



# Training and Certification of Energy Professionals in Sub-Saharan Africa

AEE is global,  
we bring it local.



## Certified Measurement and Verification Professional (CMVP®)

*Measure and verify energy savings in compliance with international and local standards, legislation and regulations. Use protocols, methodologies and tools to quantify and manage the performance risks and benefits associated with end-use energy efficiency, renewable energy and water efficiency.*

The Association of Energy Engineers (AEE), in cooperation with the Efficiency Valuation Organisation (EVO), has established the Certified Measurement and Verification Professional (CMVP®) program with the dual purpose of recognising the most qualified professionals in this growing area of the energy industry, and raising the overall professional standards within the M&V field. The International Performance Measurement & Verification Protocol (IPMVP), which the CMVP® training program is based on, is the internationally recognised protocol for performance M&V and provides a consistent, reliable approach to M&V around the world. The training course has a voluntary examination should the candidate wish to apply for certification with the AEE.

### TRAINING PROGRAMME OUTLINE

- Overview of M&V protocols and methodologies
- Compliance to IPMVP
- South African M&V guidelines for Eskom, the Energy Accord, tax incentives and the local M&V framework
- M&V planning activities
- Typical M&V issues and baseline adjustments
- Definition of energy efficiency savings
- Many case studies and examples

### COURSE OUTCOMES

On completion of the CMVP® course you will understand the international

protocols, methodologies and tools to quantify the performance risks of energy, renewable energy and water efficiency, and to perform M&V tasks on energy savings projects. Upon certification from the AEE, delegates could apply to the Measurement and Verification Council of South Africa (MVCSA) to further their careers in the South African M&V market.

### DELEGATE PROFILE

- Persons that need to verify energy savings for tax incentive purposes and risk assessment of energy efficiency projects.
- Persons that need to use standardised methods, protocols and tools to quantify and manage the energy performance risks and benefits for business transactions in water efficiency, energy efficiency, and renewable energy.
- For energy auditors, architects, built environment graduates, engineering graduates, environmental graduates the CMVP® will open new doors into the fastest growing industry in the world.
- Persons that need recognition as professionals in the specialist area of Measurement and Verification (M&V) and participate in continuous energy education to ensure credible and ethical result reporting.
- You are planning many energy efficiency and energy saving projects for your organisation as part of an energy management plan and need to ensure the accurate reporting of such savings for triple bottom line reporting.

## BASIC SKILLS REQUIRED

The CMVP® training course is at a level which assumes the delegate has basic problem-solving skills, including quick and accurate use of a hand calculator and the ability to use basic algebra.

A good foundational knowledge of energy management and energy auditing is also required.

## EXAMINATION

The examination and certification process is optional and you may take the course without it as well.

The examination is typically held on the morning of day 4, or at any other AEE examination day. Examination questions are based on concepts and experiences contained within this program material. The exam, which must be completed within 4-hours, is open book, with a mixture of multiple choice and true/false questions.

This is a voluntary exam and delegates must book for the examination and submit a certification application form before taking the exam and the course. The examination may only be taken after completion of the prescribed AEE CMVP® training at a licensed AEE training provider.

*Note that exam results will only be issued once candidate is in full standing with EnTF.*

## ELIGIBILITY FOR CERTIFICATION

The prerequisites to qualify for the certification process have been designed to take into account the possible diversity of education and practical experience an individual may have. However, each CMVP® candidate must attend the full CMVP® training program, pass the CMVP® 4-hour open book written examination with 70%, and meet one of the following criteria:

### Education and Work Experience

- 4-year related\* degree OR Professional Engineer (PE/PrEng) OR Registered Architect (RA) AND 3+ years related\* experience
- 4-year unrelated degree; BTech AND 5+ years related\* experience
- 2-year associate degree; Diploma AND 5+ years related\* experience
- No qualification AND 10+ years related\* experience
- Current Status of Certified Energy Manager (CEM®)
- Re-certification is required every 3 years subject to participation in the AEE continuing education program (CEP).

*\*Related degree in science, engineering, architecture, business, law, finance, or related field and related experience in energy, building or facility management, or measurement and verification.*

If you do not meet one of the eligibility criteria above, you can still apply for an in-training certification, CMVP-IT. In order to gain the in-training certification, you must attend a CMVP preparatory training seminar, submit the CMVP-IT certification application, and pass the CMVP certification examination. The CMVP-IT certification is valid for six years, which allows you time to meet the full CMVP certification eligibility requirements.

