



# Assessing Green Management Practices *in your Existing Buildings*



28 August 2017

# HONG KONG'S CLIMATE ACTION PLAN 2030+

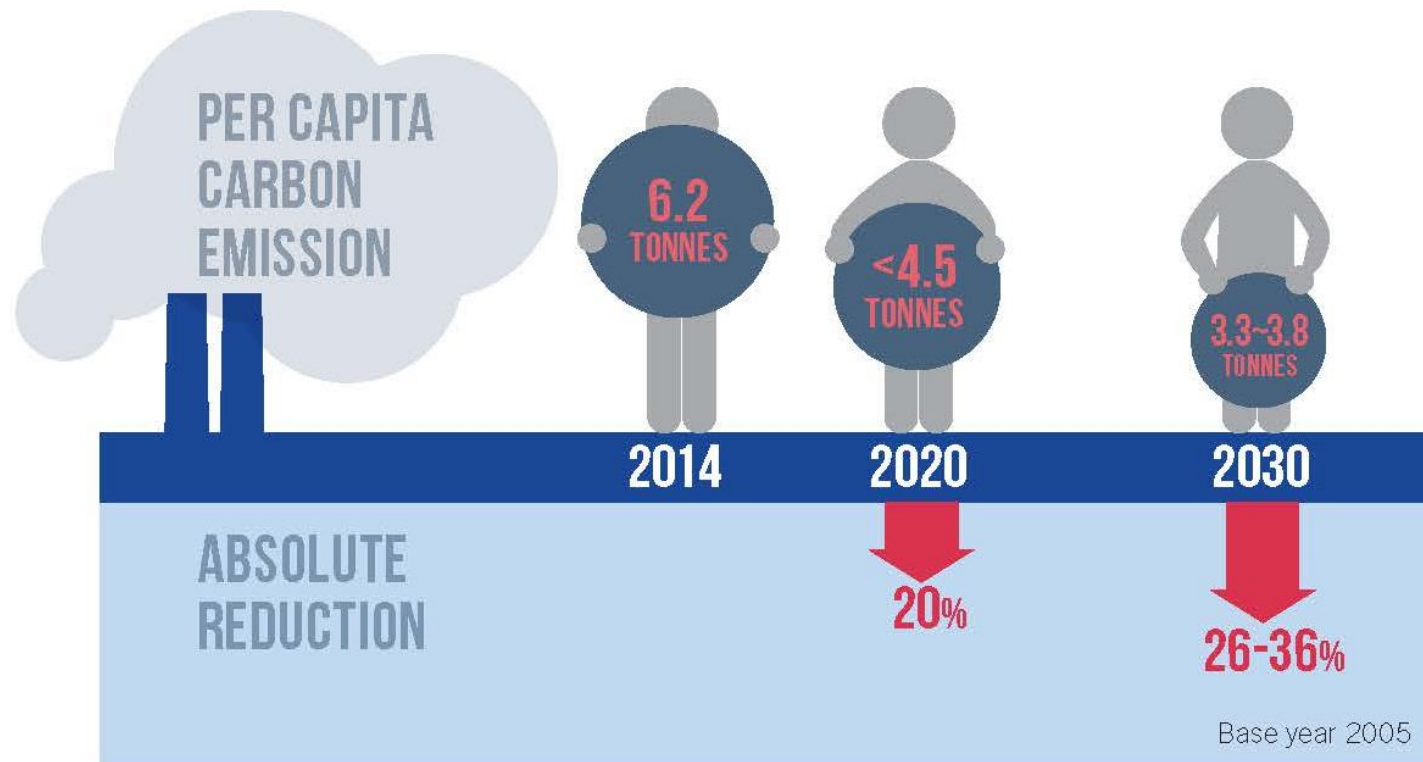
January 2017

[www.climateready.gov.hk](http://www.climateready.gov.hk)

**Climate  
Ready@HK**  
氣候變化香港行動

## THE CARBON TARGET OF HONG KONG

Hong Kong will reduce its carbon intensity by 65-70% by 2030 using 2005 as a base.

