



# The Energy Training Foundation (EnTF)

## Training and certification of energy professionals in Southern Africa

- Sole approved training partner of the AEE 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



## Measurement & Verification Training – South Africa

*The Measurement and Verification Standard Training (MVST-sa) course is an entry level course for persons who are interested in entering the energy measurement and verification (M&V) market in South Africa, whilst earning optional EWSETA credits. It also serves as a base towards the international qualifications programme CMVP®.*

The Energy Training Foundation (EnTF) offers the Certified Measurement and Verification Professional (CMVP) qualification for Southern African's. However, this training is high level to experienced energy managers who want to substantiate their expertise through obtaining a qualification and maintaining Certification to prove competency and to rise themselves above others in the industry.

The EnTF would like to provide an opportunity for more candidates to achieve CMVP and has therefore developed local training material in line with the SABS 50010:2011 and the EWSETA unit standard requirements – the course is called Measurement & Verification Standard Training – South Africa (MVST-sa). MVST-sa is a pathway training opportunity for candidates that will not only allow them to be declared competent in M&V by the local EWSETA and

obtain credits, but will enable candidates to cope with the international CMVP training and examination so that they can achieve the distinguished CMVP qualification as well.

The outcomes of the course will enable candidates to understand the process and develop a statistical basis of M&V, as well as apply a framework and perform M&V.

Candidates will be able to identify key concepts involved in savings verification, what data is required for energy performance analysis by incorporating the applicable energy governing factors, draw up an M&V plan, know how to select the correct M&V options in accordance with the IPMVP protocol and applicable standards such as SANS50010, understand the techniques to develop an energy performance model, and determine an energy

**MVST-sa is the pre training course towards developing competence to complete the international Certified Measurement and Verification Professional (CMVP®) qualification programme with the Association of Energy Engineers (AEE).**



baseline whilst applying measures of tolerable levels of uncertainty to calculations.

### Duration:

3 days of class-based training

### Recognition:

A Certificate of Attendance to all delegates in attendance. (85% or higher attendance required.)

### EWSETA recognition requirements:

Submission of a Portfolio of Evidence

### Accreditation:

3.2 AEE credits for CMVP and CEM renewal requirements

15 EWSETA Level 6 credits if the option is selected to submit a Portfolio of Evidence upon competence declaration by the assessor and approval by the EWSETA

## PRE-REQUISITES FOR MVST-SA:

The following knowledge, skills attitude or equivalent is required:

- Communication at NQF level 4
- Mathematical Literacy at NQF level 4
- Advance Excel proficiency

In addition, the following background knowledge is required:

- Energy auditing
- Data capturing and load profiles
- Energy Management
- Energy efficiency in buildings

Should a candidate not have the above minimum background requirements, the Energy Audit Training course is available that covers the basic and background knowledge required to successfully complete the MVST-sa.

## COURSE OUTLINE:

### Introductory Modules:

- Standards, codes, regulations
- The M&V Industry

#### \* 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 year membership of AEE for successful candidates.

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
  - a. Cancellations received within five (5) working days prior to the first day of training will carry a 25% cancellation

### Basic M&V Application:

- Energy Savings and M&V process
- Power & Energy definitions
- Data credibility
- M&V options
- Application of M&V options
- Street light M&V
- Commercial building light M&V
- Whole building M&V
- Pumping M&V
- Regression
- Practical

The MVST-sa training incorporates class-based lecturing, in-class practical workbook exercises, practical class group work, as well as an optional individual completion of a Portfolio of Evidence based on a model provided or practical hands-on M&V performance with a mentor if required.

## RECOGNITION OF PRIOR LEARNING (RPL):

EnTF are able to evaluate RPL requests before the training.

## COSTS\*

Three-day MVST-sa course with training manual:

**R7 700.00\* (excl VAT)**

Submission of Portfolio of Evidence for assessment:

**R2 000.00 (excl VAT)**

Mentorship Assistance on Quotation Basis

## BOOKINGS

Logon to [www.energytrainingfoundation.co.za](http://www.energytrainingfoundation.co.za) to register online or download a manual registration form and email it to [training@entf.co.za](mailto:training@entf.co.za).

- 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 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.

- fee. No course material will be supplied. For examinations a rescheduling fee of 25% 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

## 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 98 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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