



# **Climate Policy Forum Cum Workshops**

GHG Reduction Solutions for a Low Carbon Hong Kong

30 September, 2010

Disclaimer: This powerpoint presentation for this forum only reflects the opinion of our guest speakers and do not represent the stance of WWF-Hong Kong.

# **Policy Actions in the Building Sector**

**Developing a strategy for retrofitting our buildings**

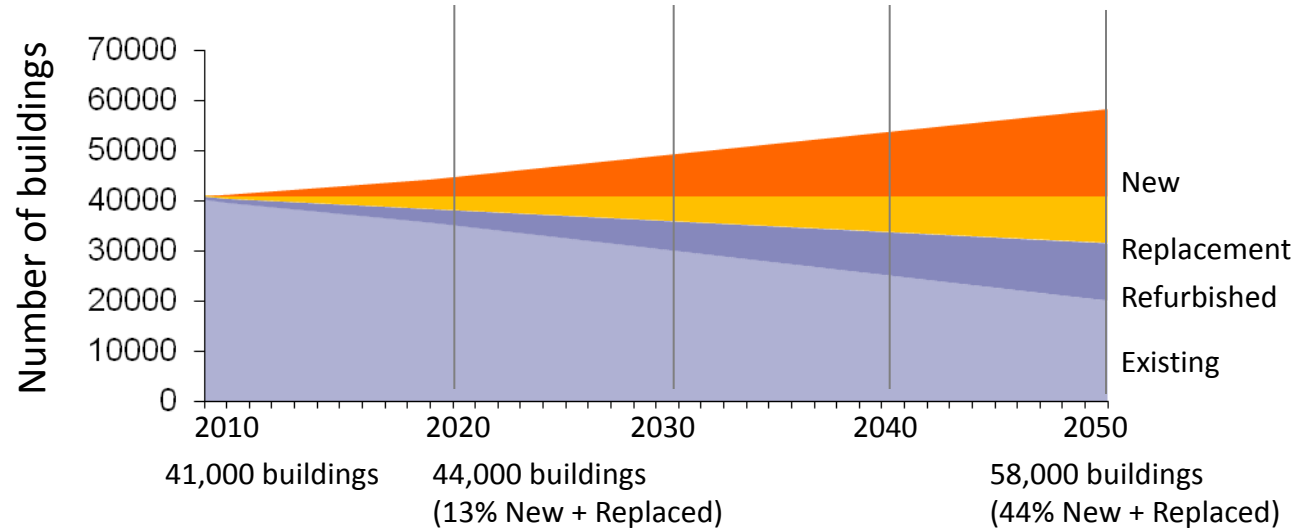
**By Dr Vincent Cheng,**

**Arup Director**

**Arup – Hong Kong**

# New and Existing Buildings

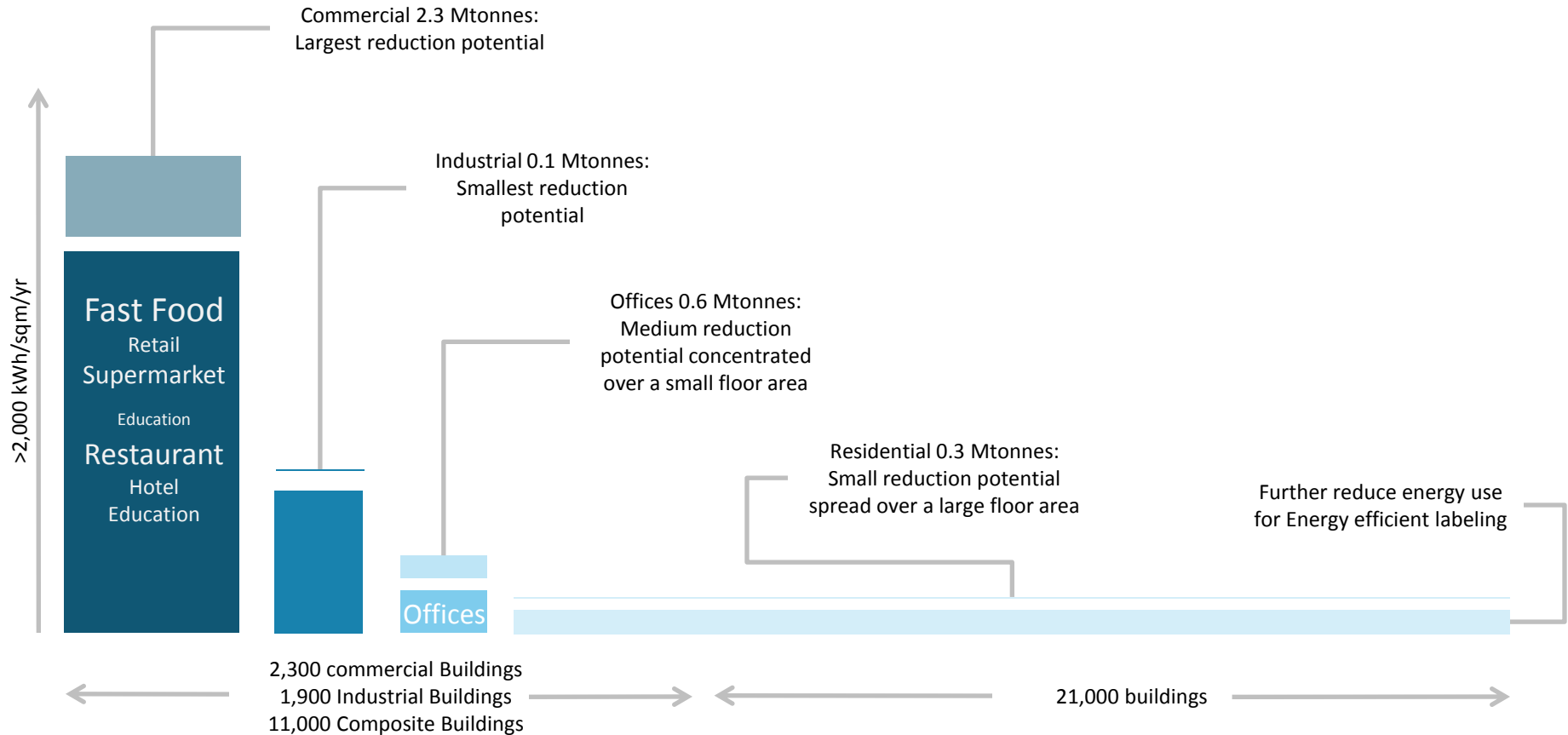
- Existing buildings – large stock
- New buildings – greater potential for energy efficient design



Source:  
HK Govt, EMSD, Study on Enhanced Promotion  
of Building Energy Codes in Hong Kong  
HK Govt, Buildings Dept  
HK Govt, Rating and Valuation Dept  
HK Govt, Census and Statistics Dept  
Hk Govt, Hong Kong 2030, planning and vision  
strategy

