

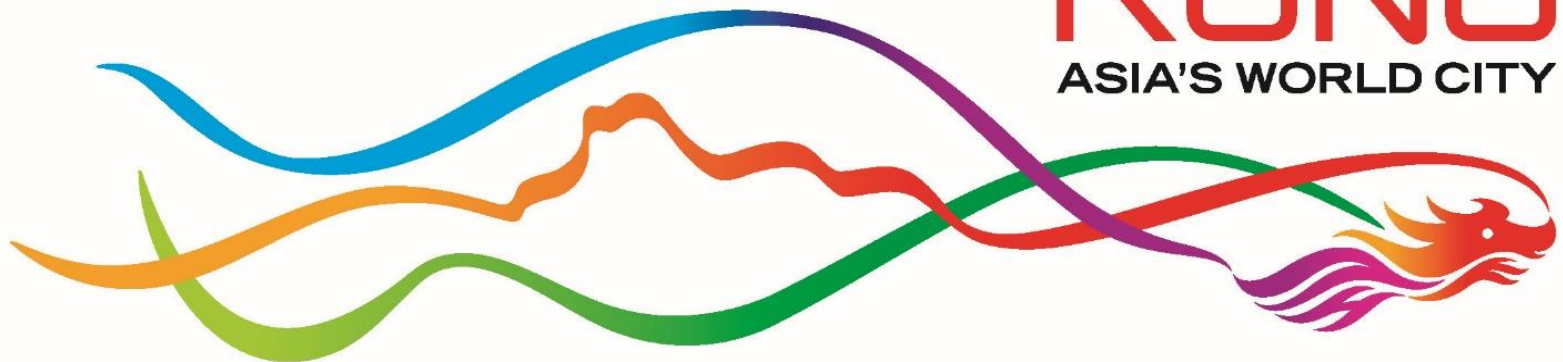
ECONOMY UPDATES

Hong Kong, China

The 52nd Meeting of APEC EGEEC

12-13 September 2018

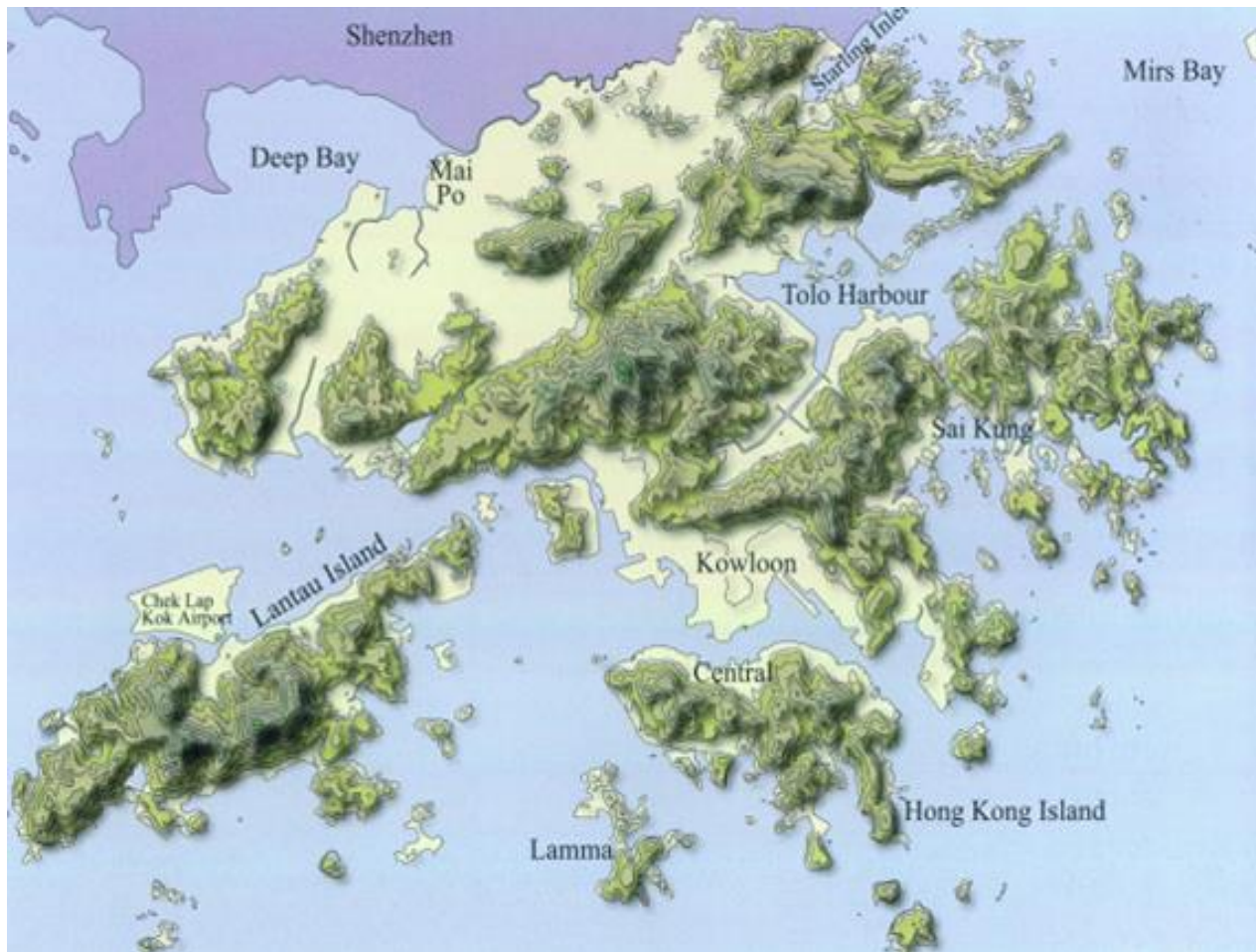
