



Certified Energy Manager Instructions & Application CEM Exam with Live Seminar International Version

Note: As of July 1, 2009, all applicants must take a required approved preparatory seminar before sitting for the exam.

The following information is contained in this booklet:

Part A: Information for Applicants

- Objectives
- Eligibility
- Required Body of Knowledge
- Procedures
- Point Scoring Evaluation
- Fees
- Incomplete Applications
- The CEM Examination
- Maintaining Certification
- Retired Certification Status
- Reinstatement of CEM
- Request for Duplicate Certificate
- Use of CEM Designation
- CEM Stamp

Part B: CEM Application

- Applicant Information Data
- Education
- Experience Record
- References
- Letter of Reference
- Employment Verification
- Client Verification

Part A: Information for Applicants

CERTIFIED ENERGY MANAGER (CEM[®])

Please read through the following important information before submitting your CEM[®] Application found in **part B** of this booklet.

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:

A Four-Year Engineering or Architecture degree or Professional Engineer (P.E.) or Registered Architect (R.A.) with at least three years of experience in energy engineering/management

OR

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

OR

A Four-Year Business or related degree or 3-year diploma in engineering with at least five years of experience in energy engineering/management

OR

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

OR

A Two-Year Technical degree 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.*****

3. THE REQUIRED BODY OF KNOWLEDGE

The effective practice of energy management requires an 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, and has attained the prerequisite to qualify for certification.

The application should be received by the certification department four weeks prior to the desired exam date if the applicant feels confident he/she has the necessary prerequisite for certification. 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. Should applicants have questions about the experience prerequisite for certification, he/she can have his/her application reviewed by the CEM Board prior to taking the exam. If this is the case, a **completed application** (including all references, official college transcripts and employment verification) must be received by AEE at least eight weeks prior to desired exam date, and the applicant must request in writing that he/she would like an initial review of his/her application by the CEM Board.

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 required experience to be verified will vary. Past employers may need to be complete the employment verification form.** If you are self-employed or are a principal owner of a company, three client verifications are required in the place of employment verification. **All references, employment verification and/or client verification forms should be completed by the reference, employers and/or clients before sending to AEE. AEE does not send requests to references.**

5. THE APPLICATION & POINT SCORING EVALUATION

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 four-page application.

The two areas of evaluation shall receive points as follows:

Application Form Data	Maximum Score 1400 points	Minimum Score Required 700
CEM Examination	Maximum Score 1040 points	Minimum Score Required 700
Total Required:	Maximum Score 2440 points	Minimum Score Required 1400

To be awarded the CEM designation, candidates must achieve the minimum total of 700 points on the CEM Application Data and the minimum score of 700 points on the CEM examination individually for a minimum total of 1400 points.

If a candidate has failed to acquire sufficient points 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 3 years. Applicants have 3 years to follow up and complete his/her CEM file; after 3 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. Documentation should be attached to the Application to substantiate the information presented.

8. FEES:

RENEWAL FEE

Three-year renewal fee: \$300.00

Reinstatement fee: \$350.00

No refunds allowed.

9. 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.

10. 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 within 30 days of the exam date.

The CEM Examination contains with the following mandatory subjects:

All candidates must answer Sections 1 and 2.

- | | |
|---------------------------------------|------------|
| 1. *Energy Accounting and Economics | 160 points |
| 2. *Energy Audits and Instrumentation | 160 points |

The candidate will choose 9 of the remaining 13 sections. If more than 9 additional sections are marked, only the first 9 will be scored. Eleven Sections Total: two mandatory and nine chosen by candidate.

- | | |
|---|-----------|
| 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 | 80 points |

11. 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 Renewal Director to remain certified. CEM renewal notices are mailed in the 3rd year of certification 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 credits with the Certification Renewal Director by December 31, 2012 in order 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 of credits accrued 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

12. RETIRED CERTIFICATION STATUS

A CEM, upon retiring and reaching the age of sixty-five, will be designated as "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 Renewal Director of meeting the age requirement by sending a copy of the retired CEM's Driver's License.

