Industry Briefing on Mandatory Energy Improvement (MEI) Regime

15 & 16 Jul 2025

Presented by SM/ Wee Kai Siong

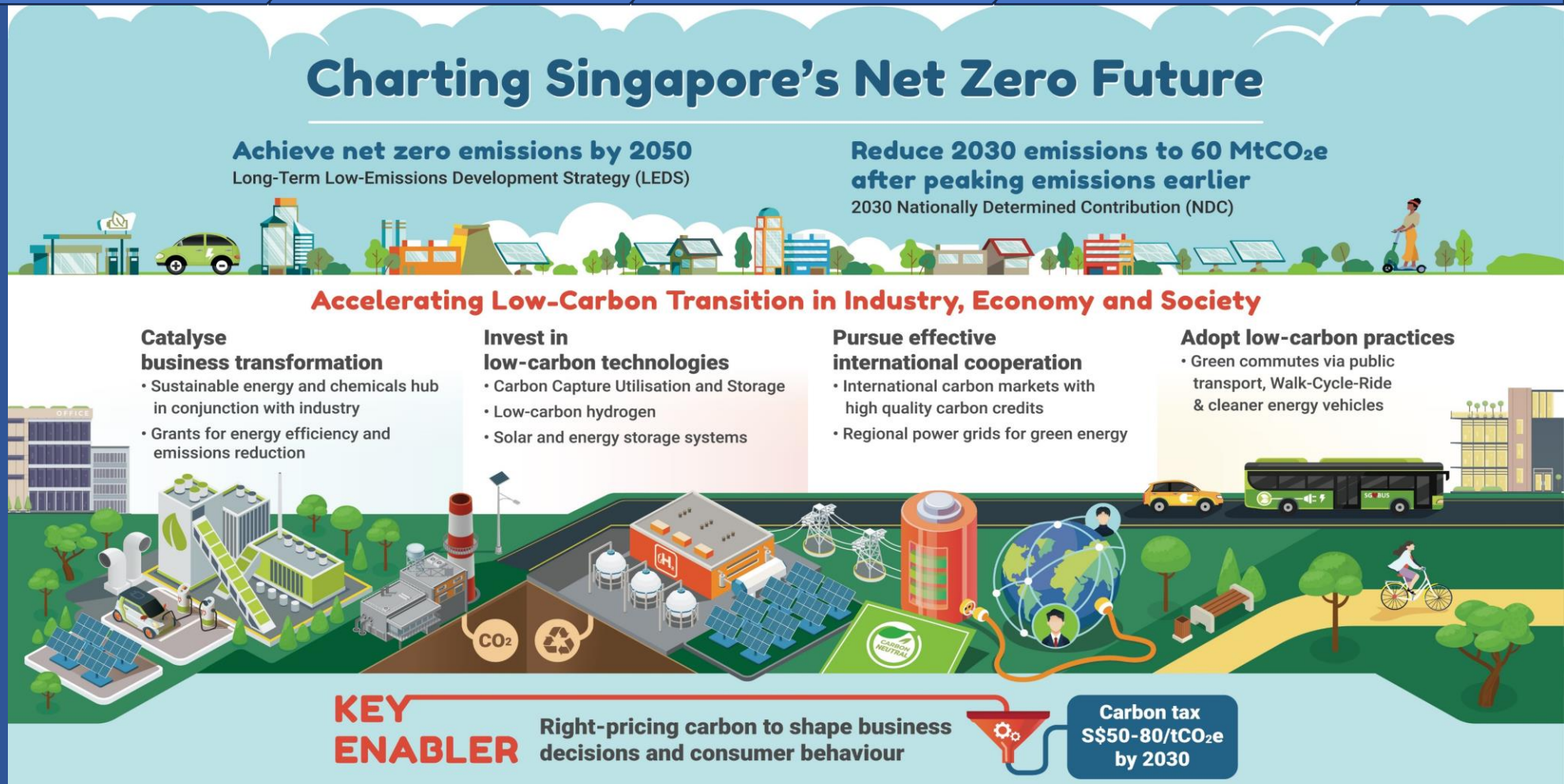
Agenda

1. Overview

2. MEI Regime
   - Buildings that are considered energy-intensive
3. Code on MEI
   - Methodology for calculating annual building energy consumption and EUI
   - Prescribed manner to carry out an audit on the energy use of buildings and systems
   - Submission procedures
4. Q&A

Buildings contribute about 20% of Singapore's carbon emissions.

Green buildings can contribute a big part in our transition to a low-carbon and climate resilient future.



NCCS NATIONAL CLIMATE CHANGE SECRETARIAT SINGAPORE | STRATEGY GROUP PRIME MINISTER'S OFFICE

SG GREEN PLAN

Source: NCCS

Creating a Sustainable Built Environment

Singapore Green Building Masterplan (SGBMP)

"Building our Green Future Together"

VISION

"A leading green Built Environment sector mitigating climate change and providing a healthy, liveable and sustainable Built Environment for all"

80% of buildings to be green (by GFA) by 2030

80% of new developments (by GFA) to be Super Low Energy (SLE) buildings from 2030

80% improvement in energy efficiency (from 2005 levels) for best-in-class buildings by 2030

SG GREEN PLAN

Singapore Green Plan 2030

- Greener Infrastructure and Buildings under 'Energy Reset' pillar

Benchmarking of building performance

2013

- All building owners are required to submit their building energy performance data

