

CERTIFIED ENERGY MANAGER® (CEM®)

Part A: Information for Applicants

Please read through the following important information before submitting your CEM® Application found in part B.

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. ELIGIBILITY

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

- 2.1 A Four-Year Engineering or Architecture degree or P.E. or R.A. (or equivalent) with at least three years of experience in energy engineering/management **OR**
- 2.2 A Four-Year Business or related degree (or equivalent) with at least five years of experience in energy engineering/management **OR**
- 2.3. A Two-Year Technical Degree (or equivalent) with eight years of experience in energy engineering/management **OR**
- 2.4 Ten years or more verified experience in energy engineering/management

3. 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.

4. 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.

The application should be received by the EEC five weeks prior to the desired exam date if the applicant feels confident he/she has the necessary prerequisite 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. Based on the eligibility requirement, the number of years of experience required will vary.

Once the application is complete and the CEM exam is passed, all applications are sent to the CEM Board for final approval. Only after Board approval is certification granted.

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5. THE APPLICATION

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

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

Division I	Education
Division II	Professional Registration (i.e. PE, Registered Architect)
Division III	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.

The two areas of evaluation shall receive points as follows:

Application Form Data

- Completed Application Form is required

CEM Examination

- Maximum score: 1040 points
- Minimum pass score: 704 points

To be awarded the CEM designation, candidates must submit a completed application form and meet eligibility requirements and achieve a minimum score of 704 points on the CEM examination.

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 International 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 retake the CEM exam. A score can be resubmitted if the candidate so requests.

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.

6. THE CEM EXAMINATION

The applicant must complete and pass a four-hour exam in order to achieve certification.

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 mail.

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The CEM examination comprises a combination of 11 mandatory and elective subjects:

- Section 1: 2 x mandatory subjects;
- Section 2: 9 x elective sections complete from a selection of 13 sections; and
- All candidates must answer Sections 1 and 2.

Section 1: 2 x mandatory subjects:

1. Energy Accounting and Economics	160 points
2. Energy Audits and Instrumentation	160 points
Sub-total:	320 points

Section 2: 9 x elective subjects:

The candidate will choose to complete 9 of the remaining 13 sections.
If the candidate completes more than 9 elective subjects, only the first 9 will be scored.

1. Electrical Systems	80 points
2. HVAC Systems	80 points
3. Motors and Drives	80 points
4. Industrial Systems	80 points
5. Building Envelope	80 points
6. CHP Systems and Renewable Energy	80 points
7. Building Automation Systems	80 points
8. Control Systems	80 points
9. Thermal Energy Storage Systems	80 points
10. Lighting	80 points
11. Boiler and Steam Systems	80 points
12. Maintenance	80 points
13. Building Commissioning and Measurement and Verification (M&V)	80 points
Sub-total:	720 points (9 x 80)
Total:	1040 points

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7. MAINTAINING CERTIFICATION

The continuing education of Energy Managers 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 mailed in the 3rd 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 2009, must file a record of ten professional points by December 31, 2012 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

8. LIFETIME CERTIFICATION

A CEM, upon retiring and reaching the age of sixty-two, is certified for life. No further reporting is necessary except to notify the Certification Administrator of meeting the age requirement by sending a copy of Driver's License.

9. SUSPENSION OF REVOCATION OF CERTIFICATION

If an Energy Manager does not accumulate the required professional credits, certification shall terminate, unless in the judgment of the Certification Board, extenuating circumstances exist and the deficiency can be readily overcome.

10. REINSTATEMENT OF CEM

Energy Managers who do not acquire sufficient CEM maintenance points to be recertified on recertification date will be notified in writing of suspension from using the CEM designation and will no longer be listed as a CEM in any AEE publication.

A lapsed CEM has the following two options to reinstate:

- A. Resubmits to the certification process and successfully meets the criteria for certification by personal data information and examination; or
- B. Acquires make-up points at a cumulative total equal to 3.5 per year for every year since date of expiration. This option is available one-time only. Certifications that have lapsed more than three renewal cycles must retake the CEM exam.

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11. USE OF CEM DESIGNATION

As a Certified Energy Manager (CEM®), the Energy Manager may use the designation with his/her name on organization letterheads, business cards, certain internet listings and forms of address. An official CEM® Stamp is available for purchase which authenticates your Certification and Certification validation. 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® 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:

Corporate Member of:

CEM®

Link to www.aeecenter.org/certification

AEE®
The Association
of Energy Engineers
www.aeecenter.org

Link to www.aeecenter.org