



綠惜政策簡報

GREEN POLICY REPORT



CORPORATE CARBON NEUTRALITY FOLLOW-UP INVESTIGATION 2023



綠惜地球

THE GREEN EARTH



Introduction

The Hong Kong government announced the 'Climate Action Plan 2050' in 2021, setting the target for Hong Kong to achieve carbon neutrality by 2050¹. Subsequently, The Green Earth (TGE) released its first investigation report² on corporate carbon neutrality commitment. TGE found that most companies with higher carbon emissions among the Hang Seng Index (HSI) constituents were lagging behind the global trend on carbon neutrality promise. Two years later, The Green Earth conducted a follow-up investigation to examine the progress of corporate carbon neutrality and whether the pace has accelerated to align with Hong Kong's carbon neutrality goals. The survey found that most of the local companies (90%) have kept up with the government's timeline and that many mainland companies have adopted China's 'dual carbon' targets³, resulting in overall improvement. However, during the investigation, TGE found that some companies' environmental, social, and governance (ESG) reports were vague, and even after we inquired about the companies in question, only a few of them responded. The communication breakdown failed to provide investors with a clear assessment of the listed companies' emissions reduction progress and commitment. TGE urges the government to establish statutory carbon reduction targets and conduct regular audits through relevant departments to monitor the progress of carbon reduction on the market.

Investigation and Results

This investigation is to monitor the progress of carbon reduction in Hong Kong by studying the carbon reduction indicators of companies with high carbon emissions. The aim is to drive these companies to advance their carbon reduction efforts and assist Hong Kong in achieving carbon neutrality in a timely manner.

The majority of greenhouse gas emissions in Hong Kong primarily originate from the power sector (62.7%), followed by the transportation sector (18.7%). These two sectors together account for more than 80% of the total emissions in Hong Kong. In 2021, The Green Earth examined the carbon neutrality targets and roadmaps of relevant companies within the HSI,

¹ The government today (8th October) announced the "Hong Kong Climate Action Plan 2050", which aims to achieve "zero carbon emissions, green and livable, and sustainable development". It sets out strategies and goals for Hong Kong to address climate change and achieve carbon neutrality. <https://bit.ly/46B6n2y>

² The Green Earth urges companies to commit to carbon neutrality as soon as possible, as Hong Kong stocks underperform the broader market in reducing carbon emissions. Press Release by The Green Earth on October 20, 2021. <https://greenearth.org.hk/2021/10/20211020/>; The survey found that more than half of the respondents (58%) have yet to catch up with the Hong Kong government's goal of achieving carbon neutrality by 2050. Additionally, the majority of companies (79%) have not formulated a roadmap for carbon neutrality, underperforming in carbon reduction compared to the broader market.

³ The dual carbon targets in Mainland China are to reach peak carbon emissions by 2030 and achieve carbon neutrality by 2060.



encompassing three sectors: power, transportation, and banking which normally engaged in financing high-emission projects. A total of 19 companies were included in the study.

From July to September 2023, TGE reviewed the ESG reports of relevant companies. TGE then sent inquiries via email to companies that did not articulate their carbon neutrality targets in their reports. Due to changes in the constituents of the HSI, the number of companies under investigation increased from 19 to 23. This included New World Development, which sold its bus business, and Bank of Communications, which was removed from the HSI constituents. Our focus was on examining the target years set by companies for carbon neutrality and whether they had established a roadmap for achieving carbon neutrality, such as setting midterm carbon reduction targets and conducting carbon reduction scenario analysis. The results are as follows:

Follow-up investigation on the Hang Seng Index Constituent Companies (2021) (Table 1)

#	Ticker	Company	Sector	Corporate Carbon Neutrality Target Year	Carbon Neutrality Roadmap
1	2	CLP Holdings	Power	2050	Y
2	3	The Hong Kong and China Gas Company Limited	Power	2050	Y
3	6	Power Assets Holdings Limited	Power	2050	Y
4	1038	Cheung Kong Infrastructure Holdings Limited	Power	2050	Y
5	386	China Petroleum & Chemical Corporation	Power	2050	Y
6	857	PetroChina Company Limited	Power	2050	Y
7	883	CNOOC Limited	Power	2050	Y
8	16 (62)	Sun Hung Kai Properties Limited (Transport International Holdings Limited)	Transportation	2040	N
9	17	New World Development Company Limited	Transportation	2050	Y ⁴
10	66	MTR Corporation Limited	Transportation	2050	Y
11	1997	Wharf Real Estate Investment Company Limited	Transportation	N	N
12	5	HSBC Holdings PLC	Banking	2030*	Y
13	11	Hang Seng Bank Limited	Banking	2030*	Y
14	2388	BOC Hong Kong (Holdings) Limited	Banking	2030#	Y
15	939	China Construction Bank Corporation	Banking	2060	N
16	1398	Industrial and Commercial Bank of China Limited	Banking	2060	N [^]
17	3328	Bank of Communications (Hong Kong) Limited	Banking	2060	N ⁵
18	3968	China Merchants Bank	Banking	2060	N
19	3988	Bank of China Limited	Banking	2060	N

