

Hong Kong Carbon Performance Report 2013



Part One: Company Transparency

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Foreword



“ Hong Kong needs bold action to tackle the climate change challenge. If the business sector is slow to act, everyone in Hong Kong will suffer. Carbon reporting is not only the first step towards a low-carbon economy, but also a wake-up call for company executives who have more influence and responsibilities than most of them would realize. ”

Carbon Care Asia is a social business dedicated to the mission of combating climate change. To achieve this we need to build a low-carbon economy, and soon. Being one of the top ten trading economies in the world, Hong Kong must play a key role in this global mission. On production basis the average carbon emission per capita in Hong Kong is slightly over 6 tonnes, but on consumption basis this rises to nearly 15 tonnes – close to the top among world cities.

Businesses in Hong Kong have many priorities. Climate change is not usually one of them. Yet the tide is changing. This report, perhaps the first comprehensive survey on carbon reporting performance of Hong Kong companies, gives an indication on how prepared local business is along the path to low-carbon economy.

An earlier study by the Hong Kong University of Science & Technology paints a grim picture: if there is a one meter sea-level rise by the end of

this century, Pearl River Delta cities will suffer an economic loss of over RMB 2.6 trillion. How much Hong Kong will suffer is unknown pending further research.

Even without precise data, one thing seems certain. The window of opportunity for us to act is closing fast. We hope this report, plus future ones to be undertaken by CCA, will serve as a record of how Hong Kong is catching up with world best practice, and playing its part in averting the catastrophic impact of climate change.

A handwritten signature in black ink, appearing to read 'Albert Lai'.

Albert Lai
CEO
Carbon Care Asia

Company Transparency in Carbon Reporting

Executive Summary

For any business seriously addressing the issue of environmental impact, there are no measures more important than carbon footprint. Governments committed to reducing greenhouse gas emissions understand that without action by the private sector, little can be achieved.

The starting point for assessing Hong Kong business actions on the environment is to review the level and sophistication of GHG emission reporting by our public companies. With this in mind, Carbon Care Asia undertook a survey of carbon emission reporting by companies registered on the Hong Kong Stock Exchange.

We examined the official websites, annual reports, sustainability reports or their equivalent of a significant number of

companies of different sizes in the Hang Seng Composite Index (HSCI). The performance of LargeCap, MidCap and SmallCap companies in HSCI are analysed separately where appropriate.

Where mention of greenhouse gas emissions was made in any of the publicly-available locations, we applied a set of quality criteria to evaluate the reporting, based on various standards and comparable reports covering corporate carbon reporting elsewhere in the world.



The key findings from the survey are as follows¹:

Key Findings

- ❖ 25 companies out of 216 companies surveyed (equivalent to 9.1% of all HSCI companies) had formal carbon reporting.
- ❖ 5 companies out of 216 companies surveyed (equivalent to 1.7% of all HSCI companies) set clear targets for carbon reduction.
- ❖ 25% of LargeCap companies had formal carbon reporting.
- ❖ 2.8% of SmallCap companies disclosed carbon information in some forms.
- ❖ Among the 1,221 listed companies outside HSCI, none of the companies we surveyed had any form of carbon disclosure.
- ❖ Among LargeCap companies with formal carbon reporting, the best performing sector is Utilities whilst the worst performing sectors are Consumer Goods, Properties & Construction, and Financials.
- ❖ We have found only 13 companies (equivalent to 0.97% of HKEx Main Board Listed Companies) disclosing carbon information in accordance with international reporting standards such as GRI guidelines, compared to at least 20 Singaporean companies (equivalent to 3.13% of SGX Main Board Listed Companies).

Overall, we have found that carbon footprint reporting among Hong Kong companies is at a very preliminary level. Larger companies, responsible for a larger proportion of total market capitalization, are reporting more frequently. Yet they still represent a small minority of the business community in Hong Kong.

A number of companies producing sustainability or equivalent reports make no mention of GHG emissions, indicating a low level of awareness of the centrality of GHG emissions to corporate social responsibility and effective action on sustainability issues.

Corporate reporting of greenhouse gasses has to develop much further before the government will be able to take an informed view of corporate contributions to the city's present or future reduction targets. At this stage, few companies are setting tangible

or measurable reduction targets, and those companies which are measuring their GHG emissions are using different standards and often unclear parameters.

This first report establishes some benchmarks which will enable us to track progress on GHG reporting as it will inevitably broaden and deepen in Hong Kong's companies. As the new guide on 'Environmental, Social and Governance Reporting' is to be upgraded by the Stock Exchange of Hong Kong to a 'comply or explain' status for company reports issued in 2015, it is expected that GHG reporting will become more and more common over the coming years. The focus will be gradually shifted from disclosure to action: how companies implement carbon footprint management plans, set reduction targets and offset emissions.

¹ The percentage in brackets represents the projected proportion of the 357 companies in the Hang Seng Composite Index (HSCI) corresponding to each statement.

Carbon Reporting – Transparency and Commitment

Measurement of greenhouse gas emissions has become one of the clearest and most significant indicators of an organization's environmental impact. Corporations are increasingly aware that strategies on carbon emissions are becoming an essential aspect of responsible planning.

As Mr KS Wong, the Secretary for the Environment of Hong Kong, has said: **“Conducting carbon audits is a useful first-step action for carbon footprint reduction and has been widely practiced in overseas jurisdictions. Such a process helps to assess carbon performance and identify room for emission reduction.”** Carbon reporting is indeed an important starting point for any business seeking to demonstrate their commitment to reducing negative impacts on the environment and practicing corporate social responsibility (CSR).

Apart from combating climate change, carbon reporting proves to be an effective way of improving efficiency and business performance.

Organizations frequently identify their consumption patterns and inefficient operations in the process of carbon accounting. Cost saving from improved efficiency and reduced consumption is often realized after the implementation of a well-designed carbon management system. Companies regarding climate change and carbon-related activities as risks to their business may also gain advantages in capturing the potential opportunities related to action on environmental improvement. For leading companies, carbon footprinting may be used as a foundation for sustainability innovation, though this practice is still uncommon in Hong Kong.

This report sets out a preliminary examination of the extent to which Hong Kong listed companies are reporting their greenhouse gas (GHG) emissions. One of the objectives of this survey is to set out a methodology and baseline to track the development of carbon reporting as the practice develops and matures in Hong Kong, prior to the inevitable time when this aspect of corporate reporting becomes mandatory and standardized.

