
Introduction of Buildings Energy Efficiency Label

Mar 2026



Buildings Energy Efficiency Label

Major Amendments & Opportunities from BEE(A)O

2026

● Remaining provisions of amendments come into effect on 20th September 2026

Amendment in BEEO:

- 1 Regulate the energy efficiency standards to building services installations for all data centres
- 2 Require more types of building to conduct regular energy audits
- 3 Shorten the interval of energy audit
- 4 Disclose technical data in energy audit reports

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Major Amendments & Opportunities from BEE(A)O

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In response to public demand and take opportunity in amendment, initial study of **Local Buildings Energy Efficiency Labelling System (BEELS)** was kick-started in early-2025.



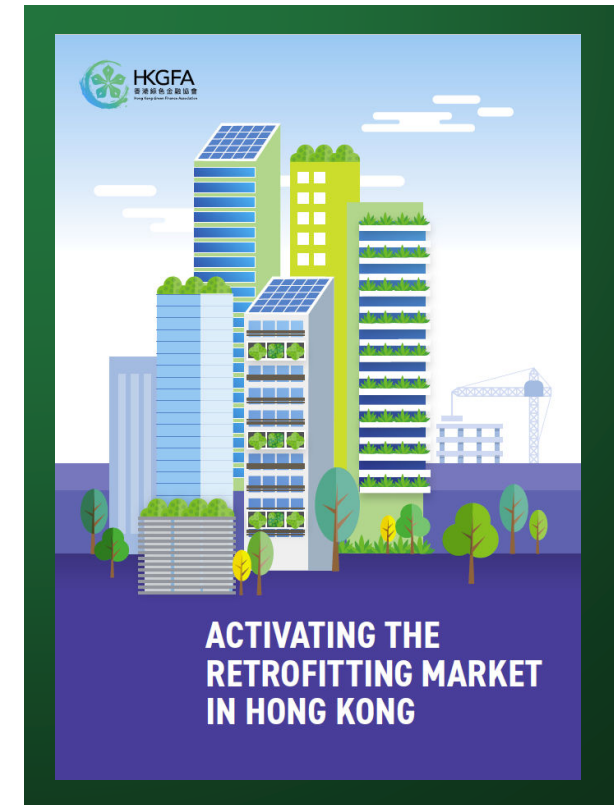
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Buildings Energy Efficiency Label

Current Situation in Hong Kong

- Analysis from HKGFA (Sep 2025)
 - Over 80% of building in operation > 20years
 - The retrofit market for existing buildings is still underdeveloped
 - Office building retrofit market opportunity of HKD 3.6 B
 - Key barriers include:
 - High upfront costs
 - Lack of clear regulations
 - Lack of comprehensive financial incentives or tools for catalyzing Retrofitting Investment
- Opportunities
 - Government-backed label provide a simple, trusted benchmark
 - Gateway for Green finance



Buildings Energy Efficiency Label

1st consultation workshop at Q1 2025

Suggestion regarding the initial proposal of labelling system

- Whole building energy performance should be reflected in the system
- Improvement in energy efficiency OR reduction in energy consumption should be appraised
- Energy management AND operation & maintenance effort should be recognised
- Phase implementation of BEELS should be adopted







