



# The Energy Training Foundation (ETTF)

Training and certification of energy professionals in Southern Africa

- Approved AEE Trainer for the Southern African Region
- Affiliated Training Provider of the SAEE
- Fully accredited EWSETA training provider
- ECSA CPD credits for all training courses
- Training division of Energy Cybernetics (PTY) Ltd



## Certified Water Efficiency Professional (CWEP®) Course

*The Certified Water Efficiency Professional (CWEP®) program is designed to help educate and qualify individuals in the water/energy management field on best practices for improving water efficiency. By obtaining the CWEP®, candidates will gain industry and peer recognition by demonstrating their understanding of technical and operational water management principles.*

Implementing water-efficiency often involves individuals with varied backgrounds, responsibilities, and levels of expertise. This comprehensive two-day program is designed to help educate those who have responsibilities in the sustainable or utility efficiency field on best practices for maximizing results and understanding water efficiency basics.

Attendees will learn technical and organizational strategies, including how to conduct a water efficiency site assessment, understanding water billing/costs, use of terminology, regulatory and international policies, efficiency technologies and application techniques, as well as water measurement and verification needs. The program is designed to provide the necessary training for the AEE's Certified Water Efficiency Professional (CWEP) examination for those interested in obtaining certification.

The program is also open to those who simply wish to benefit from the training provided, and do not wish to sit for the exam. By obtaining the CWEP certification however, participants will gain industry and peer recognition by demonstrating their understanding of technical and operational water efficiency principles.

This program also serves as a building block for additional individual professional development such as obtaining the Energy Efficiency Practitioner (EEP), Certified Energy Manager (CEM), Certified Sustainable Development Professional (CDSP) or the Business Energy Professional (BEP) designation.

### COURSE OUTLINE

- Introduction to Water Management
- Terms, Definitions & Units of measure (including energy parameters associated with water);
- Regulatory Frameworks, Concepts & Water Policy (including international water policy);
- Water Billing & Cost at Point of Use (including basic business case calculations & benchmarking);

- Water Supply Options, Sources & Types of Water (including the water cycle, water standards and alternative water sources);
- Data Collection and Baseline Water Use Development (including metering options, Monitoring & verification basics);
- Water Audit Overview & Processes (including a generic auditing approach and where to look);
- Water Balance Development (how to track and map water in complex organisations/facilities)
- Water-Efficient Technologies in key areas/sectors including: Domestic plumbing systems; Landscaping and irrigation systems; Commercial kitchens; Commercial laundries; Cooling and heating systems; Hospital and laboratory equipment; Private & public pools; HVAC & mechanical equipment; Industrial processing systems; Softening & filtration systems; Sterilization, medical & lab equipment; Water supply options / alternative sources; Storm water management.

### COURSE OUTCOMES

- Understand water efficiency basics
- Technical and organisational strategies
- Be able to conduct a water efficiency site assessment
- Understand water billing costs, efficiency technologies and application techniques
- Water measurement and verification techniques
- Understanding domestic, commercial, industrial water systems

### DELEGATE PROFILE

This program provides an ideal training and potential career advancement opportunity for the following water efficiency professionals and management-involved professionals:

- Water Services & Management Professionals
- Provincial/State and Municipal Planners & Government Resource Efficiency Managers
- Certified Energy Managers (CEMs)
- Energy & water administrators & Utility Professionals
- Water, Energy & Facilities Champions & Certified Energy Auditors (CEAs)
- Sustainability Professionals & Energy Professionals
- Certified Sustainable Development needing Water Efficiency Strategies Professionals (CDSPs)
- Government Resource Efficiency Energy & Water Administration Managers
- Contractors & Maintenance Managers, technicians and operators
- Government Facility Managers Building Technicians & Operators New Facility
- Entrants into the Water Building Owners & Property Efficiency Field
- Energy management professionals needing water efficiency strategies
- New facility entrants into the water efficiency field

## BASIC SKILLS REQUIRED

Basic problem solving skills and calculator proficiency.

