













# **Introduction of Buildings Energy Efficiency Ordinance**

Considering that buildings account for about 90% of Hong Kong's total electricity consumption at present, promoting "energy saving and green buildings" can reduce the amount of electricity consumption and the demand for electricity generation. To reduce the electricity consumption, the government has set the long–term target to reduce the electricity consumption of commercial buildings by 30-40% and that of residential buildings by 20-30% from the 2015 level by 2050, with half of the above targets achieved by 2035.

To improve energy efficiency in buildings, the Government had launched the Buildings Energy Eiffciency Ordinance (Cap. 610). The Ordinance covers various categories of prescribed buildings such as common area of residential and industrial buildings, commercial buildings, hotels, government buildings, passenger terminal buildings of an airport, railway stations etc. The purpose of the Ordinance is to regulate the building services installations including lighting, electrical, air-conditioning and lift & escalator installations of the prescribed buildings to comply with the specified minimum energy efficiency standards and requirements. It also requires buildings specified in the ordinance to conduct energy audit. The Ordinance sets up a role of Registered Energy Assessors (REAs) to assist the developers, owners or responsible persons of the prescribed buildings to comply with the statutory requirements. The fees and the registration of REAs are respectively stipulated in two subsidiary regulations, namely Building Energy Efficiency (Fees) Regulation (Cap. 610A) and Buildings Energy Efficiency (Registered Energy Assessors) Regulation (Cap. 610B). In addition, the Government has adopted a multi-pronged approach including improving buildings energy efficiency standards continuously, exploring the possibility of expanding the scope of regulation to cover more types of buildings, shortening the interval of energy audit and disclose more energy-related data to improve data transparency, whereas to accelerate market participation in buildings energy efficiency and advocate better environmental, social and governance (ESG) performance, so as to help Hong Kong strive carbon neutrality before 2050.

To successfully combat climate change, the whole community must work hand-in-hand. The Government, the private sector and the general public must take proactive actions in energy saving and decarbonisation together and support low-carbon transformation with a view to striving towards the target of achieving carbon neutrality.

#### **REAs under the Ordinance**

Since the Buildings Energy Efficiency Ordinance imposes different control regimes on post-enactment<sup>1</sup> and pre-enactment<sup>2</sup> buildings that is demarcated by whether the consent of commencement of building works for superstructure construction is obtained after Part 2 of the Ordinance comes into operation, the duties of REAs for these two types of building are slightly different. They include that —

- REAs should assist the developers of post-enactment buildings to certify the building services installations comply with the BEC during the design stage and the occupation approval stage so that for the developers apply for the Certificate of Compliance Registration (COCR) from the Director of Electrical and Mechanical Services (the Director).
- REAs should subsequently assist the owners of post-enactment buildings to certify the compliance with the BEC after occupation so that for the owners of these buildings apply for renewal of the COCR every 10 years.
- 3. REAs should assist the responsible person(s) of a unit or owner(s) of a common area in post-enactment and pre-enactment buildings to certify the compliance with the BEC upon completion of major retrofitting works<sup>3</sup> and issue a Form of Compliance (FOC) to the responsible person(s) or owner(s) and copy the FOC to the Director.
- 4. REAs should assist the owners of a building specified in the BEEO to conduct the energy audit, issue Energy Audit Forms and energy audit reports to the owners at intervals no longer than 10 years, and copy the Forms and the reports to the Director.

<sup>&</sup>lt;sup>1</sup> Buildings that obtain the consent to the commencement of building works for superstructure construction from the Building Authority <u>after</u> the commencement date of Part 2 of the Ordinance

<sup>&</sup>lt;sup>2</sup> Buildings that obtain the consent to the commencement of building works for superstructure construction from the Building Authority **before** the commencement date of Part 2 of the Ordinance

<sup>&</sup>lt;sup>3</sup> Specified in Schedule 3 of the Ordinance

# **Requirements for Registration as REA**

If an applicant applies as a member of the general public for registration as an REA, the applicant should meet the requirements specified in (1) or (2) below.

