



Australian Government

Assessment Requirements for CPCUS5003 Manage energy efficient building methods and strategies

Release: 2

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Modification History

- Release 2 Updated reference to general construction induction training program.
- Release 1 This version first released with CPC Construction, Plumbing and Services Training Package Release 5.0.
- Supersedes and equivalent to CPCSUS5003A Manage energy efficient building methods and strategies. Updated to meet the Standards for Training Packages 2012.

Performance Evidence

To demonstrate competency, a candidate must meet the elements and performance criteria of this unit by managing energy efficient building methods and strategies for two building and construction projects:

- one residential - Class 1 or 10 to a maximum of two storeys
- one commercial - Class 2 to 9, Type B or C.

In doing this, the candidate must:

- prepare costing of energy efficient materials, products and labour
- prepare a project schedule with techniques and strategies, products and time lines to communicate to stakeholders and on-site tradespeople
- determine processes for minimising, reusing or reclaiming waste.

Knowledge Evidence

To be competent in this unit, a candidate must demonstrate knowledge of:

- building science principles and their application for improved energy efficiency
- environmental and sustainability legislation, requirements, policies, standards and guidelines
- Environment Protection and Biodiversity Conservation Act
- government building and environmental requirements, codes and standards
- the National Construction Code (NCC)
- organisational policies and procedures, quality systems and best practice approaches
- properties, characteristics and limitations of approved building materials and component:
 - structural insulated panels
 - glazing
 - thermal mass

- impacts on materials and products used in different climate zones and environmental conditions
- processes, procedure and techniques of:
 - building methods and installation of products
 - evaluating energy efficiencies in buildings
 - sealing the building envelope
- sustainability principles and concepts
- approaches to waste management consistent with principles of energy efficiency:
 - processes for minimising, reusing, recycling and recovering waste materials
- workplace safety:
 - hierarchy of control
- project plans, specifications and working drawings
- general construction terminology
- benchmarks to meet standards and rating systems for energy efficiency, such as:
 - Green Star requirements
 - WELL buildings
 - Passive House
- techniques which support energy efficiency:
 - protecting the air barrier by minimising and sealing gaps using advanced framing techniques to increase construction productivity, reduce thermal bridging and increase operational energy efficiency
 - installing insulation on the outside of the frame and in the roof, walls and floor
 - reducing the effect of thermal bridging
 - selecting appropriately sized heating, ventilation and air conditioning (HVAC) system, which considers the tightness of the structure and incorporates heat or energy recovery systems as appropriate for ventilation
 - using air or vapour barriers to ensure the entire building envelope is sealed, separating the inside environment from the outside
 - using thicker insulation to improve the building's thermal performance.

Assessment Conditions

Assessors must meet the requirements for assessors contained in the Standards for Registered Training Organisations.

Assessment can be undertaken in the workplace or in a simulated workplace environment.

A simulated environment is one that realistically replicates workplace conditions, materials and equipment, interactions with others and workplace irregularities, and which meets industry standards for safety and environmental practices.

Candidates must have access to:

- current and appropriate building, environmental and sustainability legislation, requirements, policies, standards, guidelines and accreditation/certification requirements

- Australian Standards and building industry codes of practice
- project plans, specifications and manufacturer's product and installation specifications
- business equipment, technology, applications and software systems for recording and filing documentation, researching, extracting, analysing and presenting information, interpreting performance data and developing documents and reports.

Links

Companion volumes to this training package are available at the VETNet website - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=7e15fa6a-68b8-4097-b099-030a5569b1ad>