

# 50001 CP EnMS

50001 Certified Practitioner in Energy Management Systems



## CANDIDATE HANDBOOK

Please read through the following important information before submitting your **50001 CP EnMS Application**:

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## SCOPE

The purpose of the 50001 Certified Practitioner in Energy Management Systems (50001 CP EnMS) credential is to assure that specialists have the skills, knowledge, and performance capability to assist and evaluate companies in meeting the requirements of ISO 50001 applied to energy management. Specifically, an individual certified as 50001 CP EnMS

- Works with an organization to establish and/or maintain an energy management system that meets the requirements of ISO 50001
- Works with the organization to integrate ISO 50001 with their existing management systems.

## ELIGIBILITY

### 50001 CP EnMS Eligibility Requirements

A candidate will receive the 50001 CP EnMS certificate only after:

1. Having submitted evidence of satisfying one track of the combined academic and energy management / ISO management system experience as outlined in the table and subsequently defined below; and
2. Passing the 50001 CP EnMS Core 1 and Core 2 examinations.

### Academic and Work Experience Tracks

Track	Academic Credential <sup>†</sup>	Combined Energy Management and/or ISO MS Experience <sup>‡</sup>
1	Four-year engineering degree with one of the following:  Professional Engineering license; AEE Certified Energy Manager certification, USDOE Industrial Assessment Center certification, or EUREM Certificate	3 years
2	Four-year degree in energy management, engineering, architecture, science, or math	4 years
3	Four-year degree	5 years
4	Other	6 years

<sup>†</sup>The academic credential must be from an accredited college or university.

<sup>‡</sup> If only ISO management systems experience is claimed (with no Energy Management experience), the MS experience must include a minimum of providing technical assistance to one facility resulting in implementation of ISO 50001 or participating as a team lead in one ISO 50001 internal audit.

### Energy Management Experience is defined as:

A minimum number of years' energy management experience, defined as energy management or energy efficiency experience in facilities, projects or programs.

The energy management and energy efficiency experience must include:

- 1) Identifying and/or implementing opportunities to improve the energy performance of facilities, equipment or processes; or
- 2) Implementing energy management system(s).

This experience must be a significant component of the required relevant experience. Significant component is defined as more than 50 percent of the relevant experience submitted as evidence for certification.

**ISO Management Experience is defined as:**

- a) ISO 50001 or,
- b) a nationally recognized energy management systems standard (e.g., ANSI/MSE 2000-2008 and prEN 16001:2008) or,
- c) ISO 14001 with energy as a significant aspect.

This information must be submitted on the education and experience part of the application form, with enough detail provided on that form to easily verify that all these experience requirements have been met, including details on experience **identifying and/or implementing opportunities to improve the energy performance of facilities, equipment or processes or implementing an energy management system(s).**

**NOTE:** If a candidate's experience is primarily as a consultant or third- party provider, the requisite years of experience are demonstrated by describing the type of work performed and actual time spent. Experience claimed from individual projects shall not exceed the total time worked.

## STATEMENT OF NON-DISCRIMINATION

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

## STATEMENT OF IMPARTIALITY

AEE's Certification Department adheres to principles of impartiality in all its dealings. The Certification Department shall act impartially towards all applicants, candidates, and certificants.

## THE REQUIRED BODY OF KNOWLEDGE / STUDYING FOR THE EXAM

The examinations for the 50001 CP EnMS certification will encompass knowledge and performance topics consistent with the approved certification scheme and job task analysis. The specific domains covered for the exam can be viewed in the 50001 CP EnMS Body of Knowledge document at <http://www.aeecenter.org/50001-CPEnMS-resources>.

The Authoritative References List below provides a concise yet detailed guide to informative professionalism in energy management books. It serves as a valuable tool for all in energy management professionals, especially those preparing for the certification. This list is intended for use as a study aid only. AEE does not intend the list to imply endorsement of these specific references, nor is exam content necessarily taken directly from these sources.

