hibernia

# NET ZERO CARBON PATHWAY

# Introduction

**Over the past 5 years, Hibernia REG has shown leadership in sustainability in the Irish real estate sector, setting and achieving ambitious targets to reduce our carbon footprint and reduce the energy intensity of our buildings.**

However, as we emerge from the effects of COVID-19 and reflect on the future of real estate it is clear that the next decade will see an even greater challenge to be tackled: climate change. If the real estate industry is to achieve meaningful reductions in carbon emissions, commitments must now be made which result in tangible actions, all within a timeframe that is narrowing year by year, and which should be aligned with the latest scenario modelling on possible global temperature rises. Hibernia is taking action and is committed to achieving net zero carbon by 2030 in line with the growing expectations from our investors, tenants, employees and other stakeholders. To strengthen our commitment to net zero we have decided to sign up to the Better Building Partnership's Climate Commitment and the World Green Building Council's Net Zero Carbon Buildings Commitment.

**Thomas Edwards-Moss** / Chief Executive

### Climate resilience

In 2021 we developed Transforming Dublin Responsibly, our new **Sustainability Statement of Intent** to shape our sustainability ambitions out to 2030 and to deliver long-term sustainable value for our stakeholders. One of the key ambitions is to **become a net zero carbon and climate-resilient business by 2030**, ensuring that our assets are more resilient in the face of climate change and enhancing their attractiveness to our clients and local communities. This approach will require the partnership of all our stakeholders to fulfil, from designing net zero carbon buildings with our architects and mechanical and electrical consultants to operating buildings in collaboration with tenants that see the potential of occupying energy efficient and smart buildings. Achieving our climate-resilience targets will positively impact our other two ambitions to **provide spaces that prioritise the environment, health and wellbeing and create positive long-term social impact**.

Transforming Dublin Responsibly can be found **here.**

# Introduction continued

## Overview

When developing our Net Zero Carbon Pathway, we felt it was important to involve all departments across the business at an early stage. Along with our internal teams, we also consulted our sustainability consultants and assurance providers to gain their perspective and feedback and model our existing baseline, our 2030 business as usual and our projected 2030 net zero carbon footprints.

We have set challenging targets dedicated to reducing the embodied and operational carbon emissions across our existing portfolio and pipeline of projects. These targets build on the strong progress we have made over the last five years. During this time, we reduced like-for-like landlord carbon intensity across our portfolio by over 30% from our 2016 baseline.

Recognising that more than two-thirds of our operational emissions come from tenant-controlled space, the scope of our commitment includes activities in space we do not control as well as those arising from our own operations. This expanded scope will be challenging but it is also an opportunity to strengthen our relationships with our tenants as we collaborate on climate initiatives in the years ahead.

The pathway outlines a number of ways by which we plan to achieve our targets, from adopting a design-for-performance approach by setting energy intensity targets on all new major developments to identifying existing properties where we can retrofit all-electric heating and cooling systems and demand controlled ventilation upgrades. How we power our buildings and development projects has also been a key consideration. Since 2019 we have procured 100% of electricity from renewable sources for our managed portfolio and we will actively encourage our tenants to do the same where they manage their own energy procurement.

How we reduce the embodied carbon of our new developments and major refurbishments is equally as important. We have a gained a better understanding of the embodied carbon impact of the major schemes we have delivered over recent years, and have mandated that whole life carbon assessments are carried out, integrated at the design stage, for all future projects of all sizes. All partners in the development process will be required to identify technologies and construction methods that will assist in driving down embodied carbon.

The final step in our pathway is carbon offsetting. At present this is a necessary part of our journey to net zero carbon, recognising that there will be residual emissions we cannot eliminate.

This document – developed in line with the Better Buildings Partnership's Net Zero Carbon Pathway Framework and the World Green Building Council's Net Zero Buildings Commitment – sets out how we will achieve net zero carbon by 2030.

