



# Terra Firma Academy

IEMA Accredited Training Centre  
SETA Accredited & CPD Validated Courses

*Learn sought-after environmental efficiency and management skills.*  
Find new opportunities to save cost and improve your company's environmental performance.



\* Terra Firma Academy is a SAIIE recognised Preferred Training Provider under registration no. PTPS-1015-8/2018-SAIIE

## COURSE OFFERING

### Energy courses

Energy Management Fundamentals  
Energy Efficiency Management  
M&V Professional  
Diesel Efficiency Management  
Residential Energy Assessor  
Energy Behaviour Change

### Carbon courses

Carbon Footprint Analyst  
Carbon Projects and Markets  
Climate Change Awareness

### Strategy courses

Environmental Strategy  
Climate Change Awareness  
Energy Behaviour Change  
Water Behaviour Change

### Solar courses

Solar PV Feasibility Assessment  
Solar PV Installation  
Solar PV Operations & Maintenance

### Water courses

Water Efficiency Management  
Water Behaviour Change

### Facilities & Office courses

Sustainable & Efficient Facilities Management  
Office Eco Manager  
Green Your Office

### Residential courses

Green Your Home / Guest House  
Residential Eco Consultant  
Residential Energy Assessor



## ENERGY MANAGEMENT FUNDAMENTALS



*Learn the fundamentals of energy efficiency and assess energy saving opportunities.*



This course is aimed at individuals who want to understand the fundamentals of electrical energy and energy efficiency.

The content of this course applies the concepts of electricity and energy to conventional processes and businesses, and allows the participant to relate and understand the electrical properties of various systems.

The course will focus on the concepts behind power factor correction, voltage optimization, bill & tariff assessment and typical retrofit solutions.

At the completion of this course, the participant will have a firm grounding of the principles and drivers influencing energy consumption. This will allow him/her to evaluate elemental energy systems and identify possible energy saving opportunities. Learners will feel confident in their readiness for further energy efficiency training.

### Benefits of doing this course

- Get trained by a professional from Terra Firma Solutions.
- Gain a solid understanding of electrical energy and energy efficiency.
- Obtain a good grasp of technical energy terms and concepts.
- Understand different types and applications of energy.
- Understand electricity and energy costs and how they are charged.
- Apply energy efficiency to economic terms and opportunities.
- Understand energy and energy efficiency in your specific place of work.
- Understand typical energy units and common electrical concepts such as kilowatt-hour, resistance, current, voltage etc and how they relate to each other.
- Understand real and reactive power.
- Learn about payback and return of investment calculations.
- Get an introduction to energy tariffs and possible tariff optimization.
- Training cost can be claimed under BBBEE Skills Development spend.
- Prepare for advanced energy management courses like the Energy Efficiency Management course.

### Who should do this course?

- Retail staff, who would like to be more involved in energy efficiency.
- Business owners wanting to better manage their energy usage.
- Facility Managers.
- Municipal and governmental employees.
- Anyone involved in energy reporting.
- Administrative staff involved in tenant billing and bill payment.
- Sustainability, Environmental and Financial Managers.
- Electricians and electrical contractors.
- Anyone wanting to prepare for the Energy Efficiency Management course

✓ *Learners will leave this course with a firm grounding of the principles and drivers influencing energy consumption.*

✓ *Cost of training can be claimed under BBBEE Skills Development spend*

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COURSE DURATION	COURSE REQUIREMENTS	COST	DATES, COURSE OUTLINE & MORE INFO
2 Days	Proficiency in Excel and Word Grade 12 level ability for mathematics	R6000 excl VAT	<a href="http://bit.ly/1pgVPOK">http://bit.ly/1pgVPOK</a>



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Johannesburg - 011 568 0768 - Building 25, Woodlands Office Park, 20 Woodlands Drive, 2191 Woodmead

## ENERGY EFFICIENCY MANAGEMENT



*Acquire knowledge and skills to manage energy efficiently.*



This Energy and Water SETA accredited course is aimed at individuals who want to understand energy efficiency and how to measure and reduce energy consumption immediately.

The course focuses on teaching learners how to systematically assess problematic energy areas within a small to medium business environment and to recommend appropriate solutions (technology & behaviour).

Learners will be able to conduct financial assessments of each solution recommended and will get a strong understanding of how to assess solutions that maximise the customer's return on investment.

Areas of focus in this course include bill & tariff assessment, power factor & voltage assessment, lighting, heating, ventilation, air conditioning & cooling (HVAC), office and IT equipment, water heating and energy monitoring.

### Benefits of doing this course

- Get trained by a Senior Engineer from Terra Firma Solutions.
- Gain competency in this field through SETA accredited training.
- Gain an understanding of energy management opportunities (EMO's).
- Get knowledge on individual energy using devices and how they can be made more efficient.
- Advise organisations on how to measure and reduce energy consumption.
- Understand the entire process of conducting an energy efficiency assessment for a site.
- Build the skills to conduct financial assessments of energy efficiency opportunities.
- Use your skills immediately to offer services to customers.
- Training cost can be claimed under BBBEE Skills Development spend.