**HONG
KONG**
ASIA'S WORLD CITY



CONNECT AND EXCEL



District Cooling System (DCS)

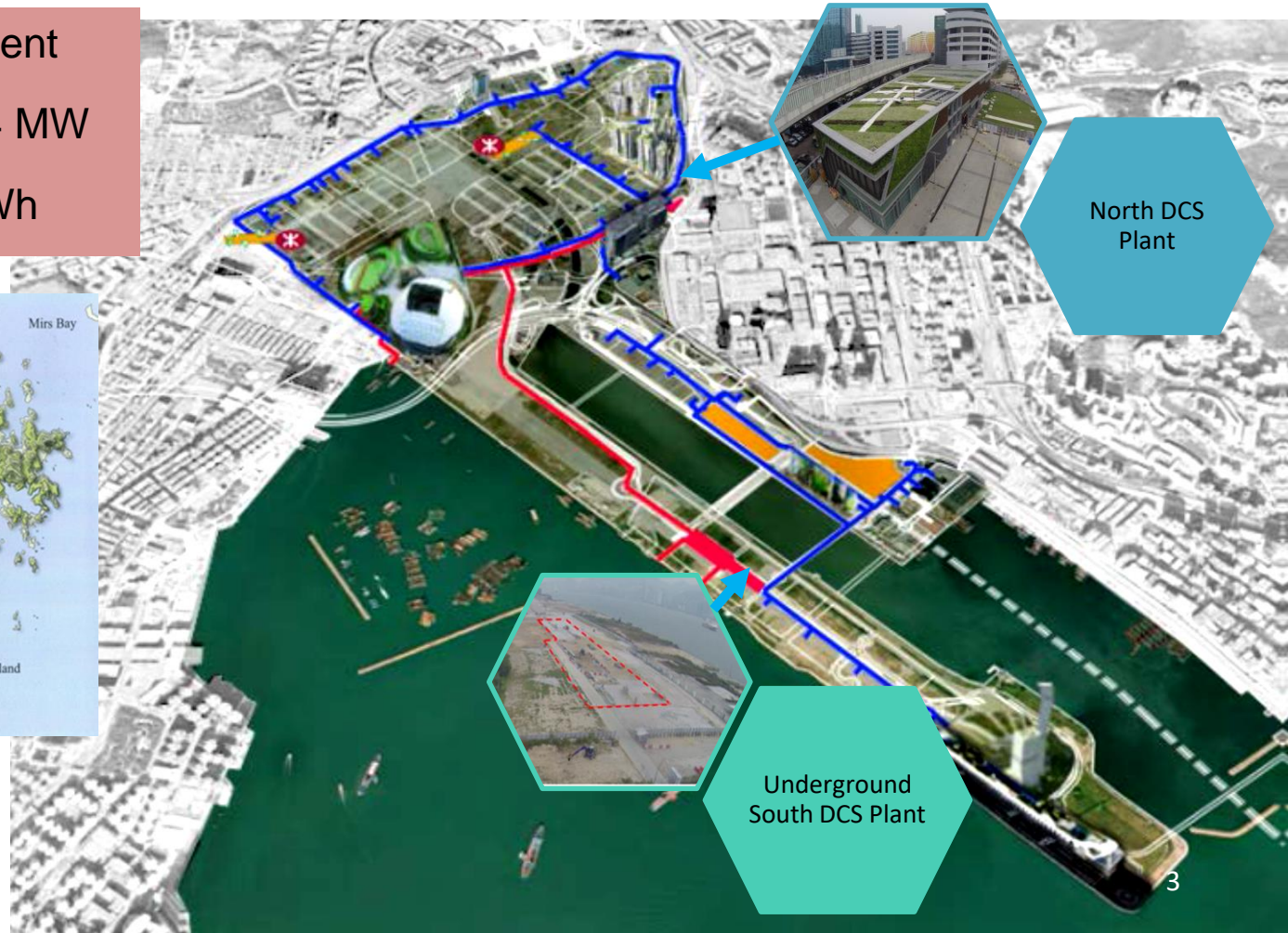
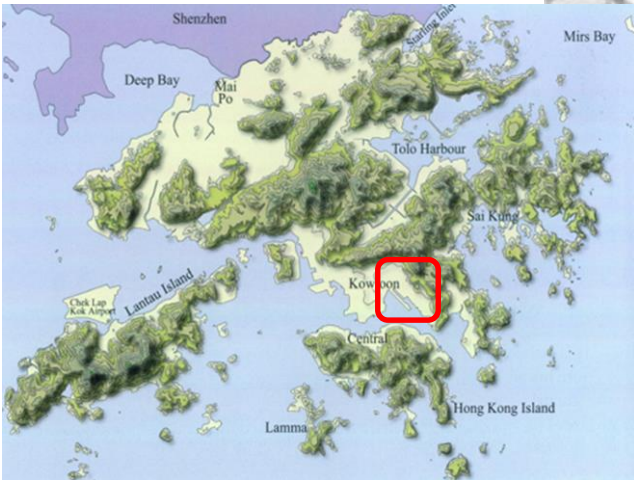




