

# Global Dialogues on Cities: Buildings and Urban Systems

## WorldGBC Proposal on Topics for the Global Dialogues

September, 2024

### About

The World Green Building Council is the largest and most influential local-regional-global action network. Together, with 75+ Green Building Councils we bring together over 44,600 organisations to drive systemic change and deliver on the goals of the Paris Agreement. The collective work of the network demonstrates the breadth of solutions, policies and innovations that already exist across our three key impacts Climate Action, Health, Equity & Resilience, and Resources & Circularity.

### Introduction

WorldGBC is pleased that the co-chairs of the [Sharm El Sheikh Mitigation Ambition and Implementation Work Programme](#) (MWP) have communicated that global dialogues taking place under the work programme in 2024 will focus on “Cities: buildings and urban systems”.

The MWP global dialogues can serve as a chance for Parties, observers, and other non-Party stakeholders to facilitate the exchange of information, ideas, and opportunities regarding the importance of the built environment and highlight its cross-cutting nature.

It is therefore key that the dialogues accurately reflect both the impact — but also the opportunity — that an integrated and holistic approach to action in the built environment can play in closing the gap to 1.5°C.

WorldGBC outlines below the opportunity the Global Dialogue presents and our recommendations on which topics the dialogues should cover.

### The Opportunity of the Global Dialogues on Cities: Buildings and Urban Systems

Worldwide, buildings are responsible for 37% of global emissions, 34% of energy demand and 50% of materials consumption. Other environmental impacts of buildings include resource depletion, air, water and land pollution and biodiversity loss.

The built environment presents a massive opportunity to tackle the world’s climate and other pressing challenges. By 2050, the global population will increase by 27 per cent to 9.8bn, and the world’s building stock will double, dramatically increasing environmental, social and economic impacts associated with the built environment. Our sector’s demand for natural resources fuels the climate crisis, and inefficient, unhealthy and poor-quality buildings affect our livelihoods and are less resilient to the impacts of climate change.

With such a significant impact, the dialogues must highlight the built environment as a key cross-cutting sector that can deliver the transformative change needed to decarbonise the global economy. As the largest contributing sector to carbon emissions, the built environment can do more and already has the climate solutions that need to be deployed at speed and scale. Collaboration across the sector's fragmented supply chain is key to accelerating actions and showcasing the many solutions that exist in the sector.

This 2024 dialogue topic that covers 'Cities: buildings and urban systems' provides a timely and unique opportunity to align and scale the solutions that already exist to ensure the sector is playing its optimal role in closing the climate gap.

In order to align with your core themes, see the below recommendations associated with these.

## **Recommendations for theme 1: Spatial planning and low-carbon infrastructure**

### **WorldGBC Global Policy Taskforce - Connecting Global Ambition with Local Action and Implementation**

In 2023, WorldGBC Global Policy Task Force - consisting of Green Building Councils all over the world - launched the [“Global Policy Principles for a Sustainable Built Environment”](#). These principles support policymakers around the world to adopt a holistic approach to built environment sustainability, and ensure that new and updated policies and legislations deliver the transformative action needed to reach the Paris Agreement and Sustainable Development Goals.

The principles are structured around seven key focus areas: carbon, resilience, circularity, water, biodiversity, health, equity and access. These areas are supported by detailed policy levers demonstrating effective implemented through regulation, information and incentives.

Resilience, for example, requires national planning policies that consider current and future climate and seismic risks when locating, designing and operating a building. These policies should be underpinned by smart, integrated, holistic and measurable urban implementation frameworks and climate action plans.

In terms of circularity, there is a need for the inclusion of limit values for primary material content in new build assets within building and/or planning regulations.

Biodiversity considerations call for strengthened national and local planning policies that enforce protections for blue and green infrastructure in city planning and development projects. These policies should prohibit development on ecologically fragile sites and in protected or threatened species habitats.

Green Building Councils around the world are now working to ensure that these Principles can be integrated in Nationally Determined Contributions and local policies ahead of the 2025 update cycle.