Blue: Hong Kong Companies

Red: Mainland Chinese Companies

* Carbon Neutrality in Daily Operations by 2030, Carbon Neutrality in Financing Projects by 2050

Limited to achieving carbon neutrality in daily operations by 2030

[^] Established a 2060 Carbon neutrality roadmap

⁴ New World Development Limited sold its bus business in 2020.

<https://www.nws.com.hk/pdf/sc/NWS%20PR%20FY2020%20.Chi.pdf>

⁵ Bank of Communications was removed from the HSI constituents in 2021.

https://www.hsi.com.hk/static/uploads/contents/zh_hk/news/pressRelease/20210820T000000.pdf

The survey found (as seen in Table 1) that among the eleven local companies, only one company has yet to commit to achieving carbon neutrality by 2050. Among the ten local companies committed to achieving carbon neutrality by 2050, only one company does not have a clear carbon neutrality roadmap. Additionally, all three mainland power companies have committed to achieving carbon neutrality by 2050, which is ten years ahead of the national "dual carbon" target and aligns with the carbon neutrality targets of Hong Kong and the international community. The remaining five mainland companies, although not committed to achieving carbon neutrality by 2050, have adopted the carbon neutrality timetable of mainland China, aiming to achieve carbon neutrality by 2060. Overall, among the 19 surveyed companies, 68% have adopted the Hong Kong and international 2050 carbon neutrality targets, while only one local company (5%) has not committed to any carbon neutrality targets.

(Table 2)

Companies	Number of Companies	2050 Carbon Neutrality target		2050 carbon neutrality roadmap	
		Yes	No	Yes	No
Local	11	10 (91%)	1 (9%)	9 (82%)	2 (18%)
Mainland	8	3 (37.5%)	5 (62.5%)	3 (37.5%)	5 (62.5%)
Total	19	13 (68%)	6 (32%)	12 (63%)	7 (37%)

Compared to 2021, the changes are as follows:

(Table 3)

2050 carbon neutrality target			
Companies	2021	2023	Change
Local	7	10	+ 3 (+43%)
Mainland	1	3	+2 (+200%)
Total	8	13	+5 (+63%)

(Table 4)

2050 carbon neutrality roadmap			
Companies	2021	2023	Change
Local	4	9	+5 (+125%)
Mainland	0	3	+3 (N/A)
Total	4	12	+ 8 (+200%)

According to Table 3, the attitudes of the 19 companies committed to carbon neutrality have become more proactive compared to two years ago. The number of local companies committed to achieve carbon neutrality by 2050 has increased by 43%, while mainland Chinese companies have doubled, resulting in an overall growth of 63%.

Additionally, according to Table 4, the survey found that the number of companies in Hong Kong with carbon neutrality roadmaps has increased more than doubled (125%). For



mainland companies, there has been a breakthrough with three oil companies setting mid-term carbon reduction targets and developing roadmaps on reaching carbon neutrality by 2050 (Table 1).

The relevant companies included in the HSI constituents since 2021 are all from the power sector, and their results are as follows:

(Table 5)

#	Ticker	Company	Sector	Corporate Carbon Neutrality Target Year	Carbon Neutrality Roadmap
20	836	China Resources Power Holdings Company Limited	Power	2060	N
21	2688	ENN Energy Holdings Limited	Power	2050	Y
22	1088	China Shenhua Energy Company Limited	Power	2060	N^
23	968	Xinyi Solar Holdings Limited	Power	N	N*

Blue: Hong Kong Companies

Red: Mainland Chinese Companies

^ Established a 2060 Carbon neutrality roadmap

* The company has set a carbon reduction target for 2027 but has not committed to any carbon neutrality target.

