

Business Environment Council Net-zero Carbon Charter Progress Report

- 2023 -



ABOUT BEC

Business Environment Council Limited (“BEC”) is an independent, non-profit membership organisation, established by the business sector in Hong Kong. Since its establishment in 1992, BEC has been at the forefront of promoting environmental excellence by advocating the uptake of clean technologies and practices which reduce waste, conserve resources, prevent pollution and improve corporate environmental and social responsibility. BEC offers sustainable solutions and professional services covering advisory, research, assessment, training and award programmes for government, business and the community, thus enabling environmental protection and contributing to the transition to a net-zero economy.

HOW WE ENABLE SUSTAINABILITY

The sustainability challenges we face are complex and fluid, and are shared across borders and industries. We believe in a coordinated, collaborative and holistic approach to drive positive changes. BEC is committed to working with its members, the wider business community, the Hong Kong Government, and others in Hong Kong society to realise a sustainable economy.

In this way, we are enablers within the sustainability ecosystem, working with different partners to build capacity and encourage the adoption of innovative practices and technologies through green collaboration, practical projects and advisory, using BEC as a green lab, and nurturing leadership.

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INTRODUCTION



BEC NET-ZERO CARBON CHARTER

Background

Launched in March 2019 with the endorsement of top business executives, BEC Low Carbon Charter (“LCC”) paved the way for companies within the property and construction sectors to join forces in a united effort to reduce carbon emissions, directly contributing to Hong Kong’s long-term decarbonisation goals. Starting in 2020, LCC broadened its scope to include businesses from various sectors, encouraging a more inclusive participation in the decarbonisation mission. Building on LCC’s initial success and in a proactive response to the urgent climate crisis, BEC introduced the Net-zero Carbon Charter (“the Charter”) in March 2023. This rebranded Charter elevates ambitions and amplifies support for its signatories, urging them to enhance their efforts and accelerate their progress towards achieving net-zero carbon emissions. (See Figure 1)

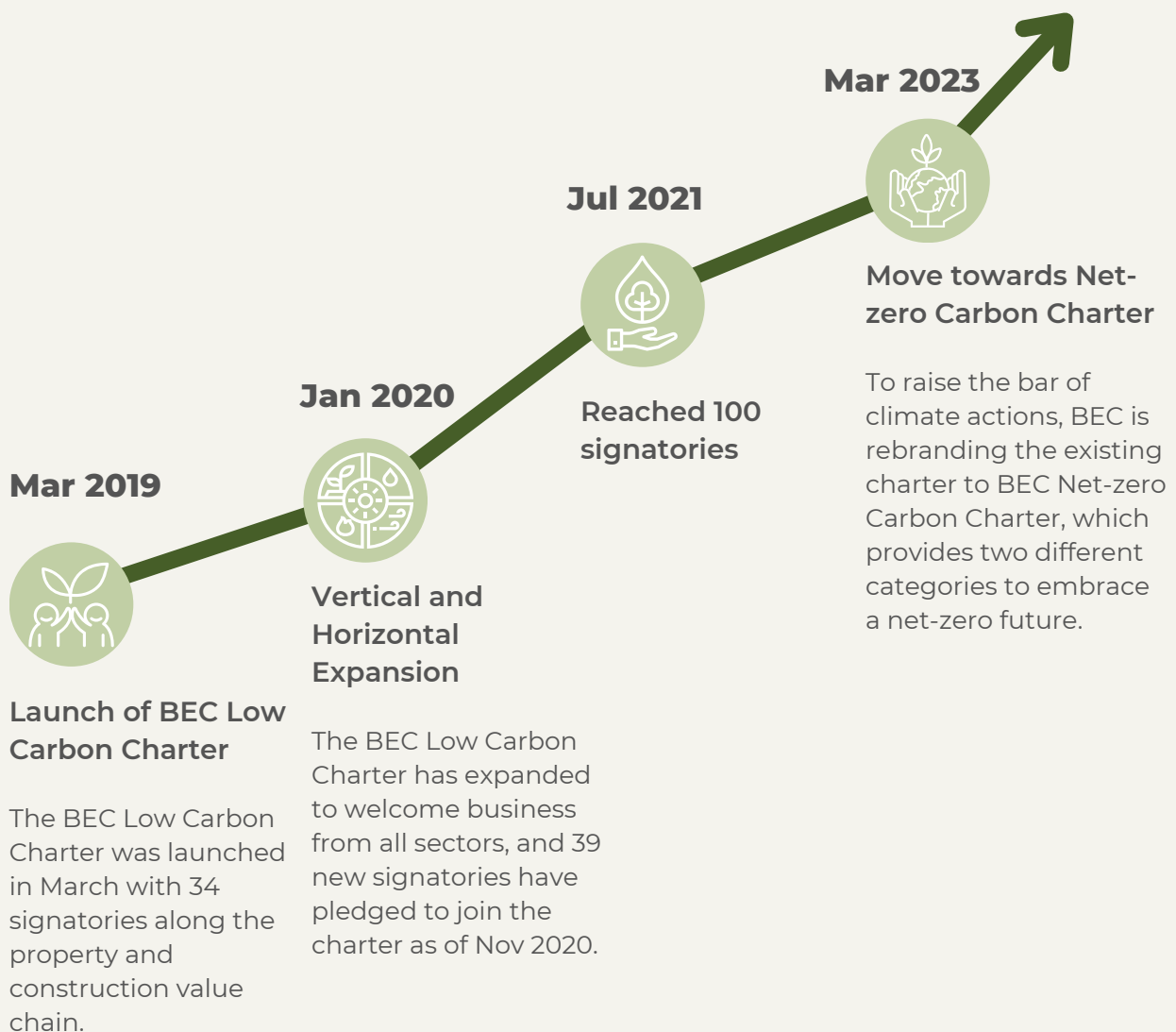


Figure 1 Timeline of Net-zero Carbon Charter

Objectives of the Charter

The main goal of the Charter is to inspire a collective effort among businesses and organisations, urging them to commit to achieving a net-zero carbon future as part of Hong Kong's broader decarbonisation initiative. By pledging to set ambitious targets and implement concrete actions, signatories play a crucial role in this environmental endeavour. Each year, signatories are required to report their progress and contributions using a standardised form, allowing BEC to anonymise and compile data into an annual Progress Report. This report not only showcases the cumulative progress and successes but also enhances transparency.

To further support signatories in meeting their decarbonisation goals, BEC hosts various events and introduces programmes designed to guide companies in formulating, executing, and achieving their objectives. Moreover, signatories can participate in knowledge exchange and collaborative learning activities, fostering a community of insight-sharing that benefits all members.

Charter Signatories

The Charter classifies its signatories into categories based on their commitment level and operational capability to set and achieve emissions reduction targets. Signatories are encouraged to critically assess their operational practices and targets prior to applying, ensuring alignment with one of the two distinct categories: Action Signatory ("AS") or Science-aligned Signatory ("SAS"). The main distinction between these categories lies in the ambition and specificity of the targets set by the company or organisation (see Table 1).

By June 2024, the Charter had acclaimed 75 signatories, comprising 55 Action Signatories and 20 Science-aligned Signatories. This reflects a collective commitment across various sectors to collaborate and push for decarbonisation in line with the international 1.5°C pathway, showcasing their dedication to driving decarbonisation efforts globally.

Table 1 Categories of BEC Net-zero Carbon Charter signatories

	Action Signatory (“AS”)	Science-aligned Signatory (“SAS”)
Emissions Reduction Targets	<ul style="list-style-type: none"> • Currently with emissions reduction targets fulfilling the SMART [1] criteria, or developing targets in one year upon signing the Charter; and • With the ambition to join the Science-aligned Signatory, preferably in three to five years 	<ul style="list-style-type: none"> • Currently with near-term emissions reduction targets following 1.5°C aligned science-based pathway, or developing targets in two years upon signing the Charter; and • With the ambition to further develop net-zero targets based on recognised standards
Target Timeframe	<ul style="list-style-type: none"> • Target date no later than 2030 	<ul style="list-style-type: none"> • Target date in five to ten years, no later than 2035
Emissions Reduction Ambition	<ul style="list-style-type: none"> • Starting to reduce emissions in the value chain with a clear target 	<ul style="list-style-type: none"> • Signatories should demonstrate significant emissions reduction in value chain by aligning their near-term targets with recognised standards, to support the international call for halving global emissions by 2030
Scope Coverage on Targets	<ul style="list-style-type: none"> • Mandatory Scope 1 and 2; and • Optional Scope 3 	<ul style="list-style-type: none"> • Mandatory Scope 1 and 2 • Recommended 67% of Scope 3 if Scope 3 emissions > 40% of total emissions • Optional Scope 3 for small-and-medium enterprises with <500 employees
Obligation	<ul style="list-style-type: none"> • Disclosing emissions reduction progress annually to BEC 	<ul style="list-style-type: none"> • Disclosing emissions reduction progress annually to BEC; and • Reviewing and updating near-term targets at least every five years to get closer to net zero

[1] SMART Targets stands for targets that are specific, measurable, attainable, relevant and time-bound, as also illustrated in HKEX's Practical Net-Zero Guide for Business (p.19)

OBJECTIVES OF THE REPORT

The Charter not only envisions a collective effort towards achieving net-zero carbon emissions but also encourages transparency and shared learning among its signatories. Through the systematic compilation and analysis of data provided by the Charter signatories, this report serves a tri-fold purpose, each contributing to the overarching goal of accelerating corporate sustainability and climate action:

1 **Recognising Trends in Corporate Decarbonisation and Target Setting**

By aggregating and analysing emissions reduction targets, strategies, and practices shared by the signatories, the report aims to pinpoint emerging trends within the realm of corporate decarbonisation. This includes the identification of common practices, sector-specific approaches, and the overall progress in setting and achieving emissions reduction targets. The goal is to map out a clear trend that can reveal the effectiveness of different strategies, challenges being faced, and areas where significant advancements are being made.

2 **Facilitating Knowledge Sharing to Propel Climate Action**

One of the core objectives of this report is to cultivate a collaborative environment by sharing insights, successes, and lessons among the signatories. This is intended to inspire and embolden companies to undertake or escalate their climate actions by providing them with real-world examples and evidence of what works. By demystifying the journey towards achieving net-zero emissions and highlighting actionable strategies, the report aims to encourage a more widespread and concerted effort within the business community.

3 **Demonstrating the Business Sector's Climate Ambitions**

By bringing to light the commitments and achievements of its signatories, the report endeavours to demonstrate the ambition and capability of the business sector in contributing to the global climate agenda. This is particularly aimed at enhancing the sector's reputation in the realm of environmental sustainability, showcasing its proactive stance and potential to lead by example in the transition to a net-zero future. The documentation and celebration of corporate efforts and achievements serve as a testament to the sector's genuine commitment and tangible effort towards mitigating climate change.

Overall, this report seeks to leverage the collective experiences and data of the Charter signatories as a means to foster a more informed, engaged, and effective corporate approach to climate action, highlighting the business sector's pivotal role in the global push for sustainability.

PROGRESS AND ACHIEVEMENTS

The following section delves into the progress and accomplishments of the signatories in 2023, drawing insights from responses received through our Annual Questionnaire (“the Questionnaire”).



10 BACKGROUND OF ANNUAL QUESTIONNAIRE

The Questionnaire was opened for response from 21 December 2023 to 26 January 2024. The primary objectives of the questionnaire are:

- To promote the creation and upkeep of carbon inventories by reporting corporates
- To gauge the decarbonisation progress among the Charter signatories
- To identify both opportunities for and obstacles to the Charter's further development

Overview of Questionnaire Responses:

- The responses were segmented between SAS and AS, with 28% from SAS and 72% from AS (see Figure 2).
- There was participation from different scales of businesses, with 41% participants from small-and-medium enterprises ("SMEs"[2]) and 59% from larger corporations, each employing over 500 staff members (see Figure 3).
- The sectoral distribution of respondents illustrated a diverse engagement across industries (see Figure 4). Specifically:
 - 41% responses came from the "Property and Construction" sector;
 - 10% from the "Industrial Transportation" sector;
 - 8% from the "Commercial & Professional Services" sector;
 - Others spanned varied fields such as "Travel & Leisure", "Diversified Metals and Minerals", and "Aesthetic Medicine".

