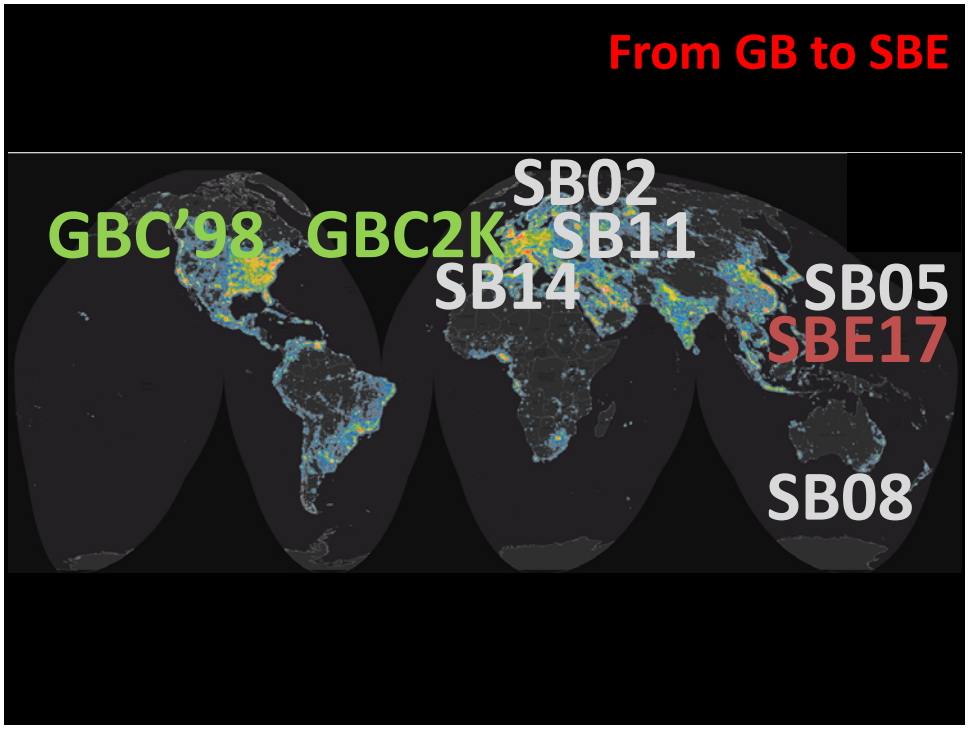
Sustainable
Built
Environment
KS Wong
Secretary for the Environment
Hong Kong SAR Government
The Earth is melting.

1
Ideas:
Worldviews

From GB to SBE
SBE


From GB to SBE
SB02
GBC'98
GBC2K
SB11
SB14
SB05
SBE17
SB08

Paris Agreement

1998 . . . . . 2014 . . . . . 2015/2016 2017

GB
VANCOUVER
MAASTRICHT
OSLO
TOKYO
MELBOURNE
HELSINKI
SB
BARCELONA
PARIS 2015
UN CLIMATE CHANGE CONFERNECE
COP21 CMP11
SBE
HONG KONG

