



Pre-Plan Energy Academy

Understanding, Planning and Using Green Energy

Updated: February 2010



Pre-Plan Energy Academy

Understanding, Planning and Using Green Energy Solutions (1-Day Course)

Course Overview and Objectives

The Pre-Plan Energy Academy now offers a 1-day course on the **"Understanding, Planning and Using Green Energy Solutions"** for all interested candidates. Topics covered include:

- Understanding more about renewable energy
- Calculating where and how energy is used
- Providing basic consultancy around energy efficiency
- Creating solution designs for clean power solutions

The course material is informative, and will provide key understanding to both the consulting, planning and implementation aspects of green energy solutions. Real-world scenarios and experiences are included to illustrate the course material.

Included with the course is an onsite tour of the Pre-Plan equipment room, where wind, solar, battery and grid power are integrated with inverter systems designed to provide interrupted power for all critical systems connected to them. Key subjects that will be covered in the course material include:

What is green energy?

How do wind turbines work?

How do solar photovoltaic (PV) systems work?

How do I integrate these components?

What are off-grid and on-grid systems?

How I size and use inverters?

How do I size battery systems?

How much green energy do I need?

Key elements of conducting an energy audit

Selecting and correctly calculating the green output required

Justifying different green solutions against investment and payback periods

By the end of the course, attendees will be able to:

- Understand the different green energy components
- Identify areas to improve energy efficiency in an environment
- Calculate and size the different elements to create a green solution

An optional multiple choice exam is offered after the course to provide candidates with an evaluation score of their understanding of green energy solutions.

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Pre-Plan Energy Overview

Pre-Plan Energy is a division within the Pre-Plan Group of Companies that is dedicated to providing design-and-build power-up solutions for customers needing to generate electricity from renewable resources, such as wind and solar power.

In addition to offering electrical generation solutions, we focus on also being able to reduce the amount of energy being consumed, thus providing a holistic view around energy use and generation. Our headquarters in Alberton have been converted to use green energy, which we generate on site.



Pre-Plan's offices use an integrated Island Inverter system that harvests and stores renewable energy using the following components:

- A 20 kW Wind Turbine
- Large 7 kW photovoltaic (PV) array
- 12 tonnes of deep-cycle lead-acid batteries
- Over 11 Inverters and Controller Units

Pre-Plan Energy's projects range from residential and commercial projects, to large turnkey projects such as building developments and wind farms. The Pre-Plan Energy Academy now offers courses on the understanding and design aspects of green energy solutions.

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Agenda

The 1-Day course will run according to the following schedule:

08:30 – 09:00	Registration / Coffee
09:00 – 10:00	Module 1: Electricity, Energy and Wind Turbines
10:15 – 11:15	Module 2: Photovoltaics, Inverters, and Storing Energy
11:30 – 12:30	Module 3: Reducing Energy Consumption
12:30 – 13:15	Lunch
13:15 – 13:30	Green Energy Tour
13:30 – 14:15	Module 4: Energy Audits and Sizing Green Solutions
14:30 – 15:30	Module 5: Calculating Costs, Return On Investment and Green Opportunities
15:45 – 16:30	Examination (optional)

Course Dates

The course is scheduled to be held on the following dates:

18 March 2010 (Thursday)

Course Pricing Schedule

The cost of the 1-day course is R 1,800, excluding VAT. Student rates are also available.

The optional multiple choice exam directly after the course and is included in the above cost.

Candidates will receive a Certificate of Attendance from the Pre-Plan Energy Academy after having completed the course. If they have chosen to take the examination as well, a Course Certificate with their results will be sent to them within 5 working days.



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Terms and Conditions

Please note that full payment upfront is required before candidates arrive for the course.

Contact and Booking Information

Classes are limited to a maximum of 8 seats.

To secure your place, please contact us for a booking form.

Pre-Plan Energy

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