## Understanding Our Carbon Footprint

# The first step in setting our net zero carbon target and pathway was to gain a clearer understanding of our baseline carbon footprint, looking in particular at our:

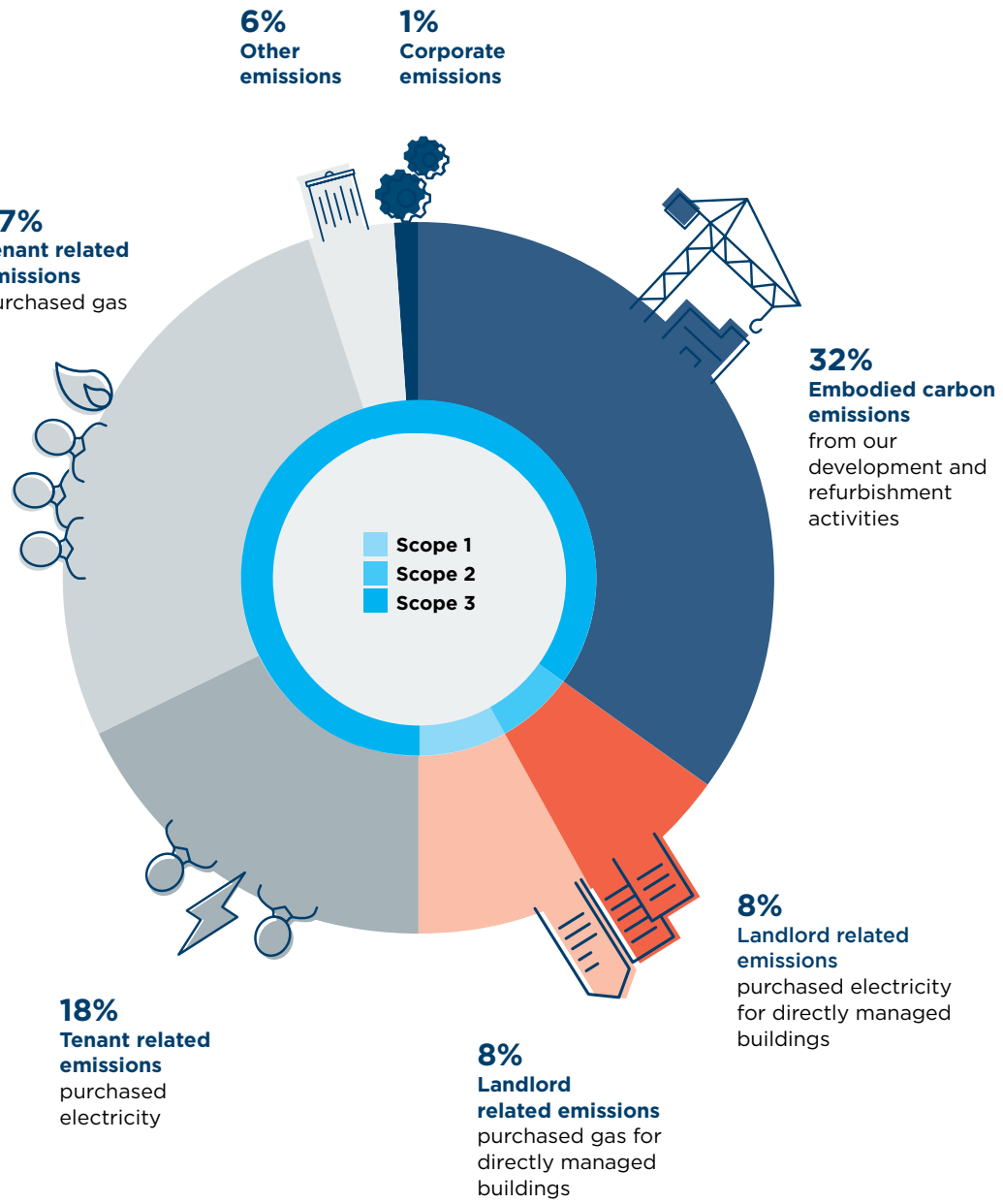
| | |
|---|---|
| **Scope 1 GHG Emissions** | Direct emissions e.g. the combustion of gas for heat in buildings and the fugitive emissions from refrigerant gas |
| **Scope 2 GHG Emissions** | The indirect emissions from the production of electricity, heat and cooling |
| **Scope 3 GHG Emissions** | Indirect emissions from our value chain, covering our upstream emissions from our suppliers for the things we purchase (including construction related materials) and the downstream emissions from our customers |

Our baseline carbon footprint, illustrated here, is for the year ended 31st December 2019 and details the extent and type of emissions for our organisation under the three scope categories. We have chosen not to use the year ended 31st December 2020 due to the skewed impact that COVID-19 and the associated lower occupancy levels has had on the figures.