Timeline Transparency Together

2°C

2015/2016 . . . . . 2030+

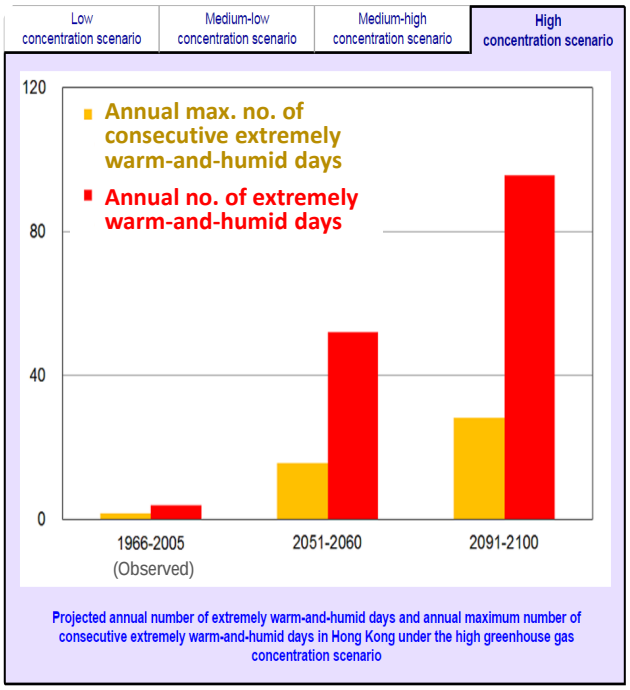
PARIS 2015
UN CLIMATE CHANGE CONFERNECE
COP21 CMP11
SBE
HONG KONG

Target

2 Action: Polices & Politics@HK

Compact City

SBE
HONG KONG

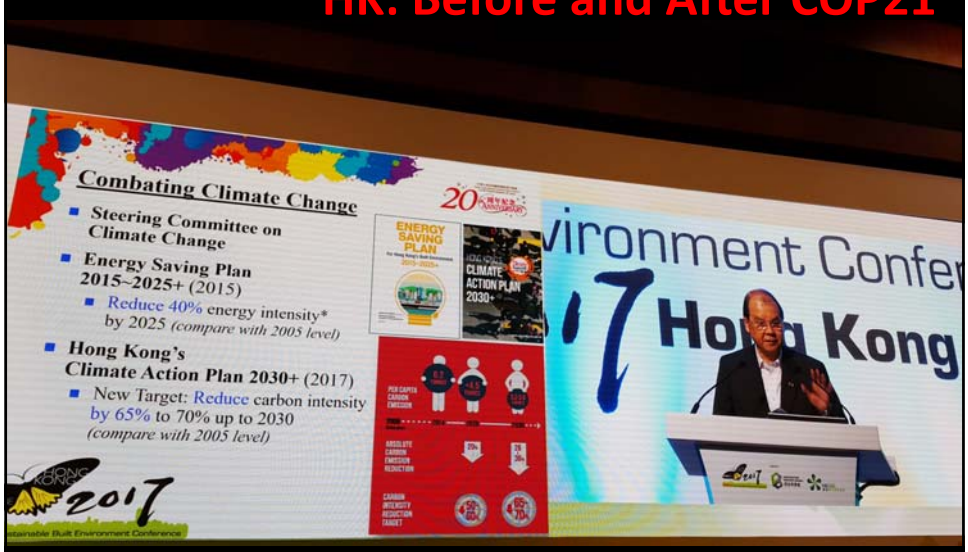


Projected annual number of extremely warm-and-humid days and annual maximum number of consecutive extremely warm-and-humid days in Hong Kong under the high greenhouse gas concentration scenario

