



**Australian Government**

# **ICT20613 Certificate II in National Broadband Network Construction**

**Release 2**

## ICT20613 Certificate II in National Broadband Network Construction

### Modification History

| Release   | Comments                                                                                                                                                   |
|-----------|------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Release 2 | <p>This version first released with <i>ICT10 Integrated Telecommunications Training Package Version 3.0</i>.</p> <p>Units updated to current versions.</p> |
| Release 1 | <p>This qualification first released with <i>ICT10 Integrated Telecommunications Training Package Version 2.0</i>.</p>                                     |

## Description

This qualification has been designed as a pathway for entry into work on the National Broadband Network (NBN).

This qualification provides the skills and knowledge required to enhance entry-level employment prospects in apprenticeships and traineeships in a range of NBN industry occupations specifically for the national rollout of high speed broadband network infrastructure.

In conjunction with safe working practices, one of two specialist streams is to be undertaken as described:

### ***Telecommunications linesworker***

This stream reflects the role of operators in performing cable and infrastructure work underground. This involves safe civil and construction work in site preparation, building of enclosures, installing mounting brackets, hauling of underground cables and providing traffic management. It also reflects the role of operators in performing work safely aboveground to install fibre or metallic aerial cable and infrastructure. These will also include installation of aerial lead-in cables to customer premises.

### ***Telecommunications installer***

This stream reflects the role of operators in performing equipment and system installation work on customer network to enable efficient access and interconnection to the NBN services. This includes diagnosing and rectifying cable system faults to maximise benefits of the high speed broadband connection.

## Job roles

Job roles and titles are dependent on the stream completed, possible job titles relevant to a pathway for this qualification include:

- telecommunications linesworker
- telecommunications broadband network installer.

## **Pathways Information**

### **Pathways into the qualification**

Candidates may enter this qualification with limited or no vocational experience and without a relevant lower level qualification.

### **Pathways from the qualification**

After achieving the ICT20613 Certificate II in National Broadband Network Construction, candidates may undertake the ICT30713 Certificate III in National Broadband Network Construction, a qualification for those seeking to develop more specialised technical skills and knowledge, or a range of other Certificate III qualifications.

## **Licensing/Regulatory Information**

The completion of unit ICTWHS2170B, ICTWHS2170A or ICTOHS2170A and the unit set of ICTCBL2136B and ICTCBL2137B meets the ACMA requirements for Cabling Provider Rules (CPR) open registration.

All training programs are undertaken with reference to the regulatory regime of the prevailing statutory authority (currently ACMA).

### **National Code of Practice for Induction for Construction Work**

Much of the NBN cabling and installation work falls within the definition of construction work in a cable provisioning construction site. If so, anyone entering the construction site is required to complete the general induction training program specified by the National Code of Practice for Induction Training for Construction Work (Australian Safety Compensation Council, May 2007).

Achievement of the unit CPCCOHS1001A Work safely in the construction industry from the CPC08 Construction, Plumbing and Services Training Package as part of the core group of this qualification, fulfils this requirement.

Note: ICTOHS2153A Work safely near power infrastructure should be included in the qualification packaging where there is a likelihood of working near power infrastructure. If state or territory law requires a licence to operate an elevated work platform (EWP), TLILIC2005A Licence to operate a boom-type elevating work platform (boom length 11 metres or more) should be completed concurrently with ICTOHS2153A.

### **Volume of learning**

The volume of learning of a Certificate II is typically 0.5 – 1 year.

## Entry Requirements

There are no entry requirements for this qualification.

## Employability Skills Summary

| Employability skill | Industry/enterprise requirements for this qualification include:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
|---------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Communication       | <ul style="list-style-type: none"> <li>communicating benefits of high speed broadband to community for successful NBN rollout</li> <li>notifying any safety aspects to supervisor</li> <li>conducting and communicating traffic management instructions for improved public safety</li> <li>documenting test methods and results</li> <li>completing cable and equipment labelling and cable records</li> <li>conveying information to clients, colleagues and other site personnel</li> <li>completing job reports and compliance forms</li> <li>interpreting plan as a set of basic functions to be implemented</li> <li>confirming approval for time and method of site access with customers</li> <li>documenting and communicating work-related information, including reporting of faults and problems</li> </ul> |
| Teamwork            | <ul style="list-style-type: none"> <li>continually fostering effective teamwork for effective NBN rollout</li> <li>identifying members and roles of team between management and workforce, between aerial and underground teams and between installation and testing teams</li> <li>working with team members to work with clients and provide service</li> <li>relating personal role to the industry</li> <li>participating in a team structure by identifying team members, tasks and goals and recognising and responding positively to conflict</li> <li>applying interpersonal skills with clients, employer, supervisors, work associates, team members and other contractors</li> <li>giving and receiving feedback to assist in meeting team and organisation goals</li> </ul>                                 |
| Problem solving     | <ul style="list-style-type: none"> <li>ranking sequences of operations from site preparation to cabling to ensure a methodical and effective approach to NBN rollout</li> <li>identifying barriers to installation and developing strategies to overcome them within time and budget restrictions</li> <li>determining cable routes taking into account building services, safety, industry codes and practices, and customer</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                |

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|---------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                           | <p>requirements</p> <ul style="list-style-type: none"> <li>• following up promptly on difficulties and known problem areas</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| Initiative and enterprise | <ul style="list-style-type: none"> <li>• identifying barriers to installation and developing strategies to overcome them within time and budget restrictions</li> <li>• continually suggesting ways for improving practices to suit specific site of NBN infrastructure rollout</li> <li>• prioritising urgent requests and acting according to organisational guidelines</li> <li>• adapting plan to suit specific features of site</li> <li>• identifying issues and possible solutions within established guidelines</li> </ul>                                                                                                                                                                                                                        |
| Planning and organising   | <ul style="list-style-type: none"> <li>• developing NBN rollout plans to ensure minimal disruption to the workplace and the public</li> <li>• identifying realistic short and long-term career objectives</li> <li>• planning and provisioning to meet key milestones</li> <li>• gathering data for the installation of cable systems and NBN specific equipment</li> <li>• planning the installation of fibre cable, taking into account technical, scheduling and financial considerations</li> <li>• interpreting design and relating to site characteristics</li> <li>• prioritising work according to organisation guidelines</li> </ul>                                                                                                             |
| Self-management           | <ul style="list-style-type: none"> <li>• identifying and setting realistic short and long-term career objectives</li> <li>• managing personal time to assist effective rollout</li> <li>• identifying work to be completed</li> <li>• checking that tools and equipment are in safe working order and comply to manufacturer specification</li> <li>• personally applying all related OHS requirements and work practices, including job safety analysis (JSA), protective clothing and personal safety items</li> <li>• relating own role to the industry and establishing own work schedule</li> <li>• using strategies to present a professional image to customers</li> <li>• interpreting and applying relevant regulations and standards</li> </ul> |
| Learning                  | <ul style="list-style-type: none"> <li>• learning from previous experiences in order to improve future practices in NBN rollout</li> <li>• learning of methodologies of fibre splicing and adapting to current practices</li> <li>• giving and receiving feedback to assist in meeting team and organisation goals</li> <li>• making clients aware of opportunities that exist with higher broadband speed offered by NBN and offering training information on upgrades and additional services</li> </ul>                                                                                                                                                                                                                                                |

|            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
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|            | <ul style="list-style-type: none"><li>• seeking assistance from team members when necessary</li><li>• providing suitable training and assessment opportunities for work team members on NBN technologies by equipment suppliers</li><li>• providing training to customers on system