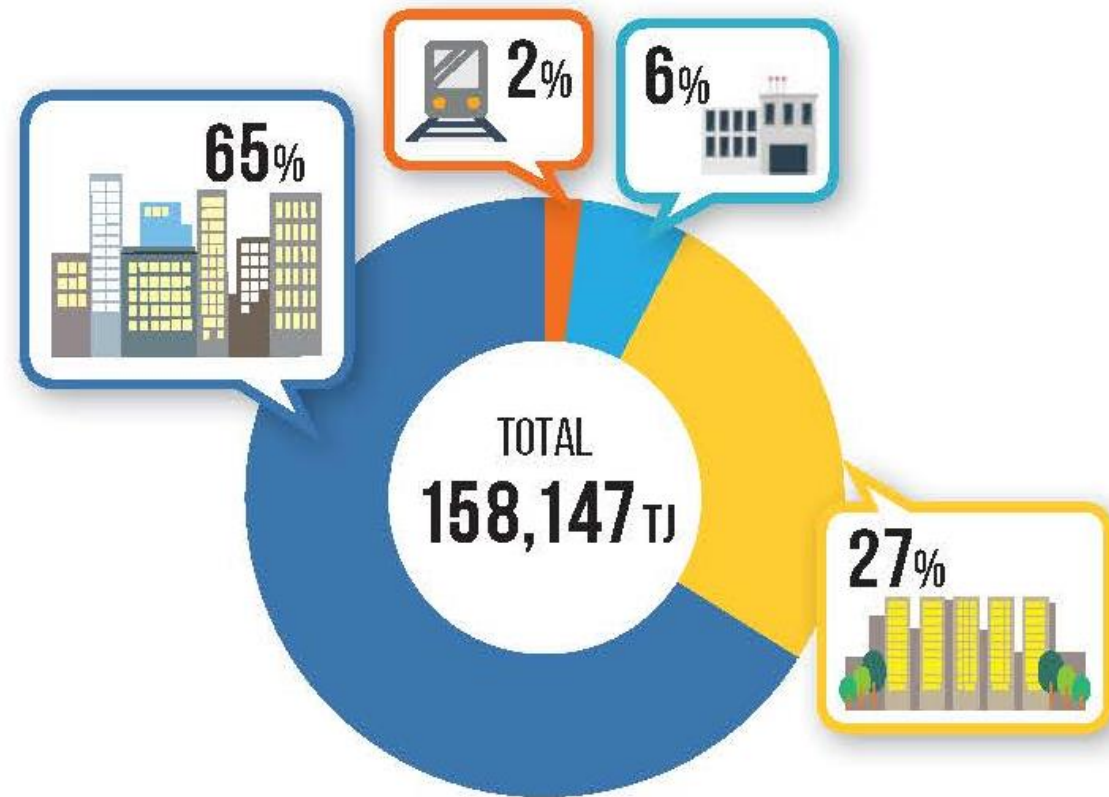


Source: Hong Kong's Climate Action Plan 2030+





# ENERGY USE IN COMMERCIAL BUILDINGS



Commercial	102,627 TJ
Residential	43,415 TJ
Industrial	9,230 TJ
Transport	2,875 TJ

Source: Hong Kong's Climate Action Plan 2030+





# AGEING BUILDING STOCK

**42,000**

private buildings

**8,000**

government structures





How does  
greening existing buildings tackle  
the challenges?



**Upgraded version of  
BEAM Plus Existing Buildings V2.0**

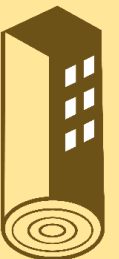
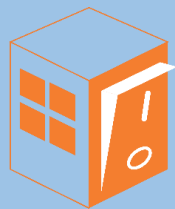
Assessing the actual environmental performance  
of your building

# BEAM Plus Existing Buildings

## Version 1.2

### 6 Performance Aspects

- Materials Aspects
  - Site Aspects
  - Energy Use
  - Water Use
- Indoor Environmental Quality
- Innovations and Additions



## Version 2.0

### 7 Performance Aspects

- **Management** <sup>New!</sup>
- Materials **and Waste** Aspects <sup>New!</sup>
  - Site Aspects
  - Energy Use
  - Water Use
- Indoor Environmental Quality
- Innovations and Additions  
(For comprehensive scheme only)