*Cost of training can be claimed under BBBEE Skills Development spend.*



*The SAIEE's reviewer has noted this to be a "very well presented and valuable course".*

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COURSE DURATION	COURSE REQUIREMENTS	COST	COST (incl. SETA)	DATES & MORE INFO
3 days	Proficiency in Excel, Word and Math	R9800 excl VAT	R12000 excl VAT	<a href="http://bit.ly/1wbRgJO">http://bit.ly/1wbRgJO</a>



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## M&V PROFESSIONAL



## Understand how to measure and verify energy savings achieved through various energy efficiency initiatives.



This course has been developed in accordance with SANAS' requirements for SANS 50010:2011 training and fulfils the requirements on this topic to register as a M&V service provider.

The objective of this course is to understand how to measure and verify energy savings achieved through various energy efficiency initiatives.

Participants will be introduced to the fundamentals of measurement and verification (M&V), including the internationally recognised methodologies and protocols which are used by professionals in the energy industry.

At completion of the course, the participant will have an understanding of the International Performance Measurement & Verification Protocol (IPMVP) and South African National Standards (SANS) 50010:2011, as well as how to correctly create M&V reports.

### Benefits of doing this course

- Get trained by a Senior Engineer from Terra Firma Solutions.
- This course has been developed in accordance with SANAS' requirements for SANS 50010:2011 training and fulfils the requirements on this topic to register as a M&V service provider.
- Be able to perform complete M&V studies for energy projects.
- Be able to create accurate and complete energy baselines for plants and companies.
- Understand and work with the applicable M&V standards: SANS 50010:2011 and IPMVP.
- Be able to perform energy adjustments on data for M&V purposes.
- Be able to compile all the necessary M&V documents and documentation.
- Be familiar with South African tax incentives for energy efficiency and the corresponding M&V requirements.
- Training cost can be claimed under BBBEE Skills Development spend.

### Who should do this course?

- Engineers and project managers who are involved in energy efficiency and renewable energy projects.
- Sustainability managers and consultants.
- Metering companies, so as to understand the metering requirements for M&V.
- Facility managers.

- ✓ *Understand the IPMVP and SANS 50010:2011 for Measurement and Verification.*
- ✓ *Cost of training can be claimed under BBBEE Skills Development spend*

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COURSE DURATION	COURSE REQUIREMENTS	COST	DATES, COURSE OUTLINE & MORE INFO
3 Days	Proficiency in Excel and Word Good mathematics abilities Experience in energy efficiency projects	R9000 excl VAT	<a href="http://bit.ly/1vkHcd9">http://bit.ly/1vkHcd9</a>



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## DIESEL EFFICIENCY MANAGEMENT

**1 CPD\***  
**CREDIT**  
SAIMechE & ECSA  
VALIDATED  
SAIMechE-0887-07/18

*Learn how to save on diesel operating costs and reduce fuel wastage in the mining industry.*



This course has been developed to address the need for optimising diesel consumption in mining operations. We will review fundamental diesel calculations and identify areas where diesel can be saved through practical implementation of tools (systems, audits, and administration).

Learners will be able to identify diesel waste and behaviour on-site, which is instrumental to identify waste and influence behaviour of co-workers.

If required, we can include specific client content in terms of relevant HSE standards and requirements to ensure consistency with existing training material and standards. The course will be delivered in-house only.

Some of the key focus areas of the course are the impact of spillage and wastage, basic diesel systems theory, fuel management systems as well as diesel management guidelines. Aspects such as loading, hauling, diesel storage, haul road condition and maintenance are all included. Environmental reporting including an introduction to Carbon Footprinting as well as the pending Carbon Tax is also covered. See the course outline below.

### Benefits of doing this course

- Learn how to reduce diesel operating costs in the mining industry
- Spread diesel efficiency knowledge amongst the engineering team and operators
- Ensure common understanding of diesel efficiency standards and calculations throughout different divisions
- Identify areas where diesel can be saved through practical implementation of tools and best practice
- Engineers, maintenance personnel and operators will better understand the environmental impact of diesel wastage onsite

### Who should do this course?

- Mining operational management and staff
- Drivers and mining equipment operators
- Maintenance personnel
- Health, safety and environmental officers
- Engineers in the mining industry who want to expand their operational knowledge
- Operational staff in mining industry who want to 'upskill' themselves for new roles in efficiency of resources



Developed in conjunction with



COURSE DURATION	COURSE REQUIREMENTS	COST	DATES & MORE INFO
1 - 2 Days	English	R6,500 excl VAT	<a href="http://bit.ly/1PMqezO">http://bit.ly/1PMqezO</a>

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SOLAR PV FEASIBILITY ASSESSMENT



*Learn the important steps of an initial financial and technical feasibility assessment of a residential and commercial solar PV system.*



The rising costs of electricity supply and risks of energy security is making renewable energy attractive, particularly solar photovoltaics (PV) as an alternative, environmentally friendly and reliable energy source.

This course will show you how to conduct a feasibility study for residential and commercial solar PV solutions, including how to get initial costing and energy yields using modelling software and climate data.

The Terra Firma Solutions Renewable Energy Engineers have created this course based on their international experience and training in solar energy to give participants the knowledge to be able to give advice on project feasibility from energy yield to system costs.

**Benefits of doing this course**

- Get trained by a Senior Engineer from Terra Firma Solutions.
- Understand the complex financial incentives and financing options for commercial renewable energy projects.
- Understand residential and commercial solar PV systems and their components.
- Learn about the current and potential future legislative frameworks .
- Understand residential and commercial solar PV costing.
- Learn about renewable energy resources and system modelling using sophisticated software.
- Be able to conduct a feasibility study based on costs and energy yields of solar PV power systems.
- Optimise system size and components based on site requirements.
- Cost of training can be claimed under BBBEE Skills Development spend.
- Complete the course with a case study.

