



Australian Government

**Assessment Requirements for CPCUS5002
Develop action plans to retrofit existing
buildings for energy efficiency**

Release: 1

Assessment Requirements for CPCUS5002 Develop action plans to retrofit existing buildings for energy efficiency

Modification History

Release 1 This version first released with CPC Construction, Plumbing and Services Training Package Release 5.0.

Supersedes and equivalent to CPCUS5002A Develop action plans to retrofit existing buildings for energy efficiency. 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 developing an action plan to retrofit and improve the energy efficiency of an existing residential or commercial building up to a maximum of three storeys.

In doing this, the candidate must:

- determine class, type, condition and use of a building
- produce energy efficiency comparison of an existing building and retrofitted building
- produce costing, timelines and products and materials for the retrofit project
- source applications for permits and service connections
- identify limitations and obstacles to retrofit and determine solutions
- develop a process for project risk management.

Knowledge Evidence

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

- building science principles and their application to the retrofitting of existing buildings for improved energy efficiency
- environmental and sustainability legislation, requirements, policies, standards and guidelines:
 - environmental protection
 - biodiversity conservation
- national, state and territory and local government building codes and standards
- the National Construction Code (NCC)
- organisational policies and procedures, quality systems and best practice approaches
- addressing retrofitting expectations and benefits:
 - improved levels of comfort for the occupants
 - increased air changes per hour to improve indoor air quality

- increased durability of the building
- potential for improved return on investment
- reduction in and prevention of mould
- reduction in heating and cooling costs
- fire resistance and resistance from bushfire attack
- risks of retrofitting:
 - budget constraints
 - condition of existing building
 - local council planning provisions
 - land overlays and requirements relating to neighbourhood character
 - orientation of the existing building
 - original design and construction of existing building
 - position of existing services to the building
 - presence of protected vegetation adjacent to existing building
 - protection of existing building under heritage listing
 - proximity of other buildings or structures
 - sealing the building envelope:
 - air pressure differentials
 - combustion
 - moisture and mould
 - poor indoor air quality
- properties, characteristics and limitations of selected building materials and components
- processes, procedure and techniques of:
 - energy assessment to develop energy efficient strategies
 - calculating using measurements and formulas
- retrofitting strategies:
 - light fittings
 - smart technology or motion sensors
 - insulation
 - sealing building envelope
 - solar photovoltaic systems
 - energy sources
- sustainability principles and concepts
- workplace safety:
 - hierarchy of control
 - hazardous manual tasks
 - working at heights
- project plans, specifications and working drawings
- general construction terminology.

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 environmental and sustainability legislation, requirements, policies, standards and guidelines
- government building and environmental requirements, codes and standards
- project plans, specifications and material manufacturer's specifications
- technology, applications and software systems for researching, extracting, analysing and presenting information, interpreting data and developing documents and reports to facilitate the development of an action plan to retrofit an existing building for energy efficiency.

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>