Livable City

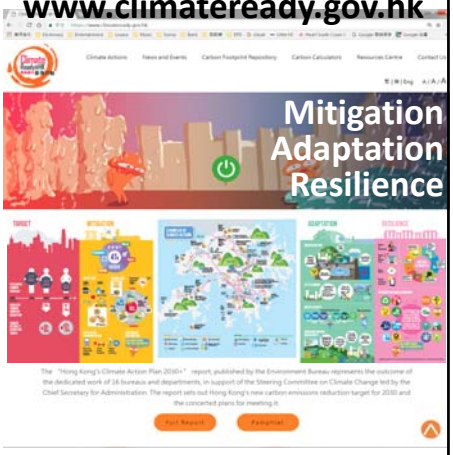
SBE
HONG KONG

HK: Before and After COP21



HK: CAP2030+

www.climateready.gov.hk



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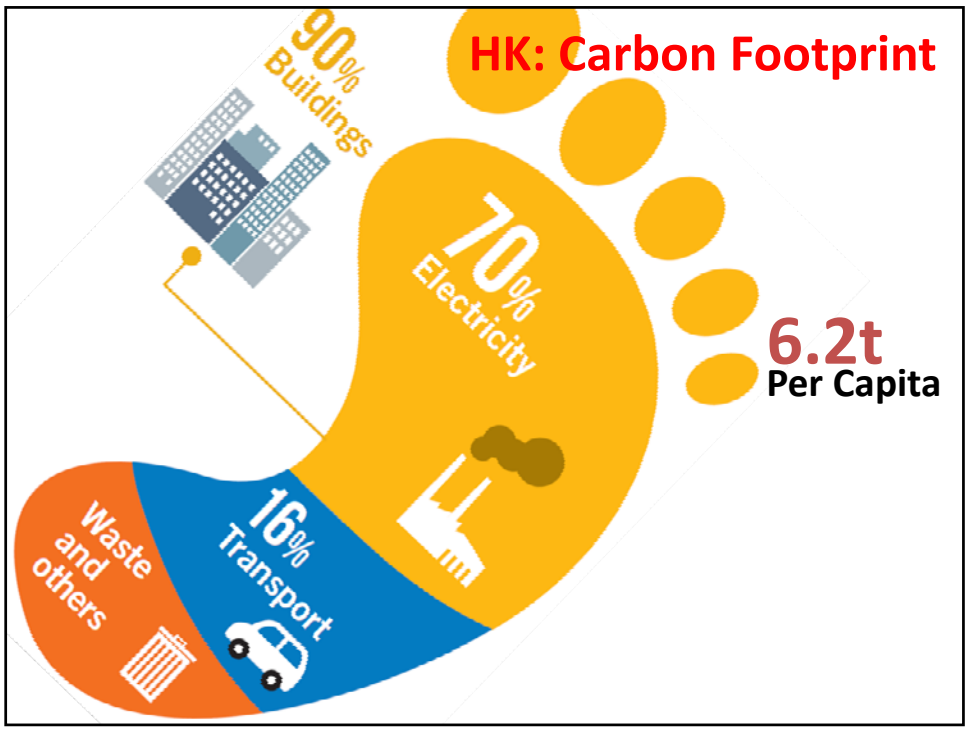
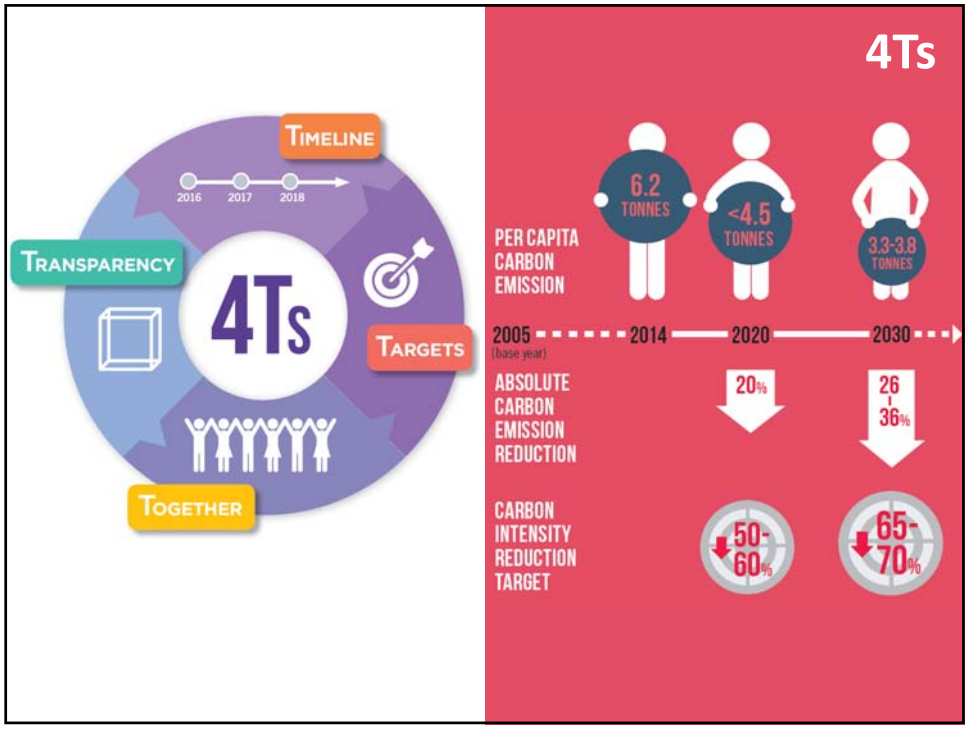
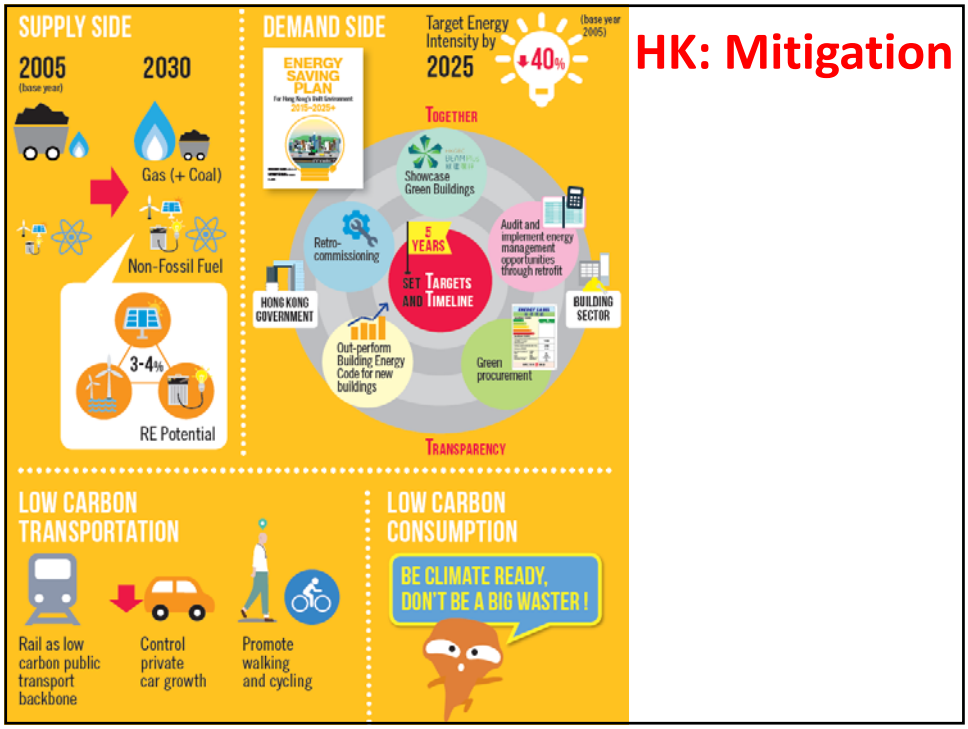
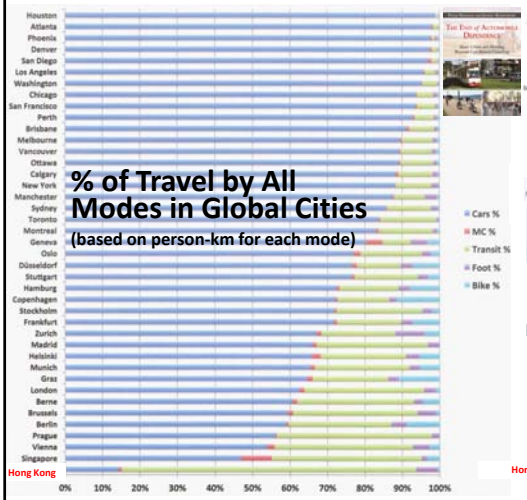