**Who should do this course?**

- Engineers who want to expand their knowledge in solar technology to be able to advise clients and companies on this rapidly expanding market.
- Anyone who wants to start their solar PV career. This course is the best starting point.
- Homeowners who would like to understand more about solar PV technology options for their homes.
- “Upskillers” within companies who want to add more value to their business and explore exciting new energy opportunities.
- Municipal or governmental employees.
- Sales representatives selling solar PV solutions to their clients.
- Bank employees who want to understand more about the viability of solar PV projects.
- Property fund and facility managers looking to reduce their building’s electricity costs.
- Property developers who want to understand more about solar PV opportunities.



*Learners will understand the important steps to make the right decision on viability of residential and commercial solar PV projects.*



*This course is suited for anyone new or already working in the solar PV industry!*

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COURSE DURATION	COURSE REQUIREMENTS	COST	DATES, COURSE OUTLINE & MORE INFO
3 days	Proficiency in Excel and Math	R8800 excl VAT	<a href="http://bit.ly/1Xf8r74">http://bit.ly/1Xf8r74</a>



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## SOLAR PV INSTALLATION



*This course will cover all steps involved in a solar PV installation including the pitfalls to consider before and during the installation.*



Terra Firma Solutions' experts have developed this course based on their extensive experience in the field.

This is a comprehensive professional course for anyone who is interested in becoming a solar PV Installer. Our facilitator will take you through the necessary steps from receiving the engineering design to the final commissioning stage.

After attending the course, you will understand how to maintain a safe working environment during the installation process of a solar PV plant.

The facilitator will share and explain the typical tools and systems required for an installation and will show you how the various components of a solar PV plant are installed.

The course will cover the typical tests that need to be conducted when commissioning a solar PV plant and which documents need to be included when handing over a functioning plant.

This course is not product orientated like many other courses. It will give you the fundamental knowledge of the different technologies available enabling you to make the best decisions yourself.

### Benefits of doing this course

- Get trained by professionals from Terra Firma Solutions.
- Learn the step by step process of a solar PV installation.
- Learn from experienced professionals in the industry.
- Understand typical pitfalls and how they can be avoided.
- Gain an understanding of the typical tests to perform when commissioning a solar PV plant.
- Training cost can be claimed under BBBEE Skills Development spend.

### Who should do this course?

- Electricians interested in offering a new service
- Individuals interested in starting a career as a solar PV Installer.
- Solar PV Project Managers who need to have a comprehensive understanding of the installation phase.
- Staff members involved in the solar PV installation phase.
- Company owners and managers in the solar PV industry who need to understand the installation process.
- Individuals who want to learn more about solar PV.
- Municipal or governmental employees.



*Learn from one of the leading solar PV consulting and construction firms in Southern Africa*

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COURSE DURATION	COURSE REQUIREMENTS	COST	DATES, COURSE OUTLINE & MORE INFO
2 days	OHS Training and fundamental understanding of PV components & design	R5750 excl VAT	<a href="http://bit.ly/13bQ4tv">http://bit.ly/13bQ4tv</a>



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## SOLAR PV OPERATIONS & MAINTENANCE

*Acquire the knowledge and skills to ensure continuous energy yield and optimal performance of a solar PV plant*



This O&M course focuses on potential issues and how to develop procedures for dealing with them in the most efficient and cost effective way. The learners will gain an understanding on the maintenance of a PV plant, which is essential to maximize both energy yield and the plant's useful life.

Discover the set of activities, most of them technical in nature, which enables continuous performance of this PV powerplant to perform well continuously. The course puts expected degradation into perspective and highlights how preventative maintenance plays as much a role as reactive repairs.

Areas of focus in this course include source of faults and failure modes in regard to the PV modules, inverters, combiner boxes, mounting systems and wiring. Remote performance monitoring will give insight into checking the levels of inverters strings and modules.

At completion of this course, participants will have the confidence to conduct on-site inspections for electrical and mechanical issues potentially leading to dangers and hazards. This course addresses the mechanical and electrical needs of the power plant as well as maintenance of the grounds/roofs and communication systems.

### Benefits of doing this course

- Get trained by professionals from Terra Firma Solutions
- Expand your offering to clients to offer a new and additional service
- Learn about schedules and methodologies in solar PV operations and maintenance
- Increase efficiency and energy delivery of solar PV systems (kWh/kW)
- Optimize balance between cost of scheduled maintenance, yield and cash flow
- Expand service life of PV plant
- Know-how and confidence for PV plant owners
- Guaranteed return on investment of an effectively optimised solar PV plant



*This course is aimed at service providers or owners of solar PV plants who want to understand the operation and maintenance of such a power producing asset which is likely to last 20-25 years if looked after correctly and maintained carefully.*

### Who should do this course?

- Individuals interested in a career in all aspects of solar PV
- Solar PV Installers who are interested in offering an additional service to clients
- Company owners and managers in the solar PV industry who need to understand the Operations & Maintenance processes of Solar PV
- Staff members who are involved in the Operations & Maintenance of Solar PV
- Engineers who are interested in offering a new service, or expanding their current service offering
- Project Managers who would need to have a comprehensive understanding of the Operations & Maintenance of Solar PV
- Municipal or government employees
- PV plant owners who would like to understand service levels and potential problems
- Homeowners and housing associations
- Estate management and maintenance personnel
- Building developers
- Electricians, who are interested in offering additional services

*For certain electrical checks, an electrical qualification is required.*

*Participants without this qualification, must understand that they will not be able to perform certain parts of the operation and maintenance service.*

COURSE DURATION	COURSE REQUIREMENTS	COST	DATES, COURSE OUTLINE & MORE INFO
3 days	Electrical engineering fundamentals Solar PV fundamentals	R8,000 excl VAT	Coming soon.

