



# **ENERGY MASTER**

## **Becoming an Energy Master Commercial Building Specialist Applicants Guide**

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## 1. Overview

This document sets out the process for those wishing to seek Accreditation as an **Energy Master Commercial Building Specialist**.

Applicants for Energy Master Commercial Building Specialist (CBS) accreditation are expected to be persons working in the commercial building energy management sector, and have specific competence and experience in Lighting, or HVAC, or both, in commercial building applications.

The minimum requirements for Energy Master Commercial Building Specialist include the applicant demonstrating to the Commercial Building Specialist Assessor(s) that he/she has general competence in comprehending technical concepts and applying systematic engineering methods to the significant energy using services in commercial buildings. The Commercial Building Specialist Assessor(s) will consider both academic qualifications and experience relating to these technologies.

An *Energy Master* Commercial Building Specialist demonstrates a high degree of competence in this field, and importantly understands that commercial building energy processes are usually comprised of a number of technologies. As such, they understand where their specialist knowledge applies and where it does not.

## 2. Competence Requirements

Within the Energy Master Commercial Building Specialist Accreditation there is an opportunity for individuals to be recognised for competence in either Commercial Lighting (Energy Master Commercial Building Lighting), or Commercial HVAC (Energy Master Commercial Building HVAC), or across both of these as an Energy Master Commercial Building Specialist.

Applicants will be required to demonstrate general and specific commercial building energy systems competence in relevant engineering practice fields, including the ability to:

1. Comprehend and apply knowledge that underpins good practice in the technical aspects of commercial building energy using services;
2. Identify, state and analyse commercial building services problems and risks in accordance with sound engineering methods;
3. Develop and articulate clear and well-founded solutions to commercial building services problems, by using systematic procedures and sound judgment; and,
4. Communicate clearly with others in the course of his/her business activities, including the ability to work objectively with large and medium-sized commercial and industrial organisations to facilitate positive change (e.g. improved energy efficiency).

*NB: The Competence Self Assessment Form must be completed by all applicants.*

## 3. Work Experience

The applicant's practice field and experience should include energy management in commercial buildings.

Applicants are expected to have specific competence and experience in the review and analysis of the energy performance of a commercial building energy systems relevant to New Zealand. Applicants are expected to be persons working in the commercial building management area or to be providing services of this nature to clients.

The Assessor(s) will require details of an applicant's recent significant practical work experience in the commercial building sector with technologies, techniques and processes used in that sector (for example, Lighting, HVAC, Building Management Systems etc).

Applicants should list, in chronological order, details of their project and work history using the Work History Summary table in the Application Form. Details should include:

1. Recent employers and the nature of the type of work undertaken; and
2. Specific details of work done, including the date, client, and details of each audit or energy management/improvement work done.

## **4. Academic and Practical Experience**

### **4.1 Evidence of Course Attendance**

Applicants are required to attend the CEP Commercial Building Specialist Training Course. CEP keeps a record of who attended its courses. For individuals considering providing an equivalent course from offshore, the relevant attendance certificate will need to be provided as well as contact details of the Accreditation organisation for verification by CEP. CEP recognises the following international training courses:

- Certified Energy Manager (CEM) from the Association of Energy Engineers<sup>1</sup> in the United States,
- European Energy Manager (EUREM) from the Energy Institute<sup>2</sup>

In general, it is expected that the applicant will have completed dedicated energy management training that covers technologies and techniques aimed at understanding and improving energy use in commercial buildings. Disciplines covered are Lighting, HVAC and Controls. Individual modules should include:

- Continuous Commissioning;
- BMS Tuning;
- Heating, Ventilation and Air-conditioning Fundamentals;
- Lighting;
- Advanced Energy Management;
- Energy Savings Techniques;
- Boiler Operations and Efficiency;
- Cooling Plant Operational Efficiency;
- Mechanical (Fan/duct, pump/pipe) Services Design, Hardware and Efficiency;
- Monitoring and Verification of Energy Savings;
- Data Centres; and
- Control Systems

Individuals who consider that they have an existing specialised level of skill and experience may apply to CEP for dispensation from attending training courses and to start the process by sitting the online examination. This dispensation is only expected to be given in exceptional circumstances.<sup>1</sup>

### **4.2 Examination Pass**

An online examination is available by simply contacting CEP.