The four newly added constituents of the HSI have all been included in the scope of this investigation, as shown in Table 5. All the relevant constituents are Mainland Chinese companies, with only one company aligning with the Hong Kong government's 2050 carbon neutrality timeline. Two companies have adopted the 'dual carbon' targets of Mainland China, and one company has not set a specific carbon neutrality target year. Excluding New World Development and Bank of Communications, the table below summarises the carbon neutrality targets of 21 HSI constituent companies:

(Table 6)

Companies	Number of Companies	2050 Carbon Neutrality target		2050 carbon neutrality roadmap	
		Yes	No	Yes	No
Local	10	9 (90%)	1 (10%)	8 (80%)	2 (20%)
Mainland	11	4 (36%)	7 (64%)	4 (36%)	7 (64%)
Total	21	13 (62%)	8 (38%)	12 (57%)	9 (43%)

Compared to the previous investigation, the overall changes are as follows:

(Table 7)

Companies	2050 carbon neutrality target		
	2021	2023	Change
Local	7	9	+ 2 (+29%)
Mainland	1	4	+3 (+300%)
Total	8	13	+5 (+63%)

(Table 8)

2050 carbon neutrality roadmap			
Companies	2021	2023	Change
Local	4	8	+4 (+100%)
Mainland	0	4	+4 (N/A)
Total	4	12	+ 8 (+200%)

According to Table 6, just over half (62%) of the companies have committed to achieving carbon neutrality by 2050, representing a 63% increase compared to two years ago. However, in alignment with Mainland policies, most Chinese companies have already set targets to achieve carbon neutrality by 2060. Therefore, among the 21 constituent companies of the HSI, over 91% have explicitly stated their commitment to follow either the Hong Kong (2050) or Mainland (2060) timeline for carbon neutrality. As for carbon neutrality roadmaps, 12 companies (57%) have established medium to long-term emissions reduction targets, with some even utilising scenario analysis to illustrate their carbon reduction timelines, indicating clear carbon reduction plans. Table 8 also shows that the number of companies with a set 2050 carbon neutrality roadmap has doubled from 4 in 2021 to 12 in 2023.

Discussion

Policy updates and international trends

In 2019, The Stock Exchange of Hong Kong Limited (SEHK) amended the "Listing Rules" to expand the scope of information disclosure in the ESG Report of listed companies. This revision aimed to require companies to disclose information about carbon emissions⁶. In 2021, the Hong Kong government released the "Hong Kong Climate Action Plan 2050," which sets the target for Hong Kong to achieve carbon neutrality by 2050. Although the carbon neutrality targets of listed companies are not regulated by the "Listing Rules," many high-carbon emitting companies in Hong Kong have since aligned themselves with the emissions reduction timelines set by Hong Kong and international standards stated clearly in their ESG reports.

In April 2023, the SEHK announced its plan to update the disclosure guidelines in 2024. This update will follow the International Sustainability Standards Board (ISSB) IFRS S2 Climate-related Disclosures Exposure Draft published in March 2022⁷. While the new guidelines

⁶ The Stock Exchange of Hong Kong Limited (SEHK) revised the "Environmental, Social and Governance Reporting Guide" which requires issuers to disclose greenhouse gas emissions for Scope 1 and Scope 2 in their reports. [https://www.hkex.com.hk/-/media/HKEX-Market/News/Market-Consultations/2016-Present/May-2019-Review-of-ESG-Guide/Conclusions-\(December-2019\)/cp201905cc_c.pdf](https://www.hkex.com.hk/-/media/HKEX-Market/News/Market-Consultations/2016-Present/May-2019-Review-of-ESG-Guide/Conclusions-(December-2019)/cp201905cc_c.pdf)

⁷ The Stock Exchange of Hong Kong Limited (SEHK) issued a consultation paper on enhancing climate-related information disclosure under the framework of environmental, social, and governance (ESG) optimization. https://www.hkex.com.hk/News/Regulatory-Announcements/2023/230414news?sc_lang=zh-HK



stipulate that issuers must disclose any climate-related and greenhouse gas emissions targets required by local regulations, Hong Kong lacks specific legislation in this regard. Consequently, companies are not obligated to commit to carbon neutrality or emissions reduction plans.

Many countries and regions have already enacted laws establishing target years and emissions reduction goals for achieving carbon neutrality. In 2021, Japan passed amendments to the "Act on Promotion of Global Warming Countermeasures,"⁸ which sets a target for Japan to achieve net-zero carbon emissions by 2050. In early 2023, Taiwan enacted the "Climate Change Response Act,"⁹ which mandates achieving net-zero emissions by 2050. Regarding the European Union (EU), its member states established a carbon neutrality target for 2050 as early as 2019. In 2021, the EU passed legislation requiring member states to achieve carbon neutrality by 2050. The net emissions of the entire EU shall be reduced by a minimum of 55% (compared to the 1990 levels).¹⁰ The measures implemented in Canada's province of British Columbia¹¹ are similar to those in the EU, as both regions have set sector-specific emissions reduction targets, adopting a fair and comprehensive approach.

