

The U.S. Department of Energy (DOE) and the National Institute of Building Sciences (NIBS) have worked with industry stakeholders to develop the Better Buildings Workforce Guidelines (BBWG), voluntary national guidelines that will improve the quality and consistency of commercial building workforce credentials for four key energy-related jobs.

Improving Building Performance

Improving the operational performance of the nation’s offices, schools, hospitals, and other commercial buildings offers significant energy savings. It also requires highly skilled and qualified workers, particularly as building technologies become more advanced. Through the Better Buildings Workforce Guidelines, industry now has a national framework from which to develop high-quality and nationally recognized training and certification programs, which helps address consistency, quality, and scalability issues in the commercial energy efficiency workforce.

DOE and NIBS have engaged the commercial buildings industry to establish the job-driven competency requirements for four commercial-building, energy-related job titles. A fifth commercial-building job title, the Federal Facility Manager, was approached with a focus on supporting DOE and General Services Administration (GSA) requirements under the Federal Buildings Personnel Training Act. Industry training and certification providers may opt to use the guidelines to upgrade or modify their programs or to develop new ones. Such providers can also expand on the core competency requirements established in the BBWG.

Better Credentials for a Better Workforce

The BBWG reduce the confusion and uncertainty around workforce credentialing.

- ▶ Credentials can now be built on a clear set of industry-developed guidelines.
- ▶ New and experienced professionals will better understand their training and certification options and can seize opportunities to improve their technical skills.
- ▶ Employers, building owners, government officials, and program administrators across the country can use the guidelines to identify skilled and qualified workers.

The National Institute of Building Sciences—a congressionally authorized nonprofit organization and respected building industry convener—facilitated the guidelines development process and formed an industry stakeholder group, the Commercial Workforce Credentialing Council (CWCC), that leads development and implementation of the BBWG.

Industry groups receive the following benefits from the BBWG project:

- ▶ **Certification programs**—Recognized by DOE as accredited programs that meet high-quality industry guidelines
- ▶ **Employers and building owners/managers**—Objective way to identify high-quality certification programs that train skilled and qualified workers
- ▶ **Governments and utility programs**—Objective criteria for specifying workforce certification requirements for contracts on government buildings or for contractors participating in incentive or ratepayer-funded programs.
- ▶ **Workers**—Transparency in the training and certification market; clearer professional development pathways; increased skills and greater mobility.

Commercial Building Workforce Credentials	
Job Titles	Job Descriptions
Building Energy Auditor	The Commercial Building Energy Auditor is an energy solutions professional who assesses building systems and site conditions, analyzes and evaluates equipment and energy usage, and recommends strategies to optimize building resource use.
Building Commissioning Professional	The Building Commissioning Professional leads, plans, coordinates, and manages a commissioning team to implement commissioning processes in new and existing buildings.
Energy Manager	The Energy Manager is responsible for managing and continually improving energy performance in commercial buildings by establishing and maintaining an energy program management system that supports the mission and goals of the organization.
Building Operations Professional	The Building Operations Professional manages the maintenance and operation of building systems and installed equipment, and performs general maintenance to maintain the building’s operability, optimize building performance, and ensure the comfort, productivity, and safety of the occupants.

Facilitating a Successful Process

DOE provided leadership and funding for the BBWG project and relied on NIBS to convene industry subject matter experts to develop the technical content. DOE will also recognize credentialing programs that implement the guidelines and achieve third-party accreditation, to help provide a way for these programs to distinguish themselves in the market.

Engaging Industry Expertise

For each job title, a committee of subject matter experts developed an industry-validated job task analysis (JTA), outlining key duties, tasks, knowledge, skills, and abilities. Based on the JTA, each committee then developed complete guidelines.

- ▶ **For competency-based professional certifications**, the guidelines consist of validated JTAs along with certification schemes identifying eligibility criteria and prerequisites, exam structures, recertification requirements, and other elements. Qualified industry certification bodies can use these guidelines to develop written and performance-based assessments, write test questions, screen candidates, administer examinations, and confer a nationally recognized professional certification.
- ▶ **For assessment-based certificate programs**, certificate program providers can use these guidelines to inform curriculum development and approaches to instructional delivery, and to measure whether learning objectives are being met. Content outlines and learning objectives are being developed from the validated JTA and will be released by summer 2015 to support training programs.
- ▶ **Third-party accreditation** is the final component of the guidelines, required for DOE recognition.

Aligning With Other Federal Efforts

The guidelines were developed in close coordination with the U.S. Department of Labor's Office of Apprenticeship, the U.S. Department of Education's Office of Vocational and Adult Education, and the GSA's Office of Federal High Performance Green Buildings. Guidelines will assist federal agencies, and contractors serving them, in the successful implementation of the Federal Buildings Personnel Training Act, and the Veterans Skills to Jobs Act. Federal agencies can use the BBWG as their criteria for identifying qualified contractors to perform energy-related activities, such as whole-building commissioning, energy auditing, and maintenance on federal buildings.

Project Outcomes

Certification and certificate program providers can adopt the BBWG. These guidelines enable them to develop new or revised credentials that are high quality, industry endorsed, and nationally recognized by DOE.

The Better Buildings Workforce Guidelines can be implemented in certificate programs or personnel certification programs.

Certificate programs accredited to the standard Interstate Renewable Energy Council (IREC) 14732 *General Requirements for Renewable Energy & Energy Efficiency Certificate Programs* are typically referred to as assessment-based certificate programs. The candidate pursues a course of study, and must pass one or more assessments (exams or tests) to earn the certificate. The training provider provides the assessments, which are intended to evaluate proficiency in the learning objectives. After passing the assessment(s), the certificate holder is not required to complete continuing education or retest to maintain the certificate.

By contrast, personnel certification programs accredited to the International Organization for Standardization (ISO)/International Electrotechnical Commission (IEC) 17024: *Conformity assessment — General requirements for bodies operating certification schemes for persons* require that the training and testing be independent. The certifying body develops and delivers the assessment, and a third party provides training. The assessment evaluates competence in the subject matter of the certification. Certification programs also typically include continuing education requirements.

Achieving independent third-party accreditation is similar for prospective certificate or personnel certification bodies. The bodies are required to provide evidence that they are meeting the provisions of the standard against which they are offering accreditation.

For more information on the Better Buildings Workforce Guidelines, how to get involved, and to sign up for project updates, please visit <http://energy.gov/betterbuildings/workforce>. The guidelines project is part of DOE's Better Buildings Initiative, whose goal is to make our nation's buildings more energy efficient and accelerate private sector investment in energy efficiency.