Hong Kong's Key Strategies in Promoting Energy Efficiency and Conservation (EE&C)

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EE&C Journey

- Energy End-use Database (1997)
- Energy Efficiency Registration Scheme for Buildings (1998)
- Fresh Water Cooling Tower Scheme (2001)
EE&C Journey (Cont’d)

Energy Efficiency (Labelling of Products) Ordinance (2008)

District Cooling System at Kai Tak (2011)

Building Energy Efficiency Ordinance (2012)

Energy Saving Plan (2015)

Climate Action Plan (2017)
Achievement and Target

APEC Economies’ Energy Intensity Ranking in 2014

Asia-Pacific Economic Cooperation
Achievement and Target

Over 20% reduction in energy intensity since 2005
Key Strategies

Promote EE&C

1. Launch Voluntary Schemes
2. Provide Incentives
3. Encourage Public Participation
4. Lead by Examples
5. Enforce Legislation and Codes
Launch Voluntary Schemes

Voluntary Energy Efficiency Labelling (VEEL) Scheme

Fresh Water Cooling Tower (FWCT) Scheme
Examples of Voluntary Schemes

VEEL Scheme

22 types of household electrical appliances and office equipment (~2,500 registered models)

Estimated annual saving of 475 million kWh
- From voluntary to mandatory

FWCT Scheme

Consuming 20% less electricity; covering 114 designated areas (> 2,000 new / replacement projects completed)

Estimated annual saving of 410 million kWh
- Extend to new areas
Lead by Examples

- Energy Saving Target and Timeline
- District Cooling System (DCS)
- Retro-Commissioning (RCx)
- Transformation of Existing Buildings
Energy Saving Target and Timeline

Energy Audits for Existing Buildings

Target -6%  Actual -7%
2003-07

Target -5%  Actual -9.2%
2009-14

Target -5%
2015-20

Target -5%
2025+

Over 16% reduction, estimated annual saving of 58M kWh for Government buildings

Housekeeping Measures + Energy Saving Projects

>$500M allocation for future energy saving projects
District Cooling System (DCS)

- Consume 35% less electricity; annual saving of 85M kWh
- First in Kai Tak; continued extension to other areas
Retro-Commissioning (RCx)

> 65% of existing private buildings over 20 years old

- Possible saving of 5~10% or more
- RCx pilot projects in progress; technical guidelines by mid 2017
Transformation of Existing Buildings

- EMSD HQs – 1st existing government building to obtain BEAM Plus EB and ND Platinum Ratings through continuous revitalisation and transformation

Note: EB – Existing Building; ND – Neighbourhood
Provide Incentives

- Building Energy Efficiency Funding Scheme (BEEFS)
- Eco Building Fund and Power Smart Fund
Funding Schemes for Private Buildings

Government’s BEEFS (2009 – 2012)

- $450 million to support energy saving projects in some 6,400 buildings; estimated annual saving of 180M kWh

Eco Building Fund and Smart Power Fund by Power Companies (from 2012)

- $100 million to support energy saving projects in residential buildings
Enforce Legislation and Codes

- Buildings Energy Efficiency Ordinance (BEEO)
- Energy Efficiency (Labelling of Products) Ordinance (EELPO)
Enforcing BEEO & EELPO

Commercial
Built-in Equipment
(Central Building Services Installation)

Estimated annual saving of 1,000M kWh by 2025

~80%

Residential
Plug-in Appliances
(Domestic Electrical Appliances)

Estimated annual saving of 800M kWh by 2025

Covering over 70% of Buildings’ Electricity Consumption
Encourage Public Participation

Public Education

Public Engagement
Public Education

- Education Tours
- School Outreaching Programmes
- Seminars/Talks
- Newsletters
- Websites
- Energy Saving Charters
- Energy Saving for All Campaign
Public Engagement

Dialogue Platform
Way Forward

Promote EE&C

- Launch Voluntary Schemes
- Lead by Examples
- Provide Incentives
- Enforce Legislation and Codes
- Encourage Public Participation

(Source: Hong Kong Energy End-use Data 2016)
Thank You