



49th EGEE&C Meeting 28 – 31 March 2017

Economy Updates on EE&C
Policies & Programmes

Hong Kong, China



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EE&C Related Policies

Energy Saving Plan 2015-2025+

To help Hong Kong achieve the new target to reduce energy intensity, the Government will conduct **periodic reviews to expand and/or tighten relevant energy-related standards** including the statutory requirements under the *Buildings Energy Efficiency Ordinance*, the Building (Energy Efficiency) Regulation, and the *Energy Efficiency (Labelling of Products) Ordinance*.



May 2015
<http://www.enb.gov.hk/sites/default/files/pdf/EnergySavingPlanEn.pdf>



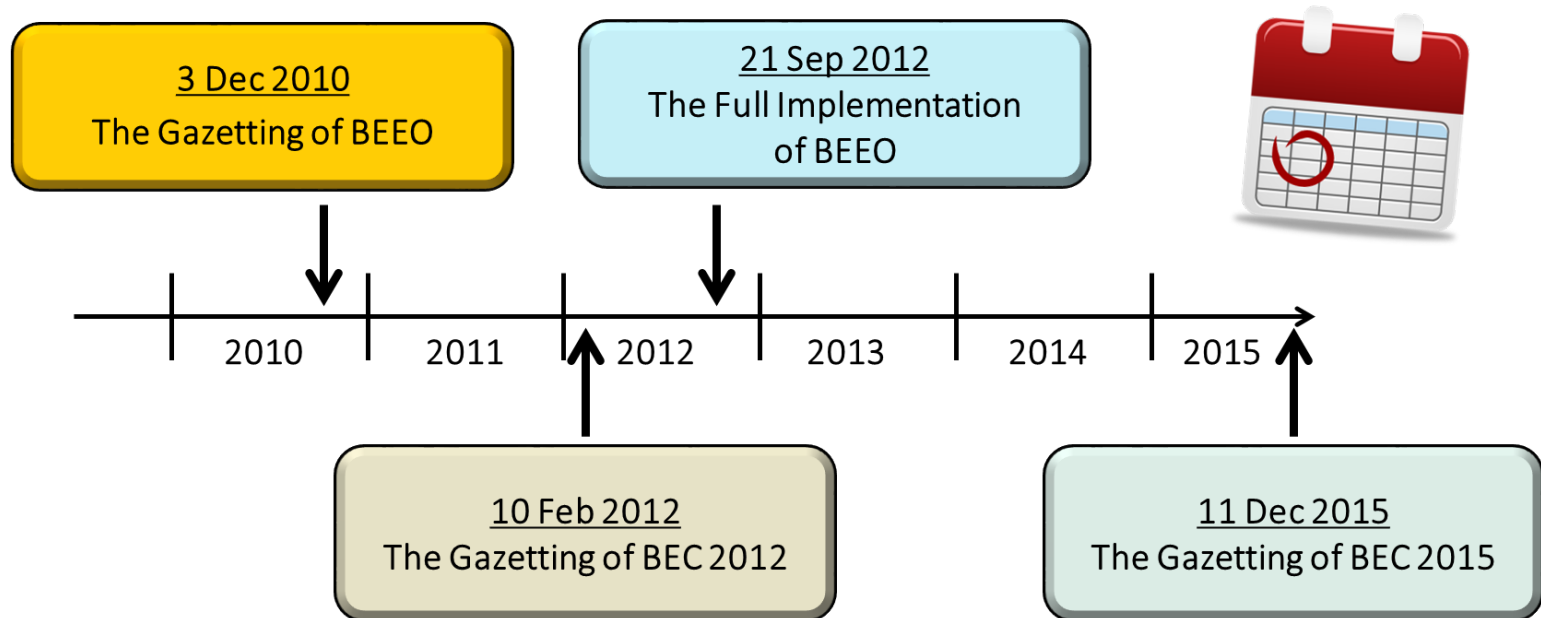
Jan 2017
<http://www.enb.gov.hk/sites/default/files/pdf/ClimateActionPlanEng.pdf>