2017

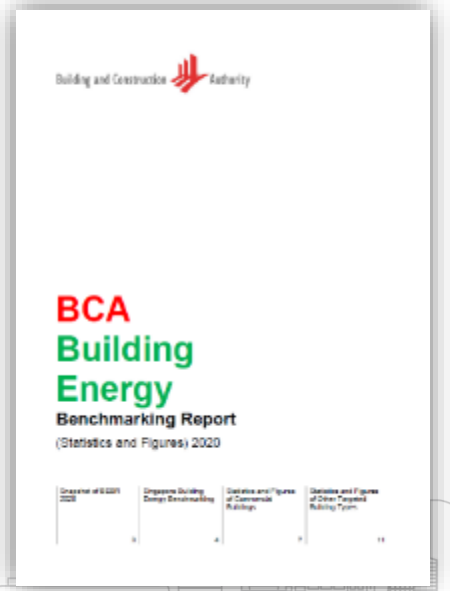
- Building Energy Benchmarking Report published yearly
- Building owners could opt to voluntarily have their building's energy data disclosed to the public

2020

- Circular to give notice that data submitted from 2020 onwards would be published in the following year

2021

- **Identify all buildings in the data that we publish, beginning with commercial buildings**



➢ ***Healthcare facilities, Educational institutions, Civic Community and Cultural Institutions and Sports & Recreation Centres***

Details of building energy benchmarking and dataset can be found at BCA website [Building Energy Benchmarking]

There is an existing building stock that are considered energy intensive but are not required to undergo any energy efficiency improvement if the building owners chose not to undertake any major A & A or major energy use change.

Announcement of MEI at Budget 2023

Amendments to the Building Control Act to introduce MEI regime

Going forward, the suite of environmental sustainability measures for existing buildings under the Building Control Act will be expanded to include the MEI regime. This regime will bridge the gap by levelling up the energy performance of energy-intensive buildings.

Energy audits, improvements required for 'energy-intensive' buildings

By Ry-Anne Lim
tmmnd@sph.com.sg

ENERGY-INTENSIVE buildings will soon have to undergo mandatory energy audits and implement measures to improve their energy use, Senior Minister of State for National Development Tan Kiat How announced during the ministry's Committee of Supply debate on Thursday (Mar 2).

The new regime, Mandatory Energy Improvement (MEI), is part of the Building and Construction Authority's (BCA) efforts to reduce carbon emissions in the built environment, particularly in buildings with "poor energy performance" that are not subject to minimum energy standards.

For a start, the MEI will apply to the most energy-intensive commercial buildings, healthcare facilities, sports and recreation centres, as well as institutional buildings, with a gross floor area of 5,000 square metres and up.

Preliminarily, BCA predicts that fewer than 100 existing buildings could be audited under the regime, to be introduced by end-2024.

Under current requirements, all new buildings must be 50 per cent more energy efficient than 2005 levels. All existing buildings that undergo major retrofitting works must also be made 40 per cent more energy-efficient compared to 2005 levels. However, there is currently no requirement for building owners to improve energy performance.

Under the MEI, buildings with energy use intensity (EUI) - that is, the amount of energy used within an establishment annually - below a predetermined threshold will be subject to an audit of the major energy-consuming systems in their building.

They will then have to come up with measures to optimise energy use and enhance its efficiency.

The review will also include a cost-benefit analysis of these measures to help building owners in their decision-making process, said Tan.

Measures could include simple and cost-effective ones, such as replacing faulty parts and sensors, or getting tenants to use energy-saving lighting, he said.

Building owners eyeing more extensive retrofits can also apply for grants under the Green Mark Incentive Scheme for Existing Buildings 2.0, which provides co-funding for retrofitting works to achieve at least Green Mark Platinum standards.

Owners could also work with occupants and tenants through sustainability initiatives - for instance, in introducing green leases, where tenants work with them under the rental agreement to reduce energy consumption.

They must then maintain an "improved level of energy performance over a stipulated period", said Tan.

BCA will engage the industry and the public on the MEI regime, with further details to come.

Tan noted that close to 55 per cent of Singapore buildings have been "greened", about 20 per cent of new buildings in the past year achieved Super Low Energy standards, and best-in-class buildings achieved over 70 per cent improvement in energy efficiency over 2005 levels.

Starting this year, BCA will publish the energy performance data of individual buildings. This will allow building owners to determine their energy performance relative to other buildings of the same type, Tan said.

Pemilik bangunan dengan prestasi tenaga lemah perlu jalani audit

PEMILIK bangunan dengan prestasi tenaga yang lemah akan dikehendaki menjalankan audit tenaga dan melaksanakan langkah untuk mengurangkan penggunaan tenaga di bawah rejim Peningkatan Tenaga Wajib (MEI) baru yang akan diperkenalkan menjelang akhir 2024.

Langkah-langkah bagi mengurangkan penggunaan tenaga boleh termasuk penyelesaian mudah dan yang menjimatkan kos seperti menggantikan bahagian dan penderia yang rosak atau meminta penyewa menggunakan lampu yang menjimatkan tenaga.

Pemilik bangunan yang ingin melakukan pengubahsuaian yang lebih meluas juga boleh memohon geran di bawah Skim Insentif Green Mark untuk Bangunan Sedia Ada 2.0, yang menyediakan pembiayaan bersama bagi kerja-kerja pengubahsuaian untuk mencapai sekurang-kurangnya piawaian Green Mark Platinum.

Demikian kata Menteri Negara Kanan (Perhubungan dan Penerangan merangkap Pembangunan Negara), Encik Tan Kiat How, dalam ucapannya semasa perbahasan Jawatankuasa Perbekalan (COS) Kementerian Pembangunan Negara.

Sebagai permulaan, MEI akan dikenakan terhadap bangunan komersial yang paling intensif tenaga, kemudahan penjagaan kesihatan, pusat sukan dan rekreasi serta bangunan institusi dengan Keluasan Lantai Kasar 5,000 meter persegi ke atas, katanya.

"Pemilik bangunan akan dikehendaki mengekalkan tahap prestasi tenaga yang lebih baik dalam tempoh yang ditetapkan.

"Penguasa Bangunan dan Pembinaan (BCA) sedang berunding dengan industri mengenai butiran dan keperluan MEI dan akan berkongsi lebih banyak butiran kelak," tambah Encik Tan.