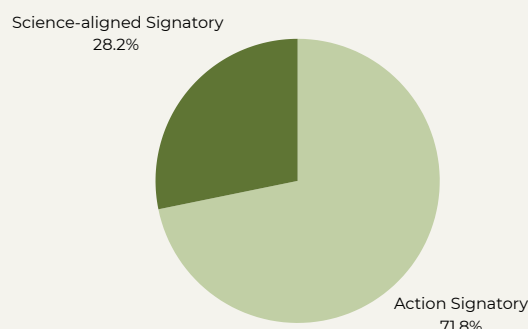


Figure 2 Signatory category of respondents

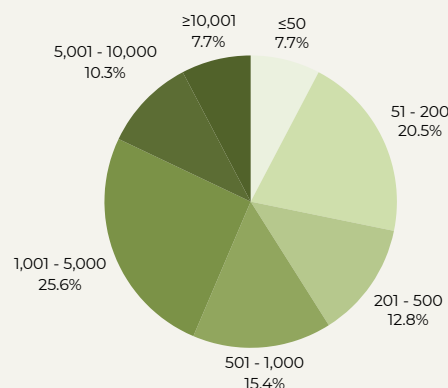


Figure 3 Company size of respondents

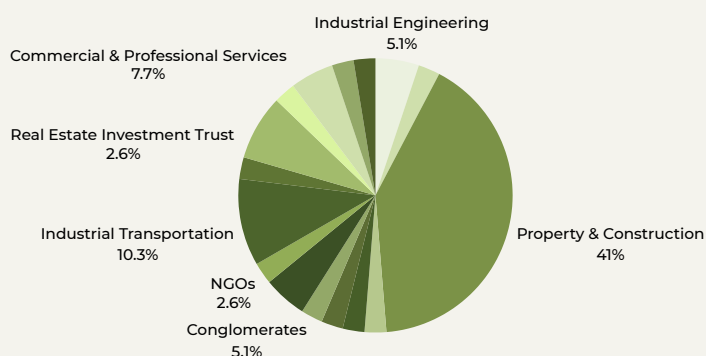


Figure 4 Major industry of respondents

The above breakdown not only highlights the broad participation across different business sectors but also emphasises the comprehensive approach toward understanding and promoting decarbonisation efforts among the Charter signatories. Through this nuanced analysis, the section sets the stage for further discussion on the impacts and outcomes of these collective actions towards climate goals.

[2] SMEs are defined as non-subsidary organisations with fewer than 500 employees, which is in line with the definition used by the SME Climate Hub (2022) and the SBTi Initiative (2022).

CLIMATE-RELATED RISKS AND OPPORTUNITIES

This section of the questionnaire analysis is being conducted under the Climate Risk and Opportunities TCFD Framework [3]. Over 41% of the respondents underscored the convergence of financial, political, and governance risks as their primary concerns (see Figure 5). These encompass:



Market Risk - “Increasing energy-related operational costs”

Highlighting the direct impact of rising costs for energy consumption, which affects the bottom line for many businesses, especially those in energy-intensive sectors.



Policy and Legal Risk - “Failing to respond to the latest policy change”

Indicating a concern over the agility and adaptability of companies to swiftly align with new regulations or policies related to climate change, which could lead to financial penalties or lost opportunities for government incentives.



Reputation Risk - “Failing to meet the company's climate commitments”

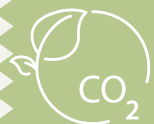
Pointing to the internal and external pressures businesses face in achieving their publicly stated climate goals, with implications for reputation and compliance.

Conversely, approximately 38% of respondents saw climate change not just as a challenge but also as a venue for uncovering opportunities within financial and social dimensions (see Figure 5):



Resource Efficiency Opportunities - “Reducing energy-related operational costs”

By adopting more energy-efficient practices and technologies, companies can lower their energy expenses, presenting a clear financial benefit alongside environmental responsibility.



Resource Efficiency Opportunities - “Meeting the company's climate commitment in reducing carbon emissions”

This is viewed as an opportunity to lead in sustainability, enhancing the company's market position and aligning with consumer expectations for greater environmental stewardship.



Markets Opportunities - “Improving brand reputation”

A strong sustainability record can serve as a powerful tool for brand differentiation, appealing to a growing segment of consumers and stakeholders interested in supporting environmentally responsible businesses.

[3] The Task Force on Climate-Related Financial Disclosures (“TCFD”) has established a framework to assist public companies and other organisations in disclosing climate-related risks and opportunities.

The analysis of these risks and opportunities provides insightful perspectives on how climate change is shaping the business landscape. Not only do these findings highlight the immediate challenges businesses must navigate, but they also underscore the potential long-term benefits of integrating sustainable practices into core business strategies. This dual view fosters a more nuanced understanding of the collective journey towards decarbonisation, emphasising the necessity for businesses to adaptively manage risks while seizing new opportunities for growth and leadership in sustainability.

Top five Climate-related Risks and Opportunities

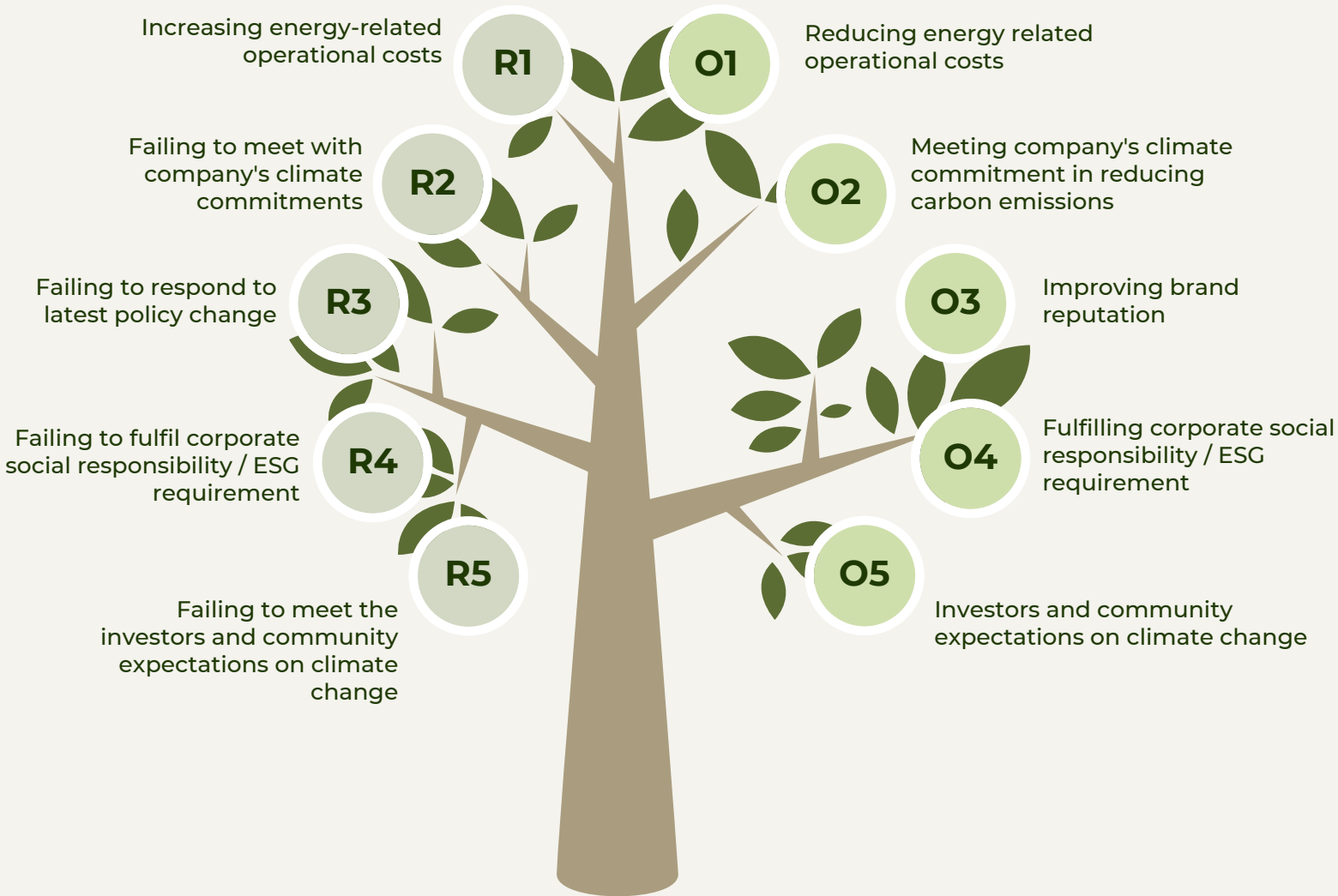


Figure 5 Top five climate-related risks and opportunities identified by respondents



GREENHOUSE GAS EMISSIONS OF CORPORATES IN HONG KONG

Decarbonisation Progress of Signatories

The analysis of corporate decarbonisation progress identifies four stages of development, as illustrated in Figure 6. These stages include:

- “Stage 1 - Scope 1 & 2 Inventory”: This phase represents the initial phase where signatories begin to track and measure their direct emissions and indirect emissions from purchased energy.
- “Stage 2 - Scope 1 & 2 Target Setting”: In this phase, signatories establish specific goals for reducing their direct and indirect emissions from purchased energy.
- “Stage 3 – Scope 3 Mapping and Target Setting”: Signatories expand their efforts to include indirect emissions from their value chain, setting targets for these as well.
- “Stage 4 - Long-term Target”: The final stage involves signatories setting ambitious, long-term goals for their overall carbon footprint reduction efforts.

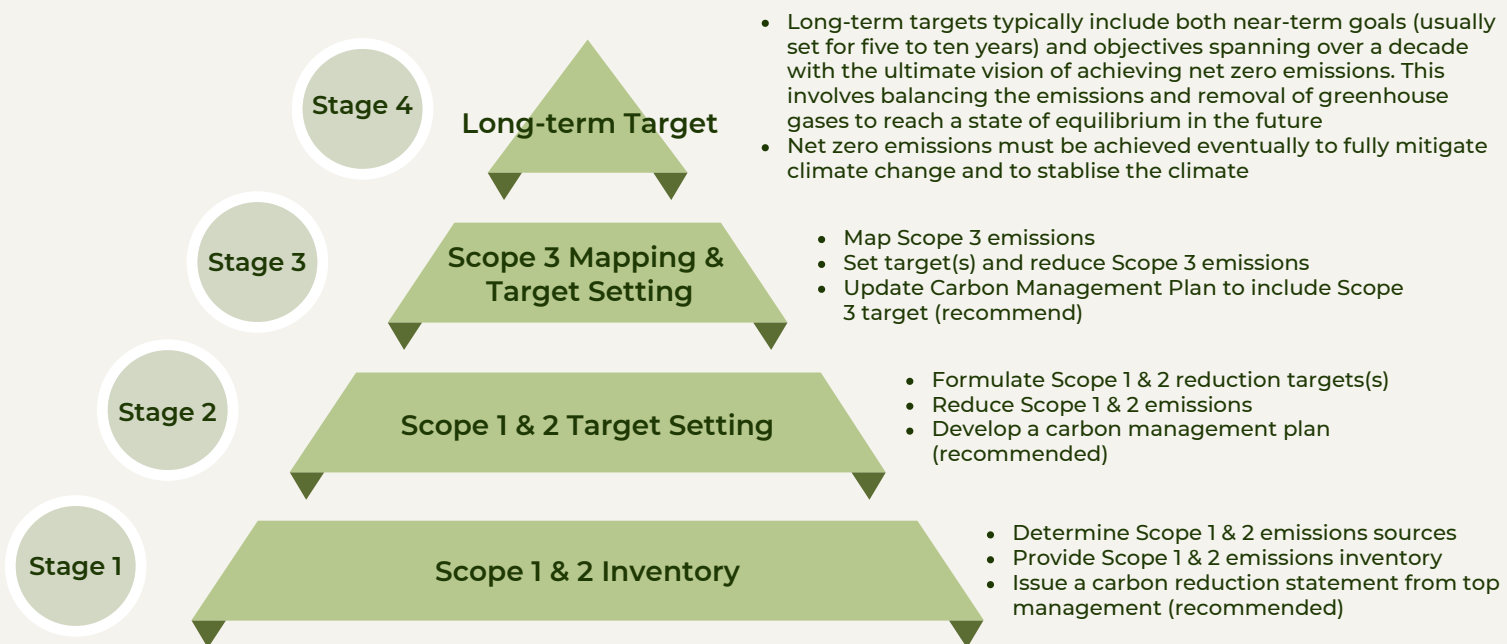


Figure 6 Pyramid of emissions target setting

According to the breakdown depicted in Figure 7, a combined total of 61% of respondents are progressing through Stages 2 and 3, indicating active engagement in both initial and intermediate steps of decarbonisation efforts. 28% of respondents have advanced to Stage 4, demonstrating a commitment to long-term targets towards net zero. Meanwhile, 13% are still in Stage 1, focusing on inventorying their direct and indirect emissions. This distribution underscores the varying degrees of engagement and advancement among Charter signatories in the journey toward decarbonisation, highlighting a significant portion that is moving beyond initial steps to more comprehensive and ambitious targets.

