Context
In June 2019, the UK became the first G20 country to set a net zero emissions target with the Government introducing legislation to reach this goal by 2050. This aligns the UK’s target with WorldGBC’s for a net zero carbon built environment by 2050. To support these ambitions, UKGBC has launched a wide-ranging Advancing Net Zero work programme and published a ‘Net Zero Carbon Buildings: Framework Definition’ to provide clarity on what net zero means for buildings in the UK.

Pathway: Multiple
Launch date: April 2019
UKGBC brought together stakeholders from across the built environment – including over 50 businesses, 13 industry bodies and a public consultation process – to build consensus and develop an industry-agreed definition for net zero. The resulting framework sets out the principles and technical requirements for how to achieve a net zero carbon building, and includes approaches for measurement and verification.

The framework was developed to give the industry ownership over the issue of net zero carbon, and whilst different stakeholders may utilise the framework for their own purposes, it offers a common understanding of how net zero carbon buildings should be defined and reported. The principles are intended to be used to inform the development of net zero carbon building practices, rating tools and policies.

UKGBC is also developing resources to help accelerate decarbonisation at the organisational level, including a guide for commercial real estate companies on scope 3 reporting and a Climate Commitment Platform to drive climate leadership.

GBC Definition
Net zero for operational energy is achieved when the amount of carbon emissions associated with the building’s operational energy on an annual basis is zero or negative. A net zero carbon building is highly energy efficient and powered from on-site and/or off-site renewable energy sources, with any remaining carbon balance offset.

1. Measure and Disclose Carbon
A net zero operational energy carbon balance should be verified and disclosed annually.

2. Reduce Energy Demand
Energy use reductions should be prioritised over all other measures, given it is the most cost-effective route for buildings and minimises the infrastructure required for a future zero carbon energy system.

3. Generate Balance from Renewables
On-site renewables should be prioritised, and any off-site renewables should demonstrate additionality.

4. Improve Verification and Rigour
Net zero carbon for construction can also be targeted alongside the approach for operational energy. A net zero whole life carbon approach covering all lifecycle impacts will be developed in the future.

Methodology and Verification
- Annual energy use should be based on in-use performance.
- GHG Protocol’s location-based or market-based emission factors should be used.
- Third-party auditing should take place, in line with minimum reporting requirements (Appendix B).

Additional Information
- ‘Net zero carbon – construction’ currently tackles embodied carbon impacts to practical completion for new buildings and major refurbishments
- ‘Net zero carbon – whole life’ to be developed in future to tackle carbon impacts for all lifecycle stages of a building

Find out more
- Net Zero Carbon Buildings: A Framework Definition
- Guide to Scope 3 Reporting in Commercial Real Estate
- Climate Commitment Platform
- WorldGBC’s Advancing Net Zero global project

Advancing Net Zero
WorldGBC’s global project to accelerate uptake of net zero carbon buildings to 100% by 2050. These snapshots outline specific GBC action, and how it relates to the project framework, including the four key principles shown left.