World Benchmarking Alliance

Climate and Energy Benchmark in the Buildings Sector

Methodology Report

December 2023

Table of Contents

Executive summary

The 2022 report of the Intergovernmental Panel on Climate Change (IPCC) makes a clear statement: 'The scientific evidence is unequivocal: climate change is a threat to human wellbeing and the health of the planet. Any further delay in concerted global action will miss the brief, rapidly closing window to secure a liveable future'[1].

There is no second-guessing this message. We need a global decarbonisation and energy transformation, and we need it now. To accelerate action towards this transformation, the World Benchmarking Alliance (WBA) has formed a strategic partnership with ADEME, the French Agency for Ecological Transition, and now hosts the Assessing low Carbon Transition (ACT) initiative which was jointly developed by ADEME and CDP. The WBA works in partnership with CDP on assessments to benchmark companies' decarbonisation performance.

WBA's Climate and Energy Benchmark measures and ranks high-emitting companies on key issues underpinning the decarbonisation and energy transition. The benchmark engages companies themselves, evaluating their current – and importantly – their future decarbonisation plans as well as their past and present performance to assess their alignment with the Paris Agreement.

Alongside assessing companies on their low-carbon transition, the WBA Climate and Energy Benchmark also assesses companies on their contributions to a socially just transition. Embedding the principle of the Sustainable Development Goals (SDGs) to 'leave no one behind', WBA's benchmark fills a critical accountability gap bringing data and insights on what companies are doing to respect the rights of workers, communities and other affected stakeholders while working towards low-carbon goals. The benchmark aims to create transparency and corporate accountability through -holistic assessments and steer companies towards commitment and action.

This report presents an overview of the WBA Climate and Energy Benchmark related to the buildings sector (Buildings Benchmark) and the methodologies used for assessment. The assessment relies on three ACT (Assessing low Carbon Transition) Building methodologies: ACT Property Developer, ACT Construction and ACT Real Estate. The social assessment methodology is composed of both core social and just transition indicators. In addition, this report includes an overview of the 50 companies included in the Buildings Benchmark and the principles used for selecting them.

Low-carbon transition and climate action in the buildings sector

The clock is ticking. The IPCC 2022 report shows that global warming, reaching 1.5°C in the near term, will cause unavoidable increases in climate hazards and present multiple risks to ecosystems and humans. Without urgent action to combat climate change, the world will experience more extreme weather events, rise in sea levels and negative impacts on biodiversity, ecosystems and oceans, affecting billions of people in both current and future generations. Moreover, climate change will have a disproportionate effect on the poorest and most vulnerable populations for decades to come.

In 2015, 196 countries signed up to the Paris Agreement for climate change action. In the same year, 193 countries committed to the UN SDGs. However, the world still needs a major decarbonisation and energy transformation if we are to align global efforts to achieve the goals set out in the Paris Agreement and prevent the worst impacts of climate change. These goals include limiting global warming to well below 2°C and, ultimately further still, to below 1.5°C. Moreover, these efforts need to be carried out in a just and equitable way, so that no one is left behind.

The buildings and construction industry, including the process emissions for building materials, was responsible for 37% of all global CO2 emissions in 2021, making it the highest emitting sector. Almost three quarters of these – 27% of global CO2 emissions – are caused by the direct and indirect emissions from the use of buildings, with indirect emissions from electricity use in buildings representing 19% of global CO2 emissions[2].

While emissions from the use of existing buildings are responsible for a majority of the current emissions, the global floor area is expected to grow by more than 20% until 2030. Furthermore, over 80% of this growth is expected to happen in emerging and developing countries[3]. Both the construction processes and the energy efficiency of the new building stock are therefore key factors to consider when assessing the ability of the buildings sector to decrease emissions.

Under the International Renewable Energy Agency's (IRENA's) 1.5°C scenario, the energy intensity of the buildings sector needs to be halved by 2050. This will have to be achieved through increased energy efficiency in new construction and an increased rate of renovation of the existing building stock. To achieve the 1.5°C scenario, all energy related CO2 emissions in the buildings sector will need to decline by 60% by 2030 compared to 2018 levels and reach net zero by 2050[4].

The rapid pace of investment in construction introduces social risks to workers, local communities and other vulnerable groups. However, a socially just transition is possible if companies engage in dialogue with local communities, workers, unions and other stakeholders, with a particular emphasis on vulnerable groups. Furthermore, a considerable share of potential emissions reduction in the buildings sector can be cost-saving compared to the current situation through avoided demand for energy services and the use of more efficient equipment[5]. If this is managed properly, it can be an opportunity to help make the low-carbon transition in the buildings sector socially just.

