GREEN BUILDING CITY MARKET BRIEF

HONG KONG

A CITY-WIDE MOVEMENT WITH GLOBAL REACH
Hong Kong is a leader in the green building movement, through policies that promote energy efficiency and environmentally-sound practices. As part of the international community for a sustainable built environment, the HKGBC is connecting the city with the world, as an Established Member of the World Green Building Council and with a representative on its Board of Directors. Additionally, Hong Kong will be the host for the World Green Building Council Congress in 2015.

LEADING BY EXAMPLE
Hong Kong’s integration of a local green building rating system into the building plan processing regime has accelerated the growth of sustainable design and construction within the city. In 2011, the city implemented a BEAM Plus certification requirement for developers seeking additional project floor area. This area concession is generally capped at 10%. Since the implementation of the new requirement, over 250 new building projects have registered for the BEAM Plus assessment.

The buildings sector accounts for approximately 90% of total electricity consumption in Hong Kong.

GREEN CODES
Launched in October 1998, the Building Energy Codes stipulate compliance standards for the Hong Kong Special Administrative Region of China. In September 2012, the Government made the codes mandatory by enacting the Buildings Energy Efficiency Ordinance, requiring building service installations, including electrical, air-conditioning, lighting, elevators and escalators, in new construction and major renovation projects to meet minimum energy efficiency requirements. Additionally, commercial building owners must conduct an energy audit of the aforementioned building services every 10 years. Energy audit forms must be displayed in a conspicuous location near the main entrance for public view.

CITY EMISSION TARGET:
The City of Hong Kong aims to reduce its carbon intensity by 50-60% below 2005 levels by 2020.

PROJECT TYPE AND PRESENCE

Green Building Codes ✔
Energy Benchmarking and Data Transparency ✔
Green Municipal Buildings ✔
New/Existing Commercial Building Incentives ✔
New/Existing Residential Building Incentives ✔
Green Schools ✔
Neighborhood-Scale Sustainability ✔

CITY DETAILS
Population                      7.22 Million
Land Area (km²)                                 1,104
Gross Domestic Product (in USD billions) 272
Average Walk Score 192/100
Annual Rainfall (mm/year) 2,850
Climate Action Plan Yes

BUILDING PERFORMANCE
EMISSIONS
City-wide Emissions (metric tons CO₂e) 242,700,000
% of Emissions from the Building Sector --
Municipal Emissions (metric tons CO₂e) --

MEMBERSHIP AND PROFESSIONALS
BEAM Professionals 2,323
BEAM Assessors 36
LEED Credentialed Professionals 885

PROJECT BREAKDOWN
222 BEAM Plus Projects with Final or Provisional Assessment (Hong Kong)
615 BEAM Plus Registered Projects (Hong Kong)
89 LEED Certified Projects (Hong Kong)
103 LEED Registered Projects (Hong Kong)

CHIEF EXECUTIVE POWERS

This graph depicts the level of control or influence a Mayor has with respect to the assets under the city’s jurisdiction. Powers are assessed by four factors (ownership and control, ability to set and enforce regulations, control over infrastructure budgets, and capacity to set vision), and covers the city-wide geographic area.

PRIVATE BUILDINGS
NO DATA LIMITED PARTIAL STRONG

PUBLIC BUILDINGS
NO DATA LIMITED PARTIAL STRONG
POLICY SPOTLIGHTS:
BLUEPRINT FOR SUSTAINABLE USE OF RESOURCES 2013-2022
The Blueprint serves as a comprehensive list of initiatives that center on a “use less, waste less” approach. Plans include:
• Reduction of the municipal solid waste disposal rate by 40% on a per capita basis by 2022.
• The unveiling of a Food Waste Plan in February 2014 that maps out a comprehensive strategy for the management of such waste, with a view to reduce Hong Kong’s food waste disposal to landfills by at least 40% by 2022.

CLEAN AIR PLAN FOR HONG KONG
The Plan outlines the challenges facing the city and details policies and measures aimed to tackle air pollution problems with a goal of protecting public health. Strategies include:
• Control measures to reduce emissions from local air pollution sources, including motor vehicles, marine vessels and power plants.
• Phasing out heavily polluting pre-Euro IV diesel commercial vehicles by 2019.
• Strengthening collaboration between Guangdong and Hong Kong to address regional air pollution.

