's Streamlined Energy and Carbon Reporting (SECR) requirements, and the required subset of Scope 3 emissions have been reported in accordance with the published reporting standard for Carbon Reduction Plans and the GHG Protocol's Corporate Value Chain (Scope 3) Standard⁹.

This Carbon Reduction Plan has been reviewed and signed off by the board of directors.

Signed on behalf of the Supplier:



Geoff Willetts

Director of Operations - Europe, Lendlease

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⁶ <https://www.gov.uk/government/publications/procurement-policy-note-0621-taking-account-of-carbon-reduction-plans-in-the-procurement-of-major-government-contracts>

⁷ <https://ghgprotocol.org/corporate-standard>

⁸ <https://www.gov.uk/government/collections/government-conversion-factors-for-company-reporting>

⁹ <https://ghgprotocol.org/standards/scope-3-standard>