



POWER AND ELECTRICAL TRAINING

Smart Metering and Advanced Metering Infrastructure

5 day course

Classroom, online or in-house

Course overview

Smart metering programmes are usually justified on revenue protection and load management, and they succeed or fail on communications and data rather than on the meters. This course covers the whole system. Delegates work through meter technology and functionality, the communications options from power line carrier through radio mesh to cellular and their behaviour in dense and rural deployment, and the head end and data management systems behind them. Meter data management, validation and estimation are covered, since a billing system consuming unvalidated data creates disputes at scale. Prepayment, tamper detection and revenue protection receive their own treatment.

What you will learn

- Describe smart meter technology and the functions it enables
- Compare communications options and their behaviour in real deployment
- Specify head end and meter data management systems
- Apply validation, estimation and editing to meter data
- Design prepayment and tamper detection into a deployment
- Use metering data for load management and revenue protection
- Plan a rollout, including the field work that dominates its cost

Who should attend

- Utility metering and revenue protection staff
- Distribution network engineers
- Information technology staff supporting metering systems
- Project managers on metering rollouts
- Regulators and municipal electricity officials

Course outline

- 01 Why metering programmes succeed or fail on data, not meters
- 02 Meter technology and functionality
- 03 Communications: power line carrier, radio mesh and cellular
- 04 Head end systems and integration
- 05 Meter data management, validation and estimation
- 06 Prepayment systems
- 07 Tamper detection and revenue protection
- 08 Rollout planning and field operations

Upcoming dates

Dates	Venue	Format	Fee per delegate
23 to 27 November 2026	Online	Online	R8,500
4 to 8 January 2027	Mbabane, Eswatini	Classroom	R19,950
1 to 5 February 2027	Johannesburg, South Africa	Classroom	R19,950
8 to 12 February 2027	Dar es Salaam, Tanzania	Classroom	USD 1,325



Fees and how to register

This 5 day course is **R8,500** per delegate online, **R19,950** in the classroom in South Africa, Botswana, Namibia, Lesotho and Eswatini, and **USD 1,325** 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@afri-science.co.za, or WhatsApp us on **+27 63 479 1136**.

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