13. REINSTATEMENT OF CEM

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 the following options to reinstate:

1. Resubmit to the certification process and successfully meet the criteria for certification by personal data information and examination or,
2. Acquire 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.

14. 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/certification/CEM>.

15. USE OF CEM 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[®]), 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[®] 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[®] 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:

CEM[®]

Link to www.aeecenter.org/certification

Corporate Member of:



Link to www.aeecenter.org

16. 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. Please use the order form provided in this application. Price: \$50 (includes shipping).





Stamp includes name, CEM ID number, and the expiration date of your certification.

Stamp image size: 2"

Price: \$50.00 includes shipping

Price: \$15.00 for electronic version
(electronic version is not available separately, only as add-on to stamp order)



Please allow 4 to 6 weeks for delivery.

CEM STAMP ORDER

Name:	Company:
Street Address:	City/State/Zip:
E-Mail Address:	Phone No:

DESCRIPTION				QUANTITY	UNIT PRICE FOR STAMP	QUANTITY	UNIT PRICE FOR ELECTRONIC VERSION*	TOTAL
NAME	AEE MEMBER ID #	CEM CERTIFICATION ID #	DATE OF CEM EXPIRATION					
					\$50.00		\$15.00	
TOTAL DUE								

* Electronic version is available only as add-on to order for CEM stamp.

Check method of payment:

Check: Make check payable to *Association of Energy Engineers*

Credit Card:

<input type="checkbox"/>	American Express	<input type="checkbox"/>	VISA	<input type="checkbox"/>	MasterCard
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Card No. ↑

Expiration Date:

Signature:

Mail to: Official CEM Stamp
Association of Energy Engineers
4025 Pleasantdale Road, Suite 420
Atlanta, GA 30340

or Fax to: 770-446-3969

or E-Mail to: priscila@aeecenter.org

Part B: CEM[®] APPLICATION

CEM Exam with Live In-House Seminar Version & Study Guide

Please use this form only if you plan on taking the CEM Certification Exam held in-conjunction with one of the Live AEE Seminars

1) *Seminar Name / Date / Location (REQUIRED):* _____

NOTE: The following information is to be filled out as completely as possible. Please read the "Information for Applicants" very carefully, and follow instructions for completing and forwarding forms. It is important that the AEE Certification Board have substantiating data for each criteria indicated in the application.

Mail application and payment to:

AEE – CEM Certification Dept.
4025 Pleasantdale Rd. Suite 420
Atlanta, GA 30340

OR fax to: 770-447-4354

Email: Helen@aeecenter.org

Personal Data (Please print or type)

File Number: _____ (AEE Internal Use Only)

Full legal name as it will appear on certificate:

Mr. Ms. Family Name: _____ Given Name: _____ Middle Initial: _____

Job Title: _____

Firm Name: _____

Address: _____

City: _____ State: _____ ZIP code: _____ Country: _____

Phone: _____ Fax: _____ Business E-mail: _____

Residence Address: _____

City: _____ State: _____ ZIP code: _____ Country: _____

Phone: _____ Personal E-mail: _____

Address Requested for Correspondence: Business Residence

E-mail Address Requested for Correspondence: Business Personal

**DIVISION I – EDUCATION
 (MAXIMUM 350 POINTS FOR DIVISION I)**

List in chronological order the name and location of each college or university from which you have earned a degree; also list other appropriate training.

Points are based on degree obtained and substantiating documentation submitted. **Please arrange for Official College Transcripts where degree was issued to be forwarded to AEE, but do not delay filing of application for this reason.**

Note: If there is a possibility that the name that appears on your transcript may be different from the name that you currently use (ie. your maiden name), please provide that name here: _____

Name & Location Of Institution	Years From - To	Date Graduated	Degree Received	Field In Which Degree Was Issued

**DIVISION II – PROFESSIONAL REGISTRATION
 (MAXIMUM 350 POINTS FOR DIVISION II)**

- I am a Professional Engineer: yes no
 I am a Registered Architect: yes no
 I am an Engineer in Training (E.I.T.): yes no
 I am a CET: yes no
 I am an Energy Auditor: yes no

If you answered yes to any of the above, complete the following and **enclose copy registration. Registration must indicate that license is currently in force.** Points are based on substantiating documentation submitted.