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## WATER EFFICIENCY MANAGEMENT



SAICE & ECSA  
Validated  
(3 CPD credits)

### Acquire knowledge and skills to manage water efficiently.



This course is aimed at individuals who want to build a career advising businesses on how to measure and reduce their water consumption immediately, and for those who want to extend their immediate skill sets in order to be able to implement an in-house water management strategy.

The course focuses on teaching learners how to systematically assess water usage within all types of organisations and to recommend appropriate solutions (technology & behaviour). Learners will be able to conduct financial assessments of each solution and will get a strong understanding of how to recommend solutions that maximise the customer's return on investment.

Areas of focus in this course include legislation analysis, bill & tariff assessment, water audit planning, water monitoring devices, flow measurement calculations, building water flow diagrams for an organisation, water quality assessment needs, water management strategy development and writing a water audit report.

### Benefits of doing this course

- Get trained by a Senior Engineer from Terra Firma Solutions.
- Gain competency in this field through SETA accredited training.
- Take charge of your organisation's water efficiency strategy.
- Develop a new service for your environmental consultancy and differentiate yourself.
- Increase the services you can use to add value to your customers.
- Learn how to conduct a water audit, bill and tariff assessment, water quality, management strategies, monitoring and reporting.
- Advise organisations on how to measure and reduce water consumption.
- Complete the course with a case study.
- Training cost can be claimed under BBBEE Skills and Development spend.

### Who should do this course?

- Facility and plant managers who are looking for ways to reduce water consumption.
- Environmental professionals that would like to offer a new high value service to clients.
- Municipal or government employees.
- Individuals wanting to change careers and move into this exciting new area.
- Graduates looking to find a role in water efficiency.
- Employees looking to add skills to their careers.
- Financial, environmental, sustainability and SHEQ team members and managers.

✓ *Learners will leave this course with a real skill that can be offered to customers immediately or enhance your current job.*

✓ *Cost of training can be claimed under BBBEE Skills Development spend.*

COURSE DURATION	COURSE REQUIREMENTS	COST	COST (incl. SETA)	DATES & MORE INFO
3 days	Proficiency in Excel, Word and Math	R8000 excl VAT	R10200 excl VAT	<a href="http://bit.ly/1ofQIIP">http://bit.ly/1ofQIIP</a>



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## ENVIRONMENTAL STRATEGY



### Learn a comprehensive process to develop a world class environmental strategy.



Companies today are more convinced than ever of the need to embed environmental sustainability within their core business. While environmental efficiency initiatives started as a moral obligation it has now become a key business differentiator.

Organisations of all sizes are finding ways to create competitive advantages from their environmental efficiency initiatives resulting in lower costs, greater brand value, reduced risks, new and innovative products and services, increased trust of shareholders and enhanced appeal and loyalty from customers and employees.

Created as a result of on-going demand from clients, Terra Firma Academy's Environmental Strategy course is designed to give managers and executives the processes, knowledge and tools required to develop a world class environmental policy and strategy for their organisation.

This is a highly practical course constructed from Terra Firma Solutions' own experience developing successful Environmental Policies and Strategies for JSE listed companies over the past few years. The course teaches learners a clear process for developing an environmental policy and strategy and shares important tools required to implement these.

### Benefits of doing this course

- Get trained by a Senior Sustainability Consultant from Terra Firma Solutions.
- Build an environmental strategy that gives a real business edge and integrate environmental strategy into the core business.
- Build a companywide environmental strategy that communicates clearly, in a unified way to your employees, customers and investors.
- Identify new ways to increase efficiencies and reduce costs.
- Identify and plan for environmental risks and opportunities for the organisation.
- Develop a new service for your environmental consultancy to differentiate your business
- Differentiate yourself in the job market with this new skill.
- Training cost can be claimed under BBBEE Skills Development spend

### Who should do this course?

- Sustainability Executives and Managers who want to create and integrate an environmental strategy into their company.
- All business executives wanting to better understand the importance of environmental strategy for their business and how to action the development of a strategy.
- Environmental professionals that would like to offer a new high value service to clients and want to understand the process for Environmental Policy and Strategy development.
- Employees wanting to change careers or up-skill and move into corporate sustainability.



*The Environmental Strategy course teaches participants a clear process, which will assist in ISO14001 compliance and the development of a company-wide environmental strategy.*

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COURSE DURATION	COURSE REQUIREMENTS	COST	DATES, COURSE OUTLINE & MORE INFO
2 Days	None	R7150 excl VAT	<a href="http://bit.ly/1tjLfXK">http://bit.ly/1tjLfXK</a>



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## CARBON FOOTPRINT ANALYST



### Conduct a carbon footprint based on international standards.

*This course is internationally approved with the IEMA. The only internationally approved carbon footprinting course in Africa.*



Increasingly companies around the world are undertaking assessments of their carbon footprints. The reasons for this includes the growth of carbon tax legislation, public disclosure (CDP, JSE / FTSE Russel), integrated reporting or just the realisation that it's good for business.