Our total emissions for 2019 were 22,000 tonnes of carbon, approximately equivalent to the energy use of 1,800 average Irish homes for one year.

Indirect, Scope 3 emissions make up the majority of our carbon footprint, and the embodied carbon of our development projects and the energy consumed by our tenants in our leased assets make up the greater portion of these emissions. This is consistent with our peers in the real estate sector and research from industry organisations.

**Every year we will measure and report our full carbon footprint, including the entire range of measurable carbon emissions associated with our organisation. This will allow us to identify the most significant areas in our value chain to focus on reducing emissions.**



## Our Net Zero Carbon Strategy

# Transforming our portfolio to be net zero carbon by 2030

### Approach

**At Hibernia we define becoming a net zero carbon business as reducing our energy consumption and greenhouse gas emissions in line with a 1.5°C climate warming scenario and offsetting any residual emissions we cannot eliminate through verified schemes from 2030 onwards.**

### Reduce embodied carbon

From 2030 all new office projects will have associated embodied carbon emissions of less than 450kg$CO_2$e per m² (RICS A1 – A5) whilst new residential units will aim for less than 300kg$CO_2$e per m². These targets are in line with the RIBA benchmarks levels.

### Reduce operational carbon and energy

From 2030 all new office developments will target energy use intensity in operations of 85kWh per m² per annum whilst residential units will target 50kWh per m² per annum. These targets are aligned to the UKGBC Paris Proof targets which are based around a 1.5 degree global warming pathway.

All existing offices will aim for well below 153kWh per m² per annum, reducing consumption as far as reasonably possible based on current technologies before ultimately offsetting residual carbon. This target is aligned with the WGBC net zero carbon principles and hierarchy.

### Offset residual carbon and set an internal price on carbon

Where it is not possible to eliminate carbon emissions we will offset these residual emissions through verifiable schemes from 2030 onwards.

To assist in transitioning to net zero we will establish an internal price on carbon that will reflect to potential value of carbon come 2030. This will act as seed funding for energy improvements in existing buildings and will take the form of a levy on the embodied carbon of new developments and refurbishments.

### Challenges

**Ultimately setting a net zero carbon target requires a leap of faith as there are a number of uncertainties:**

- Much of the carbon emissions from our assets comes from the activities of our tenants and from our development activities, reducing our level of control
- Some of the advances required to reach net zero (e.g. grid decarbonisation, more energy efficient plant) may not be available before 2030
- Nobody knows exactly what carbon pricing and offsetting costs will be in 2030

We will work with our stakeholders to provide clarity around many of these uncertainties and refine our model accordingly, providing transparency through our annual disclosures.

