

Result of HKQAA-HKJC Carbon Disclosure e-Platform Survey 2013

1. The Carbon Disclosure ePlatform (CDeP)

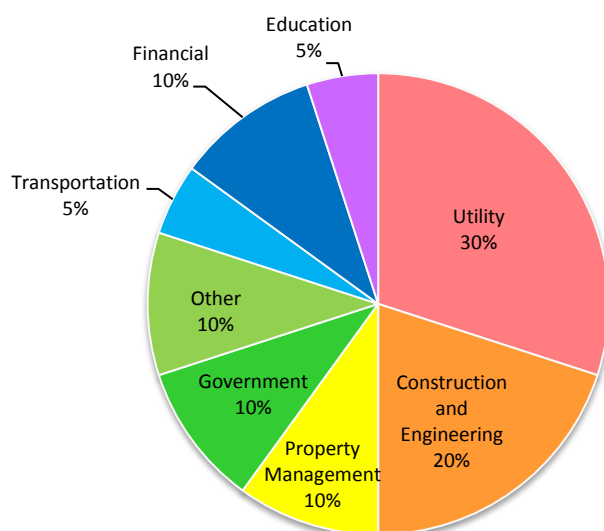
Launched in June 2013, the “HKQAA-HKJC Carbon Disclosure e-Platform (CDeP)” allows Hong Kong organizations to share their performance data and good practices in carbon management. Through adopting a methodical approach, the platform helps participants understand their carbon performance in a systematical way and facilitates information flow and knowledge-building among industries and the general public. Organizations may learn by comparing their own performance with other organizations so as to generate ideas for continuous improvement, while the general public can search for and browse carbon information for reference.

This report analyzes responses by the participating organizations and presents the progress of their annual carbon management in reducing emissions and responding to climate-related risks and opportunities. The findings provide a general picture of participants’ effort to integrate carbon management into their corporate policies and serve as a drive to lead among peers to combat climate change.

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- ◆ In the first 2 quarters, **20 organizations** completed the “Carbon Performance Questionnaire” through CDeP
 - ◆ Total GHG emissions reported as at 31 Oct 2013: **76,402,697 tCO₂e***
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* Scope (1+2+3)

2. Participants' Industrial Sectors



Among the 20 participants, half of them are from Utility and Construction and Engineering industries while an NGO and a property developer are categorized as “Other” in the industrial sector.

These organizations were asked to report their carbon reduction strategies, GHG emissions and energy use through CDeP standardized questionnaire format.

To learn more about the organizations' profile and their information disclosure, please visit the CDeP website at <http://cdep.hkqaa.org/>.

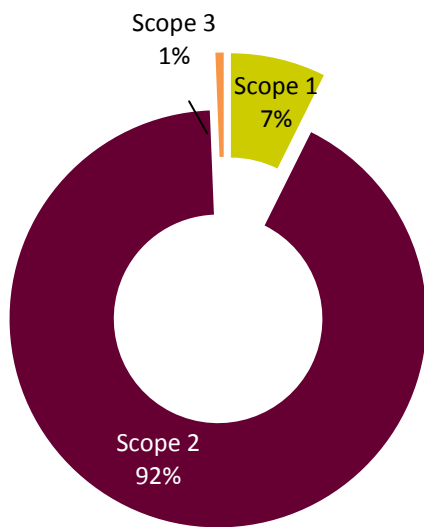
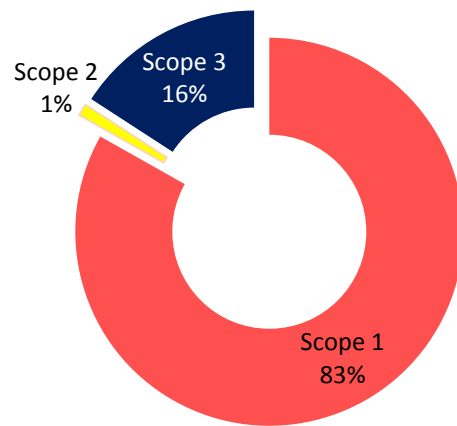
3. The Reported Annual GHG Emissions

Scope 1 Emissions	63,541,188 tCO ₂ e / year
Scope 2 Emissions	759,266 tCO ₂ e / year
Scopes 1 & 2 Emissions	64,300,454 tCO₂e / year
Scope 3 Emissions	12,102,244 tCO ₂ e / year
Overall Emissions (Scopes 1, 2 & 3 Emissions)	76,402,697 tCO₂e / year
GHG Reduction	- 101,373 tCO ₂ e / year
Scopes 1 & 2 Emissions + GHG Reduction	64,199,081 tCO₂e / year
Scopes 1, 2 & 3 Emissions + GHG Reduction	76,301,324 tCO₂e / year