State	Registration No.	Date	Now in Force
			<input type="checkbox"/> yes <input type="checkbox"/> no
			<input type="checkbox"/> yes <input type="checkbox"/> no
			<input type="checkbox"/> yes <input type="checkbox"/> no
			<input type="checkbox"/> yes <input type="checkbox"/> no
			<input type="checkbox"/> yes <input type="checkbox"/> no

Have any states revoked or suspended your registration? yes no
 If yes, please explain: _____

DIVISION III – EXPERIENCE RECORD

(MAXIMUM 700 POINTS - 350 points for 3 years of full-time energy experience; 50 points per year thereafter)

Applicant should forward one copy of the Employment Verification Form to each employer for those periods which apply to Certification Eligibility. *Forms may be completed by immediate superiors or personnel officers and must be returned directly to AEE.* Please complete the following in chronological order and list the most recent employer first. Include a description of job functions held for those periods of employment, which qualify you for specific category of certification as applied for. This form may be copied if additional space is needed.

Date: From-To (mm/yy – mm/yy)	Employer Name & Address	CONCISE STATEMENT OF ENERGY-RELATED WORK PERFORMED
TITLE OF POSITION		
Date: From-To (mm/yy – mm/yy)	Employer Name & Address	CONCISE STATEMENT OF ENERGY-RELATED WORK PERFORMED
TITLE OF POSITION		
Date: From-To (mm/yy – mm/yy)	Employer Name & Address	CONCISE STATEMENT OF ENERGY-RELATED WORK PERFORMED
TITLE OF POSITION		
Date: From-To (mm/yy – mm/yy)	Employer Name & Address	CONCISE STATEMENT OF ENERGY-RELATED WORK PERFORMED
TITLE OF POSITION		

REFERENCES

Furnish the names and addresses of two references. References should be CEM professionals, PEs, RAs, or other highly distinguished professional in the industry. ***The official AEE Letter of Reference is to be forwarded by Applicant to the individuals listed below and returned directly to AEE by references.***

Name	Company and Address	Position

OBLIGATION

I _____ (Signature), having completed the aforementioned to the best of my ability, do hereby apply for AEE Certified Energy Manager Certification and wish to take the CEM Examination.

Affidavit

I hereby agree (a) to be bound by terms and provisions of the Certificate of Incorporation of the Association of Energy Engineers, its by-laws and such other regulation as may from time to time be in force, so far as they may affect me; (b) to indemnify and hold harmless each and all of your members, Board of Directors, Certification Board, officers, examiners and agents from and against any liability whatsoever in respect to any act or omission by you or them or any of them in connection with this application, the examination, the grades given upon such examination, and/or the granting or issuance of or failure to grant or issue a certificate to me; (c) that any prescribed fee paid by me is not refundable; and (d) that any certificate granted or issued me shall remain the property of the Association. I certify that all the information contained in this application is correct to the best of my knowledge.

I further pledge myself hereby to the highest ethical standards in the practice of energy engineering/management.

Signature in Full _____

Date: _____



REQUEST FOR REFERENCE INFORMATION

Certified Energy Manager

From: _____

To: _____ Date: _____

Dear _____:

I am applying to the Association of Energy Engineers for Certification as an Energy Manager. In this regard, I hereby authorize your release of the requested information.

Please furnish the requested information as completely as possible, and ***return to AEE Certification Board.***

The receipt of replies will be reported by AEE, but under no circumstances will the information be divulged to me, or used for any purpose except to validate my application for Energy Manager Certification.

Sincerely,

Applicant Signature

NOTE: Applicant must submit two letters of reference.