### Global warming pathway

**1.5°c**

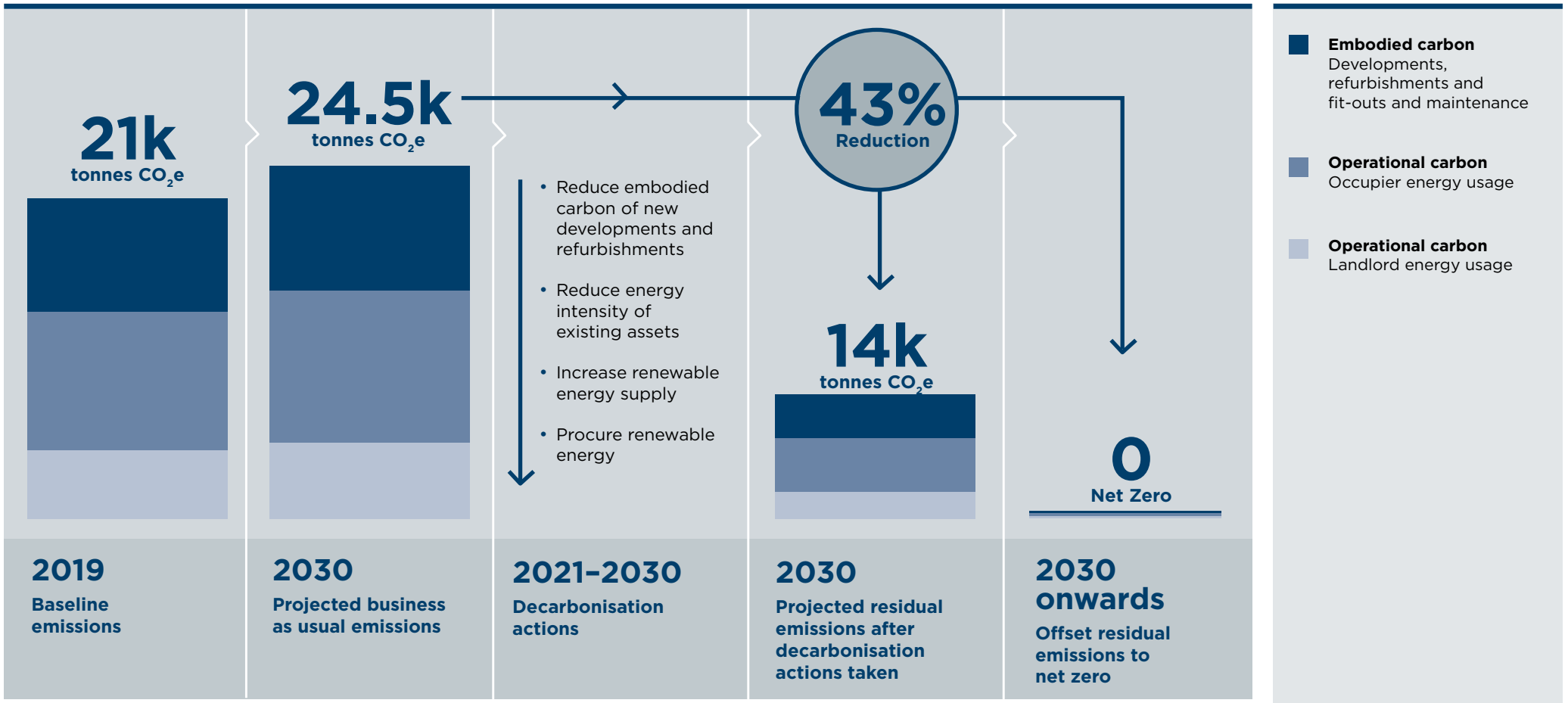
Our carbon energy reduction targets are aligned to the UKGBC Paris Proof targets which are based around a 1.5 degree global warming pathway.

## Pathway to Net Zero Carbon by 2030

**In the absence of a net zero carbon strategy the carbon emissions from our portfolio are projected to be 24,500 tonnes in 2030.**

Through our target actions of reducing the embodied carbon in new developments, reducing the energy intensity of our existing building stock and increasing our renewable energy generation and procurement, we hope to reduce our carbon emissions by 30% from a 2019 baseline.

As we move beyond 2030 it will be imperative that we continue to reduce our carbon emissions and reduce our reliance on carbon offsetting. As we get closer to our target deadline we will revise our modelling and develop a revised pathway that will hopefully allow us reach a point of zero carbon or be carbon negative by the year 2050.



## Reduce Embodied Carbon

# Embodied carbon in our developments makes up almost 35% of our overall carbon footprint and as a result deserves a high degree of attention in our net zero carbon pathway.

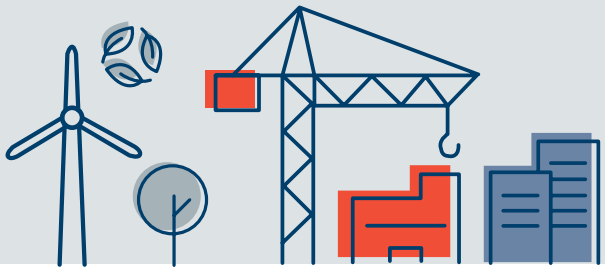
We have gained a certain degree of understanding from calculating the embodied carbon of three of our most recent developments, but recognise that we need to carry out more extensive life cycle assessments for all future projects and to initiate these assessments at the earliest stage possible (i.e. design stage) to ensure greater integration of low carbon materials and building methods and buy-in from all parties.

- We have started engaging with our supply chain to gain a clearer understanding of what is achievable, utilising best available technology and materials under current building regulations.
- We have mandated that whole life carbon assessments be carried out for all developments currently at the design stage so interventions can be made before it is too late, and have discussed with the design team how best to transition towards the targets we have set for 2030 for embodied carbon.
- Whole life carbon assessments will be carried out for all developments, refurbishments and fit outs.
- We will develop a Sustainability Development Brief which will set out our 2030 ambitions in relation to embodied carbon as well as the KPIs and standards required to achieve them. The brief will discuss the need to consider modern methods of construction e.g. prefabrication and use of low carbon structural materials.
- We will review building regulations and construction standards which over specify requirements for new buildings, for example structural loadings to see where improvements can be made to reduce embodied carbon.
- We will incentivise the reduction in embodied carbon for all new developments through our internal carbon pricing mechanism which will be levied on each tonne of embodied carbon.