## **Africa Manifesto for Sustainable Cities and the Built Environment**

[The Africa Manifesto](#) was launched ahead of the UN Climate Summit COP27 in Egypt, articulating policies related to energy, water, materials, finance and infrastructure that African business leaders, city and government officials must support to deliver the ‘Africa We Want’: a net zero carbon, healthy, resilient, equitable, socially and economically inclusive built environment for everyone, everywhere.

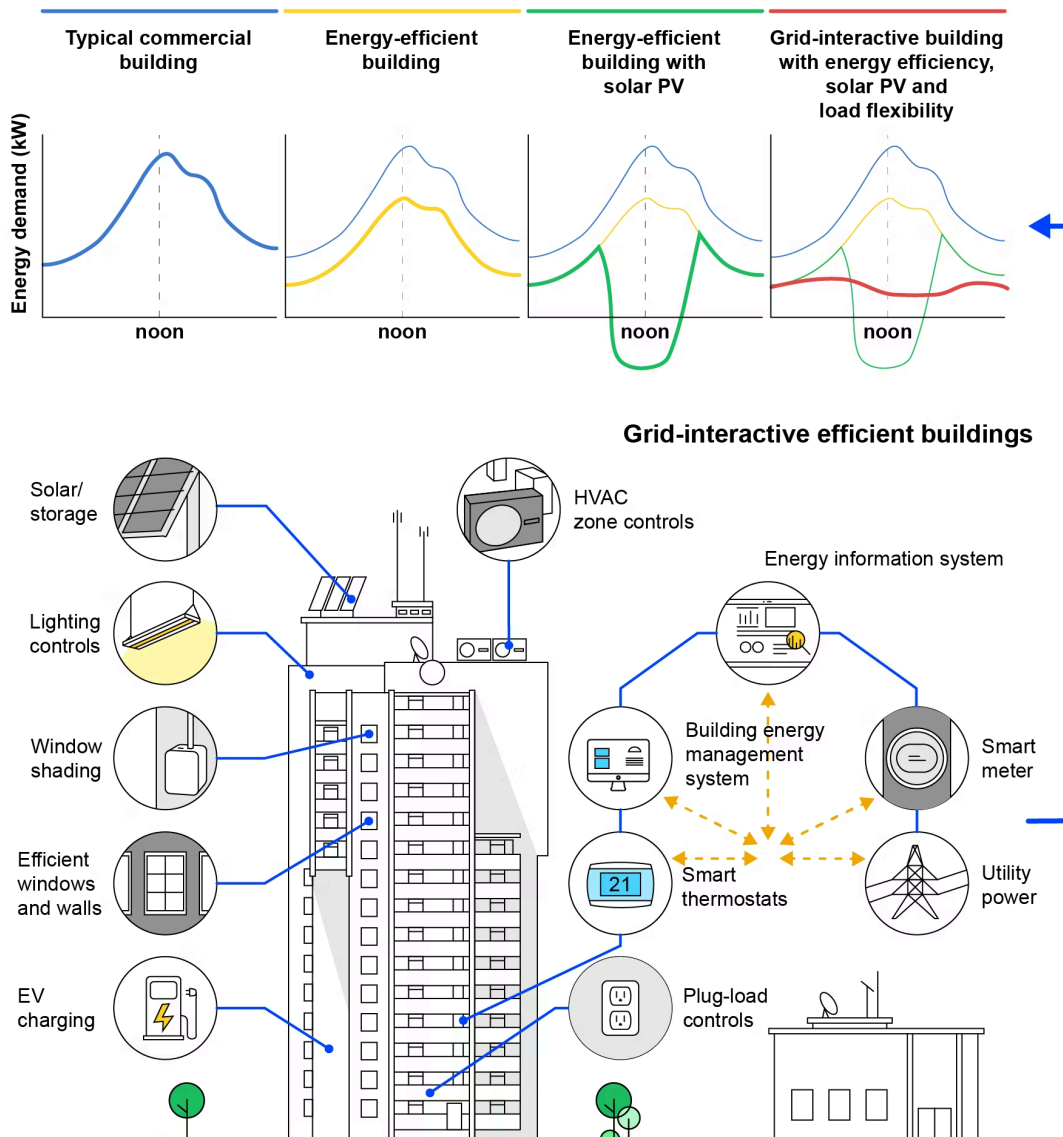
The Manifesto is a collaborative piece of work developed with 15 African Green Building Councils (GBCs), [WorldGBC](#) and the [BuildingToCOP](#) Coalition partners ([High Level Climate Champions](#), [We Mean Business](#), [C40 Cities](#)).