Hong Kong's Climate Action Plan 2030+

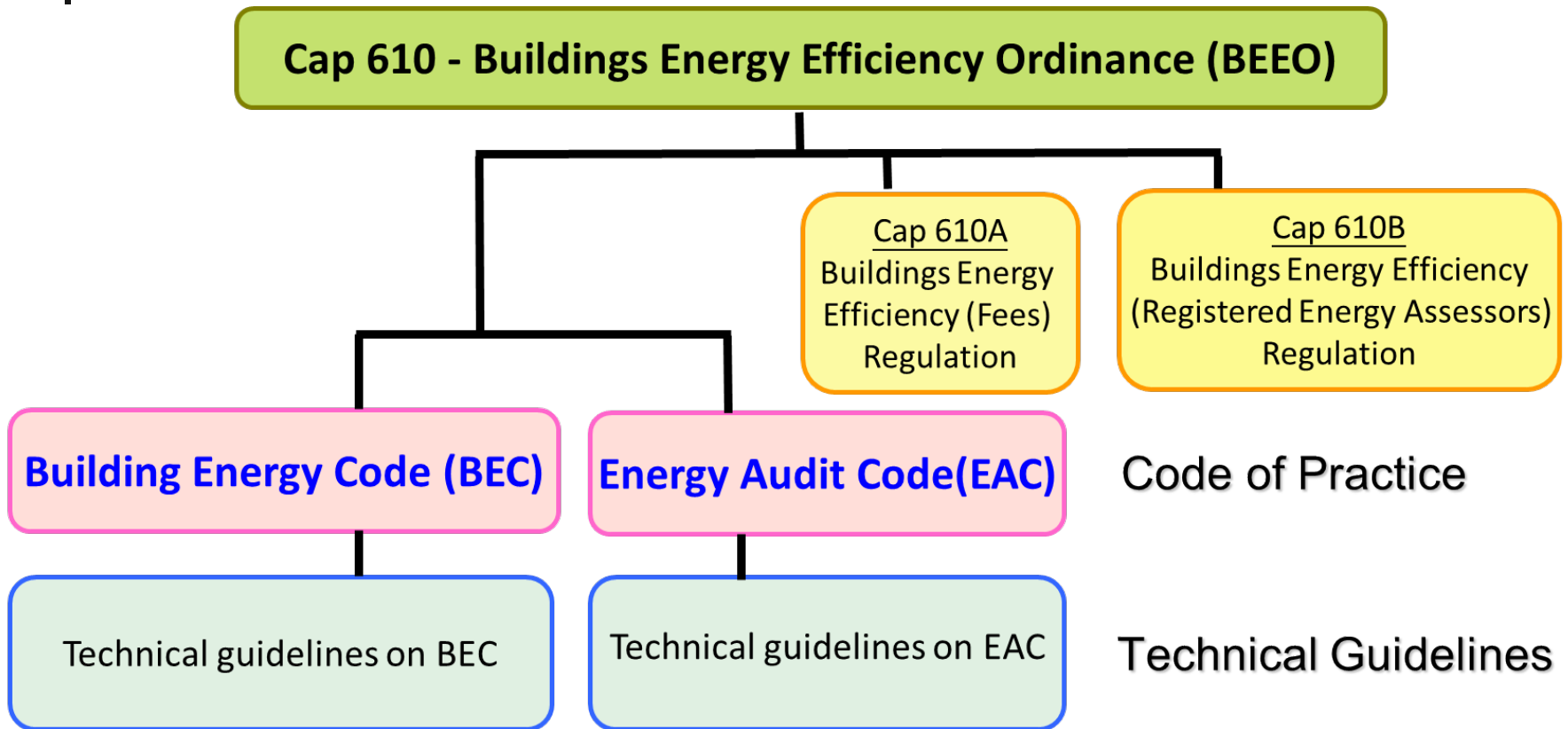
...Energy saving is the most critical means for Hong Kong to continuously reduce carbon emissions where there will also be an air quality benefit. Our *Energy Saving Plan* is the sister document to laid out energy intensity reduction target... It **represents the foundation from which we plan our energy saving work** and from which we will stretch efforts to 2030 in carbon emissions terms...