**2030 embodied carbon target**

**<450kg$CO_2$e/m²**

embodied carbon in our office developments from 2030



## Reduce Operational Carbon and Energy

# Operational carbon makes up 60% of our overall carbon footprint and provides the greatest opportunity to reduce emissions across our portfolio.

Existing assets can benefit from new technologies as well as added on-site renewables to decarbonise their operations, whilst new developments can benefit from all electric heating and cooling solutions such as heat pumps and demand controlled ventilation linked to smart building technology. Changes to buildings can be made whilst the national grid also decarbonises through added renewable power generation, further reducing the operational carbon emissions.

- A key challenge to reducing operational carbon is ensuring buy-in from our tenants, whose fit outs, building management systems and staff interactions can all impact on the energy demand of a building. The setting of targets, automated meter readings, green leases and fit out guides will allow us to initiate meaningful conversations with tenants around solutions to reduce the energy intensity of the buildings that they occupy.
- Better data is essential to setting informed targets and we have deployed real time energy monitoring sensors across our landlord utility meters and in certain buildings installed indoor air quality sensors to better understand how our buildings operate. This allows us drive awareness with occupants and build accurate net zero carbon financial models for each of our buildings.
- We have carried out energy audits of all of our managed buildings and have a clear view of the recommended actions required to improve energy efficiency to meet our net zero carbon targets. We will do similar for all acquisitions.
- We are carrying out solar feasibility assessments of all buildings to ensure that we maximise the potential for on-site renewables and possible on-site storage, further reducing our reliance on the electricity grid.
- We will transition away from fossil fuels towards electric-only heating, cooling and hot water solutions. Heat pumps will form the basis of this transition.
- We will retrofit projects to improve energy performance which will be seed funded by the internal price on carbon as levied on the embodied carbon from new developments.
- We will continue to procure 100% of landlord electricity on green tariffs and work with tenants to move them to green tariffs for their own electricity supply.

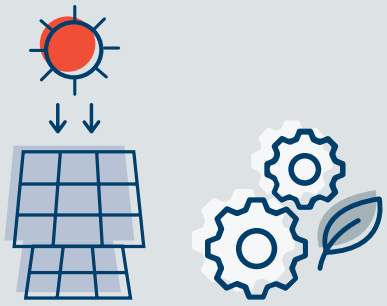
**2030 operational targets**

**<85kWh/m²/yr**
energy intensity for new office developments from 2030

**<153kWh/m²/yr**
energy intensity for all existing office assets by 2030

**100%**
of electricity procured on green tariffs

**100%**
of residual carbon offset from 2030 onwards



## Offset Residual Emissions and Set an Internal Price on Carbon

**Offsetting is the final solution in our net zero carbon pathway and will only be initiated once all other steps to reduce the embodied and operational carbon of our assets have been taken, and the residual emissions requiring offsetting calculated from 2030 onwards.**

Our modelling suggests that there will be a requirement to offset residual carbon in 2030 if we meet our net zero carbon targets and that this figure will decrease each year as we move towards our ambition of being a being a zero carbon business by 2050.

From 2030 we will offset these residual emissions through certified programmes. We will use the next eight years to define our offsetting strategy based on industry best practice, such as the Oxford Principles of Offsetting.

In addition to offsetting this residual carbon we will also offset all corporate emissions including employee business travel, head office energy, water and waste usage, starting with our 2020 corporate emissions.

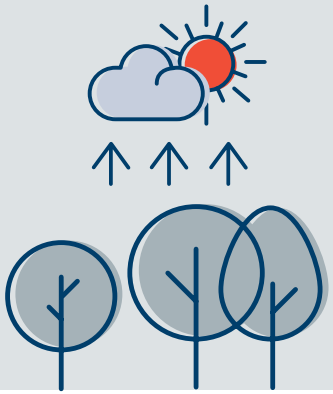
As we move towards our target year of 2030 we will use an internal carbon price of €75 per tonne of carbon. This price will ensure that a meaningful financial impact is applied to projected carbon emissions and has been calculated by estimating how much we are currently spending on carbon reduction projects and how much more would be needed long-term to achieve our goals. €75/tonne $CO_2$ is aligned with guidance from the United Nations Global Compact on carbon pricing.