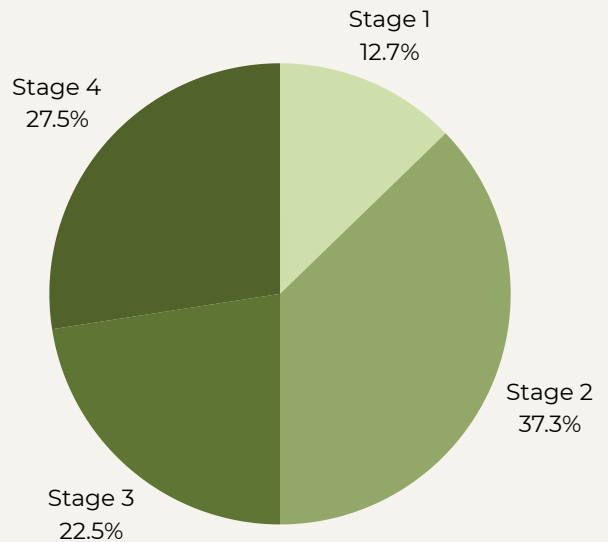


Figure 7 Respondents' decarbonisation progress in terms of stage

How Signatories Consolidate and Calculate Greenhouse Gas Inventory

Among 22 respondents that replied, 92% of them are using operational control in consolidating greenhouse gas (“GHG”) inventories, which can have the full authority to introduce and implement its operating policy at the operation, while 4% has chosen financial control and the remaining 4% has chosen equity share accordingly (see Table 2).

Table 2 Definition of Greenhouse Gas Inventory Approach (The Greenhouse Gas Protocol [4])

Type of control(s)	Definition(s)
Financial Control	The company has financial control over the operation if the former has the ability to direct the financial and operating policies of the latter with a view to gaining economic benefits from its activities.
Operational Control	A company has operational control over an operation if the former or one of its subsidiaries has the full authority to introduce and implement its operating policies at the operation.
Equity Share	A company accounts for GHG emissions from operations according to its share of equity in the operation.

[4] The definition of Greenhouse Gas Inventory Approach is acquired from The GHG Protocol Corporate Accounting and Reporting Standard (p.17-18).

When signatories collect GHG data and calculating their emissions, they mainly utilise the guidelines provided by Hong Kong Government, especially “Guidelines to Account for and Report on Greenhouse Gas Emissions and Removals for Buildings” published by Hong Kong Environmental Protection Department (“EPD”) in 2010 and “How to prepare an ESG Report, Appendix 2: Reporting Guidance on Environmental KPIs” published by Hong Kong Exchanges and Clearing Limited (“HKEX”) in 2022. Despite the local requirements, a number of signatories also took some international guidelines, like the Greenhouse Gas Protocol: A Corporate Accounting and Reporting Standard (Revised Edition), as reference. Some multinational companies will also consider country-specific guidelines based on their business locations, such as “Guidance for Accounting and Reporting of GHG Emissions for Corporates (Trial)” publish by the National Development and Reform Commission in the mainland China; or Defra Environmental Reporting Guidelines: including Streamlined Energy and Carbon Reporting Guidance, 2019 in the UK (see Figure 8).

Moreover, it is common that some signatories calculate emissions intensity by dividing absolute emissions by a unit of measurement relevant to the business. For example, property and construction sector uses “Emissions per gross floor area” to assess the environmental impact of buildings while shipping industry uses “Emissions per TEU” to measure GHG emissions per twenty-foot equivalent unit (“TEU”) of cargo transported. In common, most corporates will use emissions per employee, emissions per unit of revenue and emissions per workload unit to benchmark sustainability progress, indicative of economic and workforce efficiency.

Figure 8 Top five standards, protocol or methodology that corporates used as reference in GHG data collection and GHG emissions calculations

EPD, Guidelines to Account for and Report on Greenhouse Gas Emissions and Removals for Buildings, 2010

01

HKEX, How to prepare an ESG Report, Appendix 2: Reporting Guidance on Environmental KPIs, 2022

02

The Greenhouse Gas Protocol: A Corporate Accounting and Reporting Standard (Revised Edition)

03

ISO 14064-1: 2018 Greenhouse gases Part 1

04

IPCC Guidelines for National Greenhouse Gas Inventories

05

Emissions Reporting and Verification

Regarding disclosure, we observed that over 80% of signatories reported their Scope 1 and Scope 3 emissions with third-party verification, while approximately 74% did the same for their Scope 2 emissions (see Figure 9). This highlights the significant effort signatories are making to ensure data accuracy.

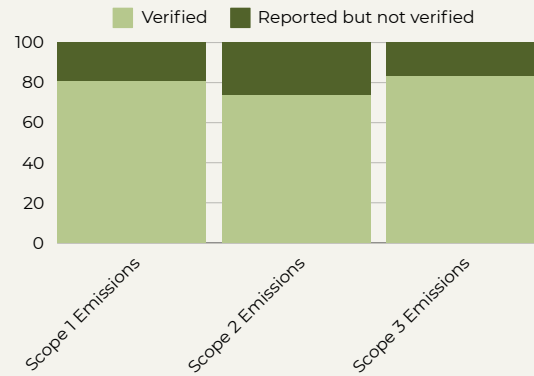


Figure 9 Percentage of respondents reporting emissions with and without third-party verification

When it comes to Scope 3 emissions, which encompass all other indirect emissions in a company's value chain, the analysis is less comprehensive due to incomplete reporting. Only 15 signatories have provided data on their Scope 3 emissions (see Figure 10). Among these reports, the major sources of Scope 3 emissions include purchased goods and services, fuel-and-energy-related activities, waste generated in operations, and the use of sold products. These categories highlight areas where companies can focus their efforts to reduce their overall carbon footprint in the value chain.

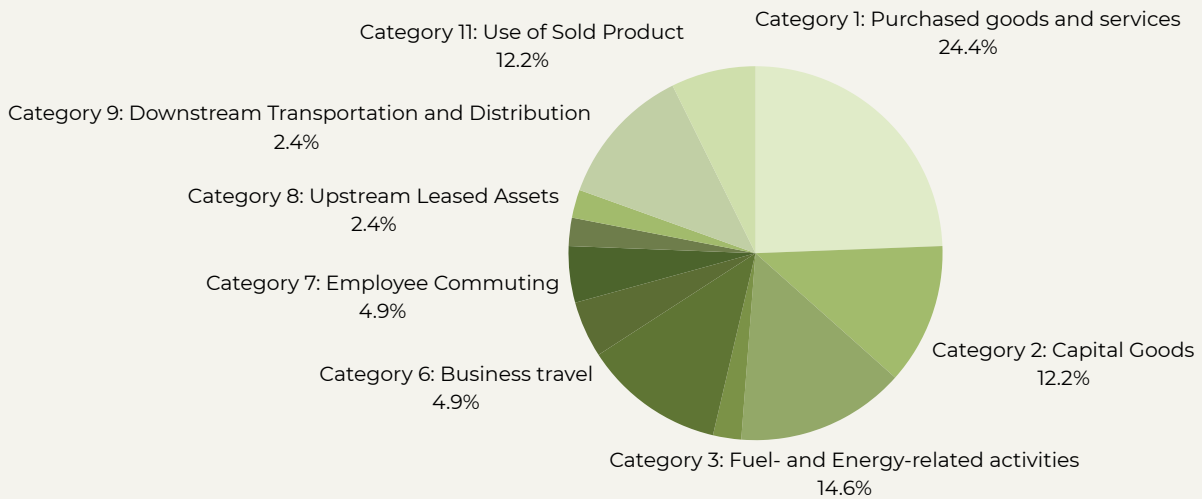


Figure 10 Signatories major source of Scope 3 emissions

This section underscores the significant impact of certain sectors on overall emissions and the need for targeted emissions reduction strategies, particularly in Utilities, Conglomerates, and Property and Construction. It also emphasises the importance of more comprehensive reporting on Scope 3 emissions to fully understand and address corporate carbon footprints.

Figure 11 provides a summary of the changes in carbon emissions among signatories, encompassing Scope 1, Scope 2, and Scope 3 emissions. In terms of Scope 1 emissions, 42.9% of respondents reported a reduction compared to the previous reporting period, with the most significant reduction being 97%, mostly reflecting trend towards electrification in their operations. However, 57.1% of respondents experienced an increase in Scope 1 emissions, primarily due to business expansion and the ongoing challenge of substituting traditional operational methods.

For Scope 2 emissions, 72.7% of respondents successfully decreased their emissions, suggesting a growing investment in energy efficiency and the adoption of renewable energy sources. This trend also reflects the impact of a lower grid emissions factor, which has contributed to the reductions. Overall, this indicates a strategic shift towards more sustainable energy management practices.

In terms of Scope 3 emissions, companies are beginning to address emissions within their upstream and downstream supply chains. Notably, 53.8% of respondents have made efforts to minimise and manage their Scope 3 emissions. This broader approach underscores the increasing recognition of the importance of comprehensive carbon management that extends beyond direct operations.

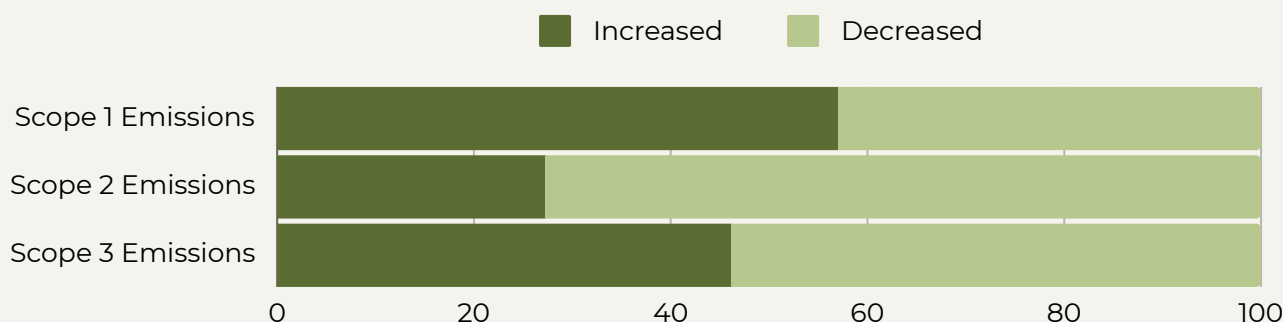


Figure 11 Summary of changes in carbon emissions among signatories

These findings highlight the varying stages of progress among signatories in reducing their carbon footprints. While there are commendable advancements in Scope 1 and 2 emissions, significant challenges remain, particularly related to business growth and the complexities of managing indirect emissions in Scope 3. Nevertheless, the data underscores a clear trend towards increased environmental accountability and proactive measures to mitigate carbon emissions across all scopes. We will illustrate more on the major reasons behind these changes in carbon emissions in the next section.

Major Reasons in Carbon Emissions Changes

The changes in emissions, categorised into Scope 1, Scope 2, Scope 3, and biogenic emissions among respondents, are influenced by numerous factors (see Table 3). Scope 1 emissions, which are direct emissions from owned or controlled sources, have seen increases due to the need for precision-based GHG inventory calculations and increased business volume and operational scale, often linked to economic growth. Conversely, the adoption of cleaner technologies like electric and hybrid vehicles and optimised manufacturing processes, including improved combustion techniques and greener chemical operations, have contributed to lowering direct emissions.

For Scope 2 emissions, which relate to indirect emissions from the generation of purchased electricity, heat, or steam, factors such as a higher reliance on imported energy from non-renewable sources due to increased operational scopes and expanded business operations have driven up these emissions. However, some respondents have started using renewable energy sources, significantly cutting down on emissions from purchased energy. The implementation of energy-efficient technologies in buildings, such as demand-controlled ventilation systems and efficient chillers, has also led to marked reductions. Improvements in emissions calculation methodologies provide more accurate data, which initially may show higher emissions but eventually guide better reduction strategies.