A carbon footprint can also be an excellent way to focus your team on reducing operational costs. This course teaches learners how to conduct a carbon footprint assessment in accordance with the Greenhouse Gas Protocol and ISO 14064 with a focus on clearly explaining each step required when conducting a world class carbon footprint for an organisation.

Often the most complex part of conducting a carbon footprint is data gathering and in the course we teach important tools to overcome these hurdles. Key areas include: understanding the Greenhouse Gas Protocol, data gathering tools, setting boundaries, data assessment, data quality control, importance of verification and creating a report. This course will give you an understanding of the economic effects of climate change on industry sectors. Learners will be taken through a number of in depth case studies and practical examples.

### Benefits of doing this course

- Get trained by a Senior Sustainability Consultant from Terra Firma Solutions.
- This course is internationally approved with the IEMA. The only internationally approved carbon footprinting course in Africa.
- Gain competency in this field through SETA accredited training
- Conduct your own company's carbon footprint and prepare for South African carbon tax
- Learn how to do a carbon footprint assessment in accordance with global best practice
- Grow your existing consultancy with new services
- Get qualified to conduct an internationally accepted carbon footprint assessment
- Begin a new career in carbon consulting
- Learn about all necessary steps to compile a comprehensive carbon footprint
- Understand carbon reduction opportunities and options to mitigate your tax risk
- Complete the course with a detailed case study
- To obtain an IEMA approved certificate you need to successfully pass a 2 hour exam the day after completing the course

### Who should do this course?

- Professionals responsible for environmental reporting
- Employees in the municipality & governmental sector involved in environmental management
- Auditors with clients needing environmental audits
- Financial, Environmental, Sustainability and SHEQ team members and managers
- The business owner wanting to use the company's carbon footprint assessment to differentiate the company

 **Learners will leave with the skills needed to conduct a world class Carbon Footprint for a small to medium size business.**

 **To obtain an IEMA approved certificate you need to successfully pass a 2 hour exam the day after completing the course**

DURATION	COURSE REQUIREMENTS	COST	COST (incl. SETA)	COST (incl. IEMA)	DATES & MORE INFO
3 days	Proficiency in Excel, Word and Math	R9 000 excl VAT	R11 200 excl VAT	R10 900 excl VAT	<a href="http://bit.ly/1nd1cZT">http://bit.ly/1nd1cZT</a>

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## CARBON PROJECTS AND MARKETS

*Develop a carbon project and learn how to use the credits in the carbon markets.*



This is an essential course for anyone wanting to understand the carbon markets and how to develop a carbon credit project. A key aim of the course is to simplify this highly complex area to facilitate good decision making by learners.

This course will give clarity to those people who are unsure if they have a carbon project or simply want to better understand the process and costs to developing a carbon project.

Key focus areas include the history of the carbon markets and their evolutions, current stability of the carbon markets and recent decisions, the evolution of carbon projects their mechanisms and methodologies, stages of a carbon project, costs, timelines, financing options and the local legislative landscape.

We use a number of practical examples to ensure that learners leave this course with a good understanding of all the key elements of a carbon project.

### Benefits of doing this course

- Discover how the carbon markets were created, their drivers and how their future is being moulded through international negotiation; cap and trade discussions as well as carbon taxation legislation.
- Gain an understanding around the carbon project development landscape and how it can benefit you and your company
- Get visibility into timelines, costs and risks relating to developing a carbon project
- Understand all of the elements of the carbon project development process
- Learn about the types of carbon markets and carbon instrument and how carbon tax legislation will impact them
- Learn tools to identify if a carbon project is viable
- Learn about the types of carbon projects and registration bodies and what specific documentation is required by these bodies
- Learn how carbon credits are created and traded
- Understand the skills and resources required to make decisions about carbon projects

### Who should do this course?

- Managers and business owners who need to make decisions involving renewable energy and carbon projects development
- Renewable energy project developers looking for new forms of financing to kick start their project
- Financial managers who are tasked with assessing the potential revenue streams and ROI of a new project
- Environmental professionals looking to advise their customers on potential carbon projects
- Engineers and Facilities managers looking to use the carbon markets to finance efficiencies



*Learners will gain insight to find new opportunities and tap into the carbon market.*

COURSE DURATION	COURSE REQUIREMENTS	COST	DATES, COURSE OUTLINE & MORE INFO
1 day	None	R3500 excl VAT	<a href="http://bit.ly/1pMUwq8">http://bit.ly/1pMUwq8</a>

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Johannesburg - 011 568 0768 - Building 25, Woodlands Office Park, 20 Woodlands Drive, 2191 Woodmead

## SUSTAINABLE & EFFICIENT FACILITIES MANAGEMENT



# Learn to manage a sustainable and efficient facility.



This course is aimed at Facilities Managers, Building Efficiency Champions and their team members who are keen to enhance their facilities' environmental, social and financial performance.

Often the simplest and easiest way to implement solutions can have the most positive impact on the environment. We will share a process to systematically assess potential areas for improvement and how to develop and implement appropriate and feasible upgrades.

The course is packed with practical and easy to understand examples which can be implemented immediately.