# Potential Reduction in Building Energy Use

- Understand the current energy end-use and reduction potential of different building types.



# Top Priorities in the Buildings Sector

## ■ How to retrofit 10,000 buildings in 10 years?

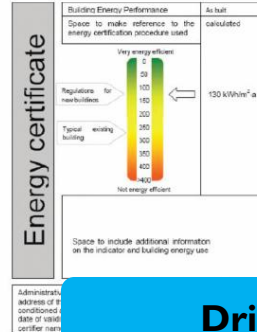
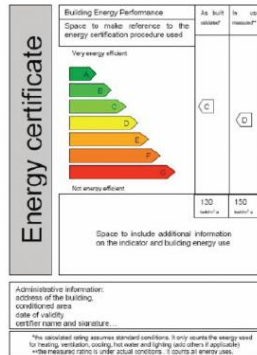
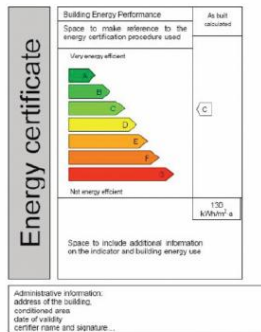
Barriers	Solutions	Exemplars	Projects
Lack of information	Knowledge Database	Singapore, UK	EASe database, Energy Performance Certificates
	Community Plans	Canada, Australia	Toronto Mayor's Renewal Plan, 1200 Buildings
Access to capital	Financing schemes	USA	New York Building Retrofit
	Incentives	Singapore	GREET, EASe
Short planning horizons	Energy Service Contracts	Singapore	ESCO Accreditation scheme
Split incentives	Green lease	Australia	Green Lease Australia
Complex and Multi-party Projects	One-stop shops	UK	London RE:NEW home program