International Benchmarking

Building Energy Label

Energy Performance Rating Tool	China (Beijing) 北京市公共建筑能效分级管理办法	Hong Kong Zero-Carbon-Ready Certification	Australia NABERS Energy Rating Tool	United State Energy Star	Singapore Building Energy Benchmarking	UK Energy Performance Certificate	Japan Building-Housing Energy-Efficiency Labelling System
Applicable Building	Multiples 3000平方米以上, 且公共建筑部分面积占比超过50%的单体建筑	Commercial	Multiples	Multiples Larger than 5000 sqm, depends on the bldg. type	Multiples Larger than 5000 sqm	Multiples	Residential and Commercial
EUI Benchmarking	✓	✓	✓	✓	✓	✓	✓
Key EUI Metric	kWh/m ² yr	kWh/m ² yr % of improvement	kg CO ₂ /m ² yr ; MJ/m ² yr	MJ/m ² yr	MJ/m ² yr	kg CO ₂ /m ² yr; MJ/m ² yr	MJ/m ² yr
Regression / Normalization Approach	Regional Climate Coefficients	Building type, operating hours	Climate Region, operating hours	Climate, operating hours	Occupancy pattern	Climate, building type	Climate, usage type
Policy Usage	<ol style="list-style-type: none"> 1. Integrate into 中国绿色三星认证 2. Finance eligibility 	<ol style="list-style-type: none"> 1. Used for disclosure 2. Reference in Taxonomy 	<ol style="list-style-type: none"> 1. Used for disclosure 2. Finance eligibility 	<ol style="list-style-type: none"> 1. 1-100 percentile rating; 2. linked to LEED O+M 	<ol style="list-style-type: none"> 1. Green Mark Certification 2. Eligible technical criteria in Taxonomy 	<ol style="list-style-type: none"> 1. CASBEE & Top Runner energy efficiency targets 2. disclosure & incentive 3. MOEJ Green Bond Guidelines 	UK Green Taxonomy

International Benchmarking

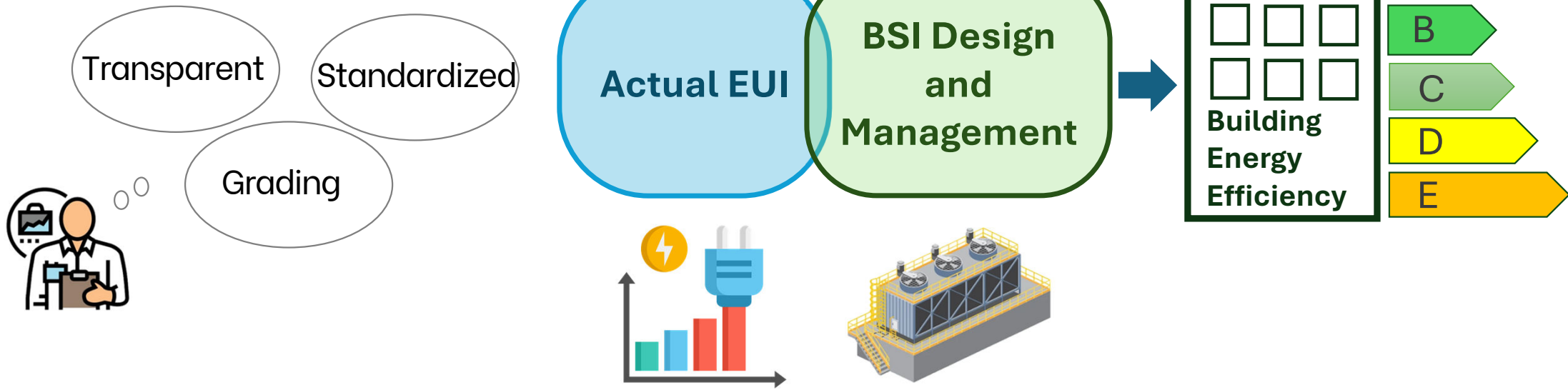
Green building assessment (Energy Aspect)

Green Building Certifications		BEAM Plus EB v3.0	LEED O&M v.5 	BREEAM In-Use V6.0.0 	GBI GREEN GLOBES 2025 	IREM CSP (Office bldg) 	中国绿色三星认证
EUI Performance	EUI Evaluation	✓	✓	N/A	✓	✓	N/A
	Percentage-Improvement	✓	✓	✓	✓	✓	✓
% of credit in energy aspect		35%	60%	65%	65%	65%	60%
System Performance	Operation & Maintenance Effort	✓	✓	✓	✓	✓	✓
	Equipment-based Performance	N/A	N/A	✓	✓	✓	✓
% of credit in system performance		65%	40%	35%	35%	35%	40%