10 Sep 2024: Building Control (Amendment) Bill was passed by parliament

cna

SINGAPORE: About 100 existing buildings that are deemed energy intensive will be required to carry out audits and improvement works under an upcoming regime aimed at greening more buildings in Singapore.

This comes after the Building Control (Amendment) Bill was passed by parliament on Tuesday (Sep 10).

In tabling the Bill for a second reading, Senior Minister of State for National Development Sim Ann said the proposed Mandatory Energy Improvement regime was "an important and necessary" move to accelerate the decarbonisation of Singapore's built environment.

The new regime, which targets energy-guzzling buildings that are currently not subject to minimum energy standards, is set to kick in from the third quarter of 2025.

WHAT IS THIS ABOUT?

The Mandatory Energy Improvement regime will apply to the most energy-intensive buildings across four typologies – commercial buildings, healthcare facilities, institutional buildings, as well as sports and recreation centres.

These buildings must also have a gross floor area of 5,000 sqm and more. Smaller buildings consume less energy and will not be subject to the new regime to reduce regulatory burden and compliance costs, said the Building and Construction Authority (BCA).

In addition, buildings are considered energy-intensive if their energy use intensity (EUI) – the amount of energy used per square meter annually – exceeds a prescribed threshold for three straight years.

2 Jun 2025: Circular on the Implementation of Mandatory Energy Improvement (MEI) Regime

Building and Construction Authority

An MND Statutory Board

Our Reference: APPBCA-2025-11 **Environmental Sustainability Group**

02 June 2025

See Distribution List

Dear Sir/Madam,

CIRCULAR ON THE IMPLEMENTATION OF MANDATORY ENERGY IMPROVEMENT REGIME

Objective

This circular is to update the industry on the new Mandatory Energy Improvement ("**MEI**") regime.

Background

2 On 10 Sep 2024, BCA mentioned in its media release that amendments have been made to the Building Control Act ("**BC Act**") to introduce the **MEI regime,** aimed at reducing energy consumption in energy-intensive buildings. The MEI regime will support the shift towards a low-carbon built environment, contributing to our national commitment to achieve net-zero emissions by 2050.

MEI Regime

3 Under the MEI regime, an official notice will be issued to owners of **energy-intensive buildings** with a Gross Floor Area (GFA) of 5,000 square metres or more that fall under any of these typologies:

(i) Commercial buildings;
(ii) Healthcare facilities;
(iii) Institutional buildings (comprising educational, civic, community and cultural buildings); and
(iv) Sports and recreation centres.

4 Owners of the buildings described in Paragraph 3 above will be required to:

(i) engage a qualified professional to conduct an energy audit of the building and its systems;
(ii) implement measures to reduce the building's energy consumption to meet specified targets; and
(iii) maintain the improved energy performance over a designated period.

52 Jurong Gateway Road #11- 01 Singapore 608550
Tel: 1800 3425 222 | Fax: (65) 6334 4287
www1.bca.gov.sg

BuildSG

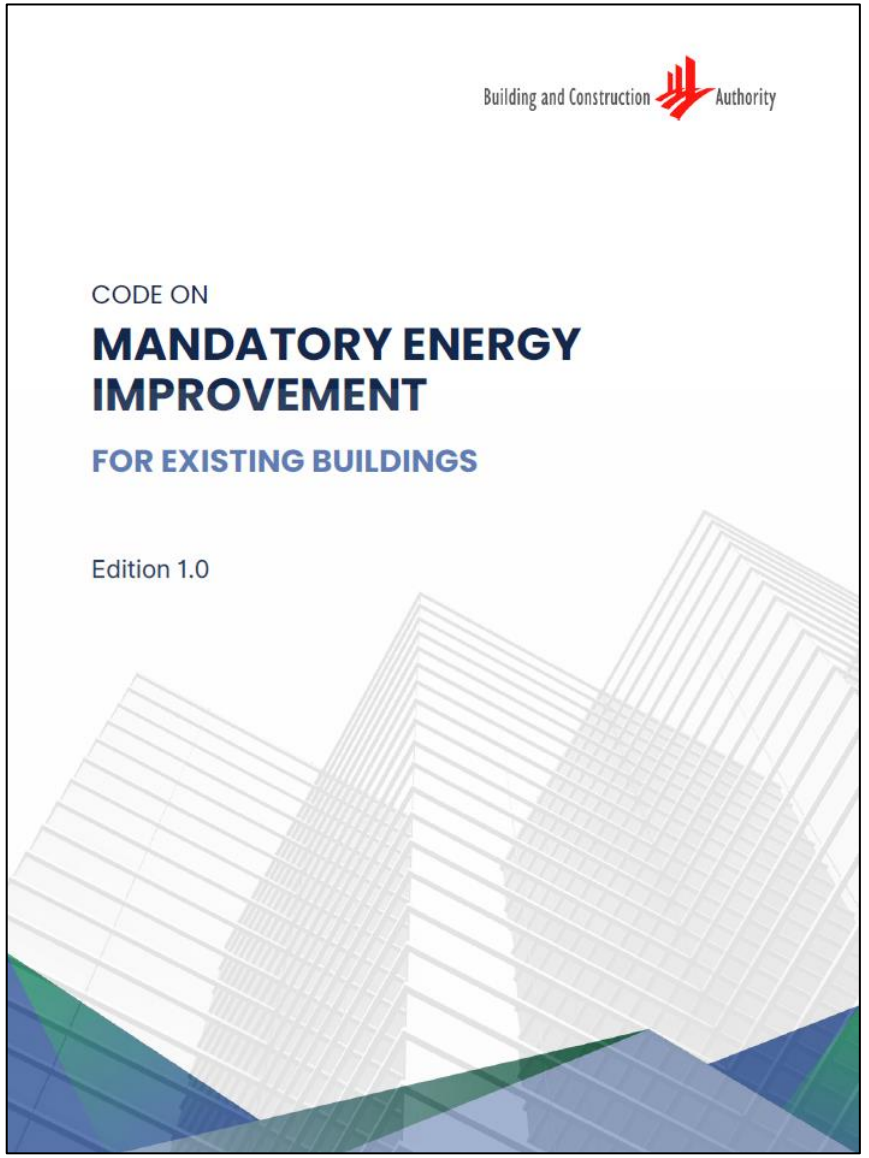
Effective Date

5 The MEI regime will be implemented with the commencement of the legislative amendments to the BC Act and the legislative amendments to the Building Control (Environmental Sustainability Measures for Existing Buildings) Regulations on **30 September 2025**.