Scope 3 emissions, encompassing all other indirect emissions from corporate activities not owned or controlled by the company, also show diverse factors. Enhanced precision in calculating GHG inventories and increased operational activities drive up emissions from areas like employee travel, waste management, and procurement. Yet, collaborative efforts with supply chain partners to optimise logistics, innovative initiatives encouraging suppliers to report and mitigate their own emissions, and smarter sourcing practices have shown significant impacts in lowering these emissions.

In summary, Hong Kong corporates adopt a multi-pronged approach to manage emissions. Factors contributing to increases include precision in GHG calculations, business scale expansions, and higher energy consumption. Conversely, reductions are driven by the adoption of clean technologies, renewable energy usage, energy-efficient practices, enhanced collaboration, and optimised operations. These combined efforts advance the sustainability agenda by addressing all scopes of emissions comprehensively.

However, there are significant challenges that need to be addressed. There is a pressing need for more signatories to conduct thorough carbon emissions reporting and to take concrete steps towards emissions reduction. Despite the progress made, there is still a long way to go in our journey towards substantial decarbonisation. The Charter must intensify its efforts to support and facilitate meaningful decarbonisation among its signatories, ensuring that we move beyond merely slowing emissions growth to achieving actual reductions.



Table 3 Major Reasons in Carbon Emissions Changes

Increase Factor(s)	Example(s)	Decrease Factor(s)	Example(s)
Scope 1 Emissions			
Growth in market demand	<ul style="list-style-type: none"> Increase in number of construction projects, which are typically energy-intensive and involve the use of fossil fuels Increase in traffic due to the relaxed travel restrictions and quarantine requirements 	Decrease in market demand	<ul style="list-style-type: none"> Reduction in business operations during the pandemic
Change in methodology	<ul style="list-style-type: none"> Expansion of data coverage and reporting scope 	Decrease in associated fugitive emissions	<ul style="list-style-type: none"> Reduction in conducting hydraulic pressure test for clients' pressurised cylinders of fire suppression systems
		Decrease in the usage of diesel	<ul style="list-style-type: none"> Introduction of the electric crawler crane usage Mandate for all new passenger car purchases to be electric vehicles
Scope 2 Emissions			
Change in physical operating conditions	<ul style="list-style-type: none"> Implementation of scaled-back work-from-home policies in offices Resumption of pre-pandemic operating hours in retail spaces 	Decrease in market demand	<ul style="list-style-type: none"> Reduction in office operations during the pandemic
		Purchase of cleaner energy source for operation	<ul style="list-style-type: none"> Increase in renewable energy procurement

Increase Factor(s)	Example(s)	Decrease Factor(s)	Example(s)
Scope 2 Emissions			
-	-	Continuation of energy efficiency upgrades	<ul style="list-style-type: none"> Enhancements in energy efficiency in buildings through the optimisation of fresh air demand-controlled ventilation for air handling units, replacement of air-cooled chiller, and improvements to chillers
		Optimisation of existing energy-saving measures	
		Change in methodology	<ul style="list-style-type: none"> Changes in emissions calculation methodology and increased revenue, leading to a decrease in carbon intensity
Scope 3 Emissions			
-	-	Collaboration with suppliers throughout the supply chain	<ul style="list-style-type: none"> Reduction in transportation and production of raw materials used in the manufacturing process
Biogenic Emissions			
-	-	Reduction in operational time of 100% biodiesel trigenerator	-

EMISSIONS TARGETS SET BY CORPORATES IN HONG KONG

Decarbonisation Targets and Directional Statements

(1) Scope 1 and/or Scope 2 Emissions Reduction Targets

The data from Figure 12 reveals that a majority (77%) of respondents chose to set combined Scope 1 and Scope 2 emissions targets. This approach suggests a preference for a more holistic strategy when managing their direct and indirect emissions.

In Figure 13, it is evident that 78% of respondents favour absolute targets over intensity targets for their Scope 1 and Scope 2 emissions. This preference for absolute targets indicates a commitment to achieving real emissions reductions rather than adjusting targets relative to business metrics such as production volume or revenue. Absolute targets are typically seen as more straightforward and ambitious, aligning more closely with long-term sustainability goals and demonstrating clear, measurable progress towards reducing GHG emissions.

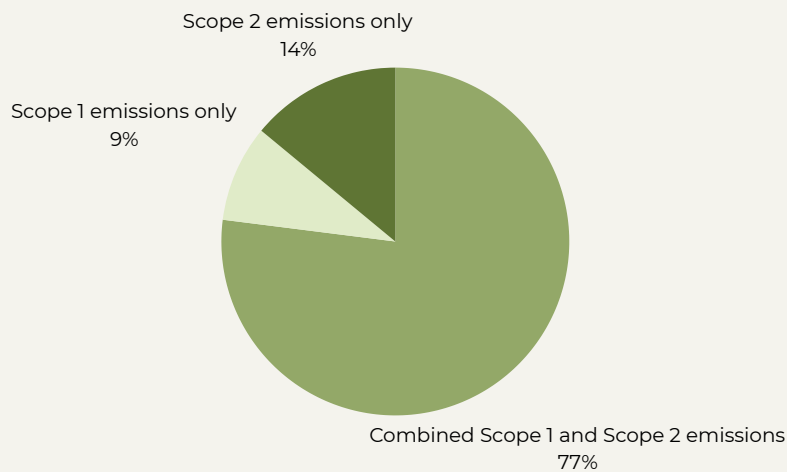


Figure 12 Scopes of respondents' key emissions target

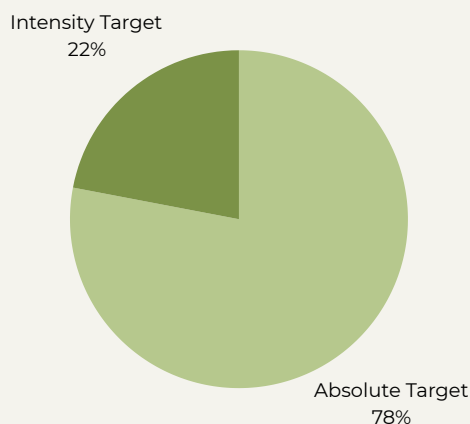


Figure 13 Type of target respondents' key Scope 1 and/or Scope 2 emissions target

In terms of setting GHG reduction targets, respondents display a strong commitment through both absolute and intensity targets (see Table 4). For absolute targets, 39% of respondents established their baseline before the COVID-19 pandemic (2011-2018), while 61% did so after 2019. This recent shift indicates that increased climate awareness, policy changes, and the emergence of initiatives like the Science Based Targets initiative (“SBTi”) have spurred more companies to define robust baselines and set ambitious targets.

The target years set by companies also highlight their strategic planning horizons. Most respondents (44%) aim to achieve their emissions reduction goals by 2030, reflecting an alignment with global and regional intermediary climate goals. Meanwhile, a smaller portion (11%) sets their sights on 2050, consistent with the long-term goal of achieving net zero emissions. The most ambitious respondents aim for a 100% reduction, aligning their goals with Hong Kong's Climate Action Plan 2050. This indicates a strong commitment to contributing to broader climate action efforts and showcases leadership in corporate environmental responsibility.

Conversely, 50% of respondents adopting intensity targets are using "metric tons CO₂e per square meter" as their preferred metric. This metric is particularly relevant for industries where space utilisation is crucial, such as property and construction sector. Half of these respondents have set their baselines post-2019, signalling a relatively recent commitment to tracking emissions intensity. This could be influenced by evolving regulations and heightened awareness of climate issues. Additionally, 75% have their target year set at 2030, which aligns with several intermediary global climate goals, indicating a focused effort on impactful short- to mid-term reductions.

Overall, these findings highlight a dual approach to sustainability, where companies are not only setting absolute emissions reduction goals but also keen on improving emissions efficiency. Notably, for those adopting the SBTi, Scope 1 and Scope 2 reductions are typically absolute. While absolute reductions are generally preferred, intensity targets, which were more popular in the past, continue to be relevant for specific business needs. This trend underscores that different types of targets are being utilised for specific target areas, reflecting an understanding that both absolute and intensity reductions are critical to meeting global climate targets.

Table 4 Summary of respondents' absolute and intensity targets in Scope 1 and 2 emissions

Type of target	Respondent	Base year of emissions target	Target year of emissions target	GHG reduction (%)
Absolute target	A	2012	2050	80%
	B	2019	2025	25%
	C	2020	2030	20%
	D	2013	2030	25%
	E	2014	2030	30%
	F	2011	2030	42%
	G	2020	2030	30%
	H	2021	2030	47%
	I	2018	2035	55%
	J	2018	2023	13%
	K	2022	2024	1%
	L	2019	2028	38%
	M	2018	2050	100%
	N	2020	2025	10%
	O	2019	2023	46.6%
	P	2019	2030	46.2%
	Q	2021	2033	55%
	R	2019	2030	46.2%
Intensity target	S	2017	2025	50.9%
	T	2022	2030	40%
	U	2020	2030	25%
	V	2019	2035	70%
	O	2018	2030	68.4%

(2) Scope 3 Emissions Reduction Targets

According to Figures 14 and 15, 45% of respondents have established targets for reducing their Scope 3 emissions. Among these, 73% are pursuing absolute targets, while 27% have set intensity targets.

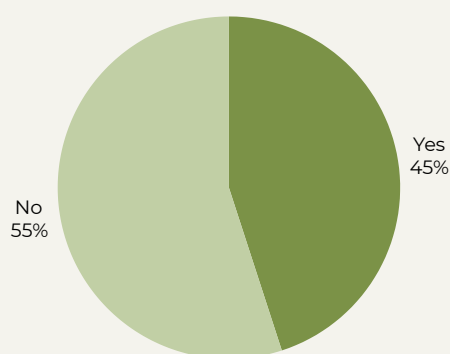


Figure 14 Number of companies having Scope 3 emissions target

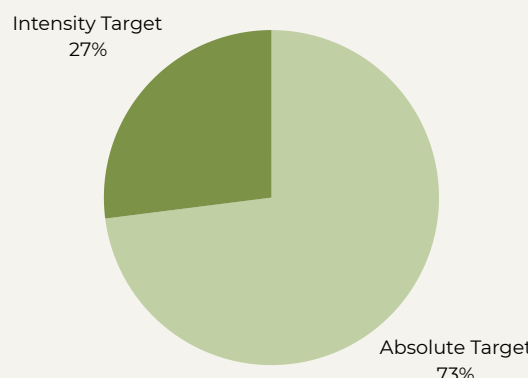


Figure 15 Type of target respondents' Scope 3 emissions target

Table 5 provides more detailed insights into these targets. For absolute targets, respondents are evenly split: 50% set their baseline before the COVID-19 pandemic, while the other 50% did so after 2019. Setting a baseline pre-2019 allows companies to reflect a more stable period of operations, ensuring that pre-pandemic emissions levels are used as a reference point for their reduction strategies. Conversely, setting the baseline post-2019 can help companies take into account recent changes in their operations and the economic landscape, potentially allowing for more relevant and ambitious target setting in the context of new realities and recovery trajectories.

Half of these respondents aim to achieve their targets by 2030, with the most ambitious aiming for an 85% reduction in their Scope 3 emissions. Additionally, category 1 emissions from purchased goods and services is the most common Scope 3 target selected, highlighting the importance of managing supply chain emissions.

Table 5 Summary of respondents' absolute and intensity targets in Scope 3 emissions

Type of target	Respondent	Base year of emissions target	Target year of emissions target	Category of Scope 3 emissions	GHG reduction(%)
Absolute Target	A	2012	2050	-	80%
	B	2013	2030	-	21%
	C	2020	2030	-	20%
	D	2018	2035	-	55%
	E	2019	2028	1,2,3,5,6,7,11	38%
	F	2018	2030	1,3,4,13	85%
	G	2020	2030	1,13	25%
	H	2021	2033	1-15	33%
Intensity Target	F	2018	2030	2	25%
	F	2018	2030	13	28%
	I	2022	2030	2,3,5	51.6%

(3) Directional Statements in Decarbonisation

While 15% of respondents have yet to establish specific decarbonisation targets, they have adopted directional statements to mitigate their negative impacts and assess the effectiveness of their ESG policies and management systems. These directional statements can be categorised into three levels: international, government, and local community.