Proposal of Buildings Energy Efficiency Label

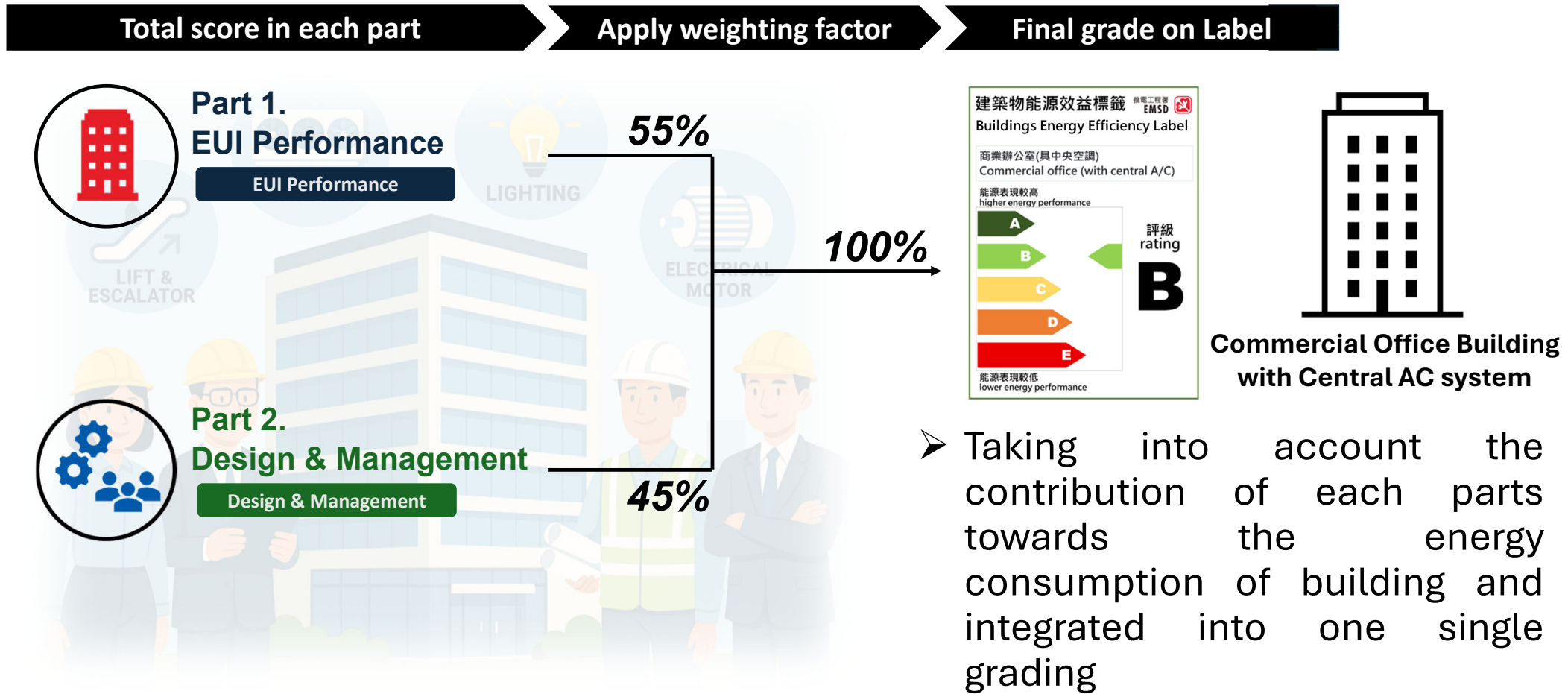
Objective

- To provide a clear framework to motivate building owners to implement Retrofits & Retro Commissioning
- To create a graded and visible recognition system to simulate healthy competition among buildings
- To position the label as a tool to unlock the investment for retrofitting and nurture green economy



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Integrated Approach for Assessment – Weighting



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Part 1 – EUI Performance



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EUI Performance

Regression model for EUI Benchmarking (Route 1)

Developed regression model for building energy prediction using EMSD BEEO mandatory building energy audit for CBSIs

Consideration for regression model parameters (tentative, for reference only)