2 Jun 2025: MEI Website Updated with draft MEI regulation and MEI Code, Edition 1.0

go.gov.sg/bc-es-MEI

Regulatory Requirements	Effective Date
Building Control (Amendment) Act 2024	30 September 2025
Building Control (Environmental Sustainability Measures for Existing Buildings) (Amendment) Regulations 2025 (Draft)	30 September 2025
Building Control (Composition of Offences) Amendment Regulations 2025 (Draft)	30 September 2025
Code on Mandatory Energy Improvement for Existing Buildings, Edition 1.0 Issued in June 2025	30 September 2025



Energy-Intensive Buildings

If the Type 1 building's Energy Use Intensity (EUI)* **exceeds the EUI threshold** over a period of **three consecutive years**, building owner **will receive MEI notice**.

** Energy Use Intensity (EUI) is computed based on the annual energy consumption of a building over its Gross Floor Area (GFA) and has units in kWh/m^2.yr .*

Building Typologies

a. Commercial buildings
b. Healthcare facilities
c. Institutional buildings
d. Sports & recreation buildings

Size

Gross floor area (GFA) of ≥ 5,000m^2

- Retail
- Office
- Hotel

- Hospitals/ Specialist Clinics
- Polyclinics/private clinics
- Nursing Homes

- Autonomous Universities
- Other Educational Institutions
- Civic Institutions
- Community Institutions
- Cultural Institutions

- Recreation Clubs
- Sport Facilities

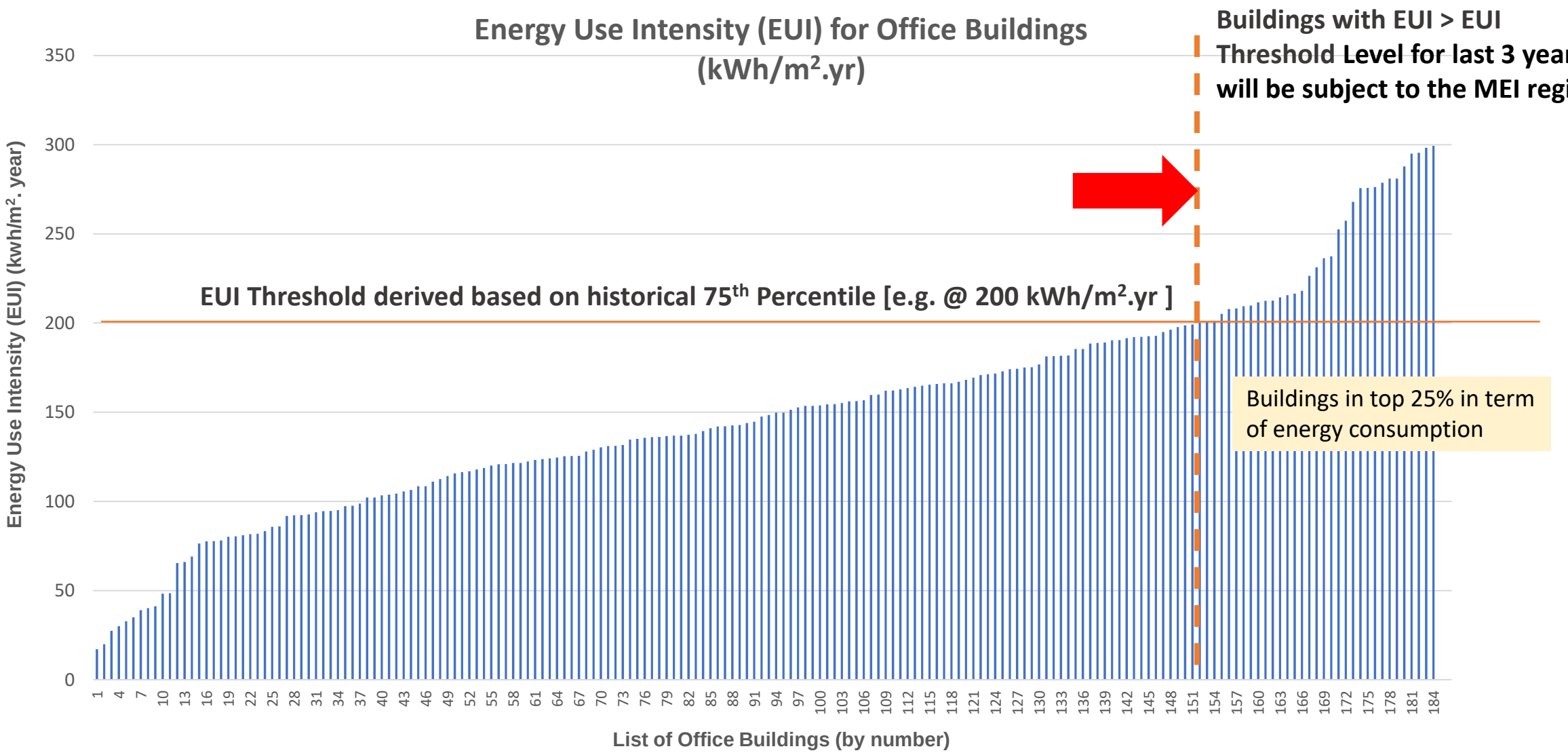
Definition

Type 1 building is a building (whether or not served by a prescribed cooling system) with a gross floor area of 5,000 m^2 or more, other than the following buildings:

a) a building that is used primarily as a data centre;
b) a building that is used as railway premises;
c) a building that is used to provide airport services and facilities;
d) a building that is used to provide port services and facilities;
e) a general industrial building;
f) a light industrial building;
g) a religious building;
h) a residential building;
i) a special industrial building;
j) a utility building.