Benchmarking the buildings sector

WBA provides different benchmarks assessing the progress of 2,000 companies across seven system transformations. These transformations are needed to achieve the UN SDGs and accelerate sustainable business beyond 2030. The private sector has a crucial role to play in advancing the SDGs, but there needs to be real change in the way that business impact is measured. By publishing free and publicly available benchmarks, WBA envisions a future where companies, investors, policymakers, civil society and individuals are empowered with data to take action and encourage more sustainable business practices across all sectors.

Private sector engagement alongside action by governments and civil society are critical for meeting the SDGs and the Paris Agreement. The WBA Climate and Energy Benchmark is an accountability mechanism that measures corporate progress against the Paris goals and assesses whether companies are contributing to a just transition.

In 2023, the Climate and Energy Benchmark will assess and rank 50 building companies on their alignment with a low-carbon world and their contributions to a just transition.

Benchmark assessments for a just climate and energy transition

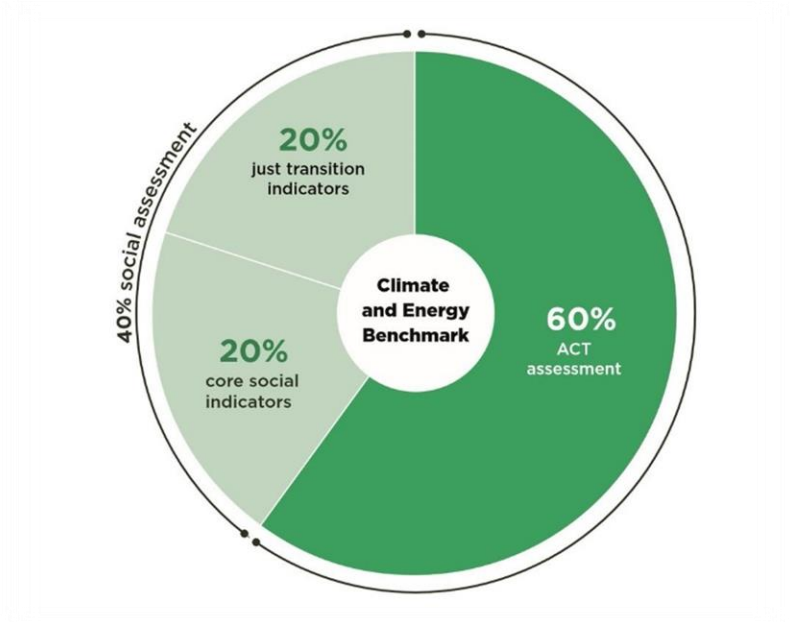
Since 2019, WBA's Climate and Energy Benchmark has used the ACT (Assessing low Carbon Transition) methodologies to assess and benchmark keystone companies in high-emitting sectors for their decarbonisation efforts. In 2021, we launched our just transition indicators which – used together with our core social indicators – assess companies' responsible business conduct and their ambitions and actions to address the social impacts of the low-carbon transition.

Starting in 2022, the Climate and Energy Benchmark series brings these methodologies together to provide an ACT assessment and social assessment for all companies. This approach provides a holistic assessment of companies' efforts to achieve a low-carbon transition and their efforts to make the transition just and equitable. This approach aligns with WBA's strategy to integrate the core social indicators at the heart of each of the seven system transformations that it focuses on, so that we move towards a world where companies value all people and leave no one behind.

Companies are ranked based on one integrated score comprising their ACT assessment and social assessment scores. The ACT and social assessment scores are weighted 60% and 40% of the total score respectively. This decision is based on feedback received during the public consultation on WBA's just transition methodology and in dialogue with WBA's Just Transition Advisory Group.

The following graphic visualises how the three scores are integrated into one overall score on a scale of 1 to 100.

FIGURE 1: CLIMATE AND ENERGY BENCHMARK FRAMEWORK



The benchmark ranking based on integrated scores thus ranks the performance of companies in terms of the low-carbon transition as well as their relevant impacts on the social transformation. Furthermore, the benchmark provides the ACT, core social and just transition scores at the indicator level, and stakeholders can use these to rank companies separately on each of these dimensions.