1	Energy Use Intensity (kWh/m ² ·year)
2	Percentage of Common Area (%)
3	Percentage of Office Area (%)
4	Total Internal Area (m ²)
5	Coefficient of Performance of AC (COP)
6	Office AC hour per week (hour)
7	Percentage of Restaurant Area (%)
8	Percentage of Retail Area (%)
9	Small Power and Lighting (kW)

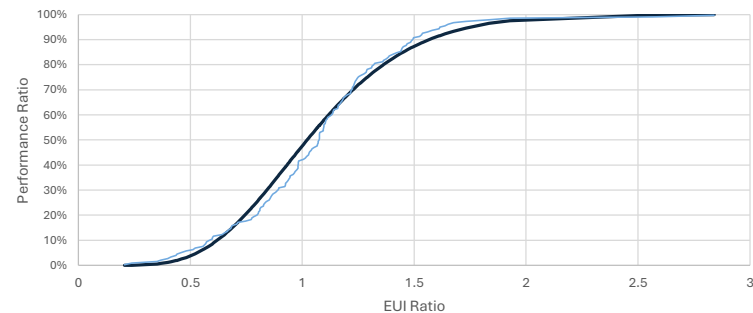
Data Adjustment

- 1 Adjustment for Carpark Consumption 
- 2 Adjustment for Lighting & Small Power For HQ Buildings 



Sound statistical method for development of regression model

⋮
Regression Model



Proposal of Buildings Energy Efficiency Label

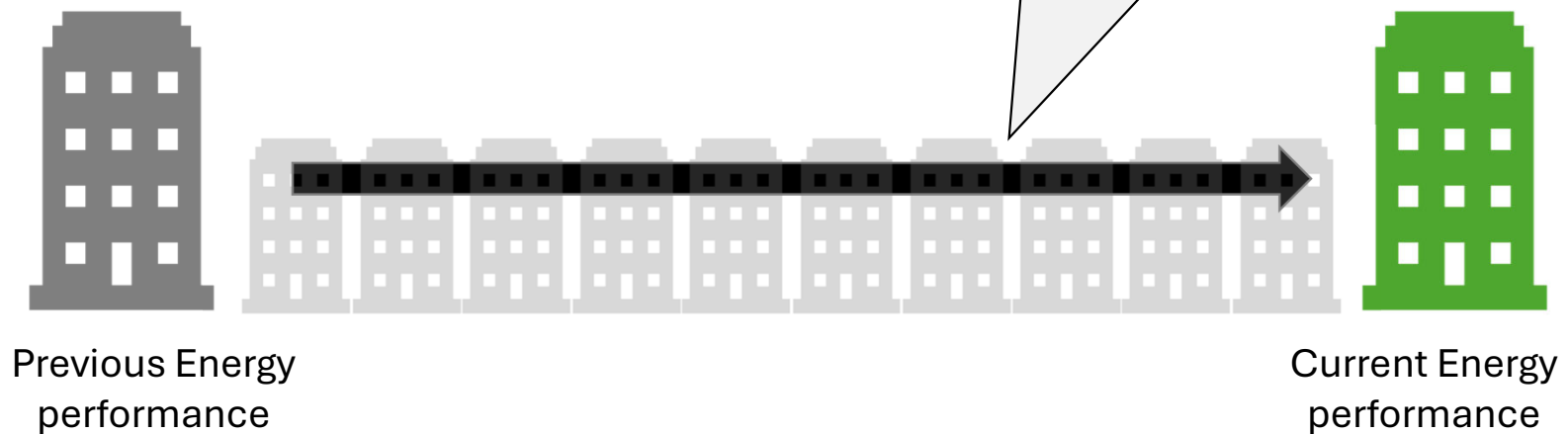


EUI Performance

Percentage of Improvement (Route 2)

Alternative pathway is also established to evaluate the **percentage improvement in building's energy performance.**

Percentage of energy reduction compared to historical performance of the same building (**check against mandatory energy audit record**)