The internal carbon price will take the form of a levy on the embodied carbon of new developments and refurbishments and energy related emissions and will be used to provide seed funding for energy improvements in existing buildings.

**€75**

internal price per tonne of $CO_2$

**We will offset our emissions through certified programmes**



## Investment Boundary

# Our commitment states that by 2030, all directly and indirectly managed assets and developments will achieve net zero carbon emissions.

**Our investment boundaries are listed below:**

| Criteria | Inclusions | Exclusions |
|---|---|---|
| **Operational control** | • All assets directly managed by Hibernia Reg<br>• All non-managed assets including fully repaired and insuring (FRI) leases | N/A |
| **Asset classes** | • Offices<br>• Industrial<br>• Residential | N/A |
| **Landlord vs tenant** | • Consumption in landlord controlled and tenant controlled areas | N/A |
| **Acquisitions and disposals** | • All assets that have been held for at least three financial years | • Assets disposed of during the year |

## Scope of Emissions

# Our net zero carbon commitment alignment with BBP Net Zero Carbon Pathway Framework and WorldGBC Net Zero Buildings Commitment.

| Business Area | Sub-Area | GHG Protocol Reporting Category | Carbon Scope | BBP Framework | WorldGBC Commitment | Hibernia |
|---|---|---|---|---|---|---|
| **Corporate** | Head Office energy use | Company facilities | 1&2 | No | No | Yes |
| | Company vehicles | Company vehicles | 3 | No | No | No |
| | Business travel (excluding commuting) | Business travel | 3 | No | No | Yes |
| | Purchased goods and services | Purchased goods and services | 3 | No | No | No |
| | Operational waste generated | Waste generated in operations | 3 | No | No | Yes |
| | Operational water use | Purchased goods and services | 3 | No | No | Yes |
| | Employee commuting | Employee commuting | 3 | No | No | No |
| **Direct real estate holdings (including JV's with management control)** | Landlord purchased energy (electricity & fuels) | Purchased electricity, heat & steam | 1&2 | Yes | Yes | Yes |
| | Landlord purchased energy (electricity & fuels) | Fuel- and energy- related activities | 3 | Yes | Yes | Yes |
| | Tenant purchased energy (electricity & fuels) | Downstream leased assets | 3 | Yes | Yes | Yes |
| | Landlord refrigerants | Purchased goods and services | 1 | Yes | Yes | Yes |
| | Landlord purchased water | Purchased goods and services | 3 | Yes | Yes | Yes |
| | Landlord managed operational waste | Waste generated in operations | 3 | Yes | Yes | Yes |
| | Landlord purchased capital goods & services (M&E and property management services) | Purchased goods and services | 3 | Yes | Yes | Yes |
| **Developments** | New development (including those where funding is being provided) | Capital goods | 3 | Yes | Yes | Yes |
| | Refurbishments | Capital goods | 3 | Yes | Yes | Yes |
| | Fit-out (landlord controlled) | Capital goods | 3 | Yes | Yes | Yes |
| | Fit-out (tenant controlled) | Tenant Scope 3 | 3 | Yes | Yes | Yes |

## Delivery Strategy

# The following table details the actions that we will undertake to ensure the successful achievement of our net zero carbon targets by 2030.

These tables also show the metrics by which we will measure our ongoing carbon reduction performance. This follows the requirements of the BBP Net Zero Carbon Framework and World GBC Net Zero Buildings Commitment.

Internally we have developed a more detailed delivery strategy and action plan that will continuously evolve to ensure that it remains relevant to our business goals and aligned with best practice.