“Carbon auditing is a cornerstone for saving energy as well as taking forward other low carbon and green measures.”

KS Wong
Secretary for the Environment, HKSAR

Methodology

Sample Selection

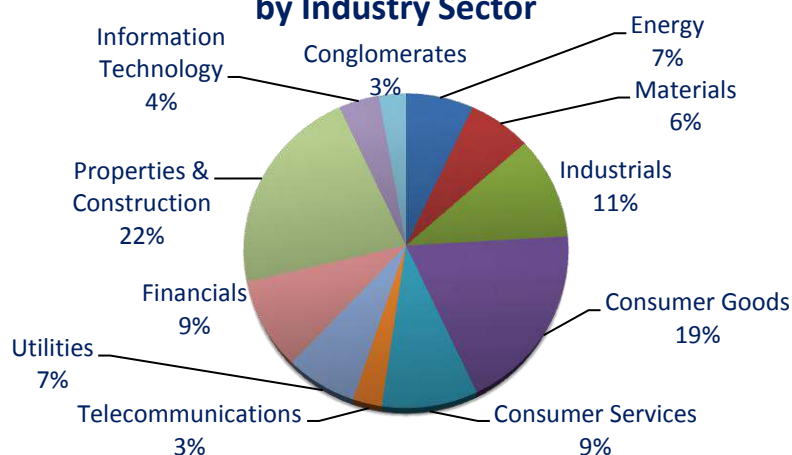
A sample of 216 companies listed on the Main Board of the Hong Kong Stock Exchange (SEHK) was selected from three different groups defined in the Hang Seng Composite Index (HSCI).² Companies were randomly selected from each group, except for LargeCap Index, where the survey size of 72 companies covered all the companies in the index. In addition, 72 companies which do not lie in any of the composite indexes based on size were selected for inclusion in the survey.

Survey Sample

Stock Exchange category	Sample Size	Companies in this category
Hang Seng Composite LargeCap Index	72	72
Hang Seng Composite MidCap Index	72	159
Hang Seng Composite SmallCap Index	72	126
Total Companies in HSCI	216	357
<i>Other listed companies (not included in composite indexes)</i>	72	1221
All Listed Companies on Main Board³	288	1578

The chart below shows the companies surveyed in the LargeCap/MidCap/SmallCap indexes by industry sector.

Composition of Sample of Listed Companies in HSCI by Industry Sector



² The Hang Seng Composite Index (HSCI) classification is explained on the website of Hang Seng Index at: <http://www.hsi.com.hk/HSI-Net/HSI-Net>. In summary, the top 95% of all listed companies by market capitalization are included in the Index. These companies are then subdivided by size: the top 80% companies (based on market capitalization) in the Index are classified as LargeCap, the following 15% as MidCap, and the remaining 5% as SmallCap. Regular adjustments are made if companies have very low turnover of shares traded, the market capitalization of a company changes and new companies are listed.

³ *Italic* is used when the statistics represent all listed companies, including those not in HSCI.

Accessibility and Quality of Information

The survey examined company websites, annual reports and sustainability /social responsibility (SR) or equivalent reports or supplements to determine whether or not publicly-accessible information related to carbon reporting was available. The survey was undertaken during the period from September to October 2013 and hence information not published by the companies during that period would not have been included in the survey.

To assess whether carbon reporting met the basic standards of formal reporting, we assessed achievement of the following three criteria:

1. Numerical data was included
2. The measurement included substantial business scope of the company
3. The information appeared either in the annual report or a standalone sustainability or equivalent report or supplement, and was signed off or endorsed by a company director.

Where we determined that the carbon reporting covered the major operations of that company in Hong Kong, we accepted that reporting covered 'substantial business scope.' In some cases, companies mentioned limited initiatives in carbon reduction or attempts to measure carbon footprints of certain facilities -- for example a single building or a particular division of their operation. Some company reports included a narrative statement expressing concern, awareness or general intentions regarding carbon emissions. These have been captured in this survey as 'informal carbon disclosures.'

Once a company was deemed to have reported their greenhouse gases emissions information, a more in-depth examination was taken to evaluate its reporting practices, such as the location of the information, the standards used, and whether or not the information was independently assured.



Extent of Carbon Reporting

	LargeCap	MidCap	SmallCap	Others ⁴	Total
Survey Sample	72	72	72	72	288
Total no. of companies ⁵	72	159	126	1221	1578
% surveyed	100	45.3	57.1	5.9	18.3
Disclosure of any form	27 (37.5%)	11 (15.3%)	2 (2.8%)	0	40
Formal reporting	18 (25.0%)	5 (6.9%)	2 (2.8%)	0	25
<u>Projected total no. with any form of carbon disclosure⁶</u>	27 (exact)	24	4	0	<u>55 (3.5%)</u>
<u>Projected total no. with formal reporting⁷</u>	18 (exact)	11	4	0	<u>33 (2.1%)</u>

⁴ No surveyed companies listed outside HSCI have reported their carbon information in any form.

⁵ <http://www.hkex.com.hk/eng/stat/statrpt/mkthl/mkthl201308.htm>

⁶ The number of companies included in the sample in each size category is projected to account for all companies in each size category.

Results and Analysis

Reporting Companies

We found 25 companies to have reported carbon emissions formally, and these are listed below. Note that this includes all companies included in the Hang Seng Large Capitalisation Index that produced a report, but only covers a sample of the total number of listed companies in other categories.