#### (1) (a) the applicant -

- (i) is a registered professional engineer (RPE) within the meaning of section 2(1) of the Engineers Registration Ordinance (Cap. 409) and is registered in the electrical, mechanical, environmental, building services or energy discipline under that Ordinance;
- (ii) has had at least 2 years practical experience in engineering works relating to energy efficiency in buildings acquired while being so registered;
- (iii) has the knowledge required for the performance of the duties and functions of a registered energy assessor under the Ordinance; and
- (iv)is a fit and proper person to be registered; or

#### (b) the applicant -

- (i) is a corporate member of the Hong Kong Institution of Engineers (HKIE) in the electrical, mechanical, environmental, building services or energy discipline, or has an equivalent qualification recognized by the HKIE as being of a standard not lower than that of a corporate member of the Institution in any of those disciplines;
- (ii) has had at least 3 years practical experience in engineering works relating to energy efficiency in buildings acquired while being such a member;
- (iii) has the knowledge required for the performance of the duties and functions of a registered energy assessor under the Ordinance; and
- (iv) is a flt and proper person to be registered; or

### (c) the applicant -

- (i) is a professional member of the Hong Kong Institute of Qualified Environmental Professionals (HKIQEP), or has an equivalent qualification recognized by the Institute as being of a standard not lower than that of a professional member of the Institute;
- (ii) has had at least 3 years practical experience in engineering works relating to energy efficiency in buildings acquired while being such a member;
- (iii) has the knowledge required for the performance of the duties and functions of a registered energy assessor under the Ordinance; and
- (iv) is a fit and proper person to be registered.

- (2) the applicant -
  - (a) having knowledge, qualification, education, experience and training, considered as a whole -
    - (i) are comparable to those matters set out in sub-section (1)(a), or (1)(b) or (1)(c) above; and
    - (ii) enable the applicant to perform the duties and functions of a registered energy assessor under the Ordinance; and
  - (b) the applicant is a fit and proper person to be registered.

# **How to Apply**

Applicants for registration as REAs should submit the following documents to the Director for consideration:

- 1. a completed application form (Form EA1);
- 2. copy of professional qualification certificate and official document indicating the discipline qualified for registration as an REA;
- 3. documentary proof of the relevant practical experience;
- 4. the prescribed application fee.

If applicants do not possess qualification of registered professional engineer, corporate member of HKIE, professional member of HKIQEP or equivalent, the applicants should also submit the documents listed in item 5 below for consideration.

5. documentary proof of the relevant knowledge, education, and training.

Application forms can be downloaded from the following website: https://www.emsd.gov.hk/beeo/en/mibec\_forms.html



Completed application forms and supporting documents should be submitted by post or in person to Energy Efficiency Office (EEO) at 7/F, the Electrical & Mechanical Services Department Headquarters, 3 Kai Shing Street, Kowloon Bay.

To ease the submission process, in addition to by mail and delivery in person, EMSD has also allowed E-submission via EMSD Web-Based Regulatory Services by using iAMSmart+. For details, please refer to the website at the following link: https://www.emsd.gov.hk/en/electronic\_submissions/index.html

# **Application Fees**

Application for registration as an REA with 10 years validity	\$2,100
Application for the renewal of registration of an REA with 10 years validity	\$1,100
Application for a duplicate certificate of registration as an REA	\$155

### **Registration of Public Officer**

If an applicant applies as a public officer for registration as an REA, the applicant should fulfill the following requirements:

- (a) the public officer is applying in the capacity of a public officer;
- (b) the official duties of the public officer require the officer to perform the duties and functions of a registered energy assessor under the Ordinance; and
- (c) the public officer is a fit and proper person to be registered.

Applicants for registration as REAs should complete Form EA3 and submit to the Director by post or in person.

### **Duties of REAs**

The duties of REAs are including -

St	age	Duties
COCR for post- enactment building	Design stage - A stage one declaration	1) Certify that suitable design provisions have been incorporated into the planning and design of the building in accordance with the specified standards and requirements <sup>4</sup> .  The certification should be provided in a <b>stage one declaration</b> (by the developer of a building) to be submitted to the Director within 2 months after the day on which the consent to the commencement of building works for the superstructure construction of the building is given.
	Occupation approval stage - A stage two declaration	<ol> <li>Personally inspect, in the 30 days before the certification, the building services installation covered by the certification.</li> <li>Certify all building services installations provided by the developer in that building (at or before the time when the declaration is made) have been designed, installed and completed in accordance with the specified standards and requirements.</li> <li>The certification should be provided in a stage two declaration (by the developer of that building) to be submitted to the Director for application of COCR from the Director within 4 months after the day on which the occupation approval is issued in respect of the building.</li> </ol>
	Renewal of COCR after occupation approval stage	1) Personally inspect, in the 30 days before the certification, the building services installation covered by the certification.  2) Certify that -  - the central building services installations are maintained to a standard not lower than that applied in the first COCR issued; and  - if a FOC has been issued in respect of any central building services installation of the building, the installation is maintained to a standard not lower than that applied in the latest FOC issued.  The certification should be provided in an application for renewal of COCR to be submitted (by the owner of the central building services installations) to the Director.