| Topic | Targets | Management Strategy | Reporting Metric |
|---|---|---|---|
| **Embodied carbon** | Reduce the embodied carbon in our office developments to below 450kg$CO_2$e/m$^2$ and in our residential developments to below 300kg$CO_2$e/m$^2$ (RICS Stages A1-A5) | • Carry out whole life carbon assessments as part of all new developments and refurbishments and CAT A fit-outs<br>• Develop a Sustainability Development Brief which will set out our 2030 ambitions in relation to embodied carbon as well as the KPIs and standards required to achieve them.<br>• Conduct research into modern construction methods and new low carbon materials in collaboration with relevant suppliers and industry bodies<br>• Sign up to the Irish Green Building Council Environmental Product Declaration Programme Ireland<br>• Set an internal carbon price of €75 which will be levied on each tonne of embodied carbon | • Embodied carbon intensity (kg$CO_2$e per sqm GIA)<br>• Whole life carbon assessment |
| **Operational carbon and energy** | < 85kWh/m$^2$/yr energy intensity for new office developments from 2030<br><br><153kWh/m$^2$/yr energy intensity for all existing office assets by 2030<br><br>100% of electricity procured on green energy tariffs | • Increase real time energy and indoor air quality monitoring across all assets (landlord and tenant controlled areas)<br>• Embed an energy action plan for each asset based on outcomes of net zero pathway modelling and energy audit recommendations<br>• Improve data capture for all FRI leases<br>• Continue to procure 100% green electricity for landlord spaces and engage with tenants to ensure they also procure 100% green electricity<br>• Mandate that all new developments and refurbishments are all-electric buildings (no gas boilers)<br>• Adopt a design-for-performance approach for all new developments and refurbishments to ensure that they operate as they were designed to<br>• Explore ISO50001 Energy Management System accreditation for the organisation<br>• Develop a tenant engagement programme to improve energy efficiency, by raising awareness and driving behaviour change around energy performance<br>• Set an internal carbon price of €75/tonne which will seed fund investments in energy efficiency improvements<br>• Work with legal advisors and asset managers to further embed energy improvement and carbon reduction clauses into tenant leases | • Whole building energy use intensity (kWheq per sqm GIA)<br>• Whole building carbon intensity (t$CO_2$e per sqm GIA)<br>• On-site energy generation (MWh)<br>• Location-based emissions (t$CO_2$e)<br>• Market-based emissions (t$CO_2$e)<br>• Investment in energy efficiency initiatives (€) |

# Delivery Strategy Continued

| Topic | Targets | Management Strategy | Reporting Metric |
|---|---|---|---|
| **Offsetting residual emissions** | Offset residual emissions once embodied carbon and operational carbon and energy reduction measures have been exhausted from 2030 onwards | • Set an internal carbon pricing mechanism which will be levied on each tonne of embodied carbon which will seed fund investments in energy efficiency improvements<br>• Offset residual operational emissions annually and development related emissions at project completion<br>• Ensure that offsetting options are local and verifiable and demonstrate additionality | • Value of carbon fund (€)<br>• Carbon emissions offset ($tCO_2e$) |
| **Third party verification** | Demonstrate transparency and credibility of our net zero carbon pathway and performance against targets | • Continue to undertake external assurance on our annual ESG disclosures to include all net zero carbon metrics<br>• Continue to obtain green building certification at the design and construction stage e.g. LEED BD+C, WELL and/or Home Performance Index (or other relevant certification) for all new developments<br>• Explore obtaining in-use green building certifications across our portfolio e.g. LEED O+M to support our net zero carbon strategy<br>• Ensure all of our buildings have a valid Building Energy Regulation (BER) certificate<br>• Publicly disclose our annual CDP climate change questionnaire to include net zero carbon targets and performance measures | • Independent third party assurance statement<br>• % of portfolio green/sustainability certified by floor area and value<br>• % of portfolio with valid BER certification |
| **Corporate Governance** | Establish measures to ensure that there is accountability and resources in place to allow achievement of net zero carbon targets | • Ensure climate change and net zero carbon target performance is part of relevant committees (Sustainability Committee, Risk and Compliance Committee, Asset Management Committees, Board Meetings)<br>• Ensure 2030 targets are included within the non-financial objectives of all employees<br>• Align our disclosures with the Taskforce on Climate-related Financial Disclosures<br>• Include net zero carbon training into company training requirements and new employee induction and awareness<br>• Carry out a review of the appropriateness of the net zero carbon targets at agreed intervals and establish if approval from the Science Based Targets initiative is required at next review stage | • Annual Report and Sustainability Report<br>• Progress on alignment with TCFD<br>• Number of staff trained on net zero carbon annually |

# Glossary

**RICS Stages A1-A5**
Royal Institute of Chartered Surveyors lifecycle stages of a building are split into modules from A1-A5 stages relate to the materials production and construction stages of a building.

**Additionality**
The provision of new electricity capacity to the grid that would not have happened without specific investment.

**Better Building Partnership (BBP)**
Is a collaboration of the UK's leading commercial real estate property owners who are working together to improve the sustainability of existing commercial building stock and new developments.