Company Name (Chinese) ⁷	Company Name (English)	Industry Sector ⁸	Capitalization Size in HSCI	Company Base
中電控股有限公司	CLP Holdings Limited	Utilities	Large	HK
香港中華煤氣有限公司	Hong Kong & China Gas Company Limited, The	Utilities	Large	HK
匯豐控股有限公司	HSBC Holdings plc	Financials	Large	UK
電能實業有限公司	Power Assets Holdings Limited	Utilities	Large	HK
恒生銀行有限公司	Hang Seng Bank Limited	Financials	Large	HK
恒基兆業地產有限公司	Henderson Land Development Company Limited	Properties & Construction	Large	HK
太古股份有限公司(A 股)	Swire Pacific Limited (A Share)	Conglomerates	Large	HK
合和實業有限公司	Hopewell Holdings Limited	Conglomerates	Mid	HK
香港鐵路有限公司	MTR Corporation Limited	Consumer Services	Large	HK
香格里拉(亞洲)有限公司	Shangri-La Asia Limited	Consumer Services	Large	HK
信和置業有限公司	Sino Land Company Limited	Properties & Construction	Large	HK
中國光大國際有限公司	China Everbright International Limited	Utilities	Mid	HK/China
瑞安房地產有限公司	Shui On Land Limited	Properties & Construction	Mid	China
國泰航空有限公司	Cathay Pacific Airways Limited	Consumer Services	Large	HK
香港交易及結算所有限公司	Hong Kong Exchanges and Clearing Limited	Financials	Large	HK
利豐有限公司	Li & Fung Limited	Consumer Goods	Large	HK
中興通訊股份有限公司	ZTE Corporation	Information Technology	Small	China
華潤電力控股有限公司	China Resources Power Holdings Company Limited	Utilities	Large	China
中國海洋石油有限公司	CNOOC Limited	Energy	Large	China
中國移動有限公司	China Mobile Limited	Telecommunications	Large	China
聯想集團有限公司	Lenovo Group Limited	Information Technology	Large	China/US
太古地產有限公司	Swire Properties Limited	Properties & Construction	Large	HK
太平洋航運集團有限公司	Pacific Basin Shipping Limited	Industrials	Small	HK
中海油田服務股份有限公司	China Oilfield Services Limited	Energy	Mid	China
中國建築國際集團有限公司	China State Construction International Holdings Limited	Properties & Construction	Mid	China

⁷ Sorted according to companies' stock code.

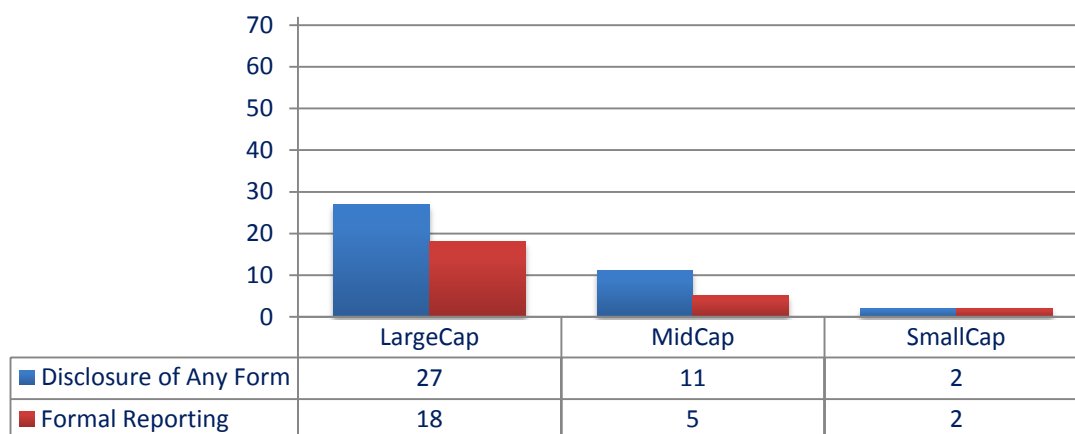
⁸ Based on "Hang Seng Industry Classification System", <http://www.hsi.com.hk/HSI-Net/HSI-Net>.

Market Capitalization

Unsurprisingly, a greater proportion of listed companies with larger market capitalization were found to have disclosed their carbon information compared to companies of smaller size. Out of all 72 companies listed in the Hang Seng Composite LargeCap Index, 27 have included their carbon information in some form, while 18 of them have reported on their carbon emissions formally.

The participation of carbon reporting by companies in the MidCap and SmallCap indexes is much lower as only 5 and 2 companies respectively formally reported.

Reporting Companies by Capitalization Size Categories



From the survey results, we can estimate that about 31% of the capitalization in the HK market is covered by some form of carbon disclosure.⁹

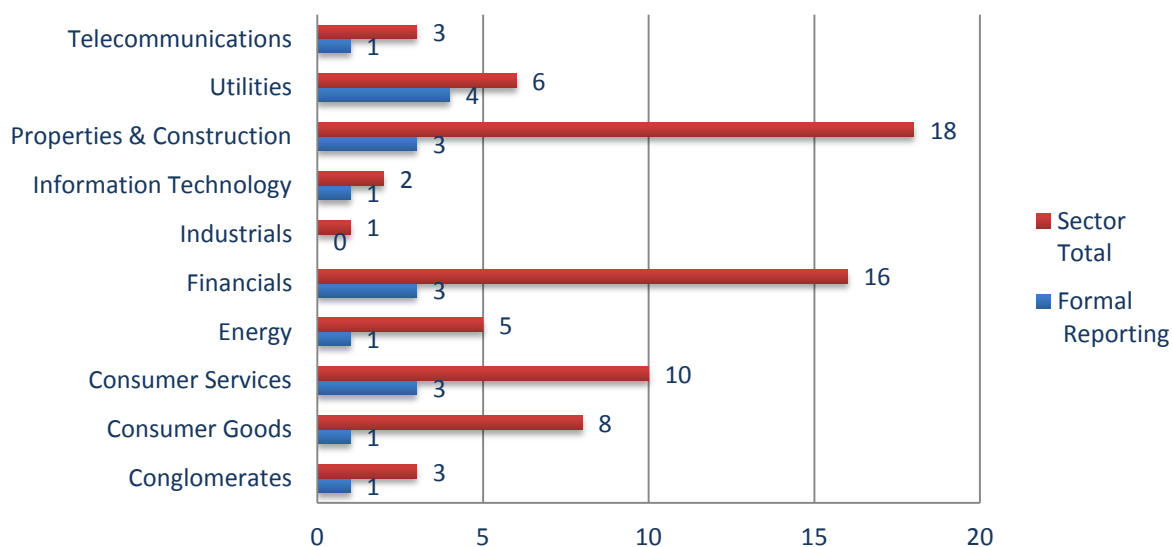
⁹ See Appendix.