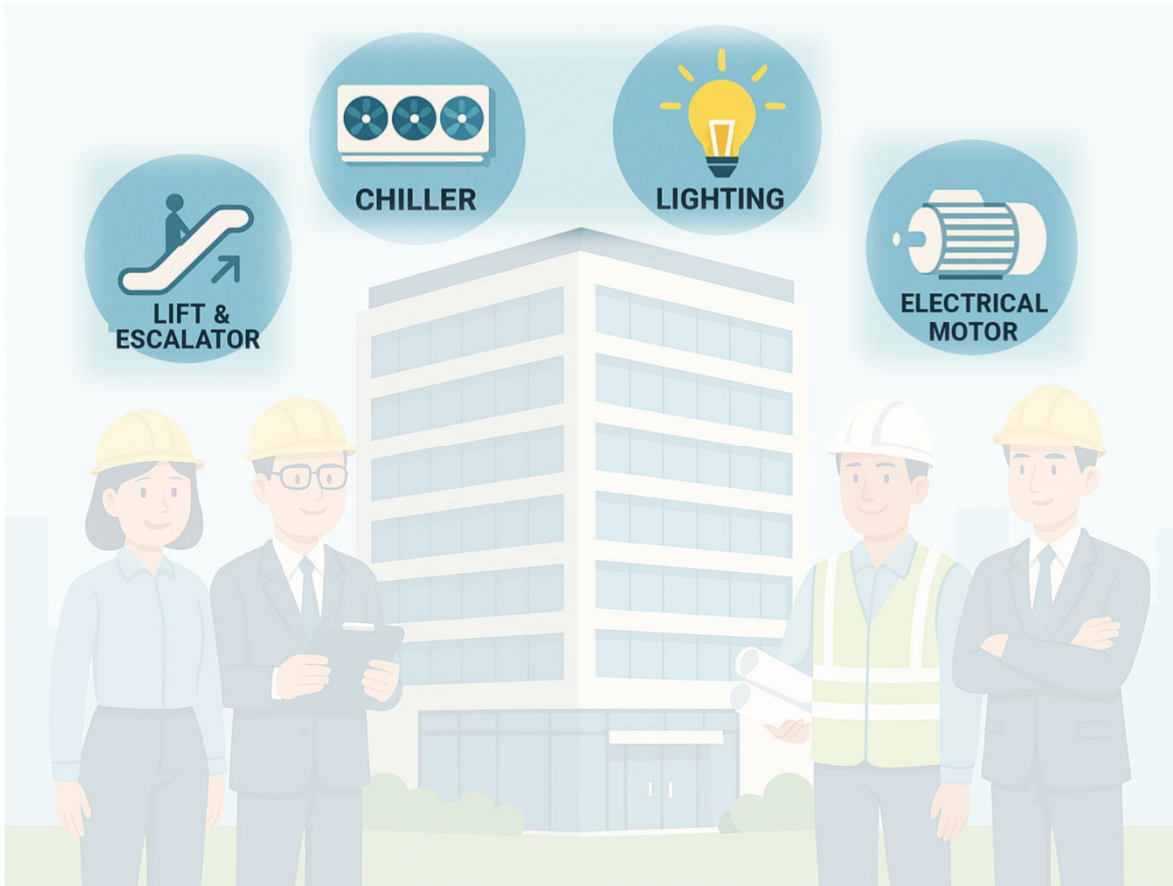
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Part 2 – Design & Management



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Design & Management – Objectives

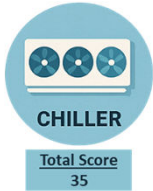


Equipment Efficiency

- Recognise energy saving through provision of energy efficient system or building services installations
- Recognise use of renewable energy or energy recovery

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Design & Management – Assessment Checklist



1. Chiller Plant COP
2. Percentage of VSD Chiller
3. Chiller Plant Optimization
4. Percentage of Air-side System Optimization
5. Energy Recovery