Table 1: Emission data summary

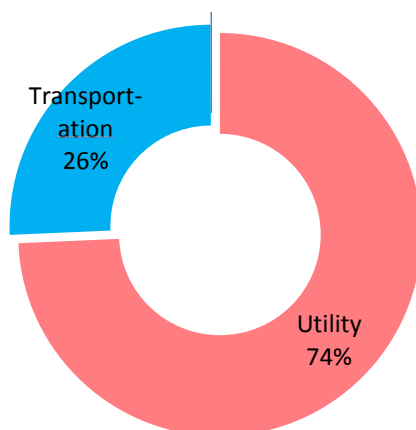
3.2 Overall Emissions (Scopes 1, 2 & 3 Emissions)

In the last 2 quarters, 70% of the respondents reported all their direct, indirect and other indirect (Scopes 1, 2 & 3) emission footprints. From the information gathered, scope 1 emissions contribute to 83% of the total emissions while Scope 2 and Scope 3 contribute to 1% and 16% of the total respectively.



As the reported emissions mostly come from the Utility and Transportation sectors, another figure for the emission total (i.e. 466,986 tCO₂e / year) excluding these organizations is shown to give a clearer picture without being distorted by the major Scope 1 emission sources.

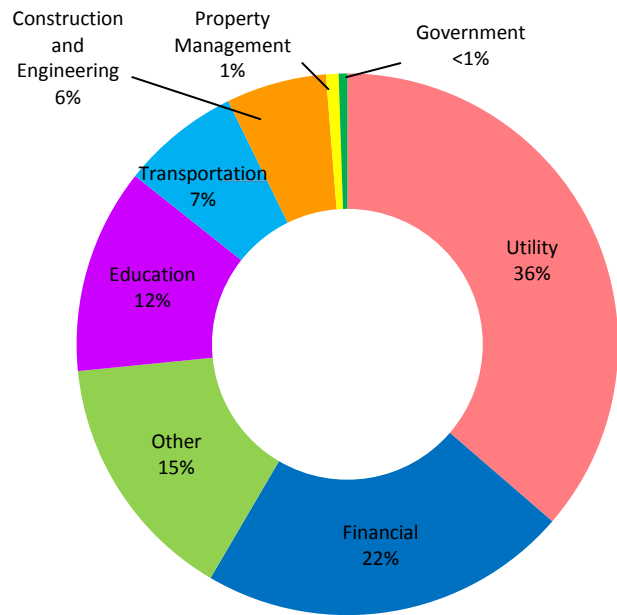
Scope 1 Emissions from Various Industrial Sectors



As analyzed from the performance data collected, Utility and Transportation industries reported almost 100% of the scope 1 emissions. The major sources of scope 1 emissions include dual fuel generators at production plants and company vehicles. Most organizations reported refrigerants escaped from the air-conditioning system at office buildings as the major source of scope 1 emission.

3.2.2 Scope 2 Emissions from Various Industrial Sectors

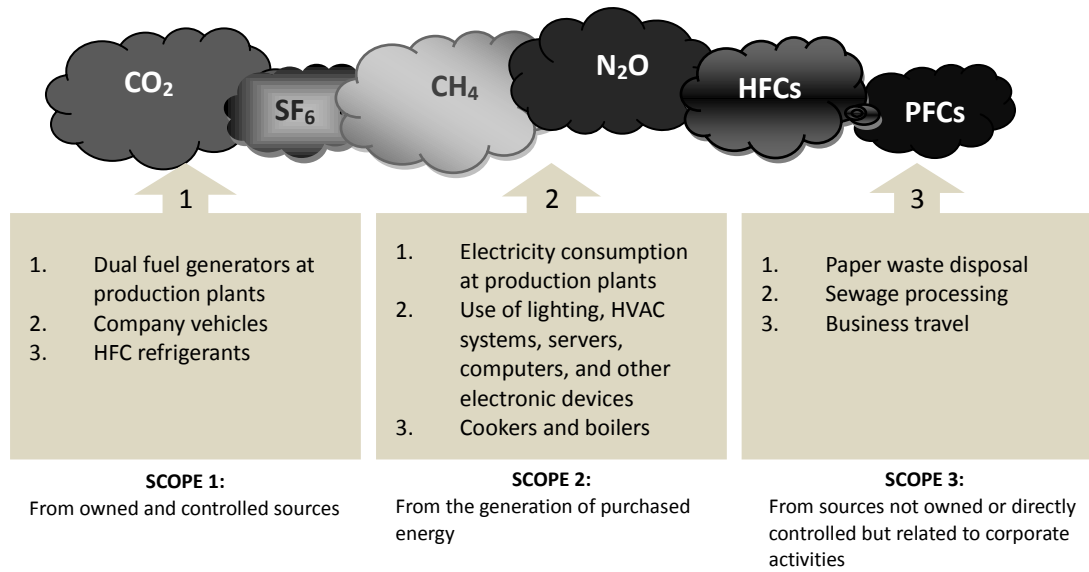
With 90% of the respondents captured and reported their annual Scope 2 emissions, Utility and Financial sectors recorded almost 60% of the footprints. The major sources of scope 2 emissions include the electricity consumption at production plants, use of lighting, HVAC systems, servers, computers, and other electronic devices in office settings. Respondents who offer dining services also reported electricity consumption or burning of town gas for cookers and boilers.