Leading Sectors

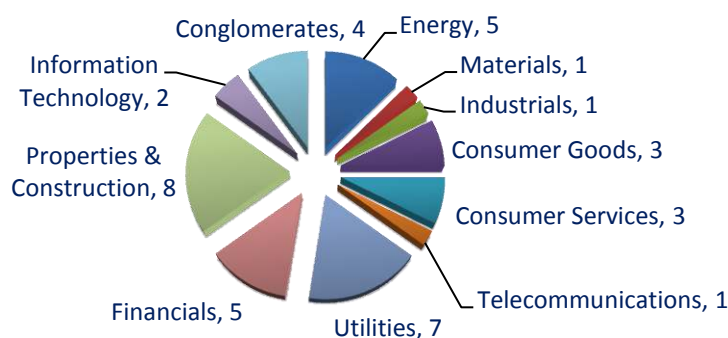
Among HSCI LargeCap companies with formal carbon reporting, the best performing sector is Utilities. Out of six companies in this sector, four of them including CLP Holdings Limited, Hong Kong & China Gas Company, Power Assets Holdings Limited and China Resources Power Holdings Company Limited have achieved generally high-quality reporting. This may reflect the special characteristics of this sector – their close relationship with the general public and the need for a ‘social license to operate’.

In percentage terms, the three worst performing sectors include Consumer Goods, Properties & Construction, and Financials. Less than 20% of companies in each of these sectors have undertaken formal carbon reporting whilst in aggregate there are 44 companies in these three sectors, representing over 60% of LargeCap companies in Hong Kong. The performance of these sectors has a disproportionately large impact on the overall performance of Hong Kong listed companies.

LargeCap Reporting Companies by Industry Sectors (formal reporting only)



All Reporting HSCI Companies by Industry Sector (reporting in any form)



Reporting Format

The reporting formats and practices of the companies surveyed varied a great deal. Some companies mentioned their carbon reduction initiatives in a paragraph on their website or in their social responsibility report, while others included graphs and charts to explain their carbon emissions in their annual reports.

A certain number of companies reported on carbon emissions in narrative form only, while those which included numerical reports generally included some narrative statements to support the statistical information.

ENVIRONMENTAL PROTECTION

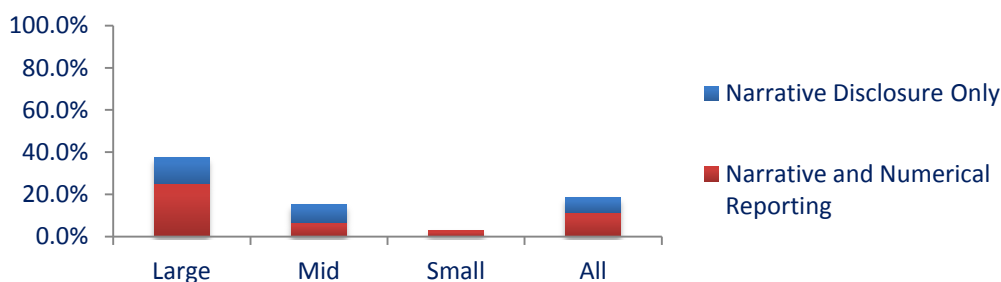
Emissions

As one of the leading motor dealers in Hong Kong and mainland China representing an array of motor brands, we concern about carbon emission and air quality. To minimise the impact on environment, we keep introducing eco-friendly vehicles and promoting alternate fuel vehicles, like electric car and buses. Moreover, we pioneered in introducing the emission reduction devices such as the selective catalytic reduction device for diesel buses.

We also distribute a variety of low energy consumption home electrical appliances to encourage energy saving. Induction cookers and hobs for flameless cooking best exemplify our efforts in promoting low carbon living.

Figure 1 Example of Narrative Disclosure from Dah Chong Hong Holdings

Format of Carbon Disclosure

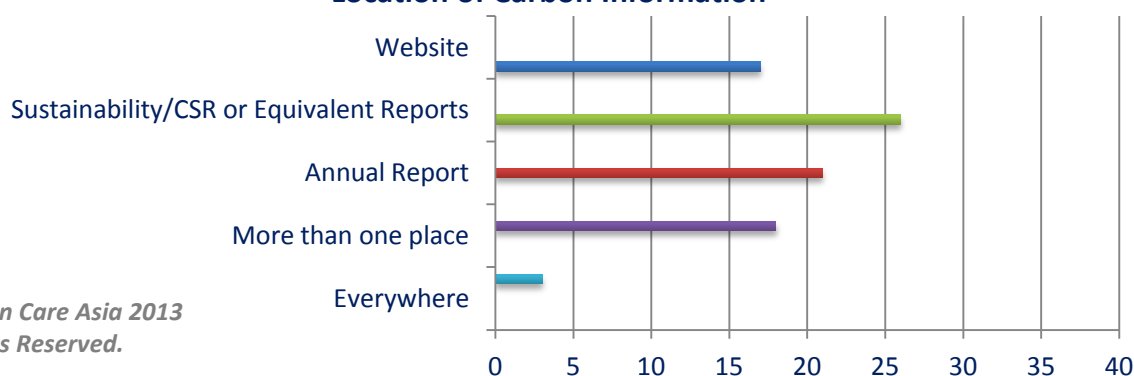


Location of Information

Of those companies reporting their carbon information:

- 21 companies (8.5%) reported in their annual report
- 26 companies (9.2%) reported in a separate sustainability, CSR or equivalent report
- 17 companies (6.3%) reported on their public website
- 18 companies (6.3%) reported in more than one place
- Only three companies reported numerically in all locations

Location of Carbon Information



Presentation of Information



Figure 2 Extract from Swire Pacific's 2012 Annual Report Figure 3 Extract from Towngas's Sustainability Report 2012

Environmental Performance							
	2011	2010	2009	2008	2007	2011 vs 2010 (%)	2010 vs 2009 (%)
Greenhouse gas emission per person* (tonnes CO ₂ /FTE)	2.96	3.12	3.13	3.28	3.3	-5.14	-0.19
Greenhouse gas emission per m ² * (tonnes CO ₂ /m ²)	0.16	0.17	0.17	0.20	0.20	-5.18	-2.16
Greenhouse gas emission* (kilotonnes CO ₂)	23.62	24.86 [#]	24.52	27.40	26.70	-4.99	1.39
Electricity consumption (GWh)	36.30	36.38 [#]	36.50	38.10	35.90	-0.23	0.33
Gas consumption (GWh)	0.38	0.39	0.40	0.42	0.70	-3.76	-1.36
Water consumption (000 m ³)	65.88	71.16	55.85	50.80	54.10	-7.41	27.4
IT / electrical waste recycled (tonnes)	66.02	50.84	85.03	64.90	59	29.86	-40.21

Data coverage : Hang Seng Bank's Hong Kong operations. Data is rounded up to two decimal places.

* Data is calculated and verified through the HSBC Group. Hang Seng's operations have been carbon neutral through HSBC Group since 2007.