8. Percentage of IE3 motor for motor rated below 75kW
9. Percentage of IE4 motor for motor rated equals or above 75 kW



6. Percentage of LED Luminaire
7. Percentage of Automatic Lighting Control



10. Percentage of Lift with VVVF Drive
11. Percentage of Escalator with VVVF Drive
12. Percentage of Escalator with Automatic Service On-demand Control



13. Renewable Energy Generation



Equipment Efficiency

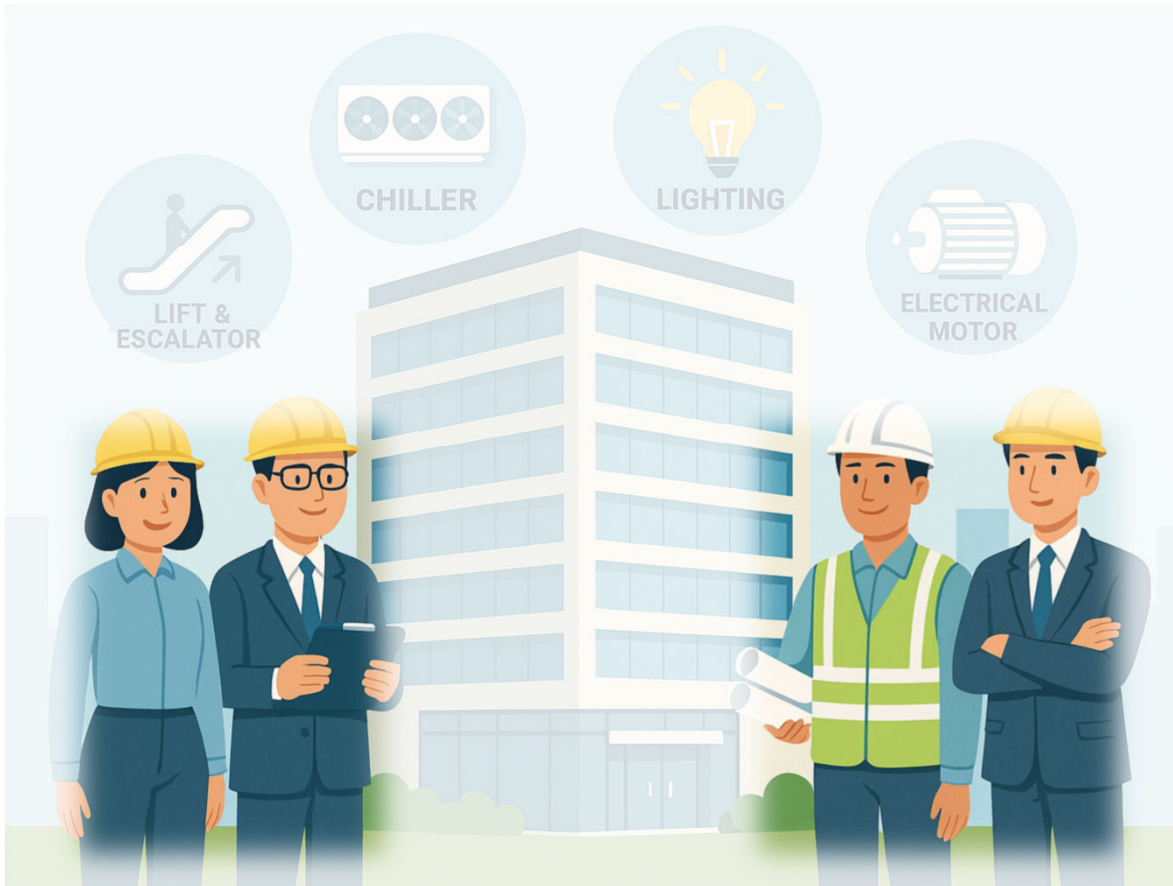
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Major Reference:



Proposal of Buildings Energy Efficiency Label

Design & Management – Objectives



Energy Management based

- Recognise energy saving through continuous building energy management strategies (e.g. appropriate operation and maintenance approach)

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Design & Management – Assessment Checklist