## STEPS TO CERTIFICATION

1. Register to attend the AEE training course with a licensed training provider of the AEE.
2. Register to sit the AEE examination for your certification, complete

### \* Terms and conditions

1. First paid first served policy applies for booking security
2. Booking security requires the following to be received six (6) working days prior to the commencement of the course:
  - a. Full payment cleared in bank with proof of payment supplied.
  - b. A deposit of 25% with proof of payment supplied.
  - c. A purchase order for the full amount of the invoice.
3. Fees include coffee/tea/juice on arrival, mid-morning coffee/tea with pastries, mid-afternoon coffee/tea with biscuits, and lunch. For training the fee includes the black and white text books, course fee and one year membership of the SAEEC. For examinations the fee includes the examination fee, marking fee, certification application fee, and 1 year membership of AEE for first certifications.
4. It is the responsibility of the candidate attending the course to arrange their own travel, accommodation, breakfast and dinner.
5. Policy on international candidates
  - a. Invoices exclude withholding and country-specific taxes. Should these be leveraged by your country government, we reserve the right to invoice the responsible entity/person to recoup the costs.
  - b. VAT is payable for candidates attending training in South African borders, this may be claimed on departure from South Africa using the tax invoice.
6. Policy on cancellations

the certification application and return it to the Certification Coordinator at the EnTF.

3. Attend 85% or more in-class training.
4. Pass the examination with 70% or more.
5. Your examination mark and certification application will be reviewed by the AEE African Certification Board for your applied certification.
6. Your application with African Board recommendations will be submitted to AEE's International Certification Board for approval.
7. Should you receive feedback that you may only receive 'in-training' status, you may upgrade to full certification status once you have achieved sufficient levels of experience, and as long as this is within 6 years.
8. You will receive notification for renewal on a 3 yearly basis.

## RECOGNITION

### Engineering Council of South Africa (ECSA)

3 Continuing Professional Development (CPD) credits for ECSA registration for attending the training course.

1 additional CPD credit for ECSA registration for passing the international AEE examination.

### Association of Energy Engineers (AEE)

4 credits for Continuing Professional Competency (CPC) demonstration to re-certify on another AEE certification program.

### International certification with the AEE

International AEE certification will be listed in the AEE Professionals Directory on-line, once approved by AEE.

### Attendance certificate

Attendance certificate will be issued to all delegates that attend the full duration of the training course. (85% or higher attendance required.)

## COSTS\*

### Course only fee:

**R15 700.00 (excl VAT)**

### Examination and Certification application fee:

**R3 200.00 (excl VAT)**

### Examination rewrite fee: R4 700.00 (excl VAT)

### Optional full colour manual: R2 600.00 (excl VAT)

**Course fee includes:** 3 day training course, attendance certificate, black and white manual, one year SAEEC membership, lunch, teas and coffees.

**Examination and Certification application fee includes:** Four hour examination sitting, tea/coffee and snack, marking and proctoring fee, peer reviewed certification application, AEE certificate, certification ceremony in SA, one year AEE membership for first certification.

## BOOKINGS

Book online at [www.energytrainingfoundation.co.za](http://www.energytrainingfoundation.co.za) for your training and examination. You will receive confirmation from the Training Administrator with all the necessary arrangements and information.

- a. Cancellations received within five (5) working days prior to the first day of training will carry a 25% cancellation fee. No course material will be supplied. For examinations a rescheduling fee of R650.00 will be leveraged.
- b. Cancellations received six (6) working days prior to the first day of training will receive a full refund.
7. Policy on accounts not in good standing
  - a. The candidate in attendance at the course ultimately remains responsible for payment of the outstanding account and providing the proof of payment thereof.
  - b. In the event that a candidate, or the candidate's organisation is not in good standing with us we reserve the right to withhold:
    - Certificates of Attendance
- Course Attendance Registers
- Issuing of ECSA CPD credits
- Examination Results
- AEE Certification Application and/or Renewal Submissions
- AEE Certification Certificates
- Listing on the AEE website
8. The Energy Training Foundation (EnTF) is a division of Energy Cybernetics (Pty) Ltd, an EOH company, and the invoice will be made out by Energy Cybernetics.
9. Proforma invoices will be supplied, Tax Invoices will be raised on request but these are payable within 30 days of issue.
10. Right of Admission Reserved.

## About the Energy Training Foundation

The EnTF offers tailor-made training courses to fulfil the energy training needs of the industrial, commercial, mining, government, utility, building sector of Africa. EnTF is the sole approved training partner of the AEE for the Southern African region and Indian Ocean Islands, the training partner of the SAEEC and the AEPEA, is an EWSETA accredited training provider, with course accreditation for CPD registration requirements with ECSA.

Programs offered by EnTF include customised training programs, mentorship and stipend management programs, locally developed training and internationally accredited certification programs. The most popular: Certified Energy Manager (CEM), Certified Energy Auditor (CEA), Certified Measurement and Verification Professional (CMVP), Certified Water Efficiency Professional (CWEP), Certified Renewable Energy Professional (REP), Certified Business Energy Professional (BEP), Certified Carbon Reduction Manager (CRM), Fundamentals of Energy Management (FEMT), Basic Principles of Energy (BPO), Measurement and Verification Standard Training (MVST), Nelson Mandela University PV Technologies short learning program (PVTECH).

Energy Training Foundation is a division of Energy Cybernetics (Pty) Ltd, an EOH company.

For more information: • [info@entf.co.za](mailto:info@entf.co.za) • 084 622 4770/084 011 5500 • [www.entf.co.za](http://www.entf.co.za)