<sup>&</sup>lt;sup>4</sup> As prescribed in the Ordinance and specified in the codes of practice issued in respect of the Ordinance by the Director of Electrical and Mechanical Services

Stage		Duties
FOC for post- enactment and pre- enactment buildings	Major retrofitting works	<ol> <li>Personally inspect, in the 30 days before the declaration, the building services installations in respect of which major retrofitting works are carried out and which are specified in the FOC.</li> <li>Certify the building services installations comply with the specified standards and requirements and issue (within 2 months after the completion of the works) the FOC to the responsible person(s) of a unit or owner(s) of a common area.</li> <li>Send a copy of the FOC to —         <ul> <li>the Director; and</li> <li>the property management company of the building (or if there is no such company or such cannot be found or ascertained, the owner of the building).</li> </ul> </li> </ol>
Energy audit	Energy audit (applicable to building specified in the ordinance only)	1) Carry out an energy audit in accordance with the specified standards and requirements in respect of the central building services installations of the building and issue an Energy Audit Form and an energy audit report on the audit to the owner of that building (the Form should give the Energy Utilization Index (MJ/m²/annum) of that building).  2) Send, within 30 days after issuing Energy Audit Form, a copy of the Form and the energy audit report to the Director.

# **Register of REAs**

Upon registration, the following information contained in the Register of REAs will be made available to the public for inspection for free.

- 1. name of the registered energy assessor
- 2. registration number of the registered energy assessor
- 3. the validity periods of all certificates of registration
- 4. any other details as the Director thinks fit



### REAs have to notify the Director under the following situation.

1. Change in	Notify the Director of any change in the REA's name or
particulars	correspondence address within 28 days.
2. Ceasing	Notify the Director within 28 days of the cessation of holding
to hold	a qualification upon which the registration as an REA is
qualification	allowed.

#### **Penalties on REAs**

An REA who commits an offence under the Ordinance is liable on conviction to -

Reference	Offence committed	Maximum penalty
Section 18 of the Buildings Energy Efficiency Ordinance	Fail to send a copy of FOC to the Director and the property management company of the building (or if there is no such company or such cannot be found or ascertained, the owner of the building)	Fine at level 3 (\$10,000)
Section 22 of the Buildings Energy Efficiency Ordinance	Fail to send a copy of Energy Audit Form and energy audit report to the Director, within 30 days after issuing the Form.	Fine at level 3 (\$10,000)
Section 49 of the Buildings Energy Efficiency Ordinance	Knowingly or recklessly issue any FOC or Energy Audit Form, or make any certification, that is false or misleading in any material particular.	Fine at level 6 (\$100,000) and imprisonment for 6 months
Section 11 of the Buildings Energy Efficiency (Registered Energy Assessors) Regulation	Fail to notify, within 28 days, the Director of change in particulars.	Fine at level 1 (\$2,000)
Section 12 of the Buildings Energy Efficiency (Registered Energy Assessors) Regulation	Fail to notify, within 28 days, the Director of cessation to hold a qualification upon which the REA's registration is allowed.	Fine at level 2 (\$5,000)

# **Enquiries**

For any enquiries please contact us:

Postal address : Energy Efficiency Office,

Electrical and Mechanical Services Department

3 Kai Shing Street, Kowloon, Hong Kong

Email : mbec@emsd.gov.hk

Telephone : (852) 3757 6156 (9:00 a.m. - 5:00 p.m. on Monday to Friday);

or 1823 (call centre)

Fax : (852) 2890 6081

The pamphlet is for reference only. Details of the statutory requirements should be referred to the relevant provisions of the Buildings Energy Efficiency Ordinance (Cap. 610) and its subsidiary regulations.