Energy Efficiency of Buildings

Mandatory implementation of Building Energy Efficiency Ordinance (BEEO) and Building Energy Code (BEC)



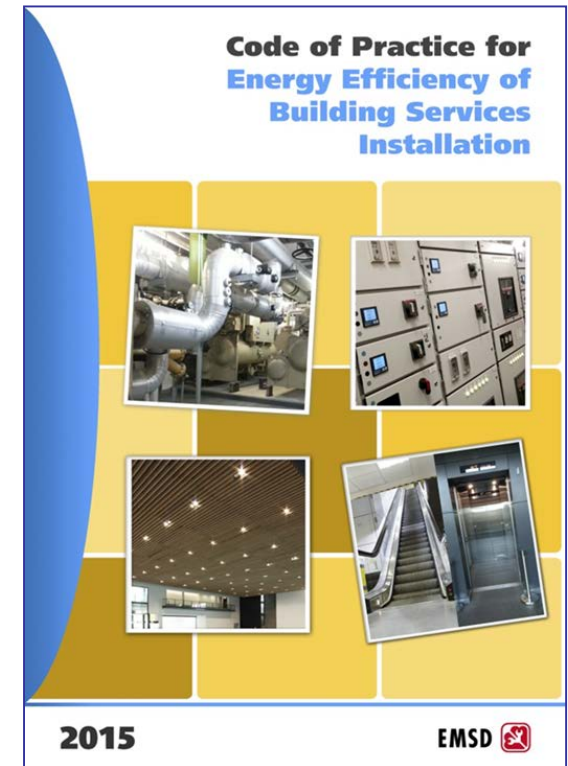
Energy Efficiency of Buildings



Energy Efficiency of Buildings

The First Comprehensive Review of BEC & EAC:

- Commenced in **Sep 2014**
- Draft BEC 2015 and EAC 2015 in **Jun 2015**
- Technical Taskforce endorsed in principle in **Sep 2015**
- Director of Electrical and Mechanical Services approved on **24 Nov 2015**
- New BEC Gazetted on **11 Dec 2015**



(Review in a 3-year interval)

Energy Efficiency of Buildings



Anticipated Energy Saving

- ✓ Further improvement in energy efficiency: **10%**
- ✓ The saving of **5 billion kWh** for newly constructed buildings up to 2025

- The total reduction of CO₂ emission: **3.5 million tonnes**

- Equivalent to total annual electricity consumption by about **1 million Hong Kong households**

Energy Efficiency of Buildings

<http://www.beeo.emsd.gov.hk/>

The screenshot displays the website for the Buildings Energy Efficiency Ordinance. At the top left is the logo of the Environmental Protection Department (EPD) with the slogan '珍貴資源 全民節能' (Precious Resources, Energy Conservation for All). Next to it is the logo of the Electrical and Mechanical Services Department (EMSD). Navigation buttons for 'ENG', '繁體' (Traditional Chinese), and '简体' (Simplified Chinese) are located at the top right. The main title '《建築物能源效益條例》' (Buildings Energy Efficiency Ordinance) is prominently displayed in a green banner, with the English translation 'The Buildings Energy Efficiency Ordinance' below it. A central 3D graphic of a building is surrounded by five circular callouts, each pointing to a specific energy efficiency area: 'Air-conditioning installation' (空調裝置), 'Lighting installation' (照明裝置), 'Lift & escalator installation' (升降機及自動梯裝置), 'Electrical installation' (電力裝置), and 'Energy Audit Form' (能源審核表格).

Energy Conservation and Use of Energy Efficient Products

- ✿ **Use of more energy-efficient products:**

- Achieve significant energy saving
- Helps reduce emission of greenhouse gases and other pollutants from power plants

- ✿ **Voluntary Energy Efficiency Labelling Scheme since 1995, aiming to:**

- Promote energy saving by informing potential customers of products' energy performance level
- Encourage product suppliers to make available more energy-efficient products to meet customers' needs

Energy Conservation and Use of Energy Efficient Products

http://www.emsd.gov.hk/en/energy_efficiency/voluntary_energy_efficiency_labelling_scheme/index.html



The screenshot shows the EMSD website interface. At the top, there is a header with the EMSD logo and the text 'Electrical and Mechanical Services Department, The Government of the Hong Kong Special Administrative Region'. Below the header, there is a navigation bar with 'MOBILE VERSION', 'SEARCH', 'SITE MAP', and 'MY COLOUR'. The main content area features a large banner image with a circular callout that says 'Energy Efficiency and Conservation'. Below the banner, there is a breadcrumb trail: 'Home > Energy Efficiency and Conservation > Voluntary Energy Efficiency Labelling Scheme'. The main heading is 'Voluntary Energy Efficiency Labelling Scheme'. The text below explains the scheme's purpose and lists the types of appliances covered, including household appliances like refrigerators, washing machines, and office equipment like photocopiers and printers. It also mentions that the scheme has been extended to cover microwave ovens since December 2014.

