BESS

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Battery Energy Storage Systems Training

Intermediate Training

Empower your expertise in the fast-growing field of energy storage with our comprehensive Battery Energy Storage Systems (BESS) Training. Participants will gain valuable insights into system design, standards and regulations, and advanced troubleshooting techniques — ensuring safe, compliant, and efficient energy storage solutions.

From understanding HV inverters, Building Managemeny System (BMS) configurations, and risk mitigation strategies to exploring integration with solar PV, gensets, and load-management systems, this course provides a complete perspective on modern energy storage technologies. Learners will also be introduced to economic modelling, tax incentives, and financial considerations that drive sustainable investment in energy security.

Certification: Attendance Certificate

Continued Professional Development:
ECSA CPD: 2 CPD Credits | Pow001-FAMC2021
AEE Renewal Credits: 2.4 AEE Credits | IEPA-EVT2547

iepa INSTITUTE OF ENERGY PROFESSIONALS AFRICA NPC

PQRS Accredited Solar PV Training

AREP ASSOCIATION FOR RENEWABLE ENERGY PRACTITIONERS

BESS

Course Outcomes

- Design aspects in commercial & industrial (C&I) design and installation
- Practical HV installation and commissioning tips
- Fault finding, switching and response solutions during commissioning
- Standards and regulations relevant to C&I

Course Structure:

- Virtual with trainer access for Q&A
- 2-full days training

Course Outline

1. Introduction to batteries
   - LV to HV modular vs single units
   - HV BMSs and controllers

2. Battery energy storage hazard types
   - Mitigation of energy storage risks and hazards safety codes and standards with a focus on fire hazards
   - HV inverters, specifications and change-over devices

3. Supplementing with solar
   - Temperature co-efficient, sizing modules
   - Using the internal MPPT's
   - AC coupled systems
   - Micro inverters

4. Genset integration through connecting and operating

5. Portal and firmware setup and communications

6. Case studies

7. Commercial/industrial BESS design and construction

8. Power security
   - Peak shaving
   - Financial and economic modelling arbitrage
   - Payback periods
   - Tax incentives
   - Financing
   - Diesel savings

Delegate Profile

- Electricians and Electrical Contractors
- Electrical engineers and technicians involved in PV & battery system design
- Solar PV installers and EPC contractors
- Energy consultants and project developers
- Facility and operations managers
- Distributors, suppliers, and technical sales teams
- Continued professional development for Practitioners, Registered Professionals, ECSA registered engineers and technicians and AEE Certified Professionals