HKGBC  
BEAM Plus  
綠建環評  
既有建築 EB

## Comprehensive Scheme

Assessment of **ALL aspects**

Target: Buildings <20 years old



**PLATINUM**  
鉑金級 EB 既有建築  
V2.0 2017  
HKGBC  
BEAM Plus  
綠建環評

## Selective Scheme

**Individual Aspect** Assessment

Target: Buildings >20 years old





# GREEN MANAGEMENT PRACTICES




## Green Purchasing Plan

Endorsed green purchasing policy and reporting



## Building Records

- Building, structural plans approved by Building Authority
- Plumbing drawings
- Fire services installation plans
- Layout plans for utilities



## Building and Site Operation and Maintenance

- Building maintenance
- External areas and facilities



## Green Cleaning

Green cleaning procedures and practices



## Building Services Operation and Maintenance

Air-conditioning system, lift/escalator, electrical, lighting, plumbing and drainage



## Renovation Management Plan

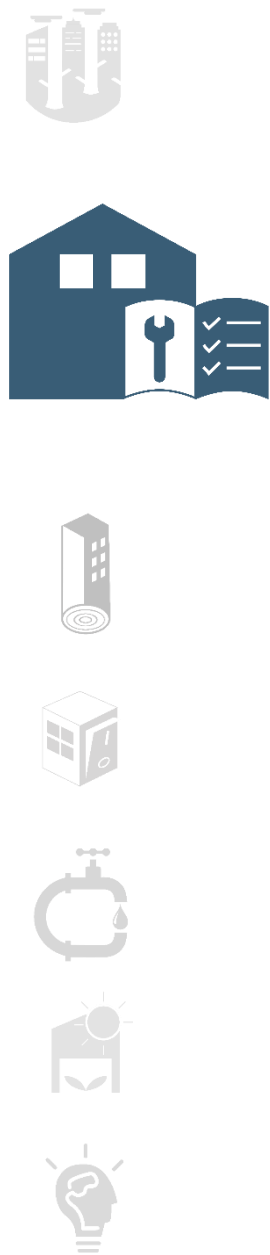
Renovation Management Plan Implementation



## User Guidance

user guide to encourage and promote environmentally friendly activities





# GREEN MANAGEMENT PRACTICES

**ISO 14001**  
Environmental  
Management System

**OHSAS  
18001**  
Occupational Health  
and Safety System

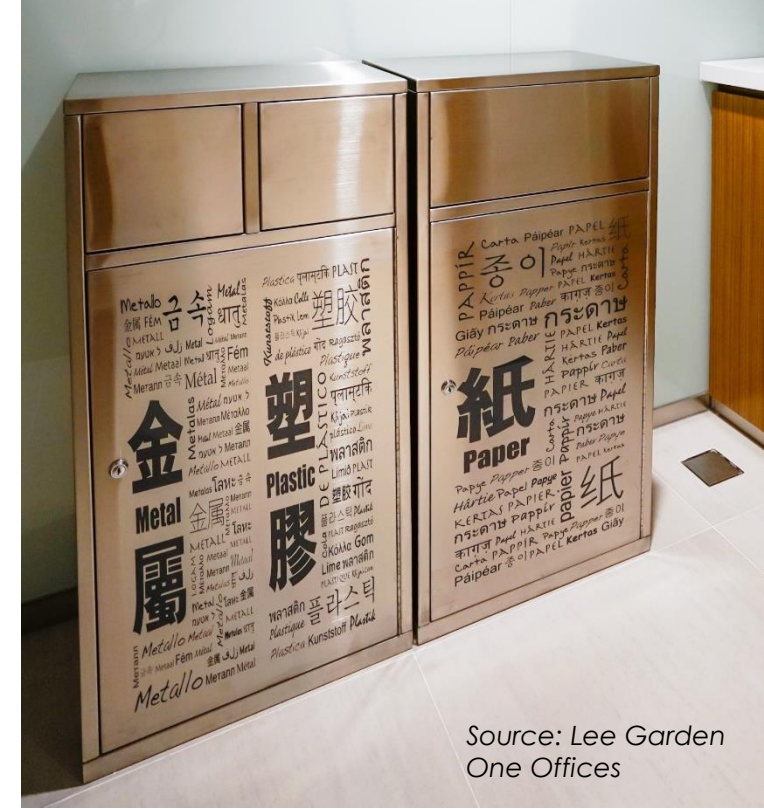
**ISO 50001**  
Energy Management  
System