Voluntary Energy Efficiency Labelling Scheme

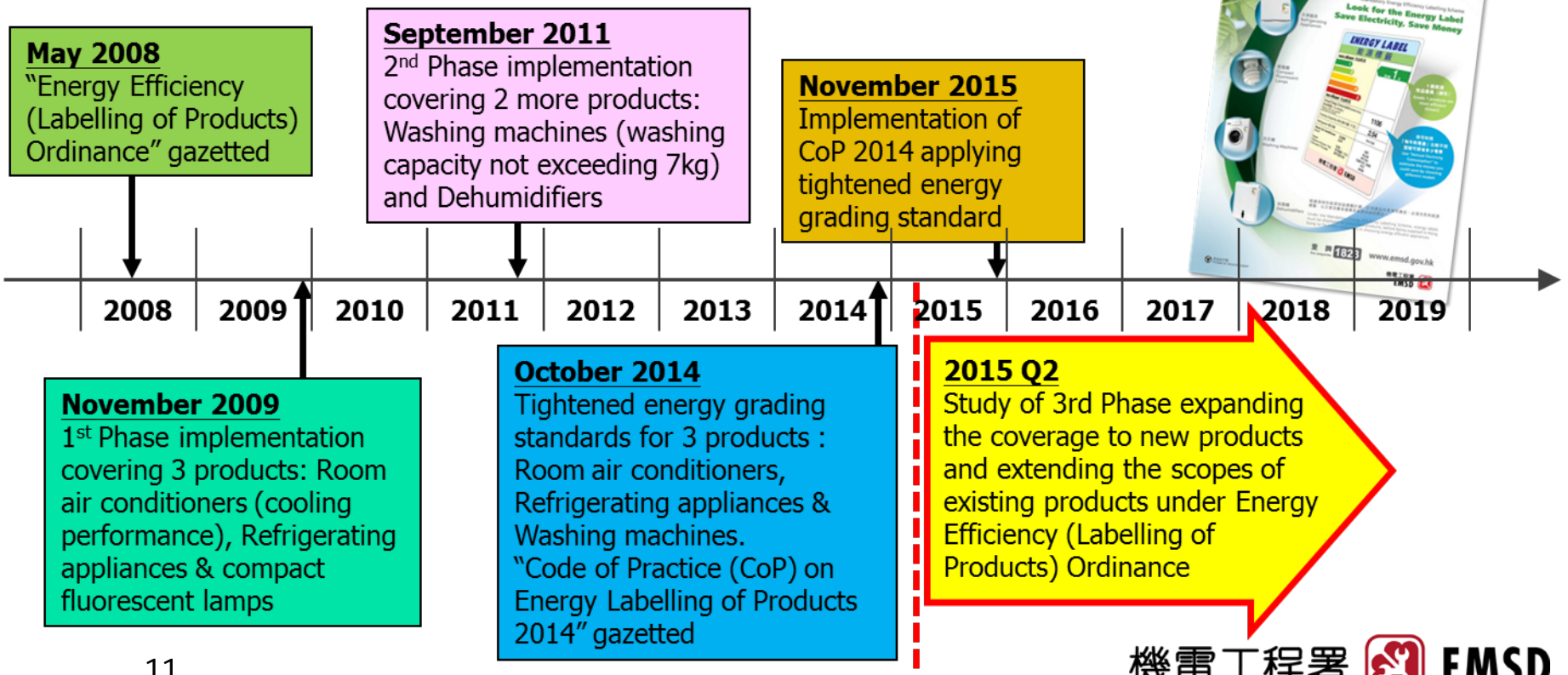
To make it easier for the public to choose energy efficient products, EMSD operates a voluntary Energy Efficiency Labelling Scheme for appliances and equipment used both at home and office as well as for vehicles. The scheme aims to save energy by informing potential customers of the product's level of energy consumption and efficiency rating, so that buyers can take these factors into consideration when making their purchasing decision.