District Cooling System (DCS)

Kai Tak District (320 Hectare)

- Complex re-development
- Cooling capacity : 284 MW
- Saving: ~85 million kWh





District Cooling System (DCS)

~ 1600
hectares in
total



Both Re-development and New Development!

5 times of Kai Tak Re-development Area!



Retro-Commissioning (RCx)

Buildings consume over

> 90%

Electricity use in
Hong Kong, China



Buildings with age over 28

> 60%

in existing private buildings



- *In-depth monitoring of dynamic interaction of different factors during operation*
- *Restore Energy Efficiency*



Mandatory Energy Efficiency Labelling Scheme

Since November 2009:



Room Air Conditioners



Refrigerating Appliances



Compact Fluorescent Lamps



Washing Machines



Dehumidifiers

Starting from June 2018:



TV



Storage Type Elec Water Heater



Induction Cooker

also extend the scope of Room Air Conditioner and Washing Machines; ~70% residential electricity consumption.

Upcoming Plans:
review grading standards and other potential applications



LED Light



Gas Cooker



Gas Water Heater



Rice Cooker



Microwave Oven



Association of Energy Engineers Awards 2017

Two AEE Regional Awards Received by Hong Kong China



Regional Institutional Energy Management Award



Regional Energy Project of the Year Award



Regional Institutional Energy Management Award

Electrical & Mechanical Services Department (EMSD)



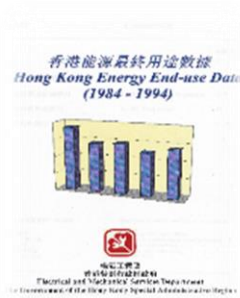
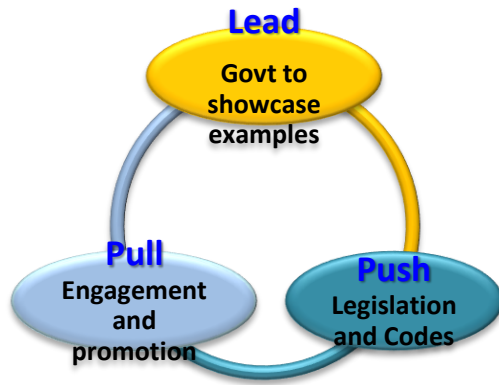
- Established **Energy Efficiency Office (EEO)** in 1994 to enhance **Energy Efficiency and Conservation (EE&C)** and promote application of **Renewable Energy (RE)** in HK