At the international level, signatories commit to reducing carbon emissions by aligning with the SBTi in accordance with the Paris Agreement and are on track on setting their reduction targets. On the government level, many corporates aim to eliminate direct GHG emissions by 2030 and reach carbon neutrality by 2050, with 83% of respondents aligning with governmental targets. Additionally, some respondents emphasise local community engagement, actively working with community members and upholding governance to maintain high standards.

Major Decarbonisation Actions and Initiatives

Drawing from insights provided by our signatories, we have pinpointed six key focus areas for decarbonisation efforts, as illustrated below. (See Figure 16)

01

Participating in recognised decarbonisation schemes and making use of such schemes to guide decarbonisation

Several respondents indicated that their companies have joined various international decarbonisation initiatives to guide their sustainability efforts. These initiatives provide crucial frameworks and requirements that help companies develop robust decarbonisation roadmaps. By leveraging these schemes, companies can effectively articulate their sustainability strategies and gain management endorsement. Additionally, they regularly update and share their progress and achievements internally, fostering a culture of continuous improvement and commitment to decarbonisation.

Notable schemes include the SBTi and, specifically for buildings, BEAM Plus and Platinum Certification under LEED v4.1 Operations and Maintenance: Existing Buildings Rating System. These programmes serve as vital references for companies striving to align their operations with global best practices and achieve their decarbonisation goals.

02

Actively electrifying corporates' machines, vehicles and equipment

Respondents have highlighted a strong interest in energy efficiency, with companies embarking on the electrification of various aspects within their portfolios. This shift not only allows better energy management during operation but also serves to gradually reduce the reliance on diesel fuels for activities.

One respondent honed in on the adoption of early temporary electricity measures, emphasising the phasing out of diesel generators in favour of electrically powered plants and vehicles like electric crawler cranes. Additionally, there has been a notable trend among some companies to leverage renewable electricity purchase agreements and internal carbon pricing mechanisms as part of their emissions management strategy.

Moreover, respondents have identified quick wins in decarbonisation efforts, such as implementing modifications in office settings to optimise natural light utilisation through the use of more translucent partitions. Furthermore, certain companies have proactively installed solar photovoltaic panels, collectively yielding an annual electricity output exceeding 3,000,000 kWh. Notably, these initiatives have been complemented by the participation of these companies in schemes like the Feed-in Tariff Scheme, showcasing a comprehensive approach to sustainable energy practices in line with the Charter objectives.

03

Alignment within company in terms of endorsement, awareness and expectation

In response to our questionnaire respondents' insights on major Decarbonisation Actions and Initiatives within the company, a strong emphasis has been placed on fostering alignment through governance frameworks and active engagement strategies.

Under governance aspects, a robust Climate Risk and Resilience Policy has been established by one of the respondents to effectively manage climate-related impacts, ensuring proactive mitigation measures. Simultaneously, a dedicated working group comprising diverse representatives has been formed to bolster comprehensive decarbonisation efforts and facilitate seamless communication of pertinent messages throughout the organisation. To uphold accountability and commitment, regular updates regarding SBTi action plans are disseminated to senior management, fostering adherence to sustainability goals. Furthermore, all employees receive quarterly updates on SBTi performance, fostering a culture of transparency and shared responsibility towards climate action.

In fostering engagement with staff, innovative strategies have been implemented to drive behavioural change and foster sustainability consciousness. Initiatives such as offering special subsidies for employees opting to switch from fossil fuel vehicles to electric cars not only incentivise eco-friendly choices but also contribute to reducing carbon footprints on a personal level. Training programmes encompassing low-carbon lifestyle tips are provided for employees and their families, equipping them with practical knowledge to embrace sustainable living practices. Regular dissemination of notices and news updates serves to educate and incentivise energy-saving actions among staff members, promoting a collective ethos of environmental stewardship. Strategies to reduce business-related commutes include promoting video calls as an alternative to physical travel, thereby managing Scope 3 emissions efficiently. The institution of a Carbon Budget for air travel and the consistent communication of low-carbon lifestyle tips and tricks further underscore the corporates' commitment to instilling a culture of sustainability across all operational facets.

04

Different “nodes” of supply chain being the focal point for engagement

In the context of supply chain engagement as a focal point of decarbonisation efforts, our questionnaire respondents have highlighted diverse approaches that different companies are undertaking to foster sustainability across their operational networks. Recognising the unique composition of supply chains in various industries, companies have been implementing tailored strategies to engage with their supply chain partners effectively. The identified modes of engagement outlined by respondents encompass activities such as the dissemination of information, enhancing competence levels, and promoting green procurement practices throughout the supply chain.

To actively involve stakeholders along the value chain, companies have introduced a range of programmes aimed at enhancing collaboration and sustainability practices. A prevalent initiative observed among respondents is the implementation of tenant programmes, wherein companies strategically design capacity-building programmes and facilitate expert knowledge sharing to elevate stakeholders' competencies in decarbonisation efforts. In parallel with these programmes, certain respondents have issued specific Sustainable Procurement Code of Conduct guidelines, mandating that vendors attain certifications recognising adherence to environmental, health, and safety standards. These proactive measures not only underscore a commitment to sustainable practices but also establish a framework for ensuring ethical and environmentally responsible practices across the entirety of the supply chain ecosystem.

05

Smart solutions enable environmental management and data-driven decisions

Navigating the realm of smart solutions to enhance environmental management and facilitate data-informed decision-making, our questionnaire responses have shed light on a diverse array of innovative initiatives being adopted within companies:

One respondent highlighted the utilisation of an AI model in collaboration with automation and energy management firms to predict cooling demand across their portfolios accurately. This strategic partnership underscores the efficacy of incorporating advanced technology to optimise energy consumption and operational efficiency.

Moreover, a prevalent trend observed among respondents involves the comprehensive transition to energy-efficient solutions, notably upgrading all lighting fixtures to LED lights integrated with human-centric circadian lighting systems. Additionally, the implementation of zoning and sensor controls for lighting and air conditioning emerges as a prominent strategy adopted by signatories to enhance electricity management capabilities. Real-time energy monitoring and analysis further complement these measures, offering valuable insights to drive informed decision-making processes.

Innovative approaches towards resource utilisation have also been noted, with initiatives like harnessing organic kitchen waste resources and establishing Hydro-treated Vegetable Oil plants being championed by select respondents. These facilities have the dual benefit of converting food waste into natural gas for local energy consumption while also producing advanced biofuels, including sustainable aviation fuel, from inedible bio-grease feedstock.

Furthermore, a shift towards higher energy efficiency standards is evident, with respondents either in the process of or having already upgraded chillers to meet enhanced efficiency criteria. The integration of smart control systems for chiller plants, such as optimising cooling load distribution between buildings during low-demand periods like nighttime, showcases a strategic commitment to enhancing overall operational efficiency and sustainability objectives across various operational facets.

06

City-wide decarbonisation projects to facilitate the systematic changes of related sector

In the realm of city-wide decarbonisation projects aimed at catalysing systematic changes across related sectors, our respondents have demonstrated a steadfast commitment to spearheading initiatives beyond their individual domains, actively contributing to broader sustainability endeavours within the community:

Several respondents have extended their decarbonisation agendas to support city-wide initiatives, including bolstering the infrastructure for electric vehicle (“EV”) charging networks in Hong Kong. By championing the development and accessibility of EV charging stations, these companies are instrumental in promoting the adoption of clean transportation solutions and reducing carbon emissions at a city-wide level.

Furthermore, efforts towards promoting the adoption of green fuel within Hong Kong underscore a collective commitment towards sustainable energy sources and reducing the carbon footprint associated with conventional fuel consumption. By advocating for the widespread integration of eco-friendly fuel alternatives, these stakeholders are driving significant strides towards a greener urban landscape.

Another pivotal area of focus for respondents is the support for electrification efforts at construction sites, emphasising the transition towards cleaner energy sources within the building and construction sector. By spearheading initiatives that promote the electrification of construction activities, companies are playing a pivotal role in reducing greenhouse gas emissions associated with traditional construction practices.

Collaborative ventures with academic institutions and research organisations also feature prominently in the respondents' city-wide decarbonisation endeavours. By engaging in projects such as researching high-strength steel variants in partnership with research institutions, companies are innovating sustainable materials with enhanced strength properties. These initiatives not only drive technological advancements but also pave the way for more resource-efficient construction practices that align with broader decarbonisation goals.



Figure 16 Summary of major decarbonisation actions and initiatives

Challenges faced by Charter Signatories

According to Figure 17, "Budget" emerges as the most significant challenge and critical factor for the successful implementation of decarbonisation initiatives. Specifically, the availability of dedicated budgets for emissions reduction and energy efficiency are identified as the top two key determinants for achieving decarbonisation targets. Respondents also underscore the importance of securing internal engagement within their companies as a vital element for success.

Beyond budgetary constraints, corporates face additional challenges in their decarbonisation efforts. Engaging stakeholders is another significant hurdle, as it requires ongoing commitment and collaboration across various levels of the organisation. Additionally, the complexities of energy transition present substantial obstacles, demanding not only financial investment but also strategic planning and technological innovation.

These challenges highlight the multifaceted nature of decarbonisation, where success is contingent upon a combination of financial resources, stakeholder involvement, and adept handling of the energy transition.

TOP FIVE SUCCESS FACTORS

- Dedicated budget for emissions reduction activities
- Dedicated budget for energy efficiency
- Employee engagement
- Dedicated budget for low-carbon product research and development
- Tenant engagement

VS

TOP FIVE CHALLENGES

- Stakeholder engagement
- Financial supports
- Dedicated budget for emissions reduction activities
- Dedicated budget for energy efficiency
- Employee engagement

Figure 17 Top five key success factors and challenges in decarbonisation

OPPORTUNITIES AND CHALLENGES FOR THE CHARTER'S DEVELOPMENT

Recognising the report's limitations, several constraints hinder the depth and breadth of insights. Disparities in annual reporting among companies impede cohesive assessments and accurate comparisons of carbon emissions. Standardising reporting timelines and practices is essential. Additionally, small sample size and lack of third-party verification raise concerns about data accuracy. Addressing these issues requires ongoing transparency, consistency, and robust data validation.

Despite these limitations, capacity-building and knowledge-sharing efforts are vital to provide signatories with a comprehensive understanding of decarbonisation initiatives and progress.

Enhancing decarbonisation capacity through workshops and programmes is essential. These should help companies set Scope 3 emissions targets, calculate emissions, and report data efficiently. Familiarising businesses with standardised reporting guidelines ensures consistent data collection and enhances the reliability of future reports. Emphasising robust data validation and third-party verification will improve data accuracy and integrity.

Future capacity building events should focus on setting Scope 3 targets and accurate carbon measurement. Encouraging participation in these events will inform and empower businesses to take concrete steps towards decarbonisation. Expanding the sample size by increasing Charter signatories will enable a more representative analysis of efforts across sectors, providing a clearer understanding of progress.

By focusing on these opportunities, BEC can better support companies, enhance data reliability, and foster meaningful improvements in carbon reduction efforts. Through combined efforts, we can facilitate greater transparency, ensure data consistency, and drive significant progress in global decarbonisation initiatives.

PROGRAMMES AND EVENTS IN 2023



This chapter delves into the programmes and events planned for 2023 under the Charter, aimed at enhancing the capacity of our signatories in sustainable practices.



GENERAL CAPACITY BUILDING ACTIVITIES

In 2023, a range of activities were designed to provide valuable resources, knowledge-sharing platforms, and capacity building opportunities to empower companies in their decarbonisation journey. By offering a diverse range of activities, including workshops, training sessions, and collaborative events, we are committed to supporting our signatories in driving meaningful progress towards achieving net-zero carbon emissions (see Figure 18).

June 2023 - Transition Planning and Scaling Transition Finance

We have invited Mr Ben Weisman, then Director of Global Public Policy in the Secretariat of GFANZ, to conduct a sharing session on the latest development of the net-zero transition of the business sector and its framework.

August 2023 - Launch of BEC Net-zero Carbon Charter Event

Over 50 companies have pledged to raise their climate ambitions by becoming signatories and more are also preparing to join. This launch event acknowledged the efforts of these climate pioneers and delivered a capacity building session to attendees as the Charter continue to provide support to signatories and businesses in setting, operationalising, and achieving their emissions reduction targets.