The scheme now covers twenty two types of household appliances and office equipment. Thirteen types of which are electrical appliances including refrigerators (Voluntary Scheme), washing machines (Voluntary Scheme), non-integrated type compact fluorescent lamps, dehumidifiers (Voluntary Scheme), electric clothes dryers, room coolers (Voluntary Scheme), electric storage water heaters, television sets, electric rice-cookers, electronic ballasts, LED lamps, induction cookers and microwave ovens. The seven types of office equipment include photocopiers, fax machines, multifunction devices, printers, LCD monitors, computers and hot / cold bottled water dispensers. There are two types of gas appliance for domestic gas instantaneous water heaters and gas cookers. The scheme has also been extended to cover petrol passenger cars.

EMSD has extended the voluntary Energy Efficiency Labelling Scheme (EELS) to cover microwave oven with effective from 18 December 2014.

Energy Conservation and Use of Energy Efficient Products

Mandatory implementation of Energy Efficiency (Labelling of Products) Ordinance



Energy Conservation and Use of Energy Efficient Products

Latest Development...

Mandatory Energy Efficiency Labelling Scheme (MEELS) 3rd Phase

Expand coverage to **3** new products



電視機
Televisions

儲水式
電熱水爐
Storage type
electric water heaters



電磁爐
Induction cookers



Extend scopes of **2** existing products



Washing Machine

Extend scope of washing capacity from not exceeding 7kg to not exceeding 10kg



Room Air Conditioners

Extend scope from including cooling performance only to both cooling and heating performance

Energy Saving Potential

5 potential products proposed for inclusion into 3rd

Phase estimated to account for about **15 %** of the annual electricity consumption in the residential sector

Energy Conservation and Use of Energy Efficient Products



3rd Phase MEELS Latest Progress

- ✓ Public & trade consultations conducted
- ✓ Draft “Revision of Code of Practice” circulated to stakeholders, comments collected being consolidated
- ✓ Legislative amendments in progress

- ✳ Full implementation of 3rd Phase MEELS tentatively between late 2018 to early 2019
- ✳ Estimated annual energy saving arising from 3rd Phase of MEELS
 - **~150 million kWh**
- ✳ Estimated annual reduction in CO₂ emissions
 - **~105,000 tonnes**

Energy Conservation and Use of Energy Efficient Products

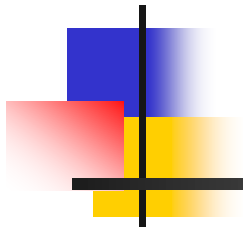
www.energylabel.emsd.gov.hk

The screenshot displays the EMSD website interface. At the top, it features the EMSD logo, the text 'ENG 繁體', and a search bar. A green navigation bar contains links for 'ABOUT MEELS', 'UNDERSTANDING THE LABEL', 'PRODUCT LIST', 'HOUSEHOLDS', 'SUPPLIERS' CORNER', 'PUBLICITY & FUN', 'FAQS', 'CONTACT US', 'SITEMAP', and 'DISCLAIMER'. The main content area shows a kitchen scene with a refrigerator, washing machine, and air conditioner. Text on the page reads: 'Mandatory Energy Efficiency Labelling Scheme', 'Look for the Energy Label', and 'Save Electricity, Save Money'. A 'FAQs' sign is also visible. The footer includes logos for '全民節能 Save Energy Go Green', 'Buildings Energy Efficiency Ordinance', 'EnergyLead', 'Electricity Information Corner', 'HK Sustainable Technology Net', 'E&M Young', and '機電安全香港 E & M SAFETY CAMPAIGN'. A copyright notice at the bottom states: '2012 © The Electrical and Mechanical Services Department All rights reserved.'

Other Ongoing EE&C Programmes

- ✓ Scheme for Wider Use of Fresh Water in Cooling Tower of Air Conditioning Systems
- ✓ District Cooling System (DCS) in progress
- ✓ Voluntary Energy Efficiency Labelling Scheme
- ✓ Phasing Out of Energy Inefficient Incandescent Lamps
- ✓ “Energy Saving for All” Campaign
- ✓ Energy Saving Charter
- ✓ Energy Saving Championship Scheme
- ✓ Youth Energy Saving Award
- ✓ Education Path and School Outreach Programme





Thank you !