Focus areas will be energy and water efficiency, waste management, healthy work environment, cleaning and pest control, grounds and landscaping and sustainable procurement.

### Benefits of doing this course

- Identify savings while you make your building a better place to work for everyone
- Reduce operating costs and thereby reduce risks (waste, water & electricity costs)
- Easy to follow process to turn your facility into an efficient, low-impact and cost effective environment
- Filled with practical examples to easily apply the learning
- Learn new valuable skills which address the bottom line
- Learn ways how to enhance your facility's and organization's brand and customer satisfaction
- Increase staff morale, performance & productivity
- Each module will have a case study
- Training cost can be claimed under BBBEE Skills Development spend



*Cost of training can be claimed under BBBEE Skills Development spend.*



*Participants of this course will be amazed by the simple and easy steps at hand.*

COURSE DURATION	COURSE REQUIREMENTS	COST	DATES, COURSE OUTLINE & MORE INFO
3 days	Course will be facilitated in English	R8000 excl VAT	<a href="http://bit.ly/2fli6u3">http://bit.ly/2fli6u3</a>



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## OFFICE ECO MANAGER

*Learn to green an office environment and find optimal saving opportunities.*



This course is aimed at sustainability team members and consultants that want to offer a comprehensive environmental service to offices and their managers.

Key focus areas include energy efficiency, waste management, water efficiency, elimination of contaminants, responsible purchasing, assessing new technologies and on-going monitoring and training requirements.

Key skills that the learner will absorb include greenhouse gas emissions calculations, cost-savings analysis, planning, strategising, assessing recommendations, correct maintenance practices and green retrofits.

The course focuses on teaching learners how to systematically assess problem areas within a commercial environment and to recommend appropriate solutions (technology & behaviour). Learners will be able to conduct financial assessments of solutions recommended and will get a strong understanding on those solutions that maximise return on investment.

### Benefits of doing this course

- Obtain the know-how to turn any office into an efficient, low-impact and cost effective environment
- Learn the do's and don'ts of an environmentally friendly office
- Increase staff morale as a green office can retain and attract good quality staff
- Reduce operating costs by improving operating efficiencies
- Improve productivity
- Lower absenteeism
- Positive marketing: Forms the basis of the green marketing of your services
- Customer satisfaction
- Differentiation
- Brand enhancement
- Ability to analyse costs versus savings for green and retrofit technology

### Who should do this course?

- Small to medium business owners (office based)
- Office managers
- Green champions or green teams
- Sustainability team
- Institute owners with offices
- Green-minded staff members
- New career seeker
- Members of school administrations
- Renovators, interior decorators



*Participants of this course will be amazed by the simple and easy steps at hand.*

COURSE DURATION	COURSE REQUIREMENTS	COST	DATES, COURSE OUTLINE & MORE INFO
2 days	Proficiency in Excel, Word and Math	R5000 excl VAT	<a href="http://bit.ly/1BEYHcE">http://bit.ly/1BEYHcE</a>



## GREEN YOUR OFFICE

*Turn your office into an efficient, low-impact and cost effective working environment.*



This course is aimed at staff and key members of an office environment. It introduces concepts of energy efficiency, waste management, water efficiency, elimination of contaminants, responsible purchasing, introducing new technologies, and training requirements.

New skills that the learner will absorb include understanding the environmental impact of all areas in an office environment, correct maintenance practices and green retrofits. The course focuses on teaching learners how to identify problem areas within their commercial environment and to recommend appropriate solutions (technology & behaviour).

The course provides the know-how to effectively manage environmental impact and how to manage valuable resources. Filled with practical exercises, images, videos and examples, this course is an ideal eye-opener for an office-based company's manager, green-minded staff member or the whole sustainability team.

### Benefits of doing this course

- Obtain the know-how to turn any office into an efficient, low-impact and cost effective environment
- Learn the do's and don'ts of an environmentally friendly office
- Increase staff morale
- Retain and attract good quality staff
- Reduce operating costs and improve operating efficiencies
- Improve productivity
- Lower absenteeism
- Positive marketing: Forms the basis of the green marketing of your services
- Customer satisfaction
- Brand enhancement

### Who should do this course?

- Any office staff member
- Business owners (office-based)
- Office managers
- Green champions or green teams
- Sustainability team
- Personal assistants
- Institute owners with offices
- Receptionist



*Learners will understand concepts of energy efficiency, waste management, elimination of contaminants, responsible purchasing and more.*

COURSE DURATION	COURSE REQUIREMENTS	COST	DATES, COURSE OUTLINE & MORE INFO
1 Day in-house training	None	On demand	<a href="http://bit.ly/1uZPrOq">http://bit.ly/1uZPrOq</a>



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## ENERGY BEHAVIOUR CHANGE



*Behaviour change through energy awareness training will have immediate effects on your operational costs.*



Increasingly companies in South Africa and around the world are realising that the first and most important step to achieve environmental goals is through behaviour change throughout the organisation.

This course has specifically been designed to support companies on their path to environmental sustainability and implementation of environmental policies and strategies.

Our experience has shown that energy awareness and correlating behaviour change can save energy costs quickly. Keeping in mind the constant tariff increases from Eskom and the discussed future carbon tax, energy behaviour change has one of the highest ROIs seen in the market.

This course is packed with simple, easy understandable examples and focuses on issues, which are often easily overlooked. The presentation is supported by different media to secure the participants attention.