6 Credits

1. Energy Management Policy, Energy Management Plan

6 Credits

2. Proper Energy Management / Operation & Maintenance Record

9 Credits

3. Energy Tracking / System Performance Monitoring

3 Credits

4. Energy Management System / Building Management System

12 Credits

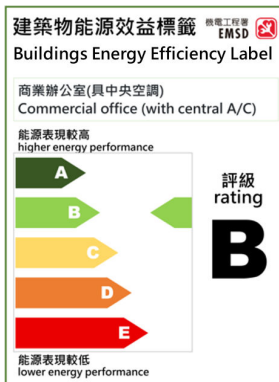
5. Retro-Commissioning

Encourage all levels of energy management efforts.



Current Status of BEELS

2nd consultation workshop at Jan 2026



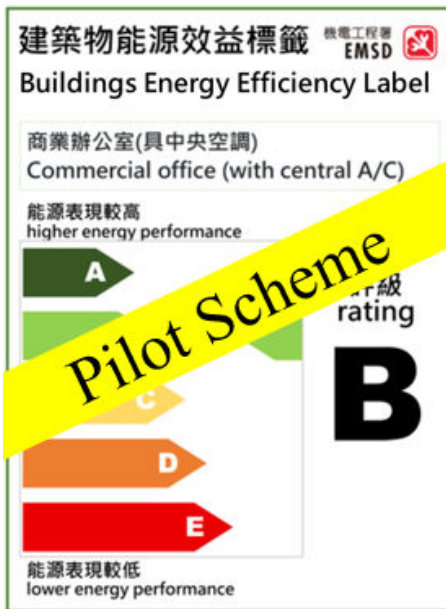
Outcome in 2nd Workshop

- BEELS assessment shall be by credit based system
- Concerns from 1st workshop were well addressed
- Pilot programme should be conducted to test the sensitivities of the BEELS marking scheme
- Phase implementation of BEELS should be adopted

Way forward

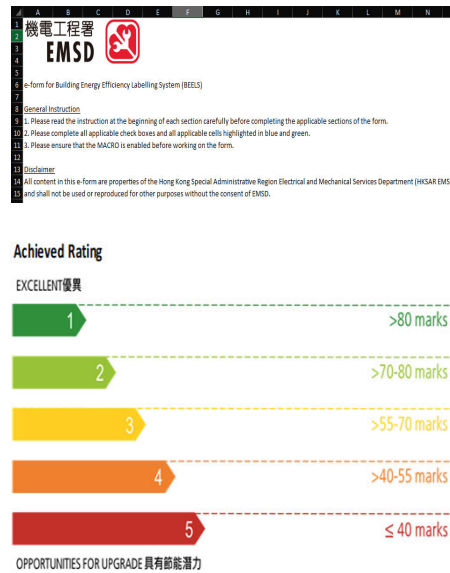
Tentative Milestones

mid-2026



Implement pilot and launch the assessment tool for Office Building with Central AC

end-2026



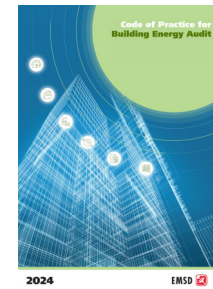
Reviewed and refined marking scheme for Office Building with Central AC

2027



Formal launch BEELS

Voluntary



Include BEELS in EAC and extend to more building types

Mandatory

REA Opportunities & Duties on BEELS

REA

– A Building Energy Professional under Cap. 610



Current REA role on Energy Audit

- Conduct energy audit and issue Form EE-5 and EE-EAR
- Ensure data accuracy of energy audit
- Submit the copy of Form EE-5 and EE-EAR for legal compliance

REA Role on Voluntary BEELS

- Preliminary assessment to the building energy performance based on the framework of BEELS
- Facilitator of BEELS submission to EMSD for the Label recognition
- Professional Adviser of energy saving retrofit and technical support to green finance planning

REA Role on Mandatory BEELS in long term

- Certify labels & periodic renewals by their professional judgement and report to EMSD
- EMSD as a goal keeper and perform random check for quality assurance

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Thank You