September 2023 - Dialogue with SBTi Senior Engagement Manager, Southeast Asia and Oceania

Mr Dedy Mahardika has been invited for delivering the second capacity building programme for BEC Net-zero Carbon Charter signatories.

November 2023 - SBTi Technical Building Manager's Session

Ms Ayla Dinçay, Technical Buildings Manager of SBTi, conducted a virtual session to share the latest development of SBTi Buildings Guidance and Tool drafts for pilot testing with more than 70 participants. The audience exchanged views with the speaker based on Hong Kong context for the net-zero journey of building sector.

Figure 18 Summary of general capacity building activities in 2023

ACTIVITIES RELATED TO CHARTER-SUPPORTED PROJECTS

Swire Properties – Green Performance Pledge ("GPP") Academy

In September 2023, BEC has been commissioned by Swire Properties Limited to develop and implement a three-year capacity building programme for its GPP tenants. The programme, called "GPP Academy", will enable office tenants to tap extensive industry knowledge, network and share best practices from other companies.

BEC conducted a series of pre-programme surveys and interviews to understand GPP tenants' training needs and sustainability goals. The results have been instrumental in shaping the content of quarterly capacity building events for the GPP Academy. These events include seminars, building tours and workshops, with the aim of enhancing tenants' sustainability capabilities.

Power Up Coalition

BEC and Gammon Construction Limited co-launched the Power Up Coalition in 2021 to promote the timely electrification of non-public works construction sites in Hong Kong and to advocate for zero-emission construction sites. In 2023, BEC completed the first phase, including two events aimed at enhancing knowledge dissemination (see Figure 19).



March 2023

Electrifying Construction Process to Drive Decarbonisation – Case Sharing

- To inform public officials about the latest electrification practices for private construction projects, and strengthen the knowledge dissemination
- To help further accelerate zero-emission construction sites in Hong Kong



July 2023

Powering Up Electric Construction Equipment Technology to Accelerate Decarbonisation

- To inform the sector about the types of equipment, e.g. electrified cranes and other plant and vehicles, available and reliable for accelerating site decarbonisation

Figure 19 Summary of 2023 events in Power Up Coalition

Carbon Disclosure Programme

The Carbon Disclosure Programme, launched in 2022 in partnership with CDP and supported by HSBC, is a three-year initiative designed to bolster support for the Charter signatories, their business partners, and the broader business community in climate-related disclosure. In 2023, BEC engaged with over 100 companies through two events to improve transparency and accountability in their climate-related practices (see Figure 20).

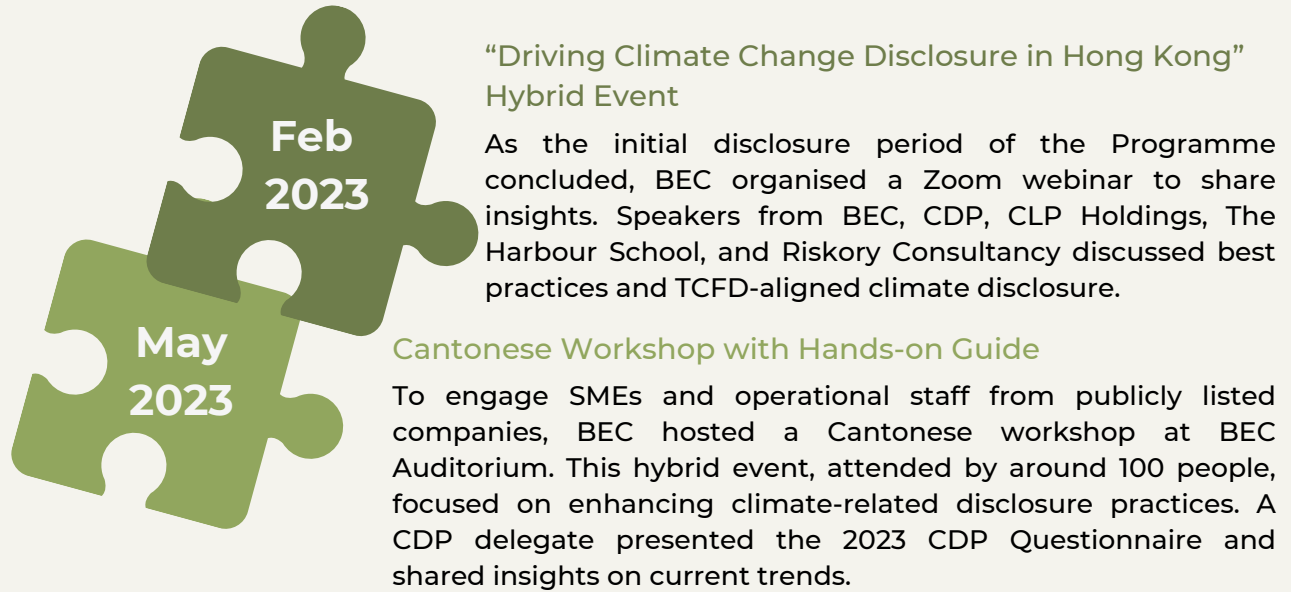


Figure 20 Summary of 2023 events in Carbon Disclosure Programme

Hong Kong International Airport Carbon Capacity Building Programme (“HKIA CCBP”)

In 2022, BEC was commissioned by the Airport Authority Hong Kong to develop a comprehensive three-year Carbon Capacity Building Programme for Hong Kong International Airport. This programme aims to identify and address the training needs of airport business partners. In 2023, BEC organised five events on different topics to assist them in achieving the HKIA 2050 Net Zero Carbon Pledge (see Figure 21).



Figure 21 Summary of 2023 events in HKIA CCBP

BEC NET-ZERO CARBON CHARTER SIGNATORIES



BEC NET-ZERO CARBON CHARTER SIGNATORIES

(as of June 2024, in alphabetical order)

Science-aligned Signatories

AECOM Asia Company Limited
 Airport Authority Hong Kong
 Alliance Construction Materials Limited
 Business Environment Council
 FUJIFILM Business Innovation Hong Kong Limited
 Gammon Construction Limited
 Hang Lung Properties
 Hong Kong Air Cargo Terminals Limited
 Hongkong Land
 Jinchat Climaveneta Hong Kong Co. Ltd.
 Ove Arup & Partners Hong Kong Limited
 PwC China
 Ronald Lu & Partners
 Schneider Electric (Hong Kong) Limited
 Shell Hong Kong Limited
 Sino Land Company Limited
 Swire Pacific Limited
 Swire Properties Limited
 Veolia Hong Kong Holding Limited
 Worldwide Flight Services

Action Signatories

Active Energy Management Ltd
 Analogue Holdings Limited
 ASEL Consulting Company
 AVISTA RISK ADVISORY LIMITED
 BEAUSKIN Medical
 Brooklines Group Limited
 Champion REIT
 CITIC Telecom International Holdings Limited
 CityLinkers Group Limited
 CLP Holdings Limited
 CN Logistics International Holdings Limited
 Computer And Technologies International Limited
 COSCO Shipping Ports
 Crown Gas Stoves (Holdings) Company Limited

Dunwell Technology (Holdings) Limited
ESG Hong Kong Limited
Fook Tin Technologies Limited
FSE Lifestyle Services
Fubon Bank (Hong Kong) Limited
Hang Seng Bank
Hong Kong Aircraft Engineering Company Limited
Hong Kong Housing Society
Hong Yip Service Company Limited
Hysan Development Company Limited
Integrated Waste Solutions Group Holdings Limited
Kai Shing Management Services Limited
Konica Minolta Business Solutions (HK) Ltd.
Lan Kwai Fong Properties Limited
Lee Kee Group
Link Asset Management Limited
Linkers CPA Limited
Logicalis Hong Kong Limited
Meiriki Japan
Modern Terminals Limited
Nan Fung Property Management
NWS Holdings Limited
Ocean Park Hong Kong
Quam Plus International Financial Limited
SEM Holdings Limited
Shiu Wing Steel Ltd
Shun Tak Centre
Spare-it Limited
Sun Hung Kai Properties Limited
Sunta Chemical Limited
The Harbour School Limited
The Hong Kong and China Gas Company Limited
The Hongkong and Shanghai Hotels Ltd.
The Hongkong Electric Co., Ltd.
The Kowloon Motor Bus Co. (1933) Ltd.
Tradeport Hong Kong Limited
TUV Rheinland Hong Kong Ltd
WeSpire Living Limited
Wharf Estates Limited
Wo Lee Steel Company Limited
Yau Lee Holdings Limited



ACKNOWLEDGEMENT



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ABOUT WMBC

Supported by WMBC, BEC carried out the Global Connect Initiative between 2021 and 2022 to strengthen the then BEC Low Carbon Charter by linking it and its signatories to international initiatives and/or campaigns on climate action. WMBC continues to provide grant support to the rebranded BEC Net-zero Carbon Charter in 2023 and 2024, and BEC will offer signatories access to international best practices and the opportunities to participate in initiatives outside Hong Kong.

ABOUT BEC CCBF AG

BEC Climate Change Business Forum Advisory Group promotes the awareness of, and builds capacity in relation to, climate change mitigation, adaptation and resilience activities amongst BEC's membership and the business community in Hong Kong. It also aims to provide a platform for BEC to engage relevant regulatory bodies on climate change related matters, and forge collaboration between local and global experts on climate change.

Stakeholders Acknowledgement

BEC Climate Change Business Forum Advisory Group Steering Committee (2023-2025)

Airport Authority Hong Kong
CLP Power Hong Kong Limited
Cundall Hong Kong Limited
Henderson Land Development Company Limited
Hongkong Land Limited
Link Asset Management Limited
New World Development Company Limited
Ove Arup & Partners Hong Kong Limited
Shell Hong Kong Limited
Sun Hung Kai Properties Limited

Swire Coca-Cola Limited T/A Swire Coca-Cola HK
Swire Pacific Limited
Swire Properties Limited
The Hongkong Electric Company Limited
Veolia Hong Kong Holding Limited

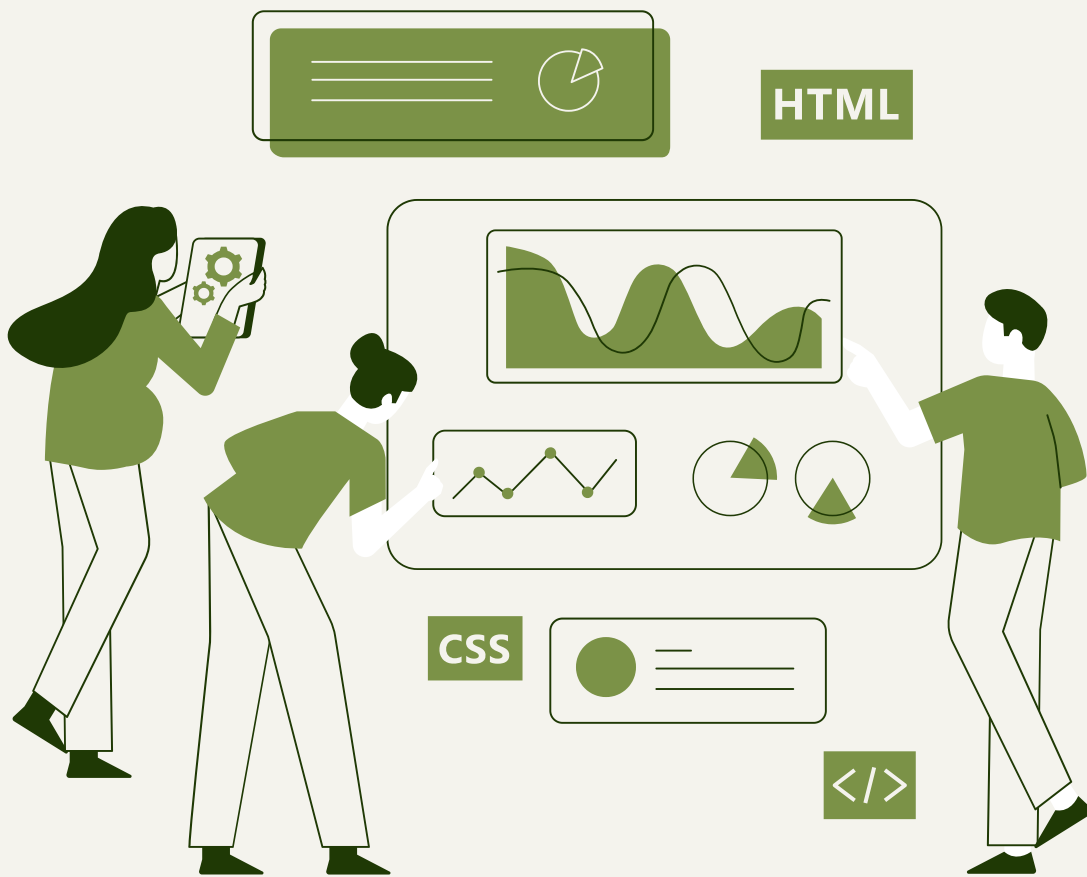
Supporting Organisations

CDP
China Real Estate Chamber of Commerce Hong Kong and International
Chapter Limited
Hong Kong Green Building Council Limited
Hong Kong Quality Assurance Agency
SME Sustainability Society
The British Chamber of Commerce in Hong Kong
The Canadian Chamber of Commerce in Hong Kong
The European Chamber of Commerce in Hong Kong
The Hong Kong General Chamber of Commerce
The Hong Kong Liner Shipping Association