“Energy-intensive building” means a Type 1 building that has an energy use intensity that exceeds the Energy Use Intensity (EUI) threshold.

Illustrative example for Office Buildings that would be subject to the MEI Regime



EUI Thresholds for different building sub-typologies

EUI Threshold	
Building Use	**kWh/m²/yr**
A. Commercial buildings	
1. Hotel buildings	310
2. Office buildings	200
3. Retail buildings	495
B. Healthcare facilities	
4. Hospital or specialist clinic	360
5. Nursing home	120
6. Polyclinics & Private Clinic	190
C. Institutional buildings	
7. Autonomous university	190
8. Civic institution	195
9. Community institution	155
10. Cultural institution	270
11. Other educational institution	130
D. Sports and recreation centres	
12. Recreation club	275
13. Sports centre	180
E. Other energy uses	
14. Data centre operations	6,595
15. Laboratory operations	560

What happens if my building is a mixed-use building?

- If your building has a combination of different uses, the EUI threshold can be pro-rated accordingly

What if my building has a combination of office and retail spaces say 60% office & 40% retail? Will my building be subject to office EUI threshold ?

For example, a building with a gross floor area of 20,000 sqm

- **60% Office space (by GFA)**
- **40% Retail space (by GFA)**

In this case, if the building's EUI exceed the threshold of 318 kWh/m^2.yr for consecutive 3 years, it will be considered as energy intensive and may be subject to MEI the regime.

The EUI threshold that is specific to this building will be:

EUI threshold = (60% * EUI threshold for Office)+ (40% *EUI threshold for Retail)

= (0.6 * 200) + (0.4 * 495)

= 318 kWh/m^2/yr

What happens if my building taps on District Cooling?

- For buildings that tap on District Cooling System (DCS), the energy consumption from the air-conditioning plant is not included in the EUI computation. Hence, the EUI threshold set will have to be reduced correspondingly.

What if my building taps on DCS? What should be the EUI threshold ?

For example, a building with a gross floor area of 20,000 sqm

- **60% Office space (by GFA)**
- **40% Retail space (by GFA)**

The EUI threshold that is specific to this building will be:

In this case, if the building's EUI exceeds the threshold of 254.4 kWh/m^2.yr for 3 years, it will be considered as energy intensive and may be subject to MEI the regime

EUI threshold = [(60% * EUI threshold for Office * 0.8)+ (40% *EUI threshold for Retail * 0.8)]

= [(0.6 * 200 * 0.8) + (0.4 * 495 * 0.8)]

= 254.4 kWh/m^2/yr

What happens if my building has other energy uses?

- The EUI thresholds are established for data centre & laboratory operations.
- The EUI threshold will be pro-rated accordingly.

What if my building has systems that are for data centre operation or laboratory which are of high energy consumption? Wouldn't my building always be considered energy-intensive when compared to those of the same building typology?

For example, a building with a gross floor area of 20,000 m²

- **50% Office space (by GFA)**
- **5% Data centre operation space (by GFA)**
- **5% Laboratory operation space (by GFA)**
- **40% Retail space (by GFA)**

The EUI threshold that is specific to this building will be

EUI threshold = (50%*EUI threshold for Office) + (5%*EUI threshold for Data centre)
+ (5%*EUI threshold for Laboratory) + (40%*EUI threshold for retail space)
= (0.50 * 200) + (0.05 * 6595) + (0.05 * 560) + (0.4 * 495)
= 655.75 kWh/m²/yr

In this case, if the building's EUI exceeds the threshold of 655.75 kWh/m².yr for 3 years, it will be considered as energy intensive and may be subject to MEI the regime

Energy Audit Requirements

01 Building Level Assessment

- Evaluation of overall energy use profiles and consumption of building and systems.
- Walkthrough surveys to assess building conditions, identify major energy-consuming systems, and review maintenance practices to determine areas for improvement.

02 System Level Assessment

- Technical evaluation of building cooling systems and other high energy consuming systems, where relevant.
- Measurement and verification of operating system efficiency and performance.
- Observations on control settings, operating schedules and maintenance conditions to identify specific opportunities for energy efficiency improvements.

03 Energy Efficiency Improvement Plan (EEIP)

- Feasibility study of energy efficiency measures identified.
- Cost and benefits analysis which include energy savings, implementation costs etc.
- Recommended measures to achieve the minimum required EUI reduction.

Energy Audit Requirements

01 **Building Level Assessment**

- Evaluation of overall energy use profiles and consumption of building and systems.
- Walkthrough surveys to assess building conditions, identify major energy-consuming systems, and review maintenance practices to determine areas for improvement.