**Building Energy Rating (BER)**
A certificate indicating a building's energy performance, as required as part of the Energy Performance of Buildings Directive 2010/31/EU (EPBD).

**Carbon dioxide equivalent ($CO_2e$)**
A measure of greenhouse gases (GHGs) that have a global warming impact. It converts the six gases with different global-warming potentials into a single metric.

**CDP (formerly the Carbon Disclosure Project)**
CDP is the global disclosure system for companies, cities, states and regions to manage their environmental impacts against and from which investors or purchasers can obtain environmental information for use in financial decisions.

**Design for Performance**
A NABERS UK framework designed to address the energy in-use performance gap – where buildings do not perform as efficiently as intended in the design stage.

**Environmental, Social and Governance (ESG)**
Refers to the environmental, social and governance aspects of an organisation's responsible business practices. Takes into account impact on the natural environment, impact on relationships, and corporate governance processes.

**Embodied carbon (emissions)**
Refers to the emissions associated with all the activities of procuring, mining, harvesting raw materials, transforming these materials into construction products, transporting them to site and incorporating them into a building.

**Fully Repairing and Insuring (FRI) leases**
A lease that places all responsibility for maintaining the building with the occupier.

**Grid decarbonisation**
The ongoing movement towards powering the Irish electricity grid from renewable energy sources and reducing the reliance on fossil fuels. This reduces the carbon intensity of grid.

**Greenhouse Gas (GHG) Protocol**
The GHG Protocol is an international accounting standard that provides a framework and methodology for organisations to calculate their carbon footprint.

**Home Performance Index**
Ireland's national sustainability certification for new homes.

**kWh is kilowatt-hour**
kWp is the peak power of a PV system or panel. Solar panel systems are given a rating in kilowatts peak (kWp) which is the rate at which they generate energy at peak performance, such as on a sunny day in the afternoon.

**Leadership in Energy and Environmental Design (LEED)**
A green building certification system developed by the U.S. Green Building Council. Its aim is to be an objective measure of building sustainability.

**Market-based emissions**
An approach for calculating emissions from purchased electricity that takes into account the tariff for the electricity purchased by an organisation eg, a carbon neutral tariff.

**Net zero carbon**
When carbon emissions are balanced to be zero or negative with the balance emissions that are either offset or sequestered. A building must be highly energy efficient, powered from on-site or off-site renewable energy, with any remaining balance offset.

**Occupier emissions**
The carbon impact of the electricity and gas used within an occupier's leased demise e.g. lighting, computing and other small power. It does not include the emissions of their own business activities outside of the energy consumption of their leased space.

**Operational emissions**
The emissions associated with the energy consumption of an occupied building when in use i.e. the energy used for heating, cooling, ventilation, lighting and IT equipment.

**Oxford Principles for Net Zero Aligned Carbon Offsetting (the Oxford Offsetting Principles)**
Outline how offsetting needs to be approached to ensure it helps achieve a net zero society.

**Renewable energy**
The on-site self-generation or purchase of off-site renewable energy sourced from but not limited to, solar, wind, hydro and geothermal technology.

**Scope 1, 2 & 3 emissions:**

- **Scope 1 emissions** – direct emissions produced by the burning of fossil fuels (solid, liquid or gas) or direct release of gases (refrigerants) from an organisation's owned or controlled sources
- **Scope 2 emissions** – indirect emissions generated by purchased energy (e.g. electricity from the grid)
- **Scope 3 emissions –** indirect emissions associated with a product or service provided by a third party, for example employee business travel (airlines), embodied carbon of building materials used, tenant emissions from energy consumed and waste management related emissions

**Taskforce on Climate-related Financial Disclosures (TCFD)**
A market-driven initiative, set up to develop a set of recommendations for voluntary and consistent climate-related financial risk disclosures in mainstream filings.

**UK Green Building Council (UKGBC)**
Charitable member organisation that campaigns for sustainable built environments.

**WELL Building Standard**
A US-originated standard against which features of the built environment are monitored for their impact on health and wellbeing.

**Whole life carbon**
The carbon emitted throughout a building's lifecycle, from the materials sourced and used during construction, the operational energy use and maintenance and the end-of-life demolition of the building.

**World Green Building Council**
Or World GBC is a global network of Green Building Councils leading the transformation of the built environment to a healthier and more sustainable future.

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