



POWER AND ELECTRICAL TRAINING

Battery Energy Storage for Grid Stability

5 day course

Classroom, online or in-house

Course overview

Storage is now the practical answer to several problems a network cannot otherwise solve, from frequency response to deferring a line upgrade, and the economics turn entirely on which service a system is built to provide. This course covers both. Delegates work through cell chemistries and their behaviour, system architecture from cell to grid connection including the inverter and its control, and the grid services storage can deliver and the requirements each imposes. Sizing follows from the service selected rather than the other way round. Safety receives detailed treatment, including thermal runaway, fire detection and suppression, and the course closes on degradation, warranty terms and the operating decisions that determine asset life.

What you will learn

- Compare cell chemistries and their operational behaviour
- Describe system architecture from cell through inverter to grid connection
- Identify the grid services storage can provide and the requirements of each
- Size a system from the service it is intended to deliver
- Address thermal runaway, fire detection and suppression
- Assess degradation and interpret warranty terms
- Operate a system so its life matches the business case

Who should attend

- Utility and network planning engineers
- Renewable and independent power producer engineers
- Project developers and technical advisers
- Regulators assessing storage connections
- Facilities engineers considering behind the meter storage

Course outline

- 01 Why storage, and which problems it actually solves
- 02 Cell chemistries and behaviour
- 03 System architecture from cell to grid connection
- 04 Inverters and control
- 05 Grid services and their technical requirements
- 06 Sizing from the intended service
- 07 Safety: thermal runaway, detection and suppression
- 08 Degradation, warranties and operating for asset life

Upcoming dates

Dates	Venue	Format	Fee per delegate
26 to 30 October 2026	Johannesburg, South Africa	Classroom	R19,950
16 to 20 November 2026	Durban, South Africa	Classroom	R19,950
15 to 19 February 2027	Online	Online	R8,500

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@afriScience.co.za, or WhatsApp us on **+27 63 479 1136**.

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