PROJECT SPOTLIGHT:
ZCB (the first Zero Carbon Building in Hong Kong)
ZCB is the first Zero Carbon Building in Hong Kong. Developed by the Construction Industry Council in collaboration with the Hong Kong Government, it aims to showcase eco-building design strategies and technologies for low-carbon living. ZCB generates on-site renewable energy from photovoltaic panels and a tri-generation system using biofuel made of waste cooking oil. ZCB exports surplus energy to offset the embodied carbon of its construction process and major structural materials. ZCB has won various recognitions and awards for its innovative design and superb environmental performance and is one of the first projects to achieve a BEAM Plus Provisional Platinum Rating. ZCB offers guided tours to the general public and runs a ZCB Ambassador Scheme for students to educate visitors on low-carbon living.

BENCHMARKING
To improve the overall energy efficiency of buildings in Hong Kong, the HKGBC’s Policy and Research Committee and Industry Standards Committee have been developing two sets of building operational energy benchmarking tools to help building users and property managers identify possible opportunities for improvement. The Building Energy Performance Recognition Scheme – Office Occupants (BESTOO) was launched in November 2013. Aimed to reduce energy consumption, the Scheme and a web-based energy benchmarking tool were developed to promote energy efficiency and recognize office occupants with outstanding energy saving performance. The energy benchmarking tools for commercial buildings are now under development and are expected to be launched in 2015.

In an effort to reduce the environmental burden of the buildings sector, the HKGBC launched the HK3030 campaign in March 2013, to drive a 30% reduction of absolute electricity consumption in buildings below 2005 levels by the year 2030.

GREEN RESIDENTIAL BUILDINGS
In accordance with the Residential Properties (First Hand Sales) Ordinance, which came into effect in April 2013, when selling first hand residential properties in a development which was granted gross floor area concessions, vendors must provide the environmental assessment results of BEAM Plus certification for the building(s) in the development within the sales brochure. Additionally, the Mandatory Energy Efficiency Labeling Scheme (MEELS) requires that certain household appliances (air-conditioners, refrigerators, compact fluorescent lamps, etc.) display an energy label. While MEELS concentrates on the energy efficiency of home appliances, the Industry Standards and Research Committee of the Hong Kong Green Building Council is developing an eco-labeling scheme for building materials and products to accelerate the development of a sustainable and transparent building supply chain.

GREEN EDUCATION
Guiding Hong Kong school principals and administrators to green their schools, the HKGBC’s Public Education Committee published a ‘Hong Kong Green School Guide’. It provides insight on best practices, current green school initiatives, and project-related costs. Since 2011, the Council has organized “My Green Space Green Building Competition for Schools,” a green building competition that encourages students of local primary and secondary schools to present creative ideas on how green building concepts can be applied to homes, schools, communities and the city. Recognizing the crucial role played by the education sector in nurturing behavioral change, the HKGBC has continuously organized green building tours and workshops for local primary and secondary school communities. Additionally, the Council plans to run its 2nd annual territory-wide public campaign, “Hong Kong Green Building Week,” to promote local green building development and sustainable lifestyles.

GREEN SHOPS
Aiming at providing guidance to the owners, facility managers and tenants of shopping malls and individual shops on implementing measures in their facilities, the Hong Kong Green Shop Guide was launched in March 2014. A seminar targeting stakeholders, including developers, facility managers, shop owners and tenants, was held in April 2014 to encourage the implementation of green projects within the retail sector. To further increase the environmental awareness of the shop owners and tenants and to stress the importance of behavioral change, a total of six exhibitions will take place from March to October 2014 on a roving basis.

REFERENCES
2. C40 Cities Climate Leadership Group and the Carbon Disclosure Project. (2013) City Data Inventory.
3. BEAM Professionals and Project Figures were retrieved on 27 February 2015.
4. LEED Professionals and Project Figures were retrieved on 6 January 2015.
5. This figure has excluded the number of projects certified by the former HK-BEAM scheme – a scheme that operated before establishment of the HKGBC, which exceeded 200 projects.