



## International Scheme 1.0

**Note:** All applicants must take a required approved preparatory seminar before sitting for the exam.

The following information is contained in this booklet:

### Information for Applicants

1. Objectives
2. Prerequisites
3. Eligibility
4. Statement of Non-Discrimination
5. Statement of Impartiality
6. Required Body of Knowledge
7. Procedures
8. Point Scoring Evaluation
9. Appeals Policy
10. Incomplete Applications
11. The CEM Examination
12. Rescheduling Exams
13. Inclement Weather
14. Test Admission Procedures
15. Testing Site Rules
16. Examination Irregularities
17. Handling of Tests
18. Notification of Results
19. Retesting
20. Maintaining Certification
21. Retired Certification Status
22. Recertification of CEM
23. Request for Duplicate Certificate
24. Use of CEM Designation
25. CEM Stamp
26. Program Disputes And Submission Of Program Complaints

# Information for Applicants

## CERTIFIED ENERGY MANAGER® (CEM®) International Scheme 1.0

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### 1. CEM® OBJECTIVES

- To raise the professional standards of those engaged in energy management.
- To improve the practice of energy management by encouraging energy managers in a continuing program of professional development.
- To identify persons with acceptable knowledge of the principles and practices of energy management related disciplines and laws governing and affecting energy managers through completing an examination and fulfilling prescribed standards of performance and conduct.
- To award special recognition to those energy managers who have demonstrated a high level of competence and ethical fitness for energy management.

### 2. PREREQUISITES

Candidates must complete an approved preparatory seminar, meet one of the eligibility requirements below, pass the CEM exam and be approved by the CEM board to obtain the CEM certification.

### 3. ELIGIBILITY

Energy managers with one the following prerequisites may apply to sit for exam:

A Four-Year or Level 6 EQF degree in Engineering or Architecture degree with at least three years of experience in energy engineering/management

OR

A Four-Year or Level 6 EQF degree in Technology, Environmental Science, Physics, or Earth Science degree with at least four years of experience in energy engineering/management

OR

A Four-Year or Level 6 EQF degree in any major or Three-Year Engineering diploma, with at least five years of experience in energy engineering/management

OR

A Two-Year Associate's degree or Level 5 EQF in Energy Management with at least six years of experience in energy engineering/management

OR

A Two-Year degree or Level 5 EQF Technical with at least eight years of experience in energy engineering/management

OR

Ten years or more verified experience in energy engineering/management

***\*\*Acceptable experience is full-time direct energy management work. Higher education, part-time internships, and research positions are not acceptable.\*\****

#### 4. STATEMENT OF NON-DISCRIMINATION

AEE endorses the principles of equal opportunity. Eligibility criteria for examination and certification as a Certified Energy Manager are applied equally to all individuals regardless of age, race, religion, gender, national origin, veteran status, sexual orientation, or disability.

#### 5. STATEMENT OF IMPARTIALITY

AEE's Certification Bodies adheres to principles of impartiality in all its dealings and shall act impartially towards all applicants, candidates, and certificants. The CEM Department enforces its commitment to impartiality by continually monitoring processes to assure impartiality. Any complaint or indication of partiality is taken seriously and acted upon to mitigate the perceived or reported cause of partiality. The Certification Department will not allow external commercial pressures or internal corporate pressures to compromise impartiality. The Certification Director will monitor all actual or perceived threats to impartiality annually and make proposals to mitigate such threats, and, if a breach of the CEM Department's Impartiality Threat Analysis Report is found, the CEM Director will notify the CEM Board of that breach.

#### 6. THE REQUIRED BODY OF KNOWLEDGE

The effective practice of energy management requires in-depth knowledge of a wide variety of subjects. All applicants must take a required approved preparatory seminar before sitting for the certification exam. For certification purposes, however, the candidate must also demonstrate to the satisfaction of the Certification Board the knowledge and ability to apply the essentials of energy management.

#### 7. PROCEDURES

The first step in the CEM certification process is to register for a required approved preparatory seminar. After seminar registration has been completed, the certification application should be completed. Since certification is based on education, experience and passing the examination, it is important that the applicant understands the eligibility requirements (section 2 above), and has attained the prerequisite to qualify for certification.

It is very important that all applicants give clear and complete details concerning energy management experience so that the CEM Board can have a clear understanding of the applicant's energy management experience.

#### 8. POINT SCORING EVALUATION

The Application Form provides an organized method for documenting professional and educational background and achievements.

The Personal Data Form is divided into the following two parts:

I – Education

II – Experience/Employment in Energy Management

The applicant is requested to list on the Application Form all pertinent information in these categories for evaluation by the CEM Board. All applicants must complete the application; a resume does not replace the application.