BEC Staff

Ms Cody Leong, Officer – Policy & Research
Mr Merlin Lao, Head – Policy & Research
Ms Suki Han, Assistant Manager – Policy & Research
Mr Ringo Yeung, Assistant Manager – Policy & Research (Former)

APPENDIX



BEC NET-ZERO CARBON CHARTER ANNUAL IMPACT QUESTIONNAIRE 2022/23

A. General Information

1. BEC Net-zero Carbon Charter Data Collection and Handling Disclaimer

- I hereby declare that the information provided hereafter is authentic to the best of my knowledge and belief.
 - I am authorised to represent the company/organisation below in responding to this questionnaire.
 - Individual responses will be kept strictly confidential and will not be sold, reused, rented, loaned, or otherwise disclosed to any other third party. For more information, one may refer to BEC's Privacy Policy. <https://bec.org.hk/en/privacy-policy>
- I have read and agree with the above data collection and handling disclaimer

2. Your company name (the entity that joined the Charter as a signatory)

3. What is the level of commitment of your company in BEC Net-zero Carbon Charter?

- Action Signatory Science-aligned Signatory

4. Describe your company's business profile. Refer to the Hang Seng Industry Classification System [5] on the description of sector.

- | | |
|-------------------------------------------------------------|----------------------------------------------------------|
| <input type="checkbox"/> Property & Construction | <input type="checkbox"/> NGOs |
| <input type="checkbox"/> Industrial Engineering | <input type="checkbox"/> Utilities |
| <input type="checkbox"/> Conglomerates | <input type="checkbox"/> Banking & Financial Services |
| <input type="checkbox"/> Industrial Transportation | <input type="checkbox"/> Oil & Gas |
| <input type="checkbox"/> Commercial & Professional Services | <input type="checkbox"/> Pharmaceuticals & Biotechnology |
| <input type="checkbox"/> Diversified Metals & Minerals | <input type="checkbox"/> Support Services |
| <input type="checkbox"/> Travel & Leisure | <input type="checkbox"/> Telecommunications |
| | <input type="checkbox"/> Other |

[5] The description of sector is acquired from Hang Seng Industry Classification System (p.1-7).

5. What is your company size, in terms of number of full-time equivalent employees?

- | | |
|----------------------------------------|-----------------------------------------|
| <input type="checkbox"/> ≤50 | <input type="checkbox"/> 51 – 200 |
| <input type="checkbox"/> 201 – 500 | <input type="checkbox"/> 501 – 1,000 |
| <input type="checkbox"/> 1,001 – 5,000 | <input type="checkbox"/> 5,001 – 10,000 |
| <input type="checkbox"/> ≥10,001 | |

B. Motivation

6. Select the climate related risks identified with the potential to have a negative impact on your business (You may choose more than one answer). Please select the most important/significant three.

- Failing to respond to latest policy change
- Increasing energy-related operational costs
- Failing to meet with company's climate commitments
- Failing to meet the investors and community expectations on climate change
- Falling short of catching up with market trend
- Damage to brand reputation
- Lacking essential understanding and awareness on climate related issues
- Affecting staff morale
- Failing to fulfil corporate social responsibility / ESG requirement
- Other

7. Select the climate related opportunities identified with the potential to have a positive impact on your business (You may choose more than one answer). Please select the most important/significant three.

- Policy Change (e.g. response to local, regional and international policy commitments)
- Reducing energy related operational costs
- Meeting company's climate commitment in reducing carbon emissions
- Investors and community expectations on climate change
- Leading the market trend
- Improving brand reputation
- Enhancing awareness on climate related issues
- Enhancing staff morale
- Fulfilling corporate social responsibility / ESG requirement
- Other (please specify)

C. Progress

This section seeks to understand your company's decarbonisation progresses.

Definition

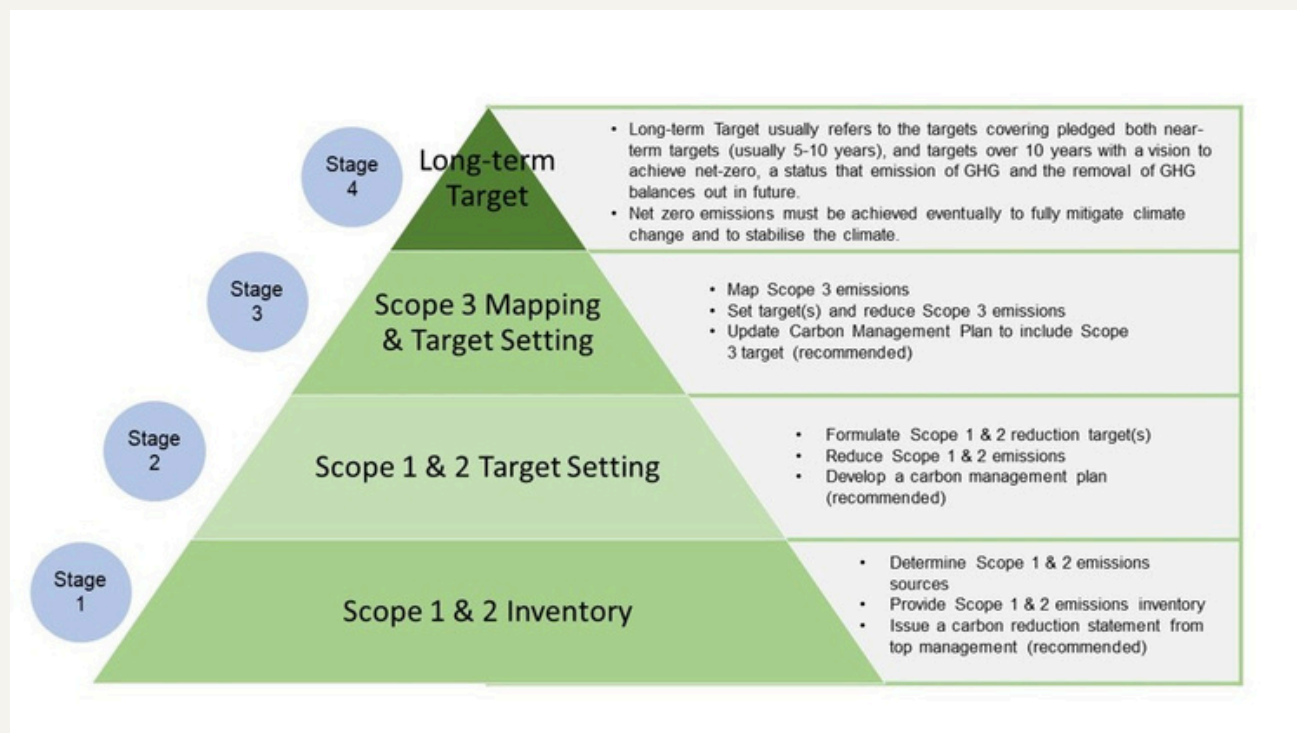
Scope 1, 2, and 3 refer to carbon emissions as defined by Greenhouse Gas Protocol.

Scope 1 refers to direct Greenhouse gas ("GHG") emissions from sources the company owns or controls. For example, generation of electricity and heat, physical or chemical processing, transportation of materials.

Scope 2 refers to indirect GHG emissions generated through purchased energy.

Scope 3 refers to other indirect GHG emissions along the value chain, excluding scope 2 emissions, e.g. emissions related to purchased and sold products, business travels and commuting, leased assets and outsourced activities, and waste disposal.

Long-term Target usually refers to the targets covering pledged both near-term targets (usually five to ten years), and targets over ten years with a vision to achieve net-zero, a status that emissions of GHG and the removal of GHG balances out in future. Net zero emissions must be achieved eventually to fully mitigate climate change and to stabilise the climate.



8. With reference to the figure above, how far along is your company in its decarbonisation journey?

- Stage 1
- Stage 2
- Stage 3
- Stage 4

9. How frequent does your company review its decarbonisation progress (against its target, if any)?

- Quarterly
- Annually
- Every 3 years
- Other (please specify)
- Semi-annually
- Every 2 years
- No fixed schedule

10. From a five-point scale, is your company actively sharing with the external community on the decarbonisation progress and targets, as compared against other corporate topics?

(1 – being least active; 5 – being most active)

1	2	3	4	5
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

11. In which channel does your company disseminate the decarbonisation progress and target?

- Corporate communication tools, e.g. press release, newsletters etc.
- Conference
- Sustainability Report Annual Report
- International Platform e.g. CDP
- Other (please specify)



D. Emissions

If your company has mapped out and established an inventory of GHG emissions, please provide information of your company's emissions in this section. Please provide data of the latest measurement / disclosure cycle, which is usually on an annual basis. It is reminded that the info provided in this section shall align with the boundary of the entity that joined the Charter as a signatory.

12. Did your company participate in BEC Carbon Disclosure Programme (<https://bec.org.hk/en/node/1271>), providing information of its GHG emissions and targets to BEC through responding to the CDP Climate Change Questionnaire in the 2023 disclosure cycle?

(In this case, BEC would refer to data received from CDP and extract relevant info therein, such as your responses to Module C4 - C7, so that you may save the effort for reporting to BEC again. Please contact BEC staff if you have doubt.)

Yes [go to question 13]

No [go to question 14]

13. Does your company have updated or additional info for BEC regarding its GHG emissions and targets, supplementing the disclosure to CDP?

There are several scenarios that a company may encounter:

- Company's CDP response is submitted by the Parent Company, and the signatory entity has its own GHG emissions breakdown or targets that can be shared with BEC;
- Company's CDP response is submitted by the Parent Company, and there is no separate data available;
- Others

Yes, we have further info to provide. [go to question 15]

No further info, and the signatory's emissions and target(s) have been disclosed through CDP. [go to section F]

No further info, but only the Parent Company's emissions and target(s) have been disclosed through CDP. [go to section F]

14. Does your company have info of its GHG emissions and targets to share with BEC?

[Charter signatories are required to disclose their emission reduction progress and targets to BEC.]