The Green Earth believes that Hong Kong can learn from the practices of the economies mentioned above. Taking advantage of the upcoming revision of climate information disclosure next year, Hong Kong can take the lead on establishing statutory carbon reduction targets for industries with higher emissions. This would assist relevant listed companies in developing carbon neutrality roadmaps and enable them to disclose more information about their decarbonization progress. This increased transparency would facilitate stakeholders in continuously evaluating the effectiveness of companies' decarbonisation efforts and inject momentum into their decarbonisation work.

Ambiguous and confusing wordings on ESG reports

During the investigation, TGE found that while companies' ESG reports adhere to international reporting standards such as ISO 14001, GRI, and ISSB, there are variations in the terminology used to express carbon neutrality and establish related decarbonisation roadmaps. Some reports lack specific details, leading to a lack of clarity. For example, a company states in the report that it "fully supports most countries worldwide in achieving carbon neutrality by 2050" but fails to mention its carbon neutrality targets elsewhere. As a result, we cannot determine whether the company has committed to achieving carbon

⁸ The Japanese House of Councillors unanimously passed amendments to the "Act on Promotion of Global Warming Countermeasures" during the plenary session on May 26, 2021. These amendments came into effect in April 2022.


⁹ Taiwan passed the "Climate Change Adaptation Act" on January 10, 2023. <https://e-info.org.tw/node/235882>

¹⁰ European Climate Law https://climate.ec.europa.eu/eu-action/european-climate-law_en#:~:text=The%20Climate%20Law%20includes:,of%20emission%20reductions%20and%20removals

¹¹ Climate action legislation - Province of British Columbia <https://bit.ly/3LK1uvY>

neutrality by 2050. Additionally, some companies mention midterm emissions reduction targets in their reports but do not provide a target year for reaching carbon neutrality. This makes it difficult for readers to assess the significance of the said emissions reduction in relation to the company's total carbon emissions.

The vague wording in the reports not only hinders investors and the public from evaluating a company's environmental impact and responsibility but also prevents the government from evaluating and monitoring the company's decarbonisation progress.