3.2.3 Scope 3 Emissions

The Scope 3 measurements engage suppliers and other value chain partners in GHG management and sustainability. For some sectors, such as Financial Services and Information Technology, Scope 3 emissions are on an order of magnitude larger than Scopes 1 and 2. However, most of the respondents only reported paper waste disposal, sewage processing and business travel as the major sources of Scope 3 and fell short in reporting all the critical scope 3 emission sources, e.g. emission caused by contractor activities and contracted solid waste disposal. This resulted in a partial picture of an organization's footprint.

Major Emission Sources from Scopes 1, 2 and 3



3.3 Carbon Intensity

- ◆ The overall carbon intensity calculated from the responses:
 - **730 tCO₂e/ staff[†]** **2.0 tCO₂e/ sq. ft.[‡]**

As calculated from the emission data, Utility, Transportation and Construction and Engineering industries recorded the highest carbon intensity with detailed illustration in the table below.

[†] (Scopes 1 & 2 emissions + GHG reduction) / No. of staff

[‡] (Scopes 1 & 2 emissions + GHG reduction) / Total floor area (in sq. ft)

Industrial Sector	Carbon Intensity	
	In tCO ₂ e/ staff [†]	In tCO ₂ e/ sq. ft. [‡]
Utility	4324.10	14.51
Transportation	562.71	Information not available
Financial	84.59	0.015
Construction and Engineering	8.51	0.550
Government	5.33	0.002
Other	5.03	0.015
Education	3.04	0.015
Property Management	1.17	0.007

Table 2: Carbon Intensity

4. Commitments to Reduce Emissions

- ◆ Carbon Reduction Policies were established in 45% of the responding companies
- ◆ The GHG reduction targets range from 2 – 31% to be achieved in 3-9 years

Setting targets formally commits an organization to cutting carbon emissions. Responding companies considered Energy Efficiency Enhancement, Environmental Protection, Cost Saving Purpose the major drivers for investment in these projects. It is not surprising that high-emitting sectors (Utility and Transportation) are setting most-ambitious targets. Renewable-energy installation has been reported by 35% of the participants for carbon reduction. 40% of the respondents reported that they have New Tree Planting projects implemented. Other projects, such as Fuel Switching, LED Lighting Replacement, HAVC Retrofit, Office Building Chillers Replacement and Carbon Credits Purchasing are also reported by 45% of the respondents.

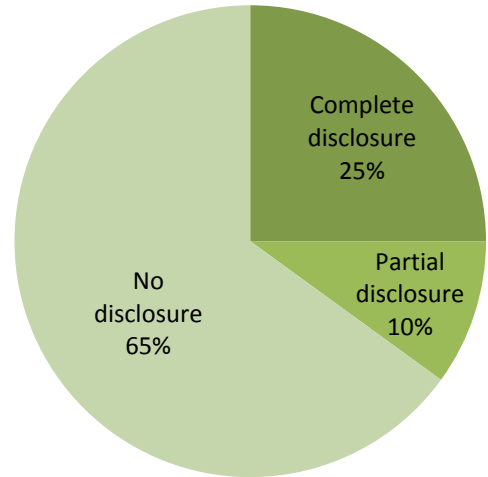
Most of the respondents showed satisfaction on the effectiveness of the emission reduction projects. The total number of projects implemented and the respective average ratings on effectiveness given by the respondents are summarized in the table below. Respondents found Financial Ability, Top Management Commitment and Related Technical Capability the critical successful factors for the projects.

	Renewable-Energy Installation	Newly Planted Trees	Other Projects
Number of Projects Implemented	8	8	9
Average rating on effectiveness (1 – very poor to 6 – excellent) and Standard Dev (δ)	4.14 (0.92)	4.25 (1.04)	4.56 (0.88)

Table 3: Number and Effectiveness Rating of emission reduction projects

5. Disclosing Rate

Nowadays, since stakeholders are more concerned about their companies' performance towards society and the environment, the platform has allowed easy reference of individual company's carbon performance. However, 65% of the participants chose not to disclose their performance data of emissions. This demonstrates the need for a more mature level of showcasing the carbon management progress so as to better serve the benchmarking and peer-learning purposes within industries.



6. Way Forward

In positioning the business for sustainable long-term growth, many responding companies are committed to create and drive emission reduction and reach into the value chain. Their progress in GHG reduction is creating competitive advantages, such as reduced cost, increased productivity, strengthened brand and reduced risk. We expect to see higher level of carbon-reduction engagement as well as improved disclosing rate of carbon management through CDeP to realize the joint efforts of organizations in Hong Kong in mitigating the effects of climate change.

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