

Net Zero Carbon Buildings Commitment

Global Climate Action Summit



Introduction

- To achieve the Paris Agreement, all sectors of the economy must achieve significant emissions reductions; and the global building sector must operate at net zero carbon emissions by 2050.
- The [WorldGBC's "Advancing Net Zero"](#) global project was launched in 2016 to inspire action from the Green Building Council network and its members towards this transition. In May 2017, WorldGBC launched a [report](#) outlining the action that Business, Government and NGO sectors must take to accelerate the market for net zero carbon buildings, and to ultimately achieve the goal for all buildings to operate at net zero carbon by 2050, with new buildings from 2030.
- WorldGBC's Net Zero Carbon Buildings Commitment formalises these calls to action, to promote leadership in decarbonising the built environment in order to achieve a below 2 degree scenario of global warming. It sets a level of ambition that will create unprecedented demand, stimulating market to deliver net zero carbon buildings at scale.
- The Commitment will uniquely position energy demand reduction as an essential component to reducing carbon emissions associated with the operation of buildings globally.

The Commitment (see Page 5)

The Commitment promotes leadership through ambitious trajectories for action from Businesses, Cities, Regions and States for owning, managing, occupying and designing net zero carbon buildings within their control; as well as identifying opportunities to support uptake through the wider supply chain through core business operations and policy mechanisms. Through employing data-driven methods to track, determine and report building performance metrics such as energy use and associated emissions, opportunities can be identified and implemented to reduce portfolio operational carbon emissions to zero.

It is divided into four streams, each stream identified as a key sphere of impact on the built environment, and sets the level of action required to achieve global carbon emission reduction targets from our sector. WorldGBC has carefully selected targets, measures and definitions (which are underpinned by the Advancing Net Zero framework) to achieve maximum impact.

Members must sign the Commitment for every component of all streams (i.e. Cities, Regions and States, Owner / Manager, Tenant, Developer / Designer) as relevant to business operations.

Why Carbon?

WorldGBC recognises that in most situations, net zero energy buildings, i.e. buildings that generate 100% of their energy needs on-site, are not feasible. Therefore, buildings that are energy efficient, and supply energy needs from renewable sources (on-site and/or off-site) is a more appropriate target for the mass scale required to achieve Paris Agreement levels of global emission reductions.

We apply the definition from our [Advancing Net Zero framework](#)¹ and focus on *operational carbon emissions (Scope 1 and 2 energy related emissions)*. By implementing a renewable energy hierarchy in conjunction with promotion of energy demand reduction, the aim is to encourage local sourcing and cost effective solutions to meet commitment targets. Additional emissions such as embodied carbon, transport and other greenhouse gas emissions such as refrigerant emissions are encouraged to be monitored and included in reporting as part of advocating for further reductions.

¹The WorldGBC definition of a net zero carbon building is a building that is highly energy efficient and fully powered from on-site and/or off-site renewable energy sources. <http://www.worldgbc.org/advancing-net-zero/what-net-zero>

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The Commitment is comprised of the following five components:

Commitment

Aim: To recognise organisations that are committed to owning, managing, occupying and designing buildings within their control that operate at net zero carbon by 2030. These organisations will in turn enable others to fulfil their own commitments, through ensuring sold, leased, or designed assets are capable of operating at net zero carbon, in line with the Advancing Net Zero definition.

For Cities, States and Regions, where possible within their jurisdiction and control, enact regulations or planning policy to ensure new buildings (by 2030) and all existing buildings (by 2050) operate at net zero carbon. This action will unequivocally generate momentum within the wider community, and globally signify to all other governments and organisations the climate leadership being undertaken to secure our future on the planet. This bold move will inspire action from the wider industry, to support increased uptake through overcoming technical, perceptual and financial barriers, to realise the wider benefits and create sustainable and more resilient cities powered by clean and renewable energy sources.