- Yes, we can share these info to BEC.
- No data or targets currently, will provide next year. [go to section F]
- We have no GHG data, but have a directional target that can be shared with BEC. [go to section E]

15. State the start date of the period for which you are reporting data.**16. State the end date of the period for which you are reporting data.****17. What are the standards, protocol, or methodology you have referenced in collecting data and calculating emissions? [Multiple selections allowed]**

- Hong Kong Environmental Protection Department (HKEPD), Guidelines to Account for and Report on Greenhouse Gas Emissions and Removals for Buildings, 2010
- Hong Kong Exchanges and Clearing Limited (HKEX), How to prepare an ESG Report, Appendix 2: Reporting Guidance on Environmental KPIs, 2022
- ISO 14064-1:2018 Greenhouse gases Part 1: Specification with guidance at the organisation level for quantification and reporting of greenhouse gas emissions and removals
- The Greenhouse Gas Protocol: A Corporate Accounting and Reporting Standard (Revised Edition)
- The Greenhouse Gas Protocol: Scope 2 Guidance
- The Greenhouse Gas Protocol: Corporate Value Chain (Scope 3) Standard
- IEA CO2 Emissions from Fuel Combustion
- Other (please specify)

18. What is the chosen approach in consolidating your company's GHG inventory?

- Operational Control
- Financial Control
- Equity Share
- Other (please specify)

D. Emissions (Scope 1)**19. Does your company have GHG data on its Scope 1 emissions in the reporting period?**

- Yes, we have data to share [go to question 20]
- No [go to question 23]

20. Scope 1 emissions of your company in the reporting period (metric tonnes CO₂e)**21. How do your company's Scope 1 emissions for this reporting period compare to those of the previous reporting period?**

- Increased [go to question 22]
- Decreased [go to question 22]
- Remained the same [go to question 23]
- No data from the previous reporting period [go to question 23]

22. Please indicate your company's change of Scope 1 emissions in metric tonnes of CO₂e.

[positive value for increase, negative value for decrease]

D. Emissions (Scope 2)

23. Does your company have GHG data on its Scope 2 emissions in the reporting period?

- Yes, we have data to share [go to question 24]
- No [go to question 27]

24. Scope 2 emissions of your company in the reporting period (metric tonnes CO₂e)

25. How do your company's Scope 2 emissions for this reporting period compare to those of the previous reporting period?

- Increased [go to question 26]
- Decreased [go to question 26]
- Remained the same [go to question 27]
- No data from the previous reporting period [go to question 27]

26. Please indicate your company's change of Scope 2 emissions in metric tonnes of CO₂e.

[positive value for increase, negative value for decrease]



D. Emissions (Scope 3)

27. Does your company have GHG data on its Scope 3 emissions in the reporting period?

- Yes, we have data to share [go to question 28]
- No [go to question 33]

28. All identified Scope 3 emissions of your company in the reporting period (metric tonnes CO₂e)

29. [Optional] Scope 3 Category 1 (Purchased goods and services) emissions of your company in the reporting year (metric tonnes CO₂e)

Remark: Category 1 of Scope 3 emissions reflects emissions outsourced by a company. The questionnaire would like to have a sense on the level of Category 1.

30. [Optional] Please tick up to three major sources of Scope 3 emissions of your company, according to the 15 Categories of Scope 3 emissions.

- Category 1: Purchased goods and services
- Category 2: Capital Goods
- Category 3: Fuel- and Energy-related activities
- Category 4: Upstream transportation and distribution
- Category 5: Waste Generated in Operations
- Category 6: Business travel
- Category 7: Employee Commuting
- Category 8: Upstream leased assets
- Category 9: Downstream transportation and distribution
- Category 10: Processing of sold products
- Category 11: Use of Sold Product
- Category 12: End of Life Treatment of Sold Products
- Category 13: Downstream leased assets
- Category 14: Franchises
- Category 15: Investments



31. How do the Scope 3 emissions for this reporting period compare to those of the previous reporting period?

- Increased [go to question 32]
- Decreased [go to question 32]
- Remained the same [go to question 33]
- No data from the previous reporting period [go to question 33]

32. Please indicate your company's change of Scope 3 emissions in metric tonnes CO₂e. [positive value for increase, negative value for decrease]

[positive value for increase, negative value for decrease]

D. Emissions (Biogenic)

33. Does your company emit any biogenic emissions (e.g. from combustion of biomass) in the reporting period?

- Yes, we have data to share [go to question 34]
- No [go to question 37]

34. Biogenic GHG emissions of your company in the reporting period (metric tonnes CO₂e)

35. How do your company's biogenic emissions for this reporting period compare to those of the previous reporting period?

- Increased [go to question 36]
- Decreased [go to question 36]
- Remained the same [go to question 37]
- No data from the previous reporting period [go to question 37]

36. Please indicate your company's change of biogenic emissions in metric tonnes of CO₂e. [positive value for increase, negative value for decrease]

[positive value for increase, negative value for decrease]

D. Emissions (Others)

37. [Optional] Describe any identified reasons for changes in the Scope 1, Scope 2, Scope 3, or biogenic emissions in the reporting period. [200 - 250 words]

(This question addresses changes in resulting emissions levels due to changes in organisation structure, reporting boundary, GHG accounting methodologies, business volume, etc. Details of achievements in your company's decarbonisation actions and initiatives may be provided in "Section F: Insights" of this questionnaire.)

38. [Optional] Describe any GHG emissions intensity metrics that your company adopted to measure its decarbonisation performance, e.g. emissions per revenue / employee / floor area / unit of goods produced, etc. State the metrics, the scope, and provide the corresponding numerical values in the reporting period. [200 - 250 words]

(While previous questions focus on absolute emissions, this question asks emissions intensity metrics and levels of different sectors.)

39. [Optional] Describe any known emissions sources in your reporting boundary that are excluded in the above reported emissions, and reasons of exclusion/omission. [200 - 250 words]

40. Are the above reported emissions subjected to third-party verification or assurance?

- Yes, please describe in the next question [go to question 41]
- No [go to section E]

41. Please state the relevant standard (e.g. AA1000 AS, ISAE 3410, ISO14064-3), the scope and the level of assurance / verification.

E. Targets

42. Did your company have a decarbonisation target that was active in the reporting period?

[Targets may be actual numerical figures or directional, forward-looking statements. Here is an example directional statement (from HKEX guideline): “From this year onwards, all new build and major retrofit projects will meet relevant international sustainable building standards.”

https://www.hkex.com.hk/-/media/HKEX-Market/Listing/Rules-and-Guidance/Environmental-Social-and-Governance/Exchanges-guidance-materials-on-ESG/step_by_step.pdf

- Yes, and it is a GHG emissions target with baseline [go to question 44]
- Yes, but it is only a directional statement [go to question 43]
- No target at all [go to section F]

43. Provide your company’s decarbonisation directional statement.

E. Targets (Key Scope 1 and/or Scope 2)

44. Select the scope of your company's key emissions target in Scope 1 and/or Scope 2.

- Scope 1 emissions only
- Scope 2 emissions only
- Combined Scope 1 and Scope 2 emissions

45. What type of target does your company's key Scope 1 and/or Scope 2 emissions target belong to?

- Absolute target [go to question 46]
- Intensity target [go to question 50]

46. [Absolute target] State the base year of the emissions target.

47. [Absolute target] State your company's baseline emissions level (in metric tonnes CO₂e) in the above base year.

48. [Absolute target] State the target year of the emissions target.

49. [Absolute target] State your company's GHG reduction % of the emissions target.

[go to question 55]

50. [Intensity target] State the GHG intensity metric (e.g. metric tonnes CO₂e per revenue in HKD) of the emissions target.

51. [Intensity target] State the base year of the emissions target.

52. [Intensity target] State your company's baseline emissions level (in the above intensity metric and base year).

53. [Intensity target] State the target year of the emissions target.

54. [Intensity target] State your company's GHG reduction % of the emissions target.

[go to question 55]



55. [Optional] State here any further description, explanation, or remarks of the above key Scope 1 and/or Scope 2 emissions target. [200 - 250 words]

E. Targets (Key Scope 1 and/or Scope 2)

56. Does your company have other quantitative emissions targets for Scope 1 and/or Scope 2?

- Yes, Scope 1 emissions only [go to question 57]
- Yes, Scope 2 emissions only [go to question 57]
- Yes, combined Scope 1 and Scope 2 emissions [go to question 57]
- No additional quantitative targets [go to question 68]

57. [additional target] What type of target does your company's additional emissions target belong to?

- Absolute target [go to question 58]
- Intensity target [go to question 62]

58. [additional target] State the base year of the absolute emissions target.

59. [additional target] State your company's baseline emissions level (in metric tonnes CO₂e) in the above base year.

60. [additional target] State the target year of the absolute emissions target.

61. [additional target] State the GHG reduction % of the absolute emissions target.

[go to question 67]

62. [additional target] State the metric (e.g. metric tonnes CO₂e per revenue in HKD) of the GHG emissions intensity target.

63. [additional target] State the base year of the emissions intensity target.



64. [additional target] State your company's baseline emissions intensity level (in the above intensity metric).

65. [additional target] State the target year of the emissions intensity target.

66. [additional target] State the GHG reduction % of the emissions intensity target.

[go to question 67]

67. [Optional] State here any further description, explanation, or remarks of the above additional Scope 1 and/or Scope 2 emissions target. [200 - 250 words]

68. [Optional] State here other Scope 1 and/or Scope 2 target(s) of your company, if any. [200 - 250 words]

E. Targets (Scope 3)

69. Does your company have any target regarding its Scope 3 GHG emissions?

- Yes [go to question 70]
- No [go to section F]

70. What type of target does your company's Scope 3 emissions target belong to?

- Absolute target [go to question 71]
- Intensity target [go to question 75]
- Other types of target [go to question 80]

71. [Absolute target] State the base year of the Scope 3 absolute emissions target.

72. [Absolute target] State your company's baseline Scope 3 absolute emissions level (in metric tonnes CO₂e) in the above base year.

73. [Absolute target] State the target year of the Scope 3 absolute emissions target.

74. [Absolute target] State your company's GHG reduction % of the Scope 3 absolute emissions target.

[go to question 80]

75. [Intensity target] State the metric (e.g. metric tonnes CO₂e per square metre of floor area) of the Scope 3 emissions intensity target.

76. [Intensity target] State the base year of the Scope 3 emissions intensity target.



77. [Intensity target] State your company's baseline Scope 3 emissions intensity level (in the above base year and intensity metric).

78. [Intensity target] State the target year of the Scope 3 emissions intensity target.

79. [Intensity target] State your company's GHG reduction % of the Scope 3 emissions intensity target.

[go to question 80]

80. [Optional] Provide here any description, explanation, or remarks regarding the above Scope 3 emissions target (e.g. coverage %). [200 - 250 words]

81. [Optional] State here other Scope 3 target(s) of your company, if any. [200 - 250 words]

F. Insights

82. What major decarbonisation actions and initiatives has your company taken in the past three years? (working towards achieving a target, if any) [200 - 250 words]

83. [Optional] Total emissions reductions/avoidance (in metric tonnes CO2e) achieved from the above actions and initiatives in the latest reporting year, according to your company's estimation?

84. Has your company adopted any carbon pricing mechanism for GHG management in 2022/23?

- Emissions Quota Procurement / Trading
- Carbon Tax
- Carbon Credit Purchasing
- Internal Carbon Pricing (e.g. shadow price, internal fee/trading)
- Our company has not adopted any carbon pricing mechanisms
- Other (please specify)

85. [Optional] Would you please describe the carbon pricing mechanism that involved your company and the impacts?

(For example, if your company has purchased any carbon credits or traded any emissions quota, you may describe the scheme/platform, verification standard, quantity, average price, etc.) [200 - 250 words]

86. If your company has set a target and has begun decarbonising, what were the key factors for successfully decarbonising and achieving targets? Please select the most important/significant three.

- Dedicated budget for emissions reduction activities
- Dedicated budget for energy efficiency
- Dedicated budget for low-carbon product research and development
- Internal financial mechanisms
- Internal carbon pricing
- Financial optimisation calculations
- Scope 3 emissions mapping
- Alignment with international standards & requirements
- Employee engagement
- Internal incentives/ recognition
- Partnering with governments on specific resolutions
- Tenant engagement
- Other (please specify)

87. Throughout the target setting and decarbonisation process, were there challenges encountered? Please select the most important/significant three.

- Securing buy-in from decision makers
- Optimal internal carbon pricing
- Identifying scope 3 emissions
- Stakeholders engagement
- Energy transition
- Financial supports
- Talents
- Lack of information on international standards & requirements
- Other (please specify)

88. What kind of support does your company need from BEC and other stakeholders to set and achieve decarbonisation targets? Please select the most important three.

- Competence building programme e.g. carbon audit
- Information session on latest development on international standards and requirements
- Best practices sharing session
- Climate information disclosure programme
- A one-stop platform for funding sources
- Supporting SMEs in decarbonisation
- Other (please specify)

89. If you have any best practice that would like to share with other signatories and the wider business community, you are recommend to make use of the form:

https://bec.k-my.sharepoint.com/:w:/g/personal/ringoyeung_bec_org_hk/EagIUplryjRMgJ%20HUB1Z3clwBIBH7ZxtBcoZgejcrtaonBg?e=uytAz8 and send it to pradmin@bec.org.hk.

Our colleague will further communicate with you for the cases. Thank you.

- Yes, we are interested to share the cases and will send it to pradmin@bec.org.hk.
- No

G. Sign-off**90. Your name****91. Your job title****92. Contact email****93. [Optional] Contact phone number**

(e.g. those willing to be contacted for arranging good practice sharing)

Thank you for your time for completing our questionnaire.



CREDITS

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