Regional Institutional Energy Management Award

Key EE&C Milestones



Energy End-use Database (1997)

Energy Efficiency Office (1994)
Energy Efficiency
EMSD 

Voluntary Energy Efficiency Labeling Scheme (1995)



Energy Efficiency Registration Scheme for Buildings (1998)

Building Energy Code (1998)

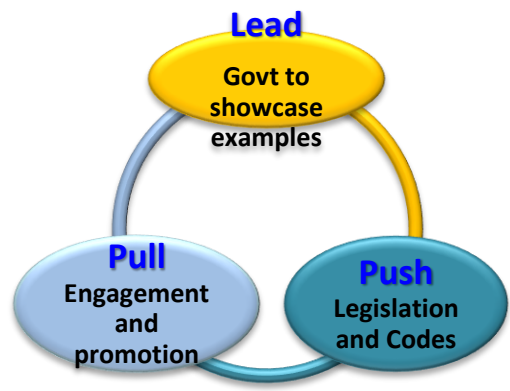


Fresh Water Cooling Tower Scheme (2001)



Regional Institutional Energy Management Award

Key EE&C Milestones (Cont'd)



Energy Efficiency (Labelling of Products) Ordinance (2009)

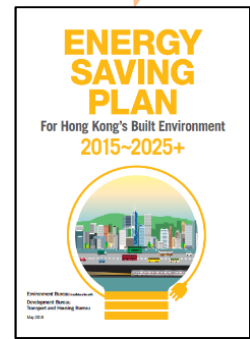
District Cooling System at Kai Tak (2011)

Building Energy Efficiency Ordinance (2012)



District Cooling Services Ordinance (2015)

Energy Saving Plan (2015)

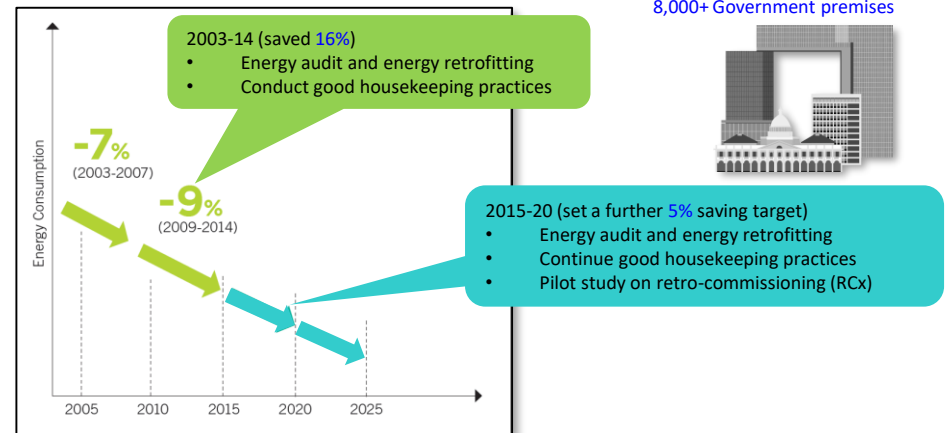
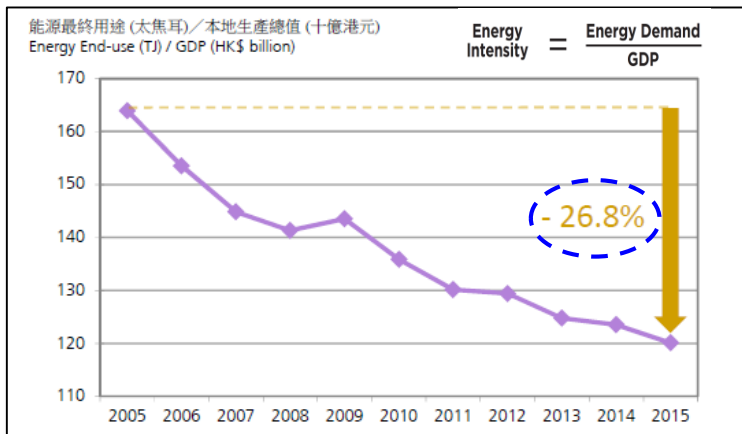
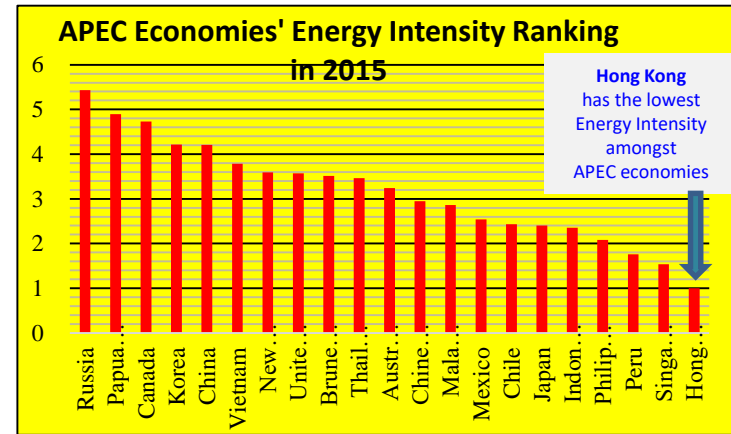