HK: Carbon Footprint
90% Buildings
70% Electricity
16% Transport
Waste and others
6.2t
Per Capita

HK: Integration + Innovation
HONG KONG
BLUEPRINT FOR SUSTAINABLE USE OF RESOURCES
2013 – 2022
Environment Bureau
Public Consultation on the Future Development of the Electricity Market
HONG KONG'S
CLIMATE ACTION PLAN 2030+
FOOD WASTE and YARD WASTE
A Plan for Hong Kong 2014-2022
Environment Bureau
A CLEAN AIR PLAN FOR HONG KONG
ENERGY SAVING PLAN
For Hong Kong's Built Environment
2015~2025+
HONG KONG
CLIMATE CHANGE
REPORT 2015

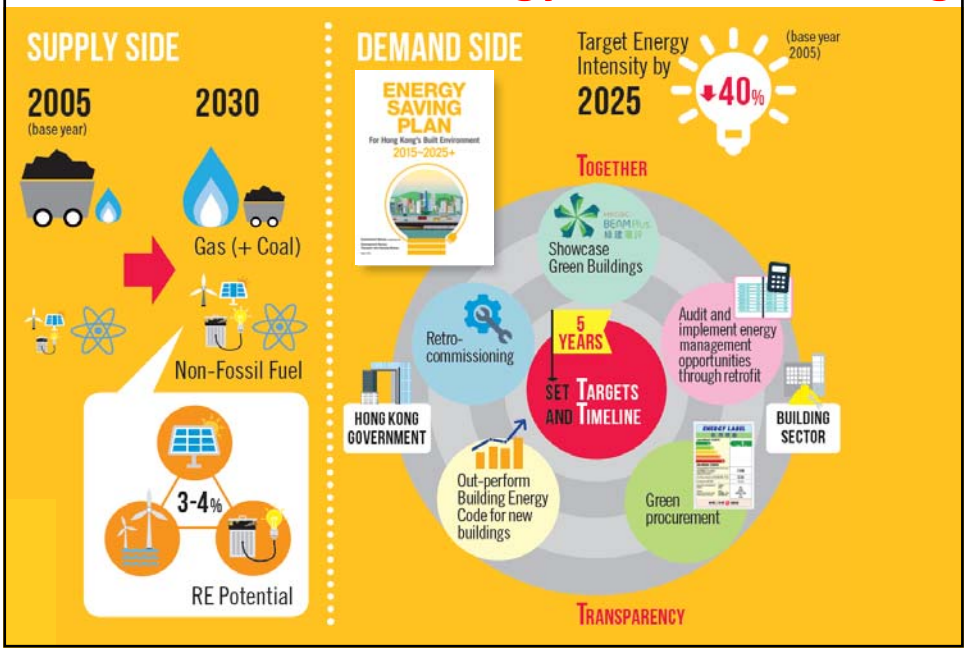

4Ts
TIMELINE
2016
2017
2018
TRANSPARENCY
4Ts
TARGETS
TOGETHER
PER CAPITA CARBON EMISSION
6.2 TONNES
<4.5 TONNES
3.3-3.8 TONNES
2005 (base year)
2014
2020
2030
ABSOLUTE CARBON EMISSION REDUCTION
20%
26 - 36%
CARBON INTENSITY REDUCTION TARGET
50-60%
65-70%