# MATERIALS AND WASTE ASPECTS

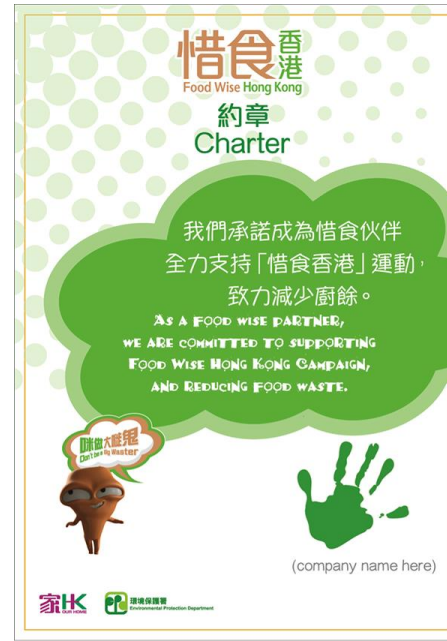
- Waste Recycling Facilities
- Materials Purchasing Plan



Source: Lee Garden One Offices

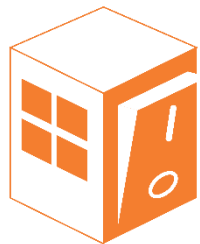
- Use of Certified Green Products  
HKGBC's HK G-PASS

- Food Waste Management
- Waste Treatment Equipment



# ENERGY USE

- Policy and management plan
- Data collection and analysis
- Energy and carbon audits
- Retro/on-going commissioning
- Energy saving retrofit
- **Benchmarking**  
*EMSD Benchmarking tool*  
*HKGBC's BESTOF*



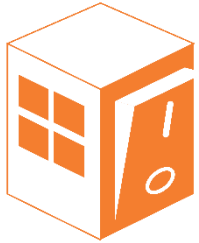
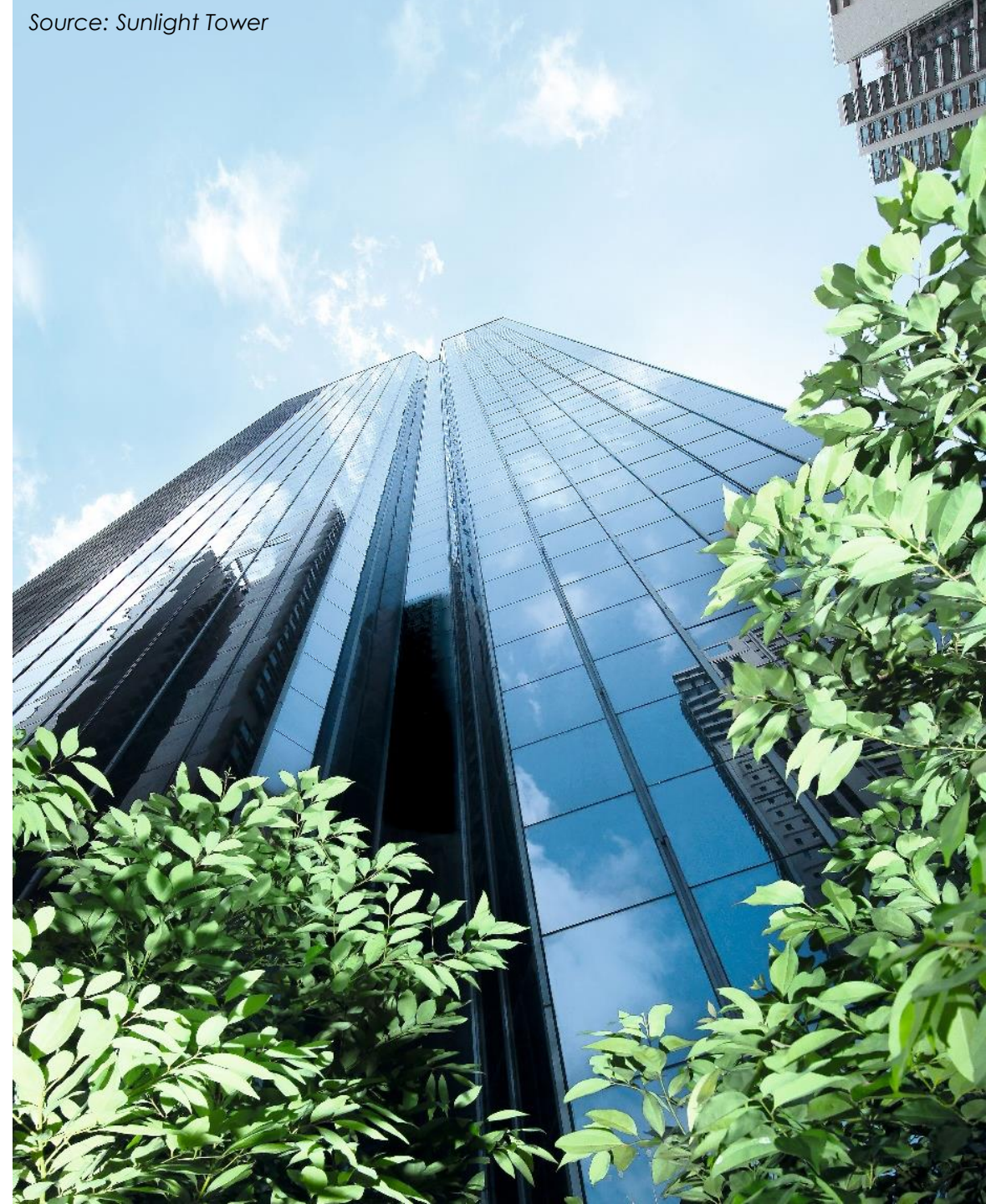
Source: Standard Chartered Bank Building