Disclosure

Aim: To create transparent and publicly available building performance metrics for any level of knowledge, be it home-owner or building manager, so as to readily compare and evaluate across asset, portfolio or organisation level. This disclosure of metrics is intended to generate easily digestible and comparable information for consumers, employees etc., and inform portfolio level decisions on performance gaps. To achieve this the WorldGBC has focused on two key metrics for disclosure across the relevant streams:

- Energy demand / Energy consumption
- Operational carbon emissions (CO₂ equivalent) (Predicted for developer/Designer)

Additionally, where possible Developers/Designers are encouraged to provide predicted operational costs from the 'As Constructed' performance metrics above. The calculations should be developed through robust energy demand modelling, and is intended to create transparency around the impact of design decisions on the performance of buildings.

Action

Aim: To develop, maintain and update an implementation plan to achieving the Commitment, aligned with the Advancing Net Zero framework. The building performance metrics for the portfolio from the Disclosure process are key to achieving this outcome. Through developing this plan, portfolios will identify energy efficiency measures and renewable energy opportunities, which are cost effective, realistic and substantive to achieve their decarbonisation roadmap and commitment.

Verification

Aim: To conduct third party verification where possible (such as third party certification or reporting mechanisms), or rigorous market mechanisms annually on the progress of the portfolio towards achieving the outcomes of the Commitment. The onus and choice of mechanism to ensure appropriate levels of assurance to verify portfolio related emissions and therefore progress of the decarbonisation roadmap is on the organisation. This is to avoid excluding organisations based on financial, geographical or political constraints.

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Where third party certification is not used, the portfolio must demonstrate what third party verification or market mechanisms have been put in place and how these meet adequate quality assurance outcomes that the portfolio is on track to meet the goals of the commitment.

Why Third-Party Certification/Reporting Mechanisms?

Aligning with recognised and industry leading local third-party certification schemes/reporting mechanisms removes the need for undergoing additional assurance processes, and provides geographically relevant prescriptive pathways for meeting the energy efficiency requirements of the Advancing Net Zero Framework. Currently, member Green Building Councils and other existing programs around the world provide (or are developing) asset and portfolio level tools to address the challenges of achieving a carbon neutral environment which can provide viable quality assured pathways for contributing towards the aims of this Commitment. As well as providing this pathway, certified assets and portfolios are proven to result in:

- reduced operating costs;
- higher return on investment;
- enhanced marketability across the portfolio;
- reduced liability and risk;
- healthier, more energy efficient and comfortable spaces

Advocacy

Aim: To demonstrate leadership through action relevant to the organisation structure and core business activities which will be a catalyst for further action within their respective supply chains. Through initiatives such as voluntary programs (i.e. community greening), incentives (i.e. energy efficiency rebates/retrofit financing) or contractual agreements (i.e. green leases etc.), for example, each stream has the potential to facilitate more momentum towards achieving our targets of carbon neutrality by 2050. This will influence supply chains and change perception about the achievability of the targets set out by the Paris Agreement; as well as highlight the diverse and unique solutions that organisations are embarking on to contribute to the common goal. Advocacy is the clearest and loudest message to wider industry, to develop the key enablers to facilitate mass market transformation, and overcome specific technical challenges to transition towards a zero carbon emissions future.

Commitment Rationale

Whilst there are several existing commitments to which entities can currently sign-up to demonstrate action against climate change, this Commitment would be unique in positioning building performance as a core component of corporate strategy, and ensure full alignment with the ambitions and requirements of the Paris Agreement and the WorldGBC Advancing Net Zero framework.

WorldGBC is developing the Net Zero Carbon Buildings Commitment under [EP100](#), led by the [The Climate Group](#) in partnership with the Alliance to Save Energy as a climate action under the [We Mean Business](#) coalition. This approach will benefit from the extensive knowledge and experience of existing EP100 and RE100 campaigns, and infuse EP100 with a new offering specific to the global real estate sector.

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The network of over 70 Green Building Councils will be central to supporting implementation of the Commitment, through advocacy, policy development, education and certification activities. Members and supporting organisations benefit from engaging in market leadership activities to support capacity development and drive pioneering solutions for the green buildings industry.