(a) **Building owner's operations and systems:**

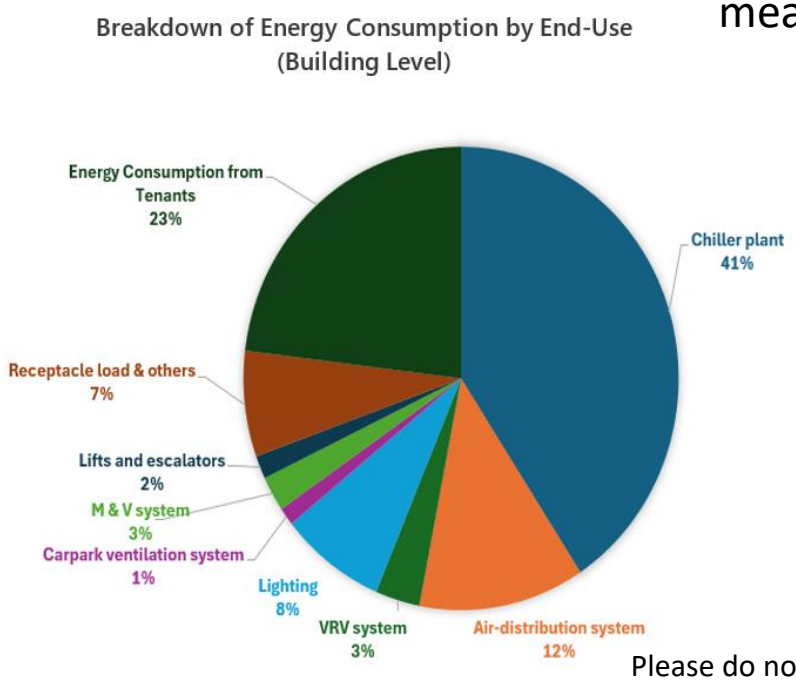
(i) Owner/Landlord-operated systems and equipment and

(ii) Central services and shared facilities related to building services and operation.

(b) **Tenant operations:**

(i) Energy consumption within leased spaces and

(ii) Where recommended, tenant-specific equipment and processes that are energy-intensive.



Historical Energy Consumption

Review past 3 consecutive years of consumption data

Walkthrough Survey

Visually inspect building and major energy-consuming systems to identify areas of wastage and inefficiencies.

Data Collection of electricity use

Sub-metering data for major building systems. Energy bills from key tenants. Spot measurements.

Inventory of systems & equipment

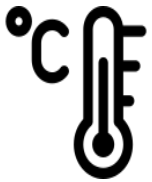
List of major energy-consuming items incl type, quantity, age, rated capacity, rated performance, controls etc

Analysis of collected data

Identify energy use profiles and peak demand period

Central Chilled-Water Plant/VRF

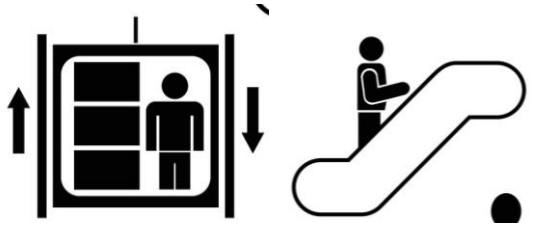
Air Handling Units and Distribution System



Central Hot Water System

Lighting (indoor & outdoor)

Mech Ventilation (carpark & kitchen)



Lifts and Escalators

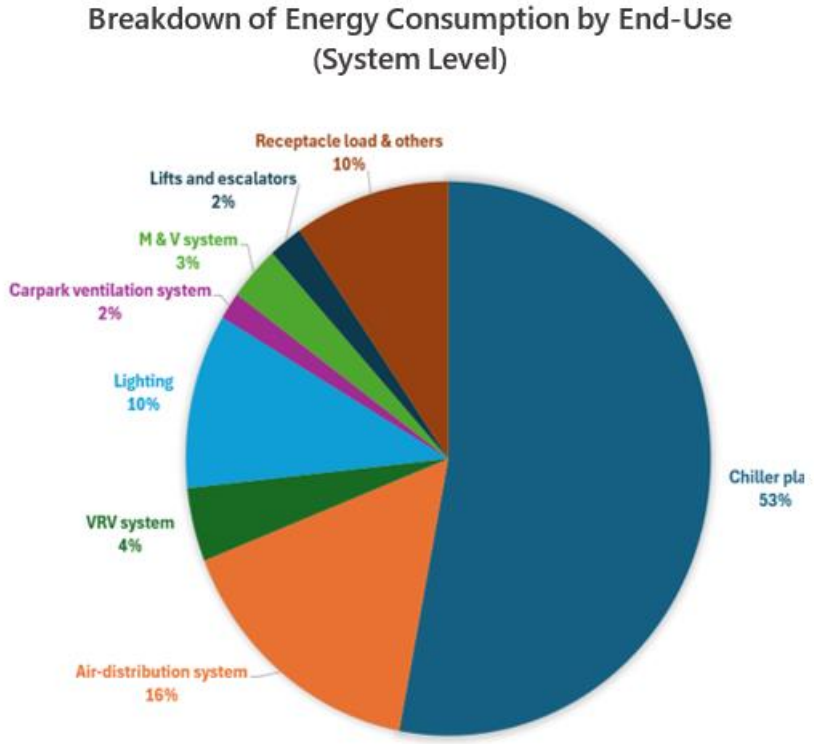
02

System Level Assessment

- Technical evaluation of building cooling systems and other high energy consuming systems, where relevant.
- Measurement and verification of operating system efficiency and performance.
- Observations on control settings, operating schedules and maintenance conditions to identify specific opportunities for energy efficiency improvements.

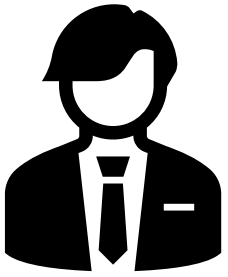
End-Use Breakdown

Analyze consumption by system: HVAC (~70%), Lighting (~10%), Receptacle Loads (~10%), and other uses.

