



## Carbon Auditing Professional Training Program

This training program is designed to provide attendees the background knowledge, fundamentals, guidance, and tools for successful carbon auditing and management. Over two days, our professional instructor will help you understand a global problem, identify opportunities for GHG reduction, and apply practical strategies that will improve your company's bottom line and help impact climate change.

This program is ideal for energy professionals who wish to help their organization realize the additional benefits of GHG reduction, including cost avoidance, risk reduction, competitiveness, productivity and operations, shareholder value, community outreach, and branding.

### What Will You Learn?

- Global trends on GHGs.
- Kyoto Protocol and beyond; GHG legislative & reporting requirements.
- Guidance documents, processes, and tools.
- Carbon footprint measurement.
- Best practices for GHG Auditor; energy and carbon reduction strategies.
- Practical strategies to reduce carbon footprint; recycling, green energy and carbon trading.
- Economics of GHG reduction; carbon credits and trading terminology.
- Financing and marketing GHG reduction projects.

### At-a-Glance

- » This training program prepares attendees to take the Carbon Auditing Professional (CAP) exam.
- » This program is held over 2 days.
- » You earn 1.7 CEU | 17 PDH | 3.4 AEE Credits for completing this program.

### Key Takeaways

- » Work through practical examples to demonstrate the topics and procedures covered.
- » Review the various areas of the Body of Knowledge associated with AEE's certification exam.
- » Discuss how to apply what you have learned to your business and applications.
- » Leave with a course workbook that will become an invaluable desk reference.

### Certification, examination and quality control by:

Institute of Energy Professionals Africa  
Web: [www.iepa.org.za](http://www.iepa.org.za)  
E-mail: [info@iepa.org.za](mailto:info@iepa.org.za)  
Contact: +27(0)84 622 4770

*IEPA represents the international certification body the Association of Energy Engineers (AEE) in the Sub-Saharan Africa region.*



# Carbon Auditing Professional Training Program

## Who Should Attend

This course is designed to help energy professionals, including energy managers, energy engineers, facility and business managers, industrial engineers, supply chain professionals, utility officials, consultants, contractors, financial officers, and energy service company professionals become more aware of and effective at identifying and implementing the best GHG reduction strategies. This mix of energy professionals and the learning environment also provides attendees an excellent opportunity for peer-to-peer learning and networking.

This program is also ideal for young energy professionals who wish to help their organization realize the additional benefits of GHG reduction, including cost avoidance, risk reduction, competitiveness, productivity and operations, shareholder value, community outreach, and branding.

## Our Instructor

The CAP live program is taught by multiple instructors, each with greater than 20 years of experience in the industry. They present the latest practices, strategies, and theories, while leading discussions in an open, interactive environment. You also spend valuable time connecting with and learning from other program attendees. In each topic covered, the instructors focus on the most “useful” and “proven” activities that you should pursue to improve profits.



**Dr Willem Den Heijer**  
**PhD Mechanical Eng, CEM<sup>®</sup>, CMVP<sup>®</sup>, CEA<sup>®</sup>, CRM<sup>®</sup>**  
*Trainer: AEE<sup>®</sup> CRM Trainer*

Willem has over 20 years of experience in the energy management and measurement and verification (M&V) industry. He has held various positions in the energy consulting and industrial and mining industries, as well

as senior engineer in the North West University's Measurement and Verification (M&V) Team.

He has published 19 articles in energy related journals and publications and has presented or co-presented 23 papers at various national and international conferences.

## Certification Eligibility

The prerequisites to qualify for the certification process take into account the diverse education and experience applicants may have. Each candidate must meet the required criteria at

[aeecenter.org/cap](http://aeecenter.org/cap)

## Global Training Programs

For a complete list of AEE training programs delivered globally visit

[education.aeecenter.org/global](http://education.aeecenter.org/global)

# Carbon Auditing Professional Training Program

## Agenda

### Overview

- Program Compass - Reduction Process
- Global Trends
- Marketing Oriented Motivators
- Introduction to Kyoto and Beyond
- Basic Principles and Terminology
- What to Report On?
  - Emissions Reporting Guidelines
- Guidance Documents, Processes and Tools
- Best Practices for GHG Auditor.