Regional Institutional Energy Management Award

Achievements

The Figures Tell...

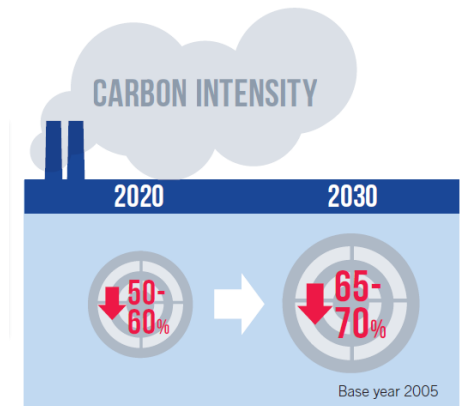
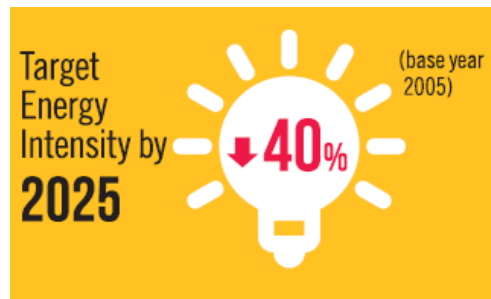




Regional Institutional Energy Management Award

Strategies

Plans and Targets





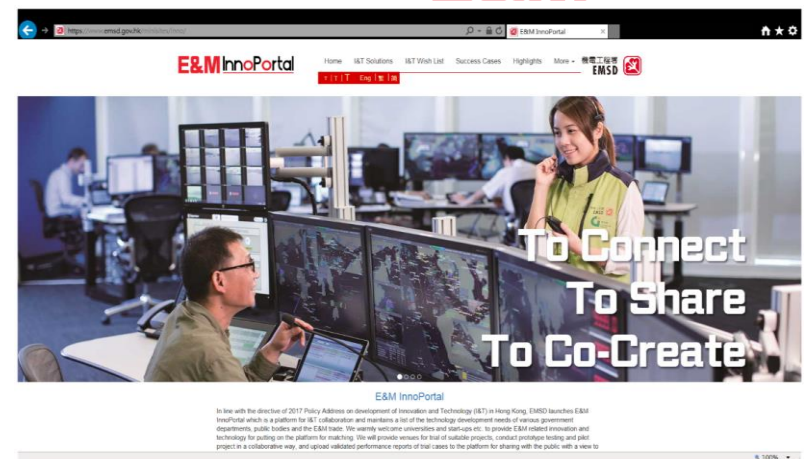
Regional Institutional Energy Management Award

Strategies

New Issues and Innovations



E&M InnoPortal





Regional Energy Project of the Year Award

Hong Kong's Largest Chiller Replacement Project

Scope

- Replace 86 conventional chillers by high efficiency chillers in 21 public hospitals and Hospital Authority Building by 2018

M&V

- By mid 2017, 27 new chillers (total 18.7 MW) had been in operation for over 6 months
- Hong Kong University of Science and Technology was engaged to verify the cost effectiveness

Savings

- Project Costs : HK\$125 million
- Baseline Energy Usage : 171 million kWh
- 6-month energy saving for 27 chillers: 8.1 million kWh (~HK\$9M)
- Annual energy saving for 86 chillers: 45.4 million kWh (~HK\$50M)





用心服務 同心共創
Caring Serving Co-creating

Thank You