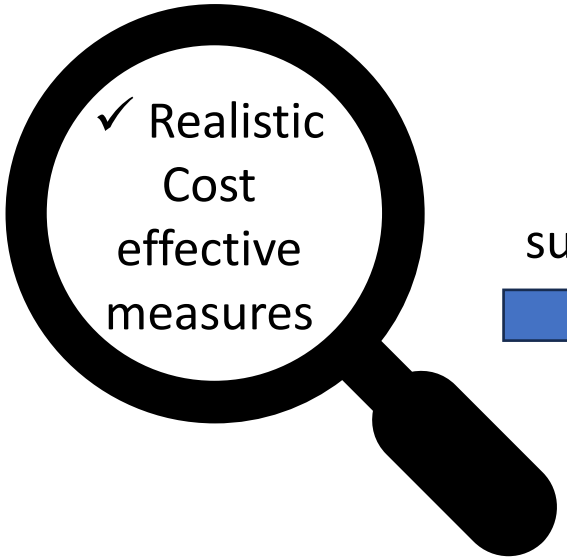


- ✓ Feasibility assessment of EUI reduction
- ✓ Description of each recommended measures
- ✓ Expected energy savings and EUI reduction
- ✓ Implementation costs
- ✓ Simple payback period for each measure
- ✓ Implementation timeline

Building Owners / Facility Manager



PE(Mech) / Energy Auditor



submit

BCA

03 **Energy Efficiency Improvement Plan (EEIP)**

- Feasibility study of energy efficiency measures identified.
- Cost and benefits analysis which include energy savings, implementation costs etc.
- Recommended measures to achieve the minimum required EUI reduction.

Summary List of Potential Measures and Selection (example)

S/No.	List of Potential Measures	Building System/ Initiative	Energy Saving Potential (High/Medium/Low)		Potential Cost (High/ Medium/ Low)	Selection (Y/N)	Remarks/ Reasons (if not implementing)
			System Level	Building Level			
1	Conduct comprehensive maintenance including tube cleaning and refrigerant charge optimisation	Chiller system	Low	Low	Low	Yes	
2	Chiller optimisation including upgrading of control system	Chiller system	High	High	Medium	Yes	
3	Installation of smaller capacity chiller	Chiller system	High	High	High	Yes	
4	AHUs system optimisation	AHUs	Medium	Medium	Medium	Yes	
5	Replacement with EC fans	AHUs	High	Medium	Medium	No	To be considered at later stage as existing systems are within service life.
6	Regular cleaning schedule and preventive maintenance programme for cooling coils along with filter differential pressure monitoring	AHUs	Low	Low	Low	Yes	
7	Replacement of existing fixtures with LED panels	Lighting system	Low	Low	Low	Yes	
8	Install occupancy sensors in less frequently accessed areas	Lighting system	Low	Low	Low	Yes	
9	Use time scheduling for open office areas, with manual override capability	Lighting system	Low	Low	Low	Yes	
10	Integrate lighting control with the building management system upgrade	Lighting system	Medium	Low	Medium	No	Incompatible existing lighting circuits/systems

Summary List of Potential Measures and Selection (example)

S/No.	List of Potential Measures	Building System/ Initiative	Energy Saving Potential (High/Medium/Low)		Potential Cost (High/ Medium/ Low)	Selection (Y/N)	Remarks
			System Level	Building Level			
11	Upgrade with demand-controlled ventilation with CO sensors to monitor the air quality and modulate the fan speeds of the supply and exhaust fans based on CO level	Carpark ventilation System	Medium	Low	Medium	No	Limited BMS integration capability for carpark systems
12	Change operational scheduling by aligning ventilation with peak usage patterns, to reduce ventilation during low occupancy period	Carpark ventilation System	Medium	Low	Low	Yes	
13	Adjustment of pressure control by optimising the AHU settings for proper pressurisation and balance the air distribution.	AHUs in relation to air leakage	Medium	Low	Low	Yes	
14	Install automated self-closing doors to minimise excessive air leakage	Door provision	Medium	Low	Low	Yes	
15	System Optimisation by implementing demand-based temperature control.	Centralised hot water system	High	Medium	Medium	No	Plan for boiler replacement
16	Install VSD for circulation pumps and demand-based circulation control	Centralised hot water system	High	Medium	Medium	No	Plan for boiler replacement
17	Improve on existing hot water system insulation	Centralised hot water system	Low	Low	Low	No	Plan for boiler replacement
18	Replace with high efficiency heat pump	Centralised hot water system	High	High	High	Yes	
19	Tap on heat recovery from chiller condensers	Centralised hot water system	Medium	Medium	Medium	Yes	Complement boiler replacement

Summary List of Potential Measures and Selection (example)							
S/No.	List of Potential Measures	Building System/ Initiative	Energy Saving Potential (High/Medium/Low)		Potential Cost (High/ Medium/ Low)	Selection (Y/N)	Remarks
			System Level	Building Level			
20	Energy performance requirements in lease agreements	Tenant partnership programme	NA	Medium	Low	Yes	Limit to new tenants or at lease renewal stage
21	Guidelines for fit out works to required energy efficient equipment	Tenant partnership programme	NA	Medium	Low	Yes	Limit to new tenants or at lease renewal stage
22	Cost-sharing mechanism for energy efficiency improvements	Tenant partnership programme	NA	High	Medium	Yes	Subject to tenants' agreement to terms like energy data sharing

To provide the basis on how the energy saving potential and implementation cost are classified as High, Medium, or Low. For example,

Energy Saving Potential (example)		Potential Implementation Cost (example)
System Level	Building Level	
High: > 20% Medium: 5% to 20% Low: <5 %	High: > 1% Medium: 0.5% to 1% Low: <0.5 %	High: > $1 million Medium: $300,000 to $1 million Low: < $ 300,000