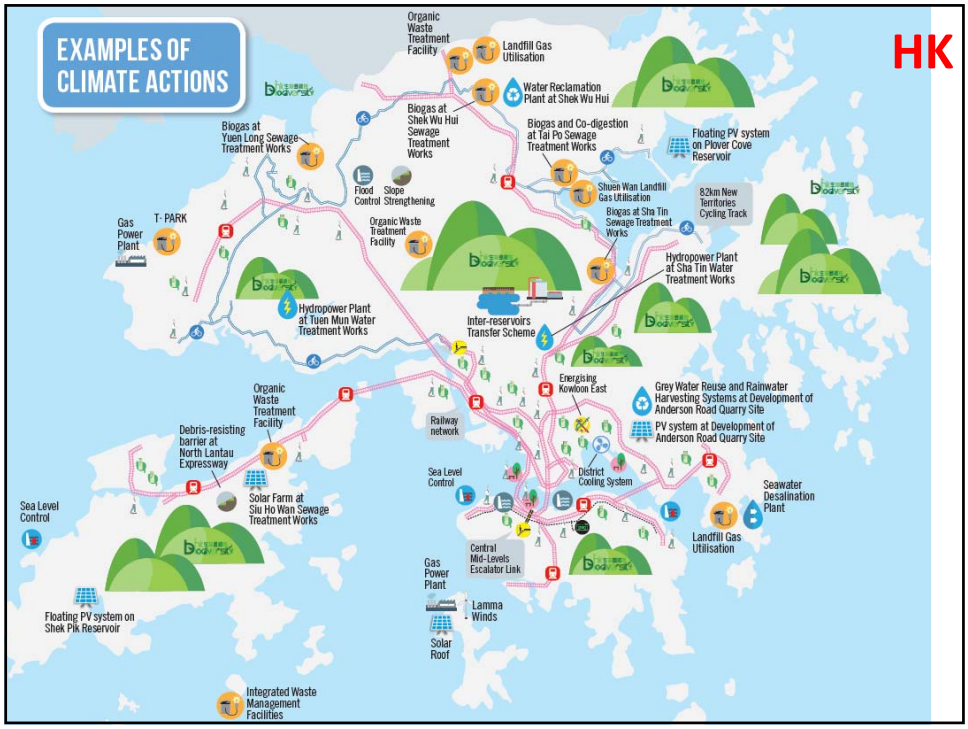

HK: Mitigation
SUPPLY SIDE
2005 (base year)
2030
Gas (+ Coal)
Non-Fossil Fuel
3-4%
RE Potential
DEMAND SIDE
ENERGY SAVING PLAN
Target Energy Intensity by 2025
40%
(base year 2005)
TOGETHER
Showcase Green Buildings
Retro-commissioning
5 YEARS
SET TARGETS AND TIMELINE
Audit and implement energy management opportunities through retrofit
HONG KONG GOVERNMENT
BUILDING SECTOR
Out-perform Building Energy Code for new buildings
Green procurement
TRANSPARENCY
LOW CARBON TRANSPORTATION
Rail as low carbon public transport backbone
Control private car growth
Promote walking and cycling
LOW CARBON CONSUMPTION
BE CLIMATE READY, DON'T BE A BIG WASTER !