Data has been adjusted to reflect amended information provided by Hang Seng's electricity supplier.

Key :
 CO₂: Carbon dioxide
 FTE: Full-time equivalent
 GWh: Gigawatt hours
 m²: Square metres
 m³: Cubic metres

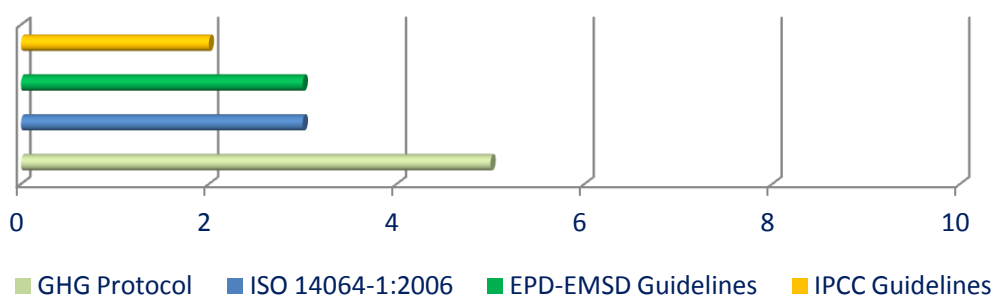
Figure 4 Extract from Hang Seng Bank's Official Website

Methodology and Recognized Standards

Thirteen (4.9%) surveyed companies reporting on the numerical data of their carbon footprint included details on the method used to calculate the figures of carbon emissions.

- 5 companies reported based on *the Greenhouse Gas Protocol: A Corporate Accounting and Reporting Standard* (GHG Protocol)
- 3 companies reported based on ISO14064-1:2006
- 3 companies reported referred to *Guidelines to Account for and Report on Greenhouse Gas Emissions and Removals for Buildings (Commercial, Residential or Institutional Purposes) in Hong Kong* published by the Environmental Protection Department and the Electrical and Mechanical Services Department of the Government of the Hong Kong Special Administrative Region (EPD-EMSD Guidelines)

Others also quoted Guidelines from the Intergovernmental Panel on Climate Change (IPCC) and used the online questionnaire of Carbon Disclosure Project (CDP).



It is suggested companies should follow at least one guideline to calculate their GHG emissions, and state which methodology they used. By doing so, the credibility of report improves and it facilitates standardized comparison between different companies.

*"We hope the Guide (ESG Reporting Guide) will help issuers start reporting and serve as a first step towards adopting international practices. We also encourage issuers to follow **international guidelines.**"*

Mark Dickens, HKEx's Head of Listing

Reporting Boundaries and Scopes

It is recommended that companies reporting on their carbon information define their organizational boundary and operational boundary (scopes) clearly.

Organizational boundary is defined as the boundary within which all businesses and operations of a company would be reported. There are three major approaches suggested by the GHG Protocol, namely 'equity share', 'operational control' and 'financial control' methods. The resulting emissions can differ substantially by using different approaches, especially for listed companies with joint operations.

Organizational Boundaries Explained

Approaches	Explanation ¹⁰	Advantages and Disadvantages
Equity Share	A company accounts for the GHG emissions from its operations according to its share of equity in the operation	Represents the investors' interest and risk associated; Complex calculation
Financial Control	A company has the ability to direct the financial and operating policies of the operation with a view to gaining economic benefits from its activities	Consistent with the consolidated financial statements, easy for readers to assess performance; May include emissions beyond control
Operational Control	A company or one of its subsidiaries has the full authority to introduce and implement its operating policies at the operation	Displays all emissions under control; Neglects the financial influence of corporations

In our survey, around 10 companies defined their organizational boundary of reporting, while most of them did not specifically state which approach they used and no more than three companies reported that they followed the operational control approach.

Operational boundary is defined by various international reporting guidelines (e.g. GHG Protocol, ISO 14064-1:2006) as the way of "identifying emissions associated with operations, categorizing them as direct or indirect emissions, and choosing the scope of reporting and reporting." There are three scopes of emissions, namely Scope 1 (direct GHG emissions), Scope 2 (electricity indirect emissions) and Scope 3 (other indirect GHG emissions).

¹⁰ The Greenhouse Gas Protocol : A Corporate Accounting and Reporting Standard (Revised Edition), *World Council for Sustainable Development and World Resources Institute* (2004)

Operational Boundaries (Scopes) Explained

Scope	Source of GHG emissions	Examples
1	Direct from fuel combustion, process or fugitive emissions from owned or controlled facilities	Oil, gas or other fuel used in boilers, furnaces, or company-owned vehicles. Emissions from processes or waste which escape into the atmosphere
2	Indirect consumption of purchased electricity, heat, cooling or steam	Most commonly this is electricity purchased by the company
3	Other indirect emissions from facilities not owned or controlled by the company	Business travel, waste, transport & distribution of products. Leasing, franchising and supply chain emissions

From our sample, only 11 companies reporting GHGs emissions disclosed their scope of reporting. Eight of them reported according to GHG Protocol's recommendation, i.e. scope 1, 2 or 3, but only three companies included data of all three scopes.

It is often important to include Scope 3 emissions. A recent report on corporate carbon reporting notes: "Scope 3 emissions often form a huge part of an organization's overall emissions profile, in some sectors contributing to over 90% of their overall global impact."¹¹