Applicants are not required to submit any details about past experience, current activities or references to sit the online exam. While achieving a successful examination outcome will not result in accreditation it will serve as a record of achieving an appropriate level of skill.

A score of 70% or higher is required to achieve an examination pass.

The exams have multiple choice questions and are based on the Commercial Building Energy Specialists training course content.

A fee to sit the exam is payable. Fees are outlined in the [Energy Master General Guidance for Applicants document](#).

#### 4.3 Practical Experience and Competence Demonstration Report

The Report topic and content must be agreed with CEP in advance of making an application for accreditation.

The written Report is to outline an energy management development or action plan, energy saving case study, project report, capex proposal, board approval paper or other document, which shows an adequate level of understanding and application of energy management principles.

The Report is expected to include appropriate tables, graphs, calculations and illustrations. The size of the Report is expected to be about 5,000 words on each discipline (Lighting or HVAC and Controls).

Individuals who wish to make a single application for accreditation as a specialist across all disciplines may apply to CEP for dispensation to cover all those disciplines in a single report.

#### 5. Referees for Assessment Purposes

Applicants are required to provide the details of two referees who are sufficiently familiar with the applicant's work to provide comment on the applicant's competence with regard to commercial building services.

Referees must be independent ie. not personally related to the applicant and not expected to gain materially if the application is successful (the applicant's employer may be a nominated referee, provided the interest in the outcome is professional and not personal).

Applicants must forward the *Referee Form* to the two nominated referees, along with a copy of the applicant's completed *Competence Self Assessment Form*, for each referee to complete and then return directly to CEP.

#### 6. Application Checklist

The following checklist details the forms and evidence required to make a complete application for accreditation as an *Energy Master Commercial Building Specialist*.

Application Form	
Competence Self Assessment Form	
Evidence of CBES Course Attendance	
CBES Course Exam Pass (70%+)	
Competence Demonstration Report	
Referee Forms sent to two Referees ( <i>with a copy of the completed Competence Self Assessment Form</i> )	
Other information that you may wish to have considered	

#### 7. Reaccreditation 5-yearly

Accreditation as an Energy Master Commercial Building Specialist has a validity of five years. After this period, an Energy Master Commercial Building Specialist needs to apply for reaccreditation to maintain their Energy Master Commercial Building Specialist status.

To apply for reaccreditation please complete and submit the Reaccreditation Form, which includes a Continuing Professional Development (CPD) Form, as part of the reaccreditation process.

For reaccreditation, the minimum evidence requirements consist of:

- Evidence of at least 20 hours (annually) of continuing professional development (CPD) in areas relevant to energy management in commercial buildings
- An updated Work History (included in this form)
- A written assignment/report (details to be confirmed in discussion with CEP). Report to be 5,000 words per discipline for Commercial Building Specialists
- A Reaccreditation Fee (see the latest Energy Master General Guidance for Applicants)

## **8. Ethical Conduct Requirement**

An Accredited Energy Master Commercial Building Specialist is expected to conduct his / her energy management activities according to ethical standards generally accepted in New Zealand business and in line with the CEP Code of Ethics as follows:

- Members shall ensure that their claims for performance of products, provision of services and expertise are accurate, substantive and independently verifiable.
- In carrying out their activities Members shall ensure that commercial practice, standards and public statements reflect and maintain the highest standards of integrity and consideration for their clients and the public welfare.
- Members shall continue the development of their knowledge, skill and expertise throughout their careers and shall actively assist and encourage those under their direction to do likewise.
- Members shall so order their conduct as to uphold at all times the high reputation of the Association.
- Members shall not injure or attempt to injure, whether directly or indirectly, the reputation, prospects or business of another.

Accreditation may be rescinded by CEP if, following a fair and impartial hearing of the parties affected, CEP considers that the Commercial Building Specialist's behaviour has not met these standards.