Assessing low-carbon transition: ACT methodologies

The sectoral ACT methodologies assess organisations' readiness to transition to a low-carbon economy using future-oriented indicators. This includes assessing companies' climate strategies, business models, investments, operations and management of greenhouse gas (GHG) emissions. Based on the sectoral decarbonisation approach developed by the Science Based Targets initiative (SBTi), ACT evaluates a company's alignment with the transition to a low-carbon world. It establishes a decarbonisation pathway for each company, which can be compared against its publicly stated low-carbon targets and transition plan. The application of the sectoral decarbonisation approach is described in the ACT framework.

ACT published its Building methodologies (comprising ACT Property Developer, ACT Construction and ACT Real Estate) in February 2020. WBA and CDP will use these methodologies to assess companies in the 2023 Buildings Benchmark.

Scope of the methodologies and the benchmark

The set of ACT Building methodologies is designed to assess the different types of activities in this sector, which correspond to successive steps in the sector's value chain:

- Development of building projects (ACT Property Developer)
- Construction of buildings (ACT Construction)
- Real estate activities (ACT Real Estate)

A mapping between NACE codes[6] (Nomenclature of Economic Activities: European statistical classification of economic activities) and the scope of activities considered in the ACT Building methodologies is presented below.

NACE Codes	Related ACT methodologies
41.10 - Development of building projects	ACT Property Developer
41.20 - Construction of residential and non-residential buildings	ACT Construction
68.10 - Buying and selling of own real estate	ACT Real Estate
68.20 - Rental and operating of own or leased real estate	ACT Real Estate
68.3 - Real estate activities on a fee or contract basis	ACT Real Estate
68.31 - Real estate agencies	ACT Real Estate
68.32 - Management of real estate on a fee or contract basis	ACT Real Estate

These three ACT Building methodologies allow us reflection on the various levers to decarbonise the building sector's value chain. As introduced above, the main source of emissions in the sector is the energy consumed during a building's lifetime. Consequently, the three methodologies emphasise the indicators of performance related to these 'in-use' emissions.

Companies in the buildings sector often operate across various activities, e.g. property development and real estate management. When assessing these integrated companies, a combination of the relevant ACT Building methodologies will be used. The scores received by a company for each activity

will be weighted according to its respective share of emissions when considering all of the company's activities. This way, the final average scores will be representative of the company's activity profile.

WBA Buildings Benchmark as a roadmap

The WBA Buildings Benchmark will act as a roadmap for companies in the buildings sector to show how they can contribute to achieving the SDGs and the Paris Agreement goals. The assessments based on the ACT methodologies will place a particular emphasis on key areas such as:

- Alignment of a company's targets across the value chain, focusing mainly on emissions resulting from energy consumption during the use of buildings
- Trend in past emissions and the projected future emissions intensity of buildings (either built or managed)
- Locked-in emissions (i.e. emissions planned or 'locked in' by a company between the reporting year and 25 years onwards from the reporting year, compared to its carbon budget)
- The share of low-carbon buildings (for property development and construction)
- The share of renovated buildings (for property development and construction)
- Engagement with clients, e.g. tenants

Companies will also be assessed on their implementation of low-carbon business models, which include offering energy performance guarantees and services, using circular economy principles as a cost reduction driver, designing and offering multipurpose and collaborative buildings, developing local energy supply systems, optimising and renting additional building spaces, and providing mobility services. Companies' development of low-carbon transition plans and scenario analysis, which determine the impact of the transition on their strategy or business model, will also be important elements of the assessments.

The ACT Building methodologies were developed with input from the multistakeholder Buildings Technical Working Group. The development process included a public consultation and a thorough technical 'road test', where the ACT initiative sought the views and opinions of a wide range of stakeholders including companies, civil society, academics and other relevant experts.

The ACT methodologies include indicators that align with the information disclosed by companies using CDP, GRI and Sustainability Accounting Standards Board (SASB) reporting frameworks. They are

also aligned with and support the objectives of the recommendations made by the Task Force on Climate-Related Financial Disclosures (TCFD). In keeping with this alignment and collaboration, WBA will continue to embrace multi-stakeholder dialogue and consultation throughout the benchmark development process.

The overall assessment score based on the ACT methodology will consist of performance, narrative and trend scores:

- The performance score – a number from 1 (lowest) to 20 (highest) – represents a company's performance across key levers for the low-carbon transition.
- The narrative score – a letter from A (highest) to E (lowest) – represents a company's state of alignment with the Paris Agreement goals.
- The trend score – "+" for improving, "=" for remaining the same, or "-" for worsening – signals the near-term movement in the company's alignment with the low-carbon economy.