HK: Low Carbon Transportation



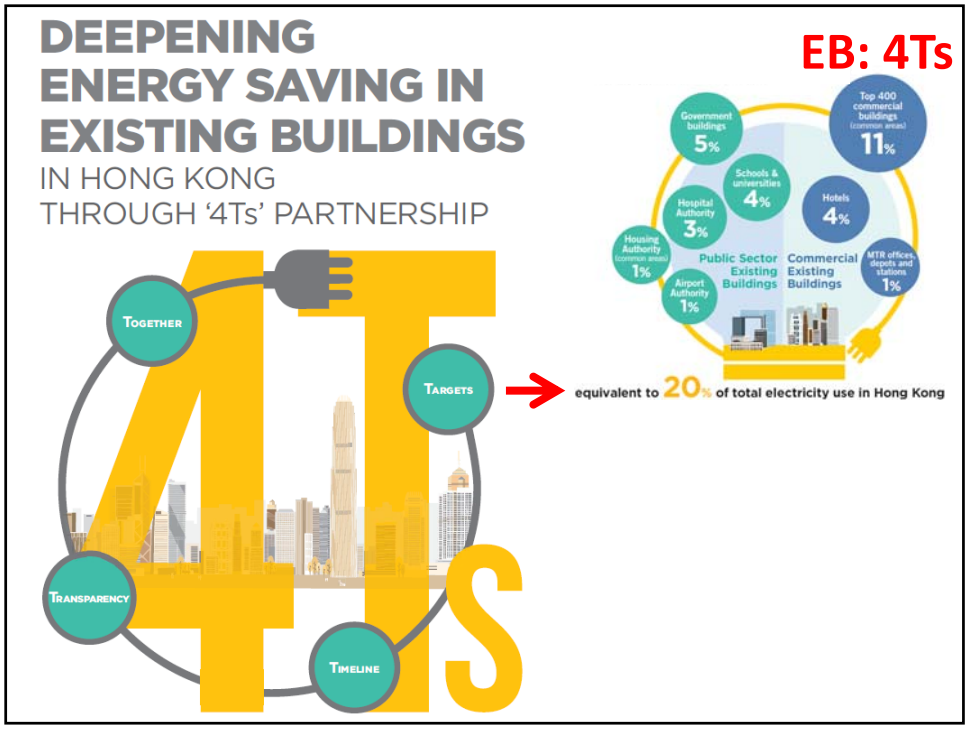
HK: Energy & Green Building



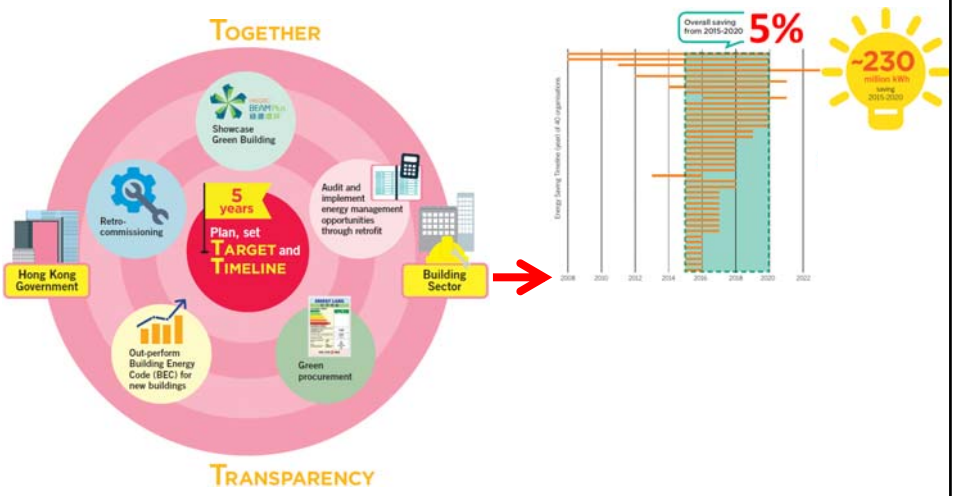

EXAMPLES OF CLIMATE ACTIONS
HK
Organic Waste Treatment Facility
Landfill Gas Utilisation
Water Reclamation Plant at Shek Wu Hui
Biogas at Shek Wu Hui Sewage Treatment Works
Biogas at Yuen Long Sewage Treatment Works
Biogas and Co-digestion at Tai Po Sewage Treatment Works
Floating PV system on Plover Cove Reservoir
Flood Control
Slope Strengthening
Shuen Wan Landfill Gas Utilisation
82km New Territories Cycling Track
Gas Power Plant
T-PARK
Organic Waste Treatment Facility
Biogas at Sha Tin Sewage Treatment Works
Hydropower Plant at Sha Tin Water Treatment Works
Hydropower Plant at Tuen Mun Water Treatment Works
Inter-reservoirs Transfer Scheme
Energising Kowloon East
Grey Water Reuse and Rainwater Harvesting Systems at Development of Anderson Road Quarry Site
PV system at Development of Anderson Road Quarry Site
Organic Waste Treatment Facility
Railway network
Debris-resisting barrier at North Lantau Expressway
Sea Level Control
District Cooling System
Solar Farm at Siu Ho Wan Sewage Treatment Works
Seawater Desalination Plant
Sea Level Control
Landfill Gas Utilisation
Central Mid-Levels Escalator Link
Gas Power Plant
Lamma Winds
Floating PV system on Shek Pik Reservoir
Solar Roof
Integrated Waste Management Facilities