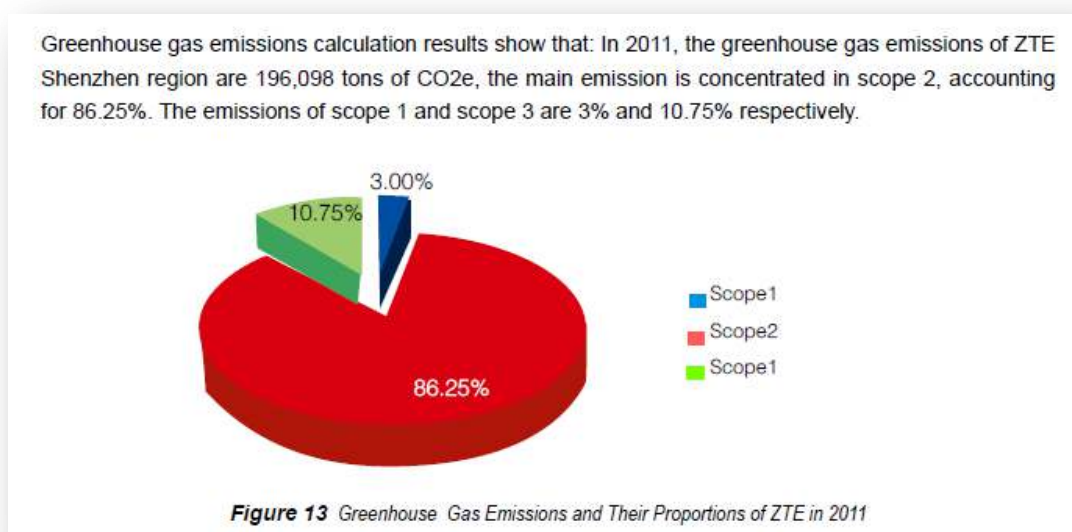


Figure 5 Extract from ZTE Corporation's CSR Report 2012

¹¹ CarbonClear (2013) Carbon Reporting Performance of the FTSE 500.
http://www.carbon-clear.com/files/FTSE100_carbon_reporting_research_2013_Carbon_Clear.pdf

Carbon-related KPIs and Intensity Measures

Key Performance Indicators (KPIs) can provide important information on a company's carbon performance, offering a quick overview and a way to gauge a company's performance over time as well as compare with companies in the same sector, or with companies from different business sectors.

		Year ended/As at 31 December		
		2012	2011	2010
ENVIRONMENTAL INDICATORS				
GHG Emissions (CO₂ equivalent)	unit			
Direct sources				
Corporate fleet ¹⁵	tonnes	23	22	21
Refrigerants ¹⁵	tonnes	993	1,079	411
Indirect sources				
Electricity ¹⁷	tonnes	11,159	10,036	9,439
Business travel ¹⁸	tonnes	471	283	217
Paper consumption ¹⁹	tonnes	65	70	41
Total GHG emissions ²⁰	tonnes	12,711	11,490	10,129
Total GHG emissions per full-time employee (FTE)	tonnes/FTE	11.5	11.5	11.5
Total GHG emissions per floor area	tonnes/m ²	0.52	0.47	0.43

Figure 6 Extract from HKEx 2012 CSR Report

Carbon intensity is a measurement of GHG emissions in relation to the scale of business activity. The most relevant intensity measurement may depend on the nature of the company's business.

Thirteen companies surveyed in different capitalization categories reported KPIs related to GHG intensity, in terms of well-defined measures related to the scale of operations. Two of the most commonly used KPIs were emissions per full-time employee (FTE) and emissions per floor area.

Some other measures include emissions per turnover, emissions per customer, etc.

Types of Intensity Measure	Examples of Relevant Business Sectors	Occurrence
Emissions per full time employee	Professional service companies; knowledge-based companies	★ ★
Emissions by floor area	Property companies; office-based service companies	★ ★
Emissions per dollar or revenue	Widely applicable	★
Emissions by unit or weight of production	Manufacturing, agriculture or mining companies	★
Emissions per passenger-mile / kilometres or tonne-mile / kilometres	Transport and freight companies	★

KEY PERFORMANCE INDICATORS

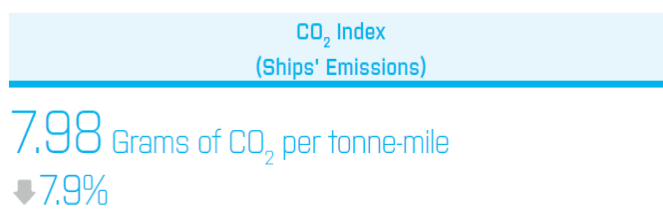


Figure 7 Extract from Pacific Basin's Annual Report 2012

Sectoral Comparisons

Some companies choose industry-specific KPIs such as emissions per unit of power generated (for power supply companies), emissions per tonne-mile/km (for logistics companies), and other internationally accepted benchmarks to facilitate comparisons within an industry.

Time Trend Comparisons

Eighteen companies included comparisons of emissions with at least one previous year. Seventeen of them indicated a base year for GHG emission measurement. This helps readers track the improvement in carbon performance.

Assurance by a Third Party

Third-party assurance is essential for good carbon reporting as it greatly boosts confidence in the report's accuracy and quality. Naming a qualified and recognized third-party assurance group or individual is also an important part of the verification process.

Only 10 companies of those that reported their GHG emissions (and thus 2.8% of the total number of companies surveyed) mentioned their GHG emissions figures were externally assured. In addition, three of those that asserted that the carbon emissions data was independently verified did not name the company auditing the results.

Reducing Carbon Emissions

Indicators	2010	2011	2012
CO ₂ emission (million tonnes)	11.76	12.68	13.92

*Note: According to the data for the conversion of energy published by the Chinese government, the conversion factor for carbon dioxide is adjusted as follows: electricity, 0.943; gasoline, 2.3; diesel fuel, 2.63; natural gas, 0.559; LPG, 1.49; coal, 2.66; and coal gas, 9.5. According to the adjusted factor, we have amended the historical data.

Figure 8 Extract from China Mobile's Sustainability Report 2012

Reporting standards and assurance

We use a number of external standards and guidelines in the development of this report. To guide our selection of information to report, we have consulted the Global Reporting Initiative's (GRI's) reporting framework and Financial Services Supplement. Our GRI table of contents can be found online at www.hsbc.com/sustainabilityreport. We draw on guidance from the Greenhouse Gas Protocol for our carbon reporting.

For the fifth consecutive year, we have appointed PricewaterhouseCoopers LLP to provide independent assurance on selected information in our *Sustainability Report 2012* covering carbon emissions and our application of the Equator Principles.

Their assurance is performed in accordance with the internationally recognised standard ISAE3000, against a clear and public set of criteria which can be found online at www.hsbc.com/sus-assurance. The PricewaterhouseCoopers LLP assurance report is on page 35.

