ENERGY STORAGE + MICROGRID TRAINING + CERTIFICATION

ESAMTAC

Energy storage industry stakeholders have identified the need for a nationwide contractor network that has certified expertise in the safe and effective installation, commissioning, maintenance, retrofitting, and decommissioning of energy storage and microgrid equipment and systems.

The ESAMTAC initiative, led by Penn State University, is a non-profit national training and certification program based on standards and codes developed and/or approved by the National Fire Protection Association (NFPA), National Electrical Installation Standards (NEIS), National Electrical Code (NEC) and American National Standards Institute (ANSI). ESAMTAC is supported by industry contributions and by the National Science Foundation.

40+ GW energy storage per year installed globally by 2022

Training and Certification for Electricians ans Electrical Contractors!

Our Partners

PennState

GridSTAR Smart Grid Experience Center

ANSI American National Standards Institute

nec®

NFPA®

NEIS National Electrical Installation Standards

Energy Storage and Microgrid Training and Certification (ESAMTAC)

ESAMTAC is a non-profit, brand neutral, education and training program that prepares electricians and electrical contractors for the safe and effective assembly, testing, commissioning, maintenance, repair, retrofitting, and decommissioning of energy storage and microgrid systems. The course develops knowledge and skills with an emphasis on energy storage and microgrid components, and includes a comprehensive examination. Successful graduates are awarded an ESAMTAC credential.

For more information please visit: **www.esamtac.com**

Course Modules

1: Business Drivers for Energy Storage and Microgrid Systems
2: Distributed Energy Generation Systems
3. Enegry Storage Systems and Componants
4: Battery Safety
5: DC Theory, Grounding and Meters
6: ESM Control and Communication Systems
7: ESM Assembly Methods and Safety
8: Battery Enclosures, Rack Components and Requirements
9. Installation of Batteries into Racks and Enclosures
10. Connections Between Batteries
11. DC Devices, Conductors and Connections

Course Hands-on Labs

4.1: PPE Selection and Usage for Wet Cell Battery Measurements
5.1: Wet Cell Inspection
5.2: Wet cell Electrolyte Testing
6.1: Site Analysis and Method of Procedure MOP
6.2: PPE Selection for Battery Energy Storage Systems
9.1: PPE Usage for Battery Energy Storage Systems
9.2: PPE Selection for Energy Storage and Microgrid Systems
9.3: PPE Usage for Energy Storage and Microgrid Systems
10.1 Making Inter-Cell and Inter-Battery Cables (Jumpers)
10.2: Making Wet-Cell Intercell Connections
10.3: Connecting Batteries (Cell), Checking Polarities and Voltages
11.1: Making Intertier and Intercomponent Cables (Jumpers)
11.2: Method of Procedure for Multi-Array Battery Installation
11.3: Comprehensive Selection and Usage of PPE for Battery Energy Storage Systems