### Carbon Footprint Measurement and Reporting

- Organizational Boundaries
- Energy Management to Emissions
- Indirect Emissions
- Local Conditions & Regulations
- Formats, Programs and Software for Emissions Management
- GHG Protocol Methodology
- Carbon Reduction Reporting Software
  - The Climate Registry

### BEST Practices for Setting up GHG Program

- Management Support
- GHG Team
- Get Data
- Assess Risks and Opportunities
- Action Plan
- GHG Logbook
- GHG Quality Management Program

### Carbon Audit Exercises

#### Practical Strategies and Tactics to Reduce Carbon Footprint

- Resources for Building it “Right”
  - ASHRAE/IES 2016 Energy Standard, USGBC LEED
- Energy Efficiency and Management
- Energy Procurement and Green Power
- Power-Purchase Agreements for Renewables
- Renewable and Other Sustainable Technologies
- Tax Benefits and Risks
- Reduce, Reuse, Recycling Practices and Waste Minimization

### Recycling, Green Energy and Carbon Trading

- Recycling for Profits
- Planning for Sustainability
- Buying Energy and Green Power
- Emission Regulation Approach
  - Cap-and-Trade
  - Carbon Offset Market
- CDM (Clean Development Mechanism) Process
  - Traded Offsets
  - Emissions Trading (ET)
- Project Resources
- Renewable Energy Credits (RECs)
- Green Tags and White Certificates
- Fleet Management

### Financing, Selling and Approving Your Program

- Big Reasons Why Green Projects Fail... and How to Overcome Them
- Financing For Positive Cash Flow
- How to quantify all the benefits and help your organization improve its “environmental image”.
- Marketing Tactics to Help Your “Green” Project Get Approved.
- Evaluations: NPV, ROI, SIR, etc.
- WIIFM = “What’s in it for Me”
  - Tools for Selling to the “C” Level
  - Awareness of Energy/Carbon Issues
  - Empowerment

### Economic Analysis and Life Cycle Costing

- Annuity (A)
- Depreciation
- Future Value (F)
- Internal Rate of Return (IRR)
- Minimum Acceptable Rate of Return (MARR)
- Net Present Value (NPV)
- Present Value (P)
- Simple Payback (SPB)
- Salvage Value

### CAP Body of Knowledge and Worked Examples

#### Section L – South African Carbon Tax



# Contact us

## Institute of Energy Professionals Africa

### Accreditation and Recognition

The Certified Auditing Professional (CAP) accreditation is one of the most globally respected in the field of carbon auditing management and reduction.

Since 2008, energy professionals have participated in AEE's approved CAP and CRM training programs.

CURRENT QUALIFICATION		EXPERIENCE
4-year engineering/architectural degree OR Pr.Eng, Registered Architect	<b>PLUS</b>	+2 years
4-year degree in technology, environmental science, physics or earth science		+3 years
3-year technical qualification		+4 years
4-year degree in business or business related		+3 years
4-year unrelated degree		+3 years
2-year associate degree		+4 years
NONE: no current qualification		+6 years
Current status of CEM		n/a
Current status of CBEP		n/a
Employment at company in related field		n/a

*Years of work experience required - in addition to the current qualification - must be related to the certification discipline applied for.*

IEPA is the proud Training Partner of the Association of Energy Engineers for the Sub-Saharan Africa Region:



[info@iepa.org.za](mailto:info@iepa.org.za)

Register to attend with one of our country service providers:



Uganda  
[secretariat@eeau.org](mailto:secretariat@eeau.org)



Kenya  
[karen@eenovators.com](mailto:karen@eenovators.com)



Kenya  
[ceectrainings@kam.co.ke](mailto:ceectrainings@kam.co.ke)



Nigeria  
[olamide@stratagemenergy.com](mailto:olamide@stratagemenergy.com)



Zimbabwe  
[admin@sustenergy.co.zw](mailto:admin@sustenergy.co.zw)  
[fortunate.farirai@sustenergy.co.zw](mailto:fortunate.farirai@sustenergy.co.zw)



Mauritius  
[marineservices2000@gmail.com](mailto:marineservices2000@gmail.com)



South Africa and other regions  
[suerist@iepa.org.za](mailto:suerist@iepa.org.za)

IEPA supports the following AEE Chapters:

