

BESS Tech 1

Certification Overview

The ACP Workforce Certifications Program is an industry-developed certification framework developed in collaboration with industry leaders to establish aligned, portable, and competency-based certifications for clean energy technicians. ACP currently offers certifications for Wind Tech 1, Solar Tech 1, and Battery Energy Storage System (BESS) Tech 1.

Core Competencies

The BESS Tech 1 Certification tests competency in:

- Basic safety
- Basic system theory and operation
- Electrical, mechanical, and hydraulic fundamentals
- Visual inspection and maintenance
- Proper care and usage of personal protective equipment (PPE) and technical tooling
- Record keeping and documentation

Scenarios

General equipment needed to perform this assessment includes PPE, general tools (e.g., torque wrench, screwdriver and hand tools), mechanical assists for lifting, tools for inspection (e.g., IR camera, multimeter, torque wrench, lifting devices), cleaning materials and documentation materials.

Scenario 1: Battery Enclosure Inspections

Pre-Work Preparations

1. Demonstrate Pre-Work Tasks

Inspections

2. Inspect Enclosure
3. Inspect Battery Modules.

Cleaning

4. Clean Enclosure and Battery Area
5. Inspect Cooling and Fire Protection Systems

Post-Work Review

6. Communicate Work Completion

Scenario 2: Cooling Fan or Pump Replacement

Pre-Work Preparation

1. Demonstrate pre-work tasks

Replacement

2. Identify and Verify Spare Part
3. Safe Lifting, Movement, and Handling
4. Install Replacement Fan or Pump
5. Verify Cooling System Operation

Post-Work Review

6. Communicate Work Completion

Scenario 3: Climate Control Systems Maintenance

Pre-Work Preparation

1. Demonstrate pre-work tasks

Inspection

2. Cooling System Inspection
3. Enclosure Sensor Inspection (Temperature, Humidity, Pressure)
4. Control Enclosure Inspection (Security, Fire Protection, Wiring)

Post-Work Review

5. Communicate work completion

About the ACP Institute of Safety, Workforce, and Operational Performance

The American Clean Power Association (ACP) is the leading voice of today's multi-tech clean energy industry, representing companies across wind, solar, battery energy storage (BESS), and other large-scale clean energy technologies. The Institute of Safety, Workforce, and Operational Performance (ISWOP) integrates standards development and certification operation into a unified function that supports workforce competency, safety, and operational excellence across the sector.

Learn more, visit CleanPower.org/workforce-training-and-education.