Figure 9 Extract from HSBC Group's Sustainability Report 2012

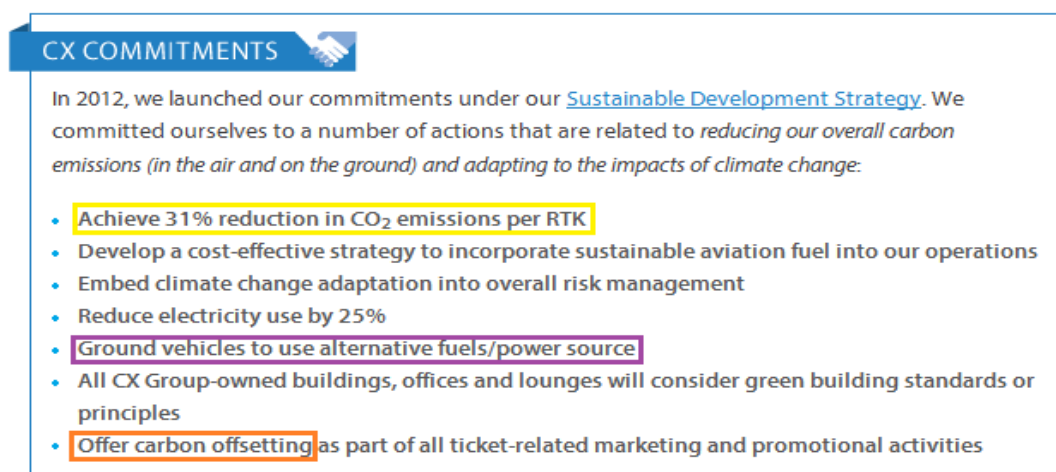
Reduction Targets and Strategies

Whether the Hong Kong government establishes carbon reduction targets for the SAR which are more ambitious than those committed to by China as a whole, or sticks with China-wide targets, it will be essential for major companies in Hong Kong to take steps to set comparable target reductions. To achieve official SAR-wide targets the business sector is likely to be subject to government legislation designed to make sure all emitters commit to sufficient reduction measures.

A total of five companies stated in their reports that they are taking action to reduce their carbon footprint. All of them included specific numerical targets for carbon reductions. However, only two of these were absolute targets, while three set goals for reduction in carbon intensity.

Climate Change

Our Climate Change Commitments



CX COMMITMENTS

In 2012, we launched our commitments under our [Sustainable Development Strategy](#). We committed ourselves to a number of actions that are related to *reducing our overall carbon emissions (in the air and on the ground) and adapting to the impacts of climate change*:

- **Achieve 31% reduction in CO₂ emissions per RTK**
- Develop a cost-effective strategy to incorporate sustainable aviation fuel into our operations
- Embed climate change adaptation into overall risk management
- Reduce electricity use by 25%
- **Ground vehicles to use alternative fuels/power source**
- All CX Group-owned buildings, offices and lounges will consider green building standards or principles
- **Offer carbon offsetting** as part of all ticket-related marketing and promotional activities

Figure 100 Extract from Cathay Pacific's Official Website

Most of the companies that set targets for reduction outlined the strategy they would employ to achieve their targets. The most common practices are increasing energy efficiency and switching to alternative fuels. Two of the companies mentioned carbon offsetting as an option.

Overview of Carbon Reporting by Company Size

	LargeCap Companies Surveyed (72)	MidCap Companies Surveyed (72)	SmallCap Companies Surveyed (72)	Total HSCI Companies Surveyed (216)	Projected % of all HSCI Companies (357)	Projected % of all listed Companies (1578)
Reporting Format						
Disclosed carbon information (in any form and anywhere)	27 (37.5%)	11 (15.3%)	2 (2.8%)	40	15.3%	3.5%
Reported carbon information in annual report (AR)	13 (18.1%)	7 (9.7%)	1 (1.4%)	21	8.5%	1.9%
Reported carbon information in a sustainability/CSR or equivalent report	20 (27.8%)	5 (6.9%)	1 (1.4%)	26	9.2%	2.1%
Reported carbon information on website	12 (16.7%)	4 (5.6%)	1 (1.4%)	17	6.3%	1.4%
Reported carbon information at more than one location ¹²	14 (19.4%)	3 (4.2%)	1 (1.4%)	18	6.3%	1.4%
Reporting Practices						
Reported formally and numerically ¹³	18 (25.0%)	5 (6.9%)	2 (2.8%)	25	9.1%	2.1%
Regarded carbon emissions or climate change as either risks or opportunities to business	7 (8.3%)	0	0	7	2.0%	0.4%
Included carbon-related KPIs (e.g. intensity ratio)	10 (13.9%)	1 (1.4%)	2 (2.8%)	13	4.4%	1.0%
Disclosed emissions by Scope (i.e. scope 1,2 or 3 ¹⁴)	6 (8.3%)	1 (1.4%)	1 (1.4%)	8	2.8%	0.6%
Disclosed emissions by source	6 (8.3%)	3 (4.2%)	1 (1.4%)	10	4.0%	0.9%
Disclosed time-based comparison (e.g. base year emissions)	14 (19.4%)	3 (4.2%)	1 (1.4%)	18	6.2%	1.4%
Set targets for emission reduction (absolute or relative)	4 (5.6%)	1 (1.4%)	0	5	1.7%	0.4%
Referred to specific reporting framework(s)	9 (12.5%)	3 (4.2%)	1 (1.4%)	13	4.9%	1.1%
Assured by third-party	7 (8.3%)	1 (1.4%)	2 (2.8%)	10	3.6%	0.8%

^{12, 13} None of the companies surveyed include their carbon information only on their website.

¹⁴ Scope 1 Emission: Direct from fuel combustion, process or fugitive emissions from owned or controlled facilities.
 Scope 2 Emission: Indirect consumption of purchased electricity, heat, cooling or steam.
 Scope 3 Emission: Other indirect emissions from facilities not owned or controlled by the company.

How does Hong Kong measure up?