ND
District Cooling
Urban Climate
Smart City……

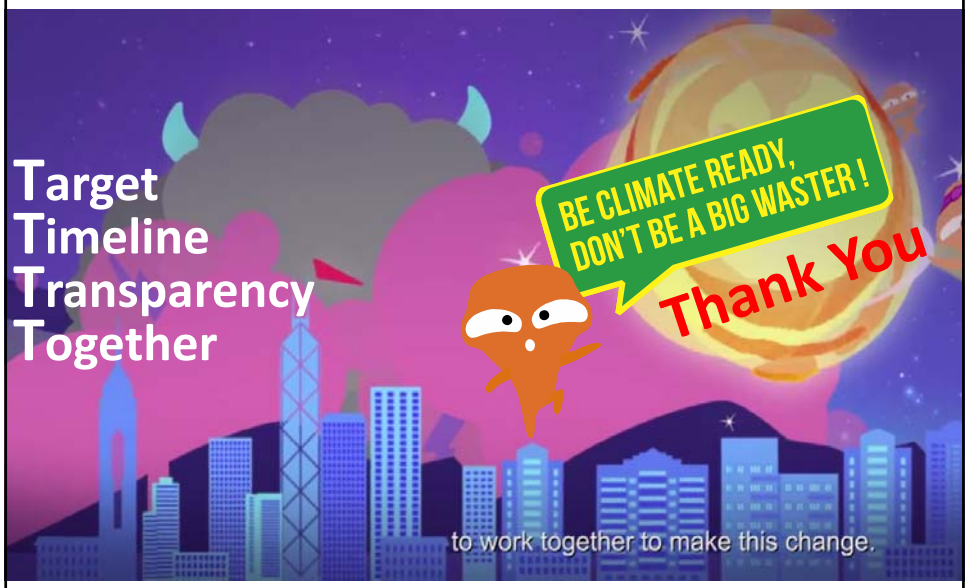
TARGET
Year 2025
ENERGY INTENSITY
Hong Kong to achieve energy intensity reduction by 40 % by 2025 using 2005 as the base
-40%
Be "Energy Aware" and "Energy Wise"
PLATINUM
GOLD or better
GOVERNMENT BUILDINGS AND PUBLIC HOUSING
New government buildings with construction floor area of >5,000 m² with central air-conditioning or >10,000m² to achieve at least BEAM Plus Gold; and
New public housing to achieve at least BEAM Plus Gold ready
NB+EB
PLATINUM 鉑金級
HKGBC BEAM Plus 綠建環評
POLICY
To drive energy saving through a combination of educational, social, economic and regulatory means, especially for buildings and inhabitants to become highly energy efficient by 2025
ECONOMIC
EDUCATION
CHANGE
REGULATORY
SOCIAL
STRATEGY
PUBLIC SECTOR
Government and public sector development agencies to lead by example and accelerate conditions for change
PRIVATE SECTOR
Focus on energy saving in new and existing private sector buildings to capture potential gains
PARTNERSHIP
Collaborate with energy and built environment stakeholders to enable the 'Energy Wise' transformation
OLD
NEW


DEEPENING ENERGY SAVING IN EXISTING BUILDINGS
IN HONG KONG
THROUGH '4Ts' PARTNERSHIP
EB: 4Ts
TOGETHER
TARGETS
TRANSPARENCY
TIMELINE
4Ts
Government buildings 5%
Top 400 commercial buildings (common areas) 11%
Schools & universities 4%
Hospital Authority 3%
Hotels 4%
Housing Authority (common areas) 1%
Airport Authority 1%
MTR offices, depots and stations 1%
Public Sector Existing Buildings
Commercial Existing Buildings
equivalent to 20% of total electricity use in Hong Kong

EB: 4Ts Partnership



Co-Benefits


Target
Timeline
Transparency
Together
BE CLIMATE READY,
DON'T BE A BIG WASTER!
Thank You
to work together to make this change.