To be awarded the CEM designation, candidates must submit a completed application form and meet eligibility requirements and a minimum score of 700 points on the CEM examination. The maximum score available is 1040 points.

If a candidate has failed to meet the requirements to be recommended for CEM, the candidate may be re-examined at a subsequent examination period and/or resubmit an updated Application Form. Examination scores will be kept on file by the Certification Director for a period of three years. Applicants have three years to follow up and complete his/her CEM file; after three years, applicants must resubmit the application and retake the CEM exam.

**It is essential that candidates devote considerable time and effort to completing the Application Form since certification by the CEM Board can be based only on the information provided. Inaccurate and/or incomplete data will only be a liability for the applicant.**

## 9. APPEALS POLICY

An appeal is a formal request for reconsideration of an adverse decision made by the CEM Board or its representatives related to an individual's achievement of a certification. Candidates may appeal the results of eligibility determination or the examinations within 60 days of the date of the results. The appeals process and an application for submitting an appeal is as follows:

- If a candidate has a problem with AEE's determination of their eligibility or with the examination, they should first send an email to the CEM Director to request reconsideration of an adverse decision.
- If the candidate is unsatisfied with the CEM Director's reconsideration of the adverse decision, they must request an appeal form from the CEM Director. Once the Appeals Form has been completed, it must be forwarded to the CEM Director, who will forward the appeal to the Appeals Board
- Upon receiving the appeal, the Appeals Board has forty-five (45) days in which to consider the appeal. Candidates will be notified of the Appeals Board's decision after forty-five (45) days.

## 10. INCOMPLETE APPLICATIONS

Incomplete applications will remain on file with the Certified Energy Manager Certification Department for a period of three (3) years. After three years, application materials will be destroyed.

## 11. THE CEM EXAMINATION

The applicant must complete a four-hour exam. The examination questions are based on concepts and experiences basic to energy management, on recognized tests, and on supplemental reading. **The exam is Open Book!** Because of the diversity of background and experience of Energy Managers, the examination will permit the candidates some choice of subject areas. Two subject areas will be mandatory. Of the remaining 13 examination sections, the candidate will choose nine sections he/she feels best qualified to answer. The exam consists of multiple choice and true/false questions. Candidates are notified of exam results by email.

Body of Knowledge	Percent of Exam
<b>The Following Sections I and II are Mandatory:</b>	
Energy Accounting and Economics	11 – 13 %
Energy Audits and Instrumentation	11 – 13 %
<b>Choose 9 Out of the Following 13 Sections:</b>	
Electrical Systems	5 – 7 %
Heating, Ventilating, and Air Conditioning Systems	5 – 7 %
Motor and Drive Systems	5 – 7 %
Industrial Systems	5 – 7 %
Building Envelope	5 – 7 %
Combined Heat and Power Systems and Renewable Energy Systems	5 – 7 %
Building Automation Systems	5 – 7 %
Control Systems	5 – 7 %
Thermal Energy Storage Systems	5 – 7 %
Lighting Systems	5 – 7 %
Boiler and Steam Systems	5 – 7 %
Maintenance and Building Commissioning	5 – 7 %
Financing, Performance Contracts, and Measurement and Verification	5 – 7 %

## 12. RESCHEDULING EXAMS

While application and exam fees are nonrefundable, a candidate may reschedule taking a live exam at any time for any reason.

## 13. INCLEMENT WEATHER

If any candidate is unable to arrive at a designated exam site because of inclement weather, terrorist acts, a natural disaster, or other unforeseen emergencies beyond control of the candidate as determined by AEE, the candidate will be allowed to take a future examination without being charged a re-examination fee. If for any reason the exam is unable to be administered, then the examination will be rescheduled within a reasonable period of time. Candidates may take the exam at a future administration without being charged a re-examination fee. Candidates will be responsible for their own associated expenses for future testing.

## 14. TEST ADMISSION PROCEDURES

Candidates must report to the test location on time. Sign-in begins 30 minutes to one hour before the posted exam time. Candidates must present a government-issue photo ID when checking in to take the exam. Candidates who arrive more than thirty minutes late or without a photo ID will NOT be permitted to enter the test center, and their examination fees will be forfeited. Distribution of test materials, and testing

instructions will begin within five minutes of the posted start time of the exam. The total testing time is four hours. Additional time has been allotted for instructions. You can expect to leave the testing center at approximately 4.5 hours after the posted start time for the exam. There are no scheduled breaks.