- Some 20 companies from Singapore appear in the Global Reporting Initiative database as having followed GRI guidelines in their sustainability reporting. These guidelines require reporting of total direct and indirect greenhouse gas emissions as well as initiatives to mitigate environmental impacts. The GRI database combines reports for HK and mainland China, and this shows that 109 companies in China or Hong Kong are following GRI reporting standards.
[<http://database.globalreporting.org/search>]
- Japan introduced annual mandatory reporting of GHG emissions in 2006 under the Act on Promotion of Global Warming Countermeasures. Certain companies, particularly those in the energy and transportation sectors, are required to report their CO2 emissions from energy consumption. At the time of introduction in 2006, the scheme covered 11,358 facilities and 1,382 transportation companies.
[<http://www.japanfs.org/en/pages/026377.html>]
- In Korea, the Basic Act on Low Carbon Green Growth includes mandatory rules that require energy-intensive companies and/or companies emitting GHGs over a certain amount to report their emissions and energy consumption to the Government with effect as of 14 April 2010. The controlled entities were to submit their first GHG emission statement to the ministry in charge by the end of May, 2011.
[http://eng.me.go.kr/board.do?method=view&docSeq=9168&bbsCode=new_infocus]
[<http://www.oecd.org/daf/inv/internationalinvestmentagreements/50549983.pdf>]
- The Securities and Exchange Board of India in 2011 mandated that listed companies should report on their Environmental, Social and Governance (ESG) initiatives, according to the key principles enunciated in the 'National Voluntary Guidelines on Social, Environmental and Economic Responsibilities of Business' (NVG Framework). The parameters include: 'Statement on quantum of emissions of greenhouse gases and efforts made to reduce the same.' On 13th August 2012 the Securities and Exchange Board of India made it mandatory for the top 100 Bombay Stock Exchange and National Stock Exchange listed companies (as on March 2012) to disclose their Business Responsibility Practices through a report adhering to the NVG framework.
[<http://hausercenter.org/iri/about/global-csr-disclosure-requirements>]
- Since 2008, Shanghai and Shenzhen Stock Exchange listed companies have been encouraged to voluntarily issue CSR reports, especially on environmental protection activities.

Conclusion

From the survey of 216 companies, it is clear that there is presently a low level of carbon reporting by Hong Kong listed companies. Larger companies in general paid better attention to carbon emissions than smaller companies. But with an average reporting rate of 2.1%, and only 25% of the large companies reporting carbon figures numerically, Hong Kong business across the board still has a long way to go to meet increasing calls by stakeholders for environmental transparency, to play their part in a more ambitious carbon reduction plan proposed by the Hong Kong government, and to prepare for probable mandatory carbon reporting standards over time.

It is notable that many companies which reported CSR or environmental social and governance performance in their annual reports or special supplements failed to mention carbon reporting. Without details of carbon emissions, these reports represented a very preliminary understanding of either CSR or ESG reporting. Measuring the company's carbon footprint is one of the most fundamental parts of meaningful social and environmental accountability.

Only seven companies surveyed reported that climate change poses serious risks to business and challenges for future business strategy, and all of these were LargeCap companies. Very few companies in our survey offered specific examples of innovation, brand building initiatives or other business opportunities stemming from a forward-thinking approach to a low-carbon economy. It is disappointing that the three leading sectors in Hong Kong – Financials, Properties & Construction and Consumer Goods – are also the worst performing sectors in formal carbon reporting.

Of the 25 companies with significant carbon reporting, some different reporting standards

were found to be used. Once the HKSEx introduces ESG reporting, it would be beneficial for investors and other stakeholders to have comparable data on the carbon performance of the companies trading on our city's exchange. To make carbon reporting valuable, companies will need encouragement to report scope of emissions, boundaries, and the verification process in a comparable, clear and consistent manner. It would also be meaningful for key performance indicators (KPIs) and greenhouse gas intensity measures to be standardized within comparable business sectors in order that stakeholders can judge the relative performance of different companies.

The Hong Kong government has proposed targets for Hong Kong at a reduction of 50%-60% in greenhouse gas emissions by GDP intensity by the year 2020. From our sample survey, only five companies have set carbon reduction targets of any kind. Some of these are absolute reductions, others tied to a variety of intensity measures.

We have to conclude from this first survey that Hong Kong companies are barely at the starting point for making a proportionate contribution to Hong Kong's overall reduction targets. The measurement systems are not yet in place to accurately measure how far short of the overall HK target they are falling. There are indications that Hong Kong listed companies are falling behind their main rivals in Singapore in terms of formal carbon reporting.

This survey did demonstrate that some progressive Hong Kong companies are already using and reporting world-standard systems of carbon measurement. The performance of the utilities sector is particularly encouraging. These companies will be able to benefit more from good carbon management practices, and lead Hong Kong business down the path to sustainable development.

Appendix

Calculation of Market Capitalization Covered by Carbon Disclosure:

Estimate of Market Capitalization (MC) Covered

= % of Market Capitalization (MC) covered by HSCI X

(% of MC of LargeCap in HSCI X % of LargeCap doing Carbon Disclosure

+ % of MC of MidCap in HSCI X % of MidCap doing Carbon Disclosure

+ % of MC of SmallCap in HSCI X % of SmallCap doing Carbon Disclosure)

= 95% X ((80% X 37.5%) + (15% X 15.3%) + (5% X 2.8%))

= 95% X (0.3 + 0.023 + 0.001) = 30.78% (≈31%)

Reference

- Deloitte. (2010). *A survey of carbon reporting practices amongst UK listed companies*. Retrieved at http://www.deloitte.com/assets/Dcom-UnitedKingdom/LocalAssets/Documents/Industries/EIU/Oil and Gas/UK_EIU_CarbonSurvey.pdf on 7 November 2013
- Deloitte. (2013). *UK Carbon Reporting Survey — Lip service or leadership?*. Retrieved at <http://www.iasplus.com/en/publications/uk/other/carbon-survey> on 7 November 2013
- Carbon Clear. (2013). *The Carbon Performance of the FTSE 100 2013*. Retrieved at http://www.carbon-clear.com/files/FTSE100_carbon_reporting_research_2013_Carbon_Clear.pdf on 7 November 2013
- World Business Council for Sustainable Development & World Resources Institute. (2004). *The Greenhouse Gas Protocol : A Corporate Accounting and Reporting Standard (Revised Edition)*
- International Organization for Standardization. (2006). *ISO14064-1:2006, Greenhouse gases – Part 1: Specification with guidance at the organization level for quantification and reporting of greenhouse gas emissions and removals*
- Environmental Protection Department and Electrical and Mechanical Services Department of the Government of the Hong Kong Special Administrative Region. (2010). *Guidelines to Account for and Report on Greenhouse Gas Emissions and Removals for Buildings (Commercial, Residential or Institutional Purposes) in Hong Kong (2010 Edition)*

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About Carbon Care Asia

Carbon Care Asia Limited (CCA) is established in 2008 by a team of professionals and environmental leaders dedicated to the mission of combating climate change. It is a leading provider of cutting-edge services in carbon strategy and sustainability innovation. Operating as a social business, CCA stands uniquely in the middle of the spectrum between NGOs and fully commercial consultancies. This enables us to provide independent and expert advice through a market-based approach. We provide integrated services and solutions for businesses and institutions to manage risks, increase profitability and enhance brand value whilst mitigating the impact of climate change.

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