Notably, the ACT Building methodologies weigh the different modules that make up the performance scores according to each company's profile and activities. Indicator weights, therefore, will vary depending on whether a company operates in property development, in construction, or in real estate activities. Regardless, all companies will receive a comparable ACT rating, and the ACT scores of all companies will be normalised to 100 to enable comparisons and benchmarking.

WBA social assessment: the core social and just transition indicators

Social transformation lies at the heart of the WBA model, embedding the 'leave no one behind' principle in every transformation area that WBA focuses on. In keeping with this, WBA is committed to integrating social criteria in all its benchmarks.

Considering the crucial role that the private sector must play in achieving a low-carbon world, the Climate and Energy Benchmark intends to assess 450 companies by 2023 on their contribution to a just transition. These 450 companies employ around 24 million people and hold immense influence to power a just transition. Therefore, alongside companies' alignment with the Paris Agreement goals, the assessment will also evaluate their approach to addressing the social challenges of a low-carbon transition.

Core social indicators

The social assessment framework sets out the societal expectations for business conduct that companies should meet to leave no one behind. The framework establishes three pillars for companies to uphold; namely, they should: respect human rights, provide and promote decent work and act ethically. By doing so, companies can support the SDGs, address inequalities and contribute to a sustainable future for all.

The core social indicators (CSIs) measure how companies perform on these high-level expectations for social transformation. Eighteen core social indicators act as 'signposts' towards companies' performance in relation to the three pillars of social transformation. The Buildings Benchmark will assess 50 companies using these CSIs.

Each CSI will be scored on a scale of 0 to 1 based on publicly available information. The scale will be divided into three levels to gauge company performance:

1. Fully met: a company meets all of the elements for a particular indicator (1 point).
2. Partially met: a company meets some elements for a particular indicator (0.5 points).
3. Not met: a company meets none of the elements for a particular indicator (0 points).

In cases where a company meets only one element of an indicator, there isn't possibility to assign a 'partially met' score of 0.5 points. Thus, a company can either only 'fully meet' (1 point) or 'not meet' (0 points) such indicators.

Each CSI will be singly weighted, except for the following indicators that are part of the human rights due diligence process: CSI 4 (Assessing human rights risks and impacts) and CSI 5 (Integrating and acting on human rights risks and impacts). Given the foundational importance of human rights due diligence, these two indicators will receive double weighting. The 18 CSIs will therefore represent a total of 20 points.

Just transition indicators

Decarbonisation of the global economy will only succeed if it includes solutions for affected workers and communities. This is known as a 'just transition'. The WBA just transition assessments are the first of their kind and will be integrated into the Buildings Benchmark.

The assessments will make use of six just transition indicators (JTIs):

1. Social dialogue and stakeholder engagement
2. Just transition planning

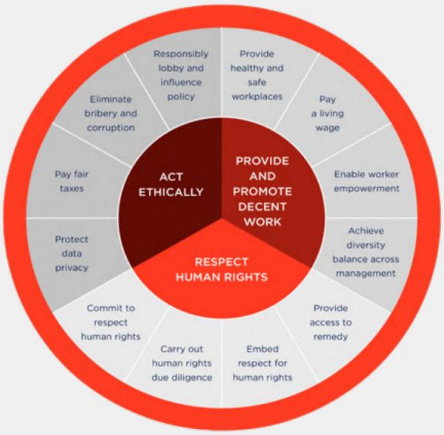
3. Creating and providing or supporting access to green and decent jobs
4. Retaining and re- and/or upskilling
5. Social protection and social impact management
6. Advocacy for policies and regulations

Each JTI will be scored on a scale of 0 to 2 points based on publicly available information. The most recently published information (within the last three years) will be used to ensure it is relevant to the just transition. For simplicity, each indicator has four indicator elements, (a) to (d), with each element typically representing 0.5 points. So, for example, if a company meets elements (a) and (b), but not elements (c) and (d), it will score 1 point out of a maximum of 2.

Each JTI will be singly weighted, except for JTI 1 (Social dialogue and stakeholder engagement in a just transition) and JTI 2 (Just transition planning). Given the relative importance of these indicators, JTI 1 and JTI 2 will receive double weighting – so the 2 points available in this case will represent a maximum of 4 points. The six JTIs will therefore represent a total of 16 points.