S/No.	Proposed Energy Improvement Measures (Example)	Building Systems/ Initiatives	Cost and Simple Payback Period		Implementation Plan	
			Estimated Implementation Cost ($)	Simple Payback Period (Year)	Start Date	Estimated End Date (where applicable)
Energy Reduction Recommendation						
1	Conduct comprehensive maintenance including tube cleaning and refrigerant charge optimisation	Chiller system			15 Oct 2026	15 Dec 2026
2	Chiller optimisation including upgrading of control system	Chiller system			1 Mar 2027	30 Jul 2027
3	AHUs system optimisation	AHUs			1 Mar 2027	30 Jul 2027
4	Regular cleaning schedule and preventive maintenance programme for cooling coils along with filter differential pressure monitoring	AHUs			1 Jan 2027	Ongoing
5	Install occupancy sensors in less frequently assessed areas	Lighting system			1 Jan 2027	Ongoing
6	Use time scheduling for open office areas, with manual override capability	Lighting system			1 Jan 2027	Ongoing
7	Change operational scheduling by aligning ventilation with peak usage patterns, to reduce ventilation during low occupancy period	Carpark ventilation system			15 Feb 2027	Ongoing
8	Adjustment of pressure control by optimising the AHU settings for proper pressurisation and balance the air distribution.	AHUs in relation to air leakage			15 Mar 2027	Ongoing
9	Install automated self-closing doors to minimise excess air leakage	Door provision in relation to air leakage			1 Apr 2027	31 Aug 2027
10	Energy performance requirements in lease agreements	Tenant Partnership Programme			1 Jun 2027	Ongoing Remarks : For new lease
11	Guidelines for fit out works to required energy efficient equipment	Tenant Partnership Programme			1 Jun 2027	Ongoing Remarks : Apply to new leases and lease renewals
12	Protocol for air-conditioning usage during off-peak hours	Tenant Partnership Programme			1 Mar 2027	Ongoing
13	Cost-sharing mechanism for energy efficiency improvements	Tenant Partnership Programme			1 Mar 2027	Ongoing
14	Tenant energy management programme	Tenant Partnership Programme			1 Mar 2027	Ongoing
15	Installation of smaller capacity chiller	Chiller system			1 Sep 2027	30 Mar 2027
16	Replacement of all existing fixtures with LED panels	Lighting system			30 Oct 2027	31 Dec 2027
17	Replace with high efficiency heat pump	Centralised hot water system			30 Mar 2027	30 Oct 2027
Remarks :			∑ kWh	∑kWh	∑kWh	

(1) Determine the EUI $_{baseline}$

Energy Use Intensity (EUI) (kWh/m^2/year)			Baseline: Average EUI over three years
2022	2023	2024	$EUI_{baseline} = \sum EUI_i/3 = 400$ kWh/m^2/year
402	403	395	

(2) Determine the percentage reduction in energy use intensity after implementation of proposed measures under the Energy Efficiency Improvement Plan

Total Expected Energy Savings after implementing EEIP (kWh/year)	Assume : 1,125,000 kWh/year
Energy Use Intensity (EUI) reduction (kWh/m^2/year)	Assume : Building's Gross Floor Areas (GFA) of 25,000 m^2 Expected EUI reduction = $\frac{\text{Total expected energy savings}}{\text{GFA}}$ = $\frac{1{,}125{,}000 \text{ kWh/yr}}{25{,}000 \text{ m}^2}$ = 45 kWh/m^2/yr % EUI reduction = $\frac{\text{Expected EUI reduction}}{\text{EUI}_{baseline}}$ = $\frac{45}{400}$ = 11.25% > 10% ok

(3) Estimate the EUI reduction over 3-year period as the energy improvement measures are progressively completed based on EEIP and implementation plan.

Expected Reduction in Energy Use Intensity (EUI) by Phases (example)					
Details		Year 0	Year 1	Year 2	Year 3
Expected Building's EUI		400	385	365	355
Expected EUI reduction	By phase over 3-year period	0	15	20	10
	Cumulative	0	15	35	45
% EUI reduction (Cumulative)		0	3.75%	8.75%	11.25% >10%

Energy-intensive buildings

(≤ 1 year from date of notice)

Notice

Notice
- Receives Notice for MEI

≤ 90 days
- Appoint *specified individual
- Submit appointment form

≤ 1 year
- Submit energy audit report
- Submit Energy Efficiency Improvement Plan (EEIP)

EEIP Implementation

(≤ 3 years from EEIP submission)

Implement EEIP
- Start implement measures listed in EEIP

≤ 3 years
- Submit Certificate of Completion

- Submit progress report (if requested)

Maintenance Period

(1 year from COC submission)

Maintenance Period
- Monitor and maintain the specified EUI improvement for a period of 1 year

Maintenance Report

(≤ 3 mths from end of maintenance period)

Maintenance Report
- Submit maintenance report within 3 months after maintenance period

If specified EUI reduction is not achieved/maintained

*Specified individual can be either
(a) a professional engineer (Mechanical); or
(b) an energy auditor registered with BCA

Green Mark Incentive Scheme for Existing Buildings 2.0 (GMIS-EB 2.0)

- Encourage building owners to improve on their buildings' energy performance and to strive for deeper carbon emission reduction
- Co-funding support will help lowering the upfront cost of EE retrofits and improve on ROI. The funding quantum is based on carbon emission reduction and Green Mark standard attained.
- Applicable to privately-owned commercial, institutional, light industrial and residential buildings (common areas and services) under the Buildings Sector and with **GFA ≥ 5000 m²**

Qualifying Criteria	Funding Factor	Funding Cap
Green Mark Platinum	$25/tCO2e	$600,000 or up to 50% of qualifying cost, whichever is lower
Green Mark Super Low Energy (SLE)	$35/tCO2e	$900,000 or up to 50% of qualifying cost, whichever is lower
Green Mark Zero Energy (ZE)	$45/tCO2e	$1,200,000 or up to 50% of qualifying cost, whichever is lower

Thank you!

Please submit query at https://www2.bca.gov.sg/feedback/ if you need any further clarification.

1. "Category" = "Environmental Sustainability"
2. "Sub Category" = "Mandatory Energy Improvement (MEI) Regime"

Category: *

Environmental Sustainability

Sub Category: *

Mandatory Energy Improvement (MEI) Regime

Submit feedback / enquiry

@BCASingapore

BuildSG

BCA