### Benefits of doing this course

- Developed and facilitated by experts from Terra Firma Solutions.
- Can be customised to your training needs.
- Raise awareness around energy efficiency and get the buy-in of your staff members
- Change the energy behaviour throughout your company
- Behaviour change has one of the highest ROIs seen in this industry
- Increase staff morale as a green office can retain and attract good quality staff
- Reduce operating costs by improving operating efficiencies
- Positive marketing: Forms the basis of the green marketing of your services
- Brand enhancement
- Training cost can be claimed under BBBEE Skills Development spend.

### Who should do this course?

- Any employees
- Sustainability teams
- Green-minded staff members
- Municipal or government employees



*Find ways to quickly save energy costs in your company.*



*Cost of training can be claimed under BBBEE Skills Development spend.*

COURSE DURATION	COURSE REQUIREMENTS	COST	DATES, COURSE OUTLINE & MORE INFO
½ Day (optional 3 hrs) inhouse training	None	On demand	<a href="http://bit.ly/1tsNzd8">http://bit.ly/1tsNzd8</a>



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## WATER BEHAVIOUR CHANGE



*Behaviour change through water awareness training will have immediate effects on your operational costs.*



Increasingly companies in South Africa and around the world are realising that the first and most important step to achieve environmental goals is through behaviour change throughout the organisation.

This course has specifically been designed to support companies on their path to environmental sustainability and implementation of environmental policies and strategies.

Our experience has shown that water awareness and correlating behaviour change can save water costs quickly. Keeping in mind the constant tariff increases from municipalities and decreasing fresh water resources, behaviour change has one of the highest ROIs seen in the market.

This course is packed with simple, easy understandable examples and focuses on issues, which are often easily overlooked. The presentation is supported by different media to secure the participants attention.

### Benefits of doing this course

- Developed and facilitated by experts from Terra Firma Solutions.
- Can be customised to your training needs.
- Raise awareness around water efficiency and get the buy-in of your staff members
- Change the water behaviour throughout your company
- Behaviour change has one of the highest ROIs seen in this industry
- Increase staff morale as a green office can retain and attract good quality staff
- Reduce operating costs by improving operating efficiencies
- Positive marketing: Forms the basis of the green marketing of your services
- Brand enhancement
- Training cost can be claimed under BBBEE Skills Development spend.

### Who should do this course?

- Any employees
- Sustainability teams
- Green-minded staff members
- Municipal or government employees



*Find ways to quickly save water costs in your company.*



*Cost of training can be claimed under BBBEE Skills Development spend.*

COURSE DURATION	COURSE REQUIREMENTS	COST	DATES, COURSE OUTLINE & MORE INFO
½ Day (optional 3 hrs) inhouse training	None	On demand	<a href="http://bit.ly/VHk4Zv">http://bit.ly/VHk4Zv</a>



## CLIMATE CHANGE AWARENESS

### Raise your staff's awareness about climate change.



Climate change is a term most people know, but few know what it means and how it is caused.

This course is designed to give an understanding of the causes and effects of climate change with many examples pertaining to scenarios experienced in South Africa.

By demonstrating the possible consequences of climate change this course will motivate the learner to engage and commit to environmental policies and strategies which are the drivers for climate change mitigation.

All levels of learner will benefit from seeing both the economic and social effects of climate change and the importance of collectively implementing small action changes to make a substantial difference going forward.

#### Benefits of doing this course

- Developed and facilitated by experts from Terra Firma Solutions.
- Can be customised to your training needs.
- Raise awareness around climate change and get the buy-in of your staff members.
- Awareness is the first step to behaviour change which has one of the highest ROIs seen in this industry.
- Increase staff morale as a green office can retain and attract good quality staff.
- Positive marketing: Forms the basis of the green marketing of your services.
- Brand enhancement.
- Differentiate yourself in the job market by being a responsible employer.
- Training cost can be claimed under BBBEE Skills Development spend.

#### Who should do this course?

- Any employees.
- Sustainability teams.
- Green-minded staff members.
- Municipal or government employees.



*Behaviour change through awareness training will have immediate effects on your operations costs.*



*Cost of training can be claimed under BBBEE Skills Development spend.*

COURSE DURATION	COURSE REQUIREMENTS	COST	DATES, COURSE OUTLINE & MORE INFO
½ Day (optional 3 hrs) inhouse training	None	On demand	<a href="http://bit.ly/1ofQXUi">http://bit.ly/1ofQXUi</a>

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## GREEN YOUR HOME / GUEST HOUSE

*Live a greener lifestyle, without compromising your existing one.*



The Green Your Home / Guest House course is an important course for every household.

It teaches learners the knowledge and skills required to take immediate steps aimed at living a greener lifestyle while saving your family and your business money in the process.

We teach learners how to run a green household or guest house without compromising existing lifestyle needs. You will learn how to effectively target inefficiencies, wastage of resources and how to select new technology, retrofit technology and change behaviour.

Focus areas include energy efficiency, water efficiency, waste management and elimination of domestic contaminants.