FIGURE 2: WBA CORE SOCIAL INDICATORS

Social: responsible business and people at the heart



Core social indicators

- Fundamentals of responsible business conduct for SDG transformations
- Applied to all WBA SDG2000 companies
- 18 indicators
- Scored out of 20

Just transition: to leave no one behind in decarbonisation

Specific measurement areas

1. Social dialogue and stakeholder engagement
2. Planning for a just transition
3. Green and decent job creation
4. Retaining and re-and/or up-skilling
5. Social protection and social impact management
6. Advocacy for policies and regulation supporting a just transition

Just transition indicators

- Sector-agnostic fundamentals of just transition for high-emitting sectors
- Build on Core Social Indicators
- Designed to build on ACT indicators
- 6 indicators, with 4 requirements each
- Scored out of 16

Selecting the 50 keystone buildings sector companies

WBA has adopted systems thinking to identify 50 building sector companies that have a disproportionate influence on meeting the SDGs and the Paris Agreement goals. We have built on leading academic research that puts forward the idea of keystone actors, inspired by the concept of 'keystone species' in ecology. This is because the most influential companies in a given industry operate similarly to keystone species in ecological communities.

We have used the following five criteria and principles established by WBA for selecting the 50 keystone building sector companies:

1. The company dominates global production and service revenues and/or volumes within the buildings sector.
2. The company controls globally relevant segments of production and/or service provision. For the 50 keystone building sector companies, this was based on an assessment of company size metrics where available, including: revenue, employee number and value of assets managed.
3. The company connects (eco)systems globally through subsidiaries and their supply chains.
4. The company influences global governance processes and institutions.
5. The company has a global footprint, particularly in developing countries.

These principles are applied holistically. For principle 5, which is a crucial element to WBA's work, we have considered companies from all regions, resulting in the inclusion of some companies that have relatively small revenues and production volumes compared to some others, to balance this with principles 1 and 2. This is especially relevant n the Buildings Benchmark, where keystone companies may be localised and tied to one geographic location.

Next steps

1. In December 2022, the WBA and CDP teams will share the ACT and social assessment data with each company for validation. Companies will be provided with resources and materials to learn more about the ACT and social assessments and the WBA Buildings Benchmark.

2. We strongly encourage companies to participate in the data validation process. We will be on hand to answer any questions companies have about the assessments and the benchmark. Companies may only submit an appeal regarding their assessment result if they have actively participated in the data validation process.

3. The benchmark results will be published at the end of Q1 2023.

4. We intend for our work at WBA to contribute to a multi-stakeholder movement. In tandem with the development of the Buildings Benchmark, we will therefore be engaging with our global Alliance and a broad range of stakeholders to build communities of practice and action to take forward the benchmark findings.

If you have questions about the Climate and Energy Benchmark, please reach out to:

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Appendix I: Companies in the Buildings Benchmark 2022

Order	Company Name	Country of headquarters
A	Avalonbay Communities - USA	United States of America
	Ayala Corporation	Philippines
B	Brookfield Asset Management	Canada
	CBRE Group	United States of America
C	China Evergrande Group	China
	China Merchants Shekou Industrial Zone Holdings	China
	China Overseas Land & Investment	Hong Kong, China
	China Poly Group	China
	China Resources Land	China
	CIFI Holdings	China
	CK Asset Holdings	Hong Kong, China
	Country Garden Holdings	China
	Cushman & Wakefield	United Kingdom
	Cyrela Brazil Realty	Brazil
E	Emaar Properties	United Arab Emirates
	Even Construtora	Brazil
G	Gecina SA	France
	Gemdale	China
	Godrej Properties	India
	Greenland Holdings	China
	Greentown China Holdings	China
H	Hyundai Engineering and Construction	Republic of Korea
I	IRSA	Argentina
J	Jiangsu Zhongnan Construction Group	China
	Jinke Property Group	United States of America
	Jones Lang LaSalle (JLL)	United States of America
L	LEG Immobilien SE	Germany
	LendLease Group	Australia
	Longfor Group Holdings	China
M	Macrotech Developers	India
	Mitsubishi Estate	Japan
	Mitsui Fudosan	Japan
	MRV Engenharia	Brazil
N	New World Development	Hong Kong, China
P	Palm Hills Development	Egypt
	Prologis	United States of America
Q	Qatari Diar	Qatar
R	Redefine Properties Ltd	South Africa
	RiseSun Real Estate Development	China
S	Sagax AB	Sweden
	Seazen Holding	China
	SEGRO PLC	UK
	Simon Property Group	United States of America
	Sumitomo Realty & Development	Japan
	Sun Hung Kai Properties	Hong Kong, China

U	Unibail-Rodamco-Westfield	France
V	Vonovia SE	Germany
W	Welltower	United States of America
	Wheelock and Co	Hong Kong, China
Y	Yango Group	China

Appendix II: References

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