# THE BUSINESS CASE

Sunlight Tower  
**>30%** savings  
in energy consumption

(<https://www.youtube.com/watch?v=uQFPu7AK0jg&t=2s>)





# WATER MANAGEMENT

- **Water efficient devices:**  
Water saving faucets with sensors,  
Dual flush water closets, etc.
- **Water use for irrigation**
- **Water recycling**
- **Quality water supply scheme**



Source: Lee Garden  
One Offices



**優質食水**  
Quality Fresh Water

**大廈優質供水認可計劃 — 食水(2.0版)**  
**Quality Water Supply Scheme**  
**for Buildings – Fresh Water (PLUS)**

**食水系統**  
Fresh Water Plumbing System

**食水水箱**  
Fresh Water Tank

**食水系統**  
Fresh Water Plumbing System

**使用合標準喉管物料和配件**  
Used pipe materials and fittings complying with relevant standards

**每三個月清洗一次**  
Cleansed every 3 months

**定期檢查維修**  
Inspected and maintained regularly

**優質食水 安心飲用**  
Quality Fresh Water On tap



# INDOOR ENVIRONMENTAL QUALITY

- Ventilation
- Thermal comfort
- Sources of contamination and odours
- IAQ monitoring
- Interior lighting quality
- Room acoustics
- Noise isolation







# MORE INNOVATIONS



## Venues or Public Spaces for Environmental Programme

- Training, seminar, exhibition, workshop for tenants and public  
e.g. *Urban farming*



## Engagement with Neighbourhoods

- Regular interactive workshop for building management and the community



## Provision of Electrical Vehicle Charging Stations



## Recognition and Appreciation Awarded from other organisations

## Achievement of Hong Kong Green Organisation Certificattes







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## Comprehensive Scheme



**Platinum**



**Gold**



**Silver**



**Bronze**

## Selective Scheme



**70% - Excellent**



**60% - Very Good**



**50% - Good**



**40% - Satisfactory**

Know more about BEAM Plus EB V2.0:

[https://www.hkgbc.org.hk/eng/EB\\_Intro.aspx](https://www.hkgbc.org.hk/eng/EB_Intro.aspx)





**BEAM Plus Existing Buildings V2.0**  
brings you benefits

**Save  
Cost**

**Improve  
Management  
Practices**

**Demonstrate  
your  
commitment to  
sustainability**

Keep our buildings  
efficient & fit!

Source: Holiday Inn Express  
Hong Kong Soho