## **Recommendations for theme 2: Electrification and switching to net-zero emission resources**

The transition to Net Zero requires a significant shift in the energy landscape, with electrification and renewable energy playing pivotal roles. According to the [IEA Net Zero by 2050](#) report, electrification of areas powered by fossil fuels is a “crucial economy-wide tool for reducing emissions”, expected to account for 20% reduction in emissions by 2050.

Within a built environment context, building stock efficiency must run in parallel with electrification. In India for example, a ten fold increase in air conditioner ownership is expected by 2050. Peak energy usage here could be halved by transitioning to efficient buildings and through the adoption of appliances with improved performance standards ([IEA](#)). In other regions, heating demand is rising as climate change impacts long-term temperatures.

Considering the built environment footprint is expected to grow by 75% between 2020 and 2050 ([IEA](#)), buildings have an expanding role to play to become an active participant in energy systems. Whether through on-site renewable energy generation, using energy efficiency measures to reduce demand, or the use of technology to facilitate limiting energy spikes on the grid. Buildings can contribute to long-term energy stability. This should be done in collaboration with electricity grids that use technologies to manage and optimise energy usage as well as renewable energy generation ([IEA](#)).



Grid-interactive efficient buildings (IEA).

The following two case studies showcase work carried out in Australia and the United States to highlight the importance of electrification whilst considering the wider contexts and risks.

### The case for electrification of precincts in Australia

Electrification is key to reducing operational energy emissions of buildings in order to meet net-zero targets. The [Green Building Council Australia](#) have written a [comprehensive guide](#) which covers the key steps to move the energy and heating demands of Australian precincts to electric sources. The methodology focuses on:

- Highly efficient and flexible consumption: Creating spaces which are energy efficient to reduce demand and include relevant infrastructure such as EV charging, whilst being suitable for electricity generation and adoption within the next decade
- Provide fossil-fuel free sources: remove the use of natural gas and liquid petroleum gas (LPG)
- Powered by renewables: electricity is sourced from 100% renewables, either on or off site

Importantly, the methodology to achieve electric precincts will be achieved using proven and well-known technologies. Lower bills due to increased efficiency, shielding from fluctuating market pricing, and benefitting from decarbonisation of the grid are all core benefits of electrification. Stakeholders from across the value-chain should be engaged at an early stage to address challenges and enable this transition.

### **“Beneficial Electrification”, a U.S. Green Building Council Policy Overview**

*Beneficial Electrification* as an emerging strategy aimed at reducing greenhouse gas emissions by transitioning from fossil fuel-based energy sources to electric alternatives. This initiative should be a significant priority according to the [U.S. Green Building Council](#), given that U.S. commercial and residential buildings account for 40% of energy consumption and 31% greenhouse gas emissions.

The objectives of Beneficial Electrification are to:

- Ensure energy costs do not increase for consumers, particularly for those on low incomes.
- Improve grid demand management and reliability through strategic investments
- Remove harmful emissions from both buildings and the energy supply chain
- Develop energy independence by reducing reliance on imported energy

It should be noted that electrification should only be carried out in conjunction with deep energy efficiency measures to achieve low operational carbon buildings. A bespoke approach is necessary, taking into account regional building stock, funding availability, the pace of clean power technology development, and the local energy mix. Ensuring equitable distribution of both energy charges and upfront costs across consumers is important to prevent disproportionate impacts, particularly in colder climates where the effects may be more pronounced.

The full [policy briefing](#) summary by the [U.S. Green Building Council](#) provides a full overview of this topic.