## EXAMINATION

The additional option of the examination is typically held on the morning of day 3, 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 CWEP® training at a licensed AEE training provider.

## ELIGIBILITY FOR CWEP® CERTIFICATION

The pre-requisites 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 CWEP® candidate must meet one of the following criteria:

- Have a 2-year technical degree or 4-year degree from an accredited university or college; or
- Have at least one year of experience in water efficiency, energy management, or operations and maintenance of a building or facility; or
- Have a current certification status in CEM, BEP, or EEP.

Note that certification is optional, and you may take the seminar without participating in the certification process. The voluntary certification process requires each CWEP trainee to register for CWEP professional certification. For certification, the trainee must have attended AEE's preparatory training seminar and complete and pass the CWEP written exam proctored by an AEE approved exam administrator.

### \* 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 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 SAAEE. For examinations the fee includes the examination fee, marking fee, certification application fee, and 1
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

year membership of AEE for successful candidates.

## 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 qualification, and complete the certification application and return it to the Certification Administrator at the EnTF.
3. Pass the examination with 70% or more.
4. Your examination mark and certification application will be reviewed by the AEE African Certification Board for your applied qualification.
5. Your application with African board recommendations will be submitted to AEE's International Board for approval.
6. Should you receive feedback that you may only receive 'in-training' status for your qualification you may upgrade to full qualification status once you have achieved sufficient levels of experience, and as long as this is within 6 years.

## RECOGNITION

### Engineering Council of South Africa (ECSA)

Pending application for Continued Professional Development (CPD) credits for ECSA registration for attending the training course.

### Association of Energy Engineers (AEE)

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

### International certification with the AEE

International AEE certification may be applied for as a CWEP® on attaining a 70% pass-mark for the examination.

### 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:

**R8 700.00 (excl VAT)**

### Examination and Certification Application fee:

**R3 200.00 (excl VAT)**

### Examination rewrite fee: R2 700.00 (excl VAT)

Optional full colour manual: R1 600.00 (excl VAT)

**Course fee includes:** 2 day training course, attendance certificate, black and white manual, one year SAAEE 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.

## 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.

## About the Energy Training Foundation

The EnTF offers tailor-made training courses to fulfil the energy training needs of the industrial, mining and commercial industries in Southern Africa. EnTF is an accredited EWSETA training provider, and all courses carry CPD credits for ECSA requirements. EnTF is the sole approved US-based Association of Energy Engineers (AEE) training partner for the Southern African region. The most popular standard courses are: Certified Energy Manager (CEM®), Certified Energy Auditor (CEA®), Certified Measurement and Verification Professional (CMVP®), Certified Renewable Energy Professional (REP®), Certified Water Efficiency Professional (CWEP), Fundamentals to Energy Management Training (FEMT), Energy Management System Implementation (EnMSI), Building Energy Audit Training (BEAT) and Measurement & Verification Standard Training for South Africa (MVST-sa).



The EnTF is the sole approved training partner for the Southern African region of the US-based Association of Energy Engineers (AEE) who has been promoting the scientific and educational interests of those engaged in the energy industry and developing energy engineering programmes since 1977. AEE certification qualifications are recognised world-wide in 105 countries.



The EnTF is the affiliated training provider for the AEE's chapter in South Africa, the Southern African Association for Energy Efficiency (SAEE). The SAEE has been facilitating information dissemination, networking and training in the region since 2002.



The EnTF is a fully accredited Energy and Water SETA (EWSETA) training provider in South Africa.



All EnTF courses have ECSA accreditation for CPD credits to ensure maximum benefit for professional development in the engineering industry of South Africa. ECSA CPD credits, where appropriate, may be used towards Professional Development Hours (PDH) or Continuing Education Units (CEU) for the AEE's re-certification programme to ensure Continuing Professional Competency (CPC).

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