- Energy Management Handbook: Stephen Roosa, Wayne C. Turner and Steve Doty
- Guide to Energy Management: Barney L. Capehart, Wayne C. Turner and William J. Kennedy
- Solutions Manual for Guide to Energy Management: Klaus Dieter E. Pawlik
- Handbook of Energy Engineering: Albert Thumann and D. Paul Mehta.

## PROCEDURES

1. **Confirm Eligibility:** Confirm you meet the eligibility requirement. Refer to number 2 in this candidate handbook. Since certification is based on meeting eligibility criteria and passing the examination, it is important that the applicant understands the eligibility requirements and have attained the prerequisite to qualify for certification.
2. **Submit Application:** By submitting the application you're applying for the certification and registering for the exam via remote proctoring. *The application should be received by the certification department four weeks prior to the desired exam date.*

The Application Form provides an organized method for documenting your eligibility. The Personal Data Form is divided into the following three parts:

- Contact Information – business and personal email, address and phone number.
- Education and Professional Registration - name and location of each college or university from which you have earned a degree and any professional registrations (i.e., PE)
- Experience/Employment – list of employers including a description of job functions held for those periods of employment which qualify you for certification.

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

When applying, you do not need to send supporting documentation. However, you will be required to send supporting documentation if your application is selected for a random audit. A specified percentage of applications are randomly selected for audit. AEE conducts application audits to confirm the experience, audit days, and/or education documented on certification applications. The purpose of the audit is to enhance the credibility of the certification program and of the certification holders.

3. **Application Review:** Once we receive your application, we'll verify that you meet the eligibility criteria and that your experience and/or education is acceptable. Typically, the application review period will take 5–10 days. Once the application review is complete, we'll email you to confirm the upcoming certification exam or request additional information. If we have any questions or issues with your application, we'll notify you via email.
4. **Application Random Audit:** If your application is selected for a random audit, we'll notify you by email with the instructions and documentation needed to complete the verification of experience, and/or education.

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 employment verification and/or client verification forms should be completed by the employers and/or clients before sending to AEE. AEE does not send requests to employers or clients. Once forms are received by AEE, we may contact employers and/or clients directly to confirm and verify the information on the form is correct.**

5. **Remote Proctored Testing Information:**  
Your application along with exam fee should be approved by AEE prior to sitting for the exam. You will receive a letter once AEE has approved your application. At that time, you may log in to the remote testing website to

begin the exam scheduling process. Once the application is complete and exam is passed, all applications are sent to the Certification Board for final approval. Only after this approval is certification granted. For more information on Remote Testing, visit <https://www.aeecenter.org/remote-proctoring>.

6. **Examination Score:** Candidates must obtain a minimum passing score on Core 1 and Core 2. 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 certification file; after 3 years, applicants must restart the process by taking another approved preparatory training, resubmitting the application, and retaking the certification exams.
7. **Final Board Review:** To be awarded the 50001 CP EnMS designation, candidates must submit a completed application, meet eligibility requirements, and obtain a minimum score on Core 1 and Core 2 examinations. Once the application is complete and the certification exams are passed, all applications are sent to the Certification Board for final approval. Only after Board approval is certification granted and the certification ID # issued.

## APPEALS POLICY

An appeal is a formal request for reconsideration of an adverse decision made by the Certification 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 Certification Director to request reconsideration of an adverse decision.
- If the candidate is unsatisfied with the Certification Director's reconsideration of the adverse decision, they must request an appeal form from the Certification Director. Once the Appeals Form has been completed, it must be forwarded to the Certification 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.

