



POWER AND ELECTRICAL TRAINING

Electrical Power Systems for Non Engineers

3 day course

Classroom, online or in-house

Course overview

A course for people who work in or around the electricity supply industry without an electrical engineering background, and who need to understand what the technical staff are discussing. Delegates cover the physical basics of electricity, how generation, transmission and distribution fit together, the main plant items and what each does, why the system must be balanced continuously, and the causes of outages and constraints. The commercial layer is covered as well: how electricity is traded and priced, what a tariff is built from, and how regulation shapes the sector. No mathematics beyond arithmetic is required, and the emphasis throughout is on being able to follow and question a technical conversation.

What you will learn

- Explain voltage, current, power and energy in practical terms
- Describe how generation, transmission and distribution fit together
- Identify the main plant items and the function of each
- Explain why supply and demand must be balanced continuously
- Describe the common causes of outages and network constraints
- Outline how electricity is priced and what a tariff is built from
- Follow and question a technical discussion with confidence

Who should attend

- Finance, commercial and procurement staff in the energy sector
- Regulators, policy and government officials
- Project managers and analysts in power
- Legal, human resources and support staff in utilities
- Anyone working around electrical engineers without the background

Course outline

- 01 Electricity in practical terms: voltage, current, power and energy
- 02 Generation technologies and what each is good for
- 03 Transmission, distribution and why voltage changes along the way
- 04 The main plant items and what each does
- 05 Balancing supply and demand continuously
- 06 Outages, constraints and why the lights go out
- 07 How electricity is traded and priced
- 08 Tariffs, regulation and the shape of the sector

Upcoming dates

Dates	Venue	Format	Fee per delegate
30 November to 2 December 2026	Johannesburg, South Africa	Classroom	R14,950
9 to 11 December 2026	Dar es Salaam, Tanzania	Classroom	USD 995
28 to 30 December 2026	Online	Online	R6,500
18 to 20 January 2027	Kigali, Rwanda	Classroom	USD 995



Fees and how to register

This 3 day course is **R6,500** per delegate online, **R14,950** in the classroom in South Africa, Botswana, Namibia, Lesotho and Eswatini, and **USD 995** in the classroom elsewhere in Africa. In-house training is quotation on request. Book 2 or more delegates on this course and save 10%.

To register or request an in-house proposal, visit www.afrisciencegroup.com, email info@afriscience.co.za, or WhatsApp us on **+27 63 479 1136**.

AfriScience Group | +27 61 536 6531 | info@afriscience.co.za | Pretoria, Gauteng, South Africa