## 15. TESTING SITE RULES

The following are rules enforced at all test administrations. Candidates found not to be in compliance with these standards will immediately be removed from the exam and their test papers collected. The incident will be reported to the CEM Certification Director.

- All candidates must have proper photo ID in order to be admitted to the test center.
- Candidates are admitted only to their assigned test site at their assigned time
- Candidates arriving more than 30 minutes after the posted test time will not be allowed to take the exam. Extended time will not be provided to those who begin the exam after the posted start time. Those taking the exam at a live testing site will have to reschedule. Those taking the exam at a remote testing center will have to reschedule and pay a \$70 rescheduling fee before they will be able to reschedule to take the exam, if it is rescheduled more than 48 hours prior to the exam date.
- No guests are permitted in the examination rooms
- The exam is open book and calculators are REQUIRED.
- Use of cell phones, recording devices, PDAs, or other wireless capable devices is not permitted during the exam.
- No unauthorized material is allowed in the exam room.
- No device capable of taking images is allowed in the exam room.
- Talking, comparing answers, or exchanging reference materials during the exam is not permitted.
- While testing, it is the candidate's responsibility to keep their testing materials in their own space and out of sight of fellow examinees. An examinee that is found looking at another examinee's answer sheet will be automatically disqualified, dismissed, and reported. A retake of the exam will not be permitted for six months
- Absolute silence must be maintained in the exam room
- Upon request, students will be excused for bathroom breaks, but only one person at a time may leave the room during the exam. The exam booklet must be left in the testing room in the closed position, with the answer sheet turned over so that the answers are not visible.
- The exam booklet, answer sheets, and blue book may not be taken from the exam room and must be turned in to the proctor immediately upon completion of the exam.
- If taking the exam at a live testing site, use a number 2 pencil when filling in your answer sheet. If you erase an answer, please do so completely.
- Scoring is based on the number of correct answers. Because there is no penalty for wrong answers, it is to your advantage to answer every question in each section. If a question is difficult, you may decide to come back to the question after you have completed all of the questions with which you are familiar.
- The exam will be 4.0 hours. An announcement will be made every hour, when 30 minutes remain, and a ten minute warning will also be provided.

## 16. EXAMINATION IRREGULARITIES

Any problems, suspected incidences of cheating, alleged inappropriate examination administration, environmental testing conditions severe enough to cause disruption of the process, or other irregularities related to test administration should be addressed to the onsite proctor or to the CEM Director. All such matters will be reported, investigated, and subject to further action based upon policies and procedures adopted by AEE.

## 17. HANDLING OF TESTS

AEE will take all available precautions to ensure the appropriate and secure handling of completed tests. In the rare and extreme case in which the tests become lost or unreadable, candidates will be required to undergo retesting, without being charged a re-examination fee. Candidates will be responsible for their own travel-associated expenses for future testing.

## 18. NOTIFICATION OF RESULTS

Candidates are notified via email of their examination results within 30 days of the test administration. Candidates who successfully complete the examination and whose credentials and application entitle them to certification will be notified by letter and be granted an AEE Certified Energy Manager certification. Candidates who did not successfully complete the examination will be notified via email and given a diagnostic report on the reason for their failing.

## 19. RETESTING

In the event that a candidate fails his or her first attempt to pass the CEM exam, AEE requires a waiting period of at least 60 days between the first and second attempt to pass that same exam. Additionally, before any candidate's third attempt or any subsequent attempt to pass the exam, the candidate is required to wait for a period of at least 60 days from his or her last attempt to pass the exam. Candidates must submit a retesting form, which is provided at <http://www.aeecenter.org/cemresources>. In the event that the candidate passes the CEM exam, the candidate is prohibited from retaking the same certification exam.

## 20. MAINTAINING CERTIFICATION

The continuing education of Energy Managers/Energy Auditors is essential to cope with the rapidly changing field of energy management. A CEM must accumulate ten professional credits every three years and submit a completed Renewal Form to the Certification Director to remain certified. CEM renewal notices are emailed in the 3<sup>rd</sup> year of recertification six months prior to the expiration date, which falls on December 31 of that year.