Example	Confusion part
 <p>助力全球碳中和 (進行中)</p> <p>XSG3: 透過提升太陽能玻璃產能及太陽能電站項目規模，全力支持全球大部分國家實現2050年碳中和</p> <ul style="list-style-type: none"> 2022年，本集團新增六條日熔量各 1,000 噸的太陽能玻璃生產線，有效年熔化量增加 26.5%。由於現行的太陽能玻璃電爐生產技術，暫時無法脫離化石燃料進行生產，因此於太陽能玻璃生產過程中，仍無法達至淨零排放。但一片應用於 182 系列 550 瓦單晶組件的太陽能玻璃計算，生產過程中產生的溫室氣體排放僅約 14.6 千克，而該組件在 25 年使用週期產生的綠色電力可以帶來 13.4 噸^{mte} 的二氧化碳減排量。因此，本集團確信太陽能玻璃生產對於全球減緩氣候變化具有正面貢獻，且隨著組件高效化，發電帶來的減碳量及生產導致的碳排放量差將會進一步擴大。2022 年太陽能玻璃生產產生的溫室氣體排放僅為光伏組件全生命週期發電量帶來的二氧化碳減排量的 0.11% (2021: 0.13%) 2022 年，本集團旗下太陽能發電場項目發電量為 44 億度，相當於減少二氧化碳排放約 364 萬噸 2022 年，本集團的太陽能發電場項目發電量帶來的二氧化碳減排量相當於同期太陽能玻璃生產帶來的二氧化碳排放量的 92.6% 	<p>It states, "fully support the majority of countries worldwide in achieving carbon neutrality by 2050," but does not mention the company's carbon neutrality goals in other sections, making it difficult for readers to determine if the company is committed to achieving carbon neutrality by 2050.</p>
<p>本集團不遺餘力支持《香港氣候行動藍圖2050》的「零碳排放·綠色宜居·持續發展」的願景。我們將研究在建設和營運過程中實施可持續發展策略，並檢視我們綠色建築認證的方針。我們採用符合國際標準的環境管理體系，努力減少對環境的影響並提高營運效率。</p>	<p>The phrase "making every effort to support" sounds positive. Still, it does not mention specific actions, making it difficult for readers to understand the company's commitment to carbon neutrality and its actions.</p>
<p>锚定“双碳”，赋能绿色发展</p> <p>在实现“2030碳达峰、2060碳中和”的背景下，我们始终保持着前瞻性发展视角，主动关注和应对气候变化风险，积极布局和规划风电、光伏等清洁能源建设，可再生能源权益装机占比达到 32.3%。我们持续探索碳捕集、利用与封存 (CCUS) 等低碳技术的发展，推进零碳园区试点建设，优化碳资产管理模式，全年利用 CCUS 技术累计捕集二氧化碳超 30,000 吨，完成绿电交易电量 13.5 亿千瓦时。我们不断完善环境管理体系，建立健全生态环境保护相关制度，主动开展工程环境影响评估，扎实推进企业运营节能降耗，积极投身生物多样性保护行动，推动实现绿色低碳转型。</p>	<p>Although the text mentions the "dual carbon" goal and includes some specific carbon reduction efforts and numbers, it does not mention the relationship between these efforts and numbers in achieving the "dual carbon" goal for the company.</p>
<p>拥抱双碳 引领低碳转型</p> <p>面临的挑战</p> <p>随着《中共中央国务院关于完整准确全面贯彻新发展理念做好碳达峰碳中和工作的意见》《2030年前碳达峰行动方案》相继发布，碳达峰碳中和“1+N”政策体系已然构建。电力行业作为实现“双碳”目标的重要领域，其低碳发展、节能减排对我国实现目标起着至关重要的作用。此外，《煤炭清洁高效利用重点领域标杆水平和基准水平（2022年版）》的发布，对企业绿色转型提出了更高的要求。</p> <p>我们的行动</p> <ul style="list-style-type: none"> 积极布局清洁能源，大力发展风电、光伏等项目； 持续加强核心技术研发，支撑氢能新能源与火电主业； 引领前沿方向探索，创新引领 CCUS、储能等新兴业务增长； 不断促进资源节约，通过提高水资源综合利用效率、废水综合治理、废弃物无害化处理工作减少不必要的资源浪费； 加强环境治理，推进设备节能降耗改造，降低污染物排放。 	<p>The report mentions that the electricity industry is an "important area for achieving dual carbon goals," but it does not make any direct commitments, and the actions below are not mentioned.</p> <p>Source: ESG report disclosed by HKEX for ESG platform.</p>



Communication breakdown

After reviewing the ESG reports of various companies, TGE contacted the companies with ambiguity via email to inquire about their carbon neutrality goals and roadmaps. Among the 12 companies TGE contacted, only two responded, resulting in a poor response rate of only 16%. This reflects that most companies are not proactive in responding to public inquiries. Additionally, one Mainland Chinese company responded to our email by stating that our email address was blacklisted and that their computer system had mistaken our inquiry email as malicious. We subsequently sent inquiry emails from three different email addresses, but they were all intercepted, and TGE was unable to contact the company in the end.

While TGE understands that Mainland Chinese companies may adopt security measures for overseas emails, it makes Hong Kong investors difficult if they must use Mainland Chinese email addresses to contact these companies. Since these companies are listed in Hong Kong, their email addresses should be able to receive emails from Hong Kong for inquiries, facilitating investors' and relevant parties' queries.

Recommendations from The Green Earth

The survey shows encouraging results that high carbon emissions businesses are willing to align with Hong Kong's carbon neutrality policy. However, to ensure Hong Kong is on track for 2050 carbon neutrality, the government and relevant stakeholders should:

- | | |
|----------------------|---|
| Hong Kong Government | After revising the scope of climate disclosure, Hong Kong should consider establishing mandatory carbon reduction targets for industries with relatively high carbon emissions. This would help the government monitor the progress of relevant companies in carbon reduction and lead them towards achieving Hong Kong's carbon neutrality goal by 2050. |
| SEHK | Random checks should be conducted on ESG reports of listed companies to avoid significant discrepancies in reporting styles, particularly in the description of commitments and roadmaps for carbon neutrality. These descriptions should be specific and objective to facilitate investors' and regulators' understanding. If the reports have significant differences, the SEHK should establish templates for listed companies to clarify the report contents. |
| Companies | Establishing user-friendly communication channels to facilitate easy contact with the general public is essential. When businesses receive inquiries, they should respond promptly to increase information transparency. |



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