## CERTIFICATION FEES

### Application fee

A fee of \$500.00 dollars is payable with the filing of the application. *No application or examination fee refunds are allowed.*

### Retesting fee

For each re-examination held via Remote Testing, a fee of \$250.00 will be required. *No refunds allowed.*

### Renewal fee

Three-year renewal fee: \$300.00

Reinstatement fee: \$350.00

*No refunds allowed.*

## INCOMPLETE APPLICATIONS

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

## EXAMINATION

The 50001 CP EnMS certification consists of two (2) separate exams. These exams may be taken in any order. The 50001 CP EnMS Core 1 and Core 2 exams will be 2.5 hours each. The 50001 CP EnMS exams are weighted relative to their overall importance in the 50001 CP EnMS certification scheme.

Exam	Relative Weight
Core 1: Energy, Energy Efficiency & Statistics	50%
Core 2: Energy Management Systems	50%
<b>Total:</b>	<b>100%</b>

The following tables contain high-level details on each of these exams:

### Core 1: Energy, Energy Efficiency & Statistics

Domain ID	Domain Name	Domain Weight
K.01.	Energy Fundamentals	15%
K.02.	Understanding Energy Sources and Demand Characteristics	10%
K.03.	Energy Problem Solving Skills	5%
K.05.	Operating Characteristics of Basic Key Energy Using Systems	10%
K.07.	Renewables	5%
K.08.	Fundamentals of Energy Project Management - for Developing Action Plans	5%
K.09.	Data Collection and Use	5%
K.10.	Fundamentals of Business Decision Making	7%
K.11.	Models	8%
K.12.	Instrumentation & Controls	5%
P.01.	Energy as Related to Management Systems	15%
P.04.	Statistics	10%
<b>Total:</b>		<b>100%</b>

## Core 2: Energy Management Systems

Domain ID	Domain Name	Domain Weight
K.04.	Understanding ISO 50001 Energy Management System Concepts	45%
P.02.	Management Systems	45%
P.03.	Internal Audit	10%
Total:		100%

## LANGUAGE

The Exams are only offered in English.

## AMERICANS WITH DISABILITIES ACT

Special arrangements may be provided to candidates with a disability (as defined by Title III of the Americans with Disabilities Act) who submit with their certification application, a written explanation of their needs along with appropriate medical documentation. An ADA request form is available on the website – <http://www.aeecenter.org/50001-CPEEnMS-resources>.

## RESCHEDULING EXAMS

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

Candidates taking the exam at Remote Testing, if you need to reschedule your confirmed exam date or location, please contact ProctorU via your testing account to reschedule. For exams cancelled/rescheduled less than 24-hours of exam reservation, a \$75 rescheduling fee payable to AEE will be required before the exam can be rescheduled.

## 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 time period. 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.

## 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 2.5 hours per exam. Additional time has been allotted for instructions. You can expect to leave the testing center at approximately 3 hours after the posted start time for the exam. There are no scheduled breaks.

## TESTING SITE RULES

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

- All candidates must have proper photo ID to be admitted to the test.
- Candidates are admitted only at their assigned time.
- Candidates will log in to their ProctorU account 3-5 minutes before the scheduled exam start time to go through the exam system checklist with the proctor.
- No guests are permitted in the examination room.
- The exam is open book. All standards are allowed to be referenced during the exam including the ISO 50001 standard.
- Candidates are encouraged to bring a non-programmable hand-held calculator to the exam.
- Use of laptops, cell phones, recording devices, PDAs, or other wireless capable devices is not permitted during the exam.
- No unauthorized material is allowed in the exam.
- No device capable of taking images is allowed in the exam.
- No talking or reading aloud is permitted during the exam.
- You will only be allowed to make exam notes/calculations on the whiteboard or scratch paper. You may not add or remove any paper to and from your binder during the test.
- While testing, it is the candidate's responsibility to always keep their testing materials in their own space in view of the proctor(s). An examinee that is found in violation of the testing rules will be automatically disqualified, dismissed, and reported. A retake of the exam will not be permitted for six months.
- Absolute silence must be maintained during the exam.
- Upon request, candidates will be excused for bathroom breaks. Upon return, candidate must complete secure room check with proctor before resuming exam.
- Candidates must erase whiteboard in view of proctor and destroy scratch paper in view of proctor before exiting the exam.
- All answers will be recorded electronically in the exam software.
- 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 the questions with which you are familiar.
- The 50001 CP EnMS Core 1 and Core 2 exams will be 2.5 hours each.