Professional credits for recertification can be accumulated at any time, within the three year period. For example, Energy Managers receiving a CEM certification in 2022, must file a record of ten professional points by December 31, 2025 to receive a CEM certificate for another 3-year period. ***Credits are not maintained by AEE during the three year period. It is the responsibility of the individual to maintain a record and submit this information at the time of renewal.***

### Activities for CEM Renewal Credits

- Continued employment in energy management/energy engineering activities:



**1 credit per year**

- Membership in a professional engineering society:  
**1 credit per year (3 max)**
- Continuing education (CEU's) / professional activities (seminars or conferences):  
**2 credits** per CEU, college credit hour or 10 contract hours for seminar
- Awards presented and/or papers published involving energy engineering/management:  
**2 credits each**
- Offices held in a professional engineering society:  
**1 credit per year**

## 21. RETIRED CERTIFICATION STATUS

A CEM, upon retiring and reaching the age of sixty-five, will be designated as a “CEM – Retired,” will no longer be required to pay renewal fees, and will no longer be listed in our directory of actively practicing CEMs. No further reporting is necessary except to notify the Certification Director of meeting the age requirement by sending a copy of the retired CEM's Driver's License.

## 22. RECERTIFICATION

Certified Professionals who do not acquire sufficient CEM maintenance points to be recertified on the recertification date will be dropped from active certifications and notified in writing of suspension from using the CEM designation. They will also no longer be listed as a CEM in any AEE publication. A lapsed CEM has to resubmit to the certification process and successfully meet the criteria for certification by personal data information and examination.

## 23. REQUEST FOR DUPLICATE CERTIFICATE

Any certified professional may request additional copies of his or her certification document. Requests must be made in writing to AEE and may be made at any time. The fee of \$20 must be included with the request. The request for a duplicate certificate form can be found at <http://www.aeecenter.org/cemresources>.

## 24. USE OF DESIGNATION

The certificate mark and logo are the property of AEE. Permission to use the certification mark or logo is granted to certified persons at the discretion of the AEE's CEM Board, for permissible uses only. As a Certified Energy Manager (CEM<sup>®</sup>), the Energy Manager may use the designation with his/her name on organization letterheads, business cards, certain internet listings and forms of address. The Energy Manager may be required to surrender the certificate in the event that it is revoked or suspended. An official CEM<sup>®</sup> Stamp which authenticates your Certification and Certification validation is available for purchase. The official stamp is useful for proposals and official documents (see next page).

Certification is for individuals only. The CEM designation may not be used to imply that an organization, company or firm is certified. AEE does not endorse or recommend any individual CEM, product or service. Improper usage of CEM or AEE logo may result in suspension. If you have questions about usage of the CEM designation, please contact AEE. A Personalized CEM Stamp also available. CEM<sup>®</sup> Stamp (see Stamp Order Form).



**Sample Correct Usage** (Signature or Business Card):

John A. Smith, P.E., C.E.M. / Mary Jones, B.E.P., C.E.M.

**Web Usage:**

John A. Smith is an individual member of the Association of Energy Engineers (AEE) and is a [Certified Energy Manager](#) (CEM®).

**Incorrect Usage:**

ABC Company is Certified by AEE.

**Correct Usage:**

- ABC Company has many Certified Energy Managers -CEMs® on its staff.
- ABC Company is looking for a Certified Energy Manager candidate for a position.
- John Smith, President of ABC Company, is an individual member of the Association of Energy Engineers and is a Certified Energy Manager (CEM), Certified Carbon Reduction Professional (CRM) and Certified Sustainable Development Professional (CSDP).
- ABC Company is a Corporate Member of the Association of Energy Engineers (AEE) and has five current Certified Energy Managers (CEM) on staff including.....

John Smith is an individual:



Link to [www.aeecenter.org/certification](http://www.aeecenter.org/certification)

Corporate Member of:



Link to [www.aeecenter.org](http://www.aeecenter.org)

## 25. CEM STAMP

As the CEM designation becomes a requirement for more jobs and projects, AEE is pleased to announce the availability of an official stamp that will authenticate your status as a CEM in good standing. The stamp will include your name, your CEM ID number, and the expiration date of your CEM. Stamp is self-inking with dark blue ink. You can view the order form at <http://www.aeecenter.org/cemresources>. Price: \$75 (includes shipping) / Electronic Version: \$15 (only available as an add-on to \$75 stamp)



## 26. PROGRAM DISPUTES AND SUBMISSION OF PROGRAM COMPLAINTS

Individuals with disputes regarding the assessments, personnel, certificants or other elements of the certification program are encouraged to discuss these with the individuals involved to try to resolve the matter informally. In some cases, however, informal resolution is not possible, and individuals may wish to file a formal complaint. A complaint shall be submitted in writing using the *Complaint Submission Form*, available from the CEM/CEA Director upon request, and submitting it to the CEM/CEA Director within 90 days of the incident's occurrence. The submission may be mailed, emailed, or faxed. The submission shall include sufficient objective evidence to substantiate the claims and allow for a decision to be made and the appropriate action to be taken. Dissatisfaction based on hearsay shall not be considered as a complaint.