APPLICANT COMPLETE / Attach to Cover Letter

Name:

Address:

City:

State:

ZIP code:

REFERRAL COMPLETE / LETTER OF REFERENCE

Name:

Company:

Telephone:

Address:

City:

State:

ZIP code:

The above named applicant I have known personally from:

_____ to _____

I am personally familiar with the professional work of the applicant:

____yes _____no

If yes, please state relationship and brief description of character of work.

Do you know any reason why candidate should be denied certification?

____yes _____no

If yes, please state reason.

To the best of my knowledge, I hereby attest that the above information is true and correct.

Name of person supplying information: _____
(Please type or print)

Official Title of Respondent: _____

Signature: _____ Date: _____

**Return to: AEE CERTIFICATION BOARD – CEM
4025 PLEASANTDALE RD. Suite 420
ATLANTA, GEORGIA 30340**



**REQUEST FOR EMPLOYMENT AND
JOB DUTIES VERIFICATION**
Certified Energy Manager

From: _____

To: _____ Date: _____

Dear _____:

I am applying to the Association of Energy Engineers for Certification as an Energy Manager. In this regard, I hereby authorize your release of the requested information enclosed which verifies my employment and duties from the period _____ to _____.

Please furnish the requested information as completely as possible, and **return to AEE Certification Board.**

The receipt of replies will be reported by AEE, but under no circumstances will the information be divulged to me, or used for any purpose except to validate my application for Energy Manager Certification.

Applicant Signature

NOTE: If self-employed, complete letter of client verification.

APPLICANT COMPLETE / Attach to Cover Letter

Name:

Address:

City:

State:

ZIP code:

LETTER OF EMPLOYMENT and JOB DUTIES VERIFICATION

The following information verifies the employment and duties of the above applicant for AEE Certification.

Company:

Telephone:

Address:

City:

State:

ZIP code:

The above named applicant was (has been) employed by our company from

_____ to _____ and has held the following positions:

_____	Dates: _____
_____	Dates: _____
_____	Dates: _____
_____	Dates: _____

Please fully describe the energy-related responsibilities of the applicant **(REQUIRED)**. Attach descriptions if necessary to answer fully. **Forms with incomplete details will not be processed.**

To the best of my knowledge, and our employment records, I hereby attest that the above information is true and correct.

Name of person supplying information: _____
(Please type or print)

Official Title of Respondent: _____

Signature: _____ Date: _____

**Return to: AEE CERTIFICATION BOARD – CEM
4025 PLEASANTDALE RD. Suite 420
ATLANTA, GEORGIA 30340**



REQUEST FOR CLIENT VERIFICATION Certified Energy Manager

From: _____

To: _____ Date: _____

Dear _____:

I am applying to the Association of Energy Engineers for Certification as an Energy Manager. In this regard, I hereby authorize your release of the requested information enclosed which verifies my employment and duties from the period _____ to _____.

Please furnish the requested information as completely as possible, and **return to the AEE Certification Board.**

The receipt of replies will be reported by AEE, but under no circumstances will the information be divulged to me, or used for any purpose except to validate my application for Energy Manager Certification.

Applicant Signature

NOTE: Complete this form only if self-employed – furnish three (3) client verification letters.

APPLICANT COMPLETE / Attach to Cover Letter

Name:

Address:

City:

State:

ZIP code:

CLIENT COMPLETE / LETTER OF CLIENT VERIFICATION

The following information verifies the Contractor/Consultant and duties of the above applicant for AEE Certification.

Company:

Telephone:

Address:

City:

State:

ZIP code:

The above contractor/consultant has provided service(s) to our company from:

_____ to _____

*****Please fully describe the energy-related responsibilities of the applicant (REQUIRED). Attach descriptions if necessary to answer fully. Forms with incomplete details will not be processed.*****

To the best of my knowledge, I hereby attest that the above information is true and correct.

Name of person supplying information: _____
(Please type or print)

Official Title of Respondent: _____

Signature: _____ Date: _____

**Return to: AEE CERTIFICATION BOARD – CEM
4025 PLEASANTDALE RD. Suite 420
ATLANTA, GEORGIA 30340**