# Building Energy Labeling

- ***Provide clear information on performance of buildings***
- ***Identify areas for improvement***
- ***Benchmarking performance***

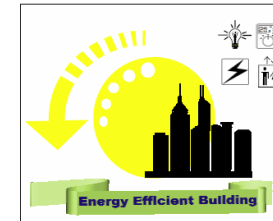
## Context

Building design, construction, and operations are becoming globalized, with major players working on building projects around the globe.



## Drivers

**A need for harmonization of building energy standards and labels and technical procedures**



## Benefits

**meaning to building performance and is a useful communication tool to increase public**

# Financing

- *Other countries have found energy efficiency projects to be financially attractive*
- **Generate reliable and substantial revenue year after year**
- **Ask Cary Chan from Swire Properties**



Source: American Council for an Energy Efficient Economy

# Energy Services Company (ESCOs) since 2005

- ***Enhance the professionalism and quality of services offered by ESCOs.***
- ***Enhance confidence in the energy services sector and help promote the growth of the industry.***
  - Investment cost paid for by operation and energy savings
  - Developers do not bear the upfront cost of energy efficiency investment
  - Due diligence and installation performed by a contracted company (ESCO)
  - Development of professional and qualified ESCOs and energy engineers;
  - Support public sector incentive schemes in the promotion of energy efficiency
  - Reduce wastage and false claims amongst industry players.

Register of Accredited ESCOs		
 ACTSYS Process Management Consultants Pte Ltd (Expiry Date: 07 May 2012)	 Cofely South East Asia Pte Ltd (Expiry Date: 15 Jul 2011)	 CPG Consultants Pte Ltd (Expiry Date: 21 Dec 2010)
 Equation Energy Pte Ltd (Expiry Date: 29 Jun 2010)	 G-Energy Global Pte Ltd (Expiry Date: 27 Oct 2009)	 Hitachi Plant Technologies, Ltd (Expiry Date: 11 May 2010)
 Honeywell Pte Ltd (Expiry Date: 15 Jan 2012)	 Johnson Controls (S) Pte Ltd (Expiry Date: 07 May 2012)	 LJ Energy Pte Ltd (Expiry Date: 16 May 2012)
 Siegler + Epple Asia Pte Ltd (Expiry Date: 15 Jan 2010)	 Siemens Pte Ltd (Expiry Date: 28 Oct 2010)	 Kaer Pte Ltd (Expiry Date: 15 Jun 2011)
 Trane Singapore (Expiry Date: 15 Jan 2012)	 United PREMAS Limited (Expiry Date: 01 Jun 2011)	

List of accredited ESCOs in Singapore



# Top Priorities in the Buildings Sector

## ■ How to retrofit 10,000 buildings in 10 years?

Barriers	Solutions	Exemplars	Projects
Lack of information	Knowledge Database	Singapore, UK	EASe database, Energy Performance Certificates
	Community Plans	Canada, Australia	Toronto Mayor's Renewal Plan, 1200 Buildings
Access to capital	Financing schemes	USA	New York Building Retrofit
	Incentives	Singapore	GREET, EASe
Short planning horizons	Energy Service Contracts	Singapore	ESCO Accreditation scheme
Split incentives	Green lease	Australia	Green Lease Australia
Complex and Multi-party Projects	One-stop shops	UK	London RE:NEW home program