## 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 Certification Director. All such matters will be reported, investigated, and subject to further action based upon policies and procedures adopted by AEE.



## 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.

## 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 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.

## RETESTING

If a candidate fails his or her first attempt to pass the 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/50001-CPEEnMS-resources>. If the candidate passes the exam, the candidate is prohibited from retaking the same certification exam.

## MAINTAINING CERTIFICATION

The continuing education of certified professionals is essential to cope with the rapidly changing field of energy. Certification renewal notices are mailed and emailed in the 3<sup>rd</sup> year for 50001 CP EnMS certification six months prior to the expiration date, which falls on December 31 of that year. Completed certification renewals are to be submitted to the Certification director by December 31<sup>st</sup>. ***Renewal data accrued during the renewal period are not maintained by AEE. It is the responsibility of the individual to maintain a record of renewal data accrued and submit this information at the time of renewal.***

### Activities required for 50001 CP EnMS renewal:

- 350 hours of work related to energy management
- 30 PDH of training on topics cover in the exam BOK

## RETIRED CERTIFICATION STATUS

A 50001 CP EnMS, upon retiring and reaching the age of sixty-five, will be designated as "Retired," will no longer be required to pay renewal fees, and will no longer be listed in our directory of actively practicing certified professionals. No further reporting is necessary except to notify the Certification Director of meeting the age requirement by sending a copy of the retired applicant's Driver's License.

If a retired CP EnMS would like to reverse the certification status from retired to active, the retired CP EnMS would need to follow one of the two options to reinstate the certification under reinstatement of CP EnMS section.

## REINSTATEMENT OF CERTIFICATION

Certified Professionals who do not acquire sufficient certification maintenance requirements to be recertified on the recertification date will be dropped from active certifications and notified in writing of suspension from using the certification designation. They will also no longer be listed as a certified professional in any AEE publication. A 50001 CP EnMS that is lapsed more than one year must resubmit to the certification process and successfully meet the criteria for certification by personal data information and pass the examination.

## 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 [www.aeecenter.org/50001-CPEnMS-resources](http://www.aeecenter.org/50001-CPEnMS-resources).

## 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 Certification Board, for permissible uses only. Only AEE Certified Professionals may use the designation with his/her name on organization letterheads, business cards, certain internet listings and forms of address. Certificants may be required to surrender the certificate if it is revoked or suspended.

Certification is for individuals only. The designation may not be used to imply that an organization, company, or firm is certified. AEE does not endorse or recommend any individual certificants, product or service. Improper usage of certification or AEE logo may result in suspension. If you have questions about usage of the designation, please contact AEE.

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

John A. Smith, P.E., CP EnMS

### **Web Usage:**

John A. Smith is an individual member of the Association of Energy Engineers ([AEE](http://www.aee.org)) and is a Certified Practitioner in Energy Management Systems (CP EnMS).

### **Incorrect Usage:**

ABC Company is Certified by AEE.

### **Correct Usage:**

- ABC Company has many Certified Practitioner in Energy Management Systems -CP EnMS on its staff.
- ABC Company is looking for a SEP PV candidate for a position.
- John Smith, President of ABC Company, is an individual member of the Association of Energy Engineers and is a CP EnMS
- ABC Company is a Corporate Member of the Association of Energy Engineers (AEE) and has five current CP EnMS on staff including.....

## 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 Certification Director upon request, and submitting it to the Certification 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. AEE will communicate the resolution to an individual within a period of no longer than 30 days. The complainant's identity and subject of complaint will remain confidential.