The [Global Climate Action Summit](#) (GCAS) in San Francisco (September 12-14th 2018) will bring together leaders to showcase climate action taking place around the world, and inspire deeper commitments from industry and national governments, in support of the Paris Agreement. It is therefore the perfect opportunity to launch the Net Zero Carbon Buildings Commitment, in partnership with [C40](#).

What is Energy Productivity?

Energy Productivity is emerging as a new business approach that extends the tremendous progress made by companies on energy efficiency in recent decades and emphasises the alignment of this effort with growth and development objectives, to achieve more economic output per energy unit consumed. This Commitment is closely aligned with the objectives of EP100, through promotion of energy efficiency and energy demand reduction as a central and strategic element, to support companies striving to double their energy productivity through this campaign.

EP 100

Commitment Development & Roll-out

Step 1: Consult & Develop | March - May

- o WorldGBC Taskforce to (i) finalise the methodology and verification pathways to support implementation, (ii) develop collateral and communications strategy, (iii) develop suite of technical supporting documents, with oversight by the GCAS Working Group (Zero Emission Buildings stream)
- o WorldGBC and C40 and TCG commence outreach programme with its network of Corporate Partners, Green Building Councils, cities, states and regions to elicit feedback

Step 2: Announce | June 6 - 7th

- o WorldGBC to announce at the WorldGBC Congress in Toronto that the Commitment will be launched at GCAS

Step 3: Recruit | April - August

- o Working Group will coordinate recruitment of Businesses and Sub-national governments to approach about signing the commitment

Step 4: Launch | September 12th - 14th

- o Business and government signatories to attend the GCAS in-person, with a plenary session focusing on the action that the commitment will mobilise

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WORLD GREEN BUILDING COUNCIL

World Green Building Council Net Zero Carbon Buildings Commitment						
COMMITMENT	DISCLOSURE	ACTION	VERIFICATION	ADVOCACY		
Advanced trajectory for all new AND existing buildings, within direct control of the organisation to operate at net zero carbon <i>On sign-up</i>	Measure, disclose and assess annual asset and portfolio energy demand and carbon emissions <i>Within 2 years</i>	Develop and implement a carbon roadmap outlining key actions and milestones <i>Annually</i>	Demonstrate enhanced energy performance, reduced carbon emissions & progress towards net zero carbon assets and portfolio <i>Annually</i>	Demonstrate leadership to support the transition towards net zero carbon buildings <i>Ongoing</i>		
Cities, States & Regions						
<i>Enact regulations and/or planning policy where possible to ensure new buildings operate at net zero carbon by 2030 and all buildings by 2050</i>						
AND/OR		Develop, maintain and update an implementation plan (for policies and regulations) demonstrating a decarbonisation roadmap trajectory for all new AND existing buildings	Report progress annually of regulations and policy towards targets using locally relevant verification schemes/ market mechanisms, reporting protocols and assurance methodology	Develop a suite of supporting non-regulatory incentives and programs to help non-public sector achieve their commitment		
Commit to developing, owning, managing AND occupying only assets that are net zero carbon in operation by 2030	Disclose energy demand plus scope 1 & 2 operational carbon emissions from all possible assets, and identify performance gaps and opportunities to reduce carbon emissions while improving energy productivity	Develop, maintain and update an implementation plan demonstrating a decarbonisation roadmap trajectory for all new AND existing buildings within portfolio	Report progress annually against targets using locally relevant verification schemes (including certification) at asset level and other market mechanisms at portfolio level			
Business & Organisations						
Owner / Manager	Commit to owning / managing only assets that are net zero carbon in operation by 2030	Incorporate energy demand reduction targets and strategy, and carbon emissions reduction strategy including renewable energy generation and procurement targets at both an asset and portfolio level	Align with existing reporting protocols using third party verification (including certification) and assurance			
Tenant	Commit to occupying only assets that are net zero carbon in operation by 2030		Verify predicted performance metrics through appropriate asset verification (including certification) methods			
Developer / Designer	Commit to developing / designing only assets that are net zero carbon in operation by 2030	Disclose predicted energy demand, carbon emissions and operating costs (where possible) for all designed assets		Enable and encourage all sold and leased assets to operate at net zero carbon		
v3 - For External Outreach & Consultation						