### Benefits of doing this course

- Fast-track the greening of your home and guest house by knowing what to do and what options to choose. Your house will be running more efficiently and provide a healthier living space for you, your family or your guests.
- Save water, electricity and money on your running costs
- Hedge yourself against future rises in tariffs
- Know how to invest in your own home and enjoy a return of up to 40% (better than any bank!)
- Differentiate yourself from other guest houses
- Have a healthier home
- Enjoy a warm home in winter and a cool home in summer
- Save greenhouse gases, be sustainable and eco-friendly
- Prepare your house for energy alternatives such as solar and wind
- Be assured of sound investments in sustainability and efficiency



*Participants of this course will be amazed by the simple and easy steps to convert their homes into more environmentally friendly space.*



*This course forms the first two days of the three day Residential Eco Consultant course.*

COURSE DURATION	COURSE REQUIREMENTS	COST	DATES, COURSE OUTLINE & MORE INFO
2 Days	None	R2000 excl VAT	<a href="http://bit.ly/1tjM0QC">http://bit.ly/1tjM0QC</a>



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## RESIDENTIAL ECO CONSULTANT

*Learn how to assess and identify saving opportunities in the residential environment.*



This Residential Eco Consultant course thoroughly explores the residential environment of a home and teaches the learner how to assess and identify solutions across all areas.

The course outlines recommendations for behavioural changes, correct maintenance practices and efficient retrofits to green a home. Filled with practical exercises, videos, examples and in-depth case studies, this course is ideal for those wanting to consult to the residential sector and optimise their own homes.

Focus areas include energy efficiency, water efficiency, waste management, elimination of domestic contaminants. This course also teaches learners how to make detailed assessments of payback periods and return on investments helping you to effectively make the best recommendations to your clients.

The course is aimed at home-owners and consultants looking for a career as a Residential Eco Consultant as well as existing residential consultants looking to enhance their offerings.

### Benefits of doing this course

- Get trained by a professional from Terra Firma Solutions.
- Learn how to save money on water and electricity bills.
- Obtain the skills to turn any home into an efficient, low-impact, cost-effective household.
- Begin a new career in the green industry by becoming a Residential Eco Consultant.
- Learn skills that give you specialist knowledge in the Eco industry.
- Gain competitive advantage as a general residential consultant.
- Know how to invest in your own home and enjoy a return of up to 40% (better than any bank!)

### Who should do this course?

- Individuals looking for a new, or part time, career in the green industry
- Residential service providers wanting to add a competitive advantage to their services by recommending green changes to customers (interior designers, architects, plumbers, electricians)
- Hotel and guesthouse owners looking to save operating costs by reducing water, electricity and managing waste streams
- Restaurant owners wanting to find ways to differentiate their restaurant and save operating costs
- New home buyers who would like to assess potential new homes with regard to their eco-status and running costs.
- Home-owners planning on renovations, refurbishing or building their dream home.



*You will learn how to offer this service to others.*



*Complete the course and receive two certificates, including the SETA approved Residential Energy Assessor certificate.*

COURSE DURATION	COURSE REQUIREMENTS	COST	DATES, COURSE OUTLINE & MORE INFO
3 Days	None	R6000 excl VAT	<a href="http://bit.ly/1sWvjfk">http://bit.ly/1sWvjfk</a>

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## RESIDENTIAL ENERGY ASSESSOR



*Learn how to reduce your residential electricity bill.*



This course is aimed at consultants who want to build a career advising households on how to reduce their energy consumption and home-owners who want to better understand energy consumption in their homes.

The course focuses on teaching learners how to systematically assess problem areas within a residential environment and to recommend appropriate solutions (technology & behaviour).

Learners will be able to conduct financial assessments of each solution recommended and will get a strong understanding of how to recommend solutions that maximise the customer's return on investment.

Learners will leave this course with a real skill that can be offered to customers immediately. Homeowners and guest house owners will also gain significant benefit from this course.

### Benefits of doing this course

- Get trained by a professional from Terra Firma Solutions.
- Learn how to save money on residential energy bills.
- Begin a new career in the green industry.
- Start a career that allows you to be your own boss.
- Residential consultants who want to differentiate themselves and gain competitive advantage.
- Generate extra income with a green career.
- Work in your neighbourhood.
- Make a tangible difference and help preserve the environment.
- Be assured of sound investment decisions for green retrofits.

### Who should do this course?

- Consultants wanting to offer a residential energy assessment.
- Residential service providers wanting to add a competitive advantage to their services (electricians, handymen, interior designers, renovators, builders)
- Hotel and guesthouse owners looking to be more profitable by reducing energy bills
- Residential property managers looking for ways to reduce costs
- New job seekers that want to start a green career
- Anyone wanting to add new skills to their career and open new opportunities in the green industries



*Learn how to reduce your home's electricity bill and consult to other home-owners on how they can save on their monthly electricity bill.*



*This course forms the second and third day of the three day Residential Eco Consultant course.*

COURSE DURATION	COURSE REQUIREMENTS	COST	DATES, COURSE OUTLINE & MORE INFO
1½ Days	None	R4000 excl VAT	<a href="http://bit.ly/1sWvjfk">http://bit.ly/1sWvjfk</a>



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## CONTACT DETAILS

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Website

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Course dates

<http://tr.im/42kth>

([www.terrafirma-academy.com/course-dates/](http://www.terrafirma-academy.com/course-dates/))

NOTES

## Terra Firma Academy

IEMA Accredited Training Centre

SETA Accredited & CPD Validated Courses

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*Learn sought-after environmental efficiency and management skills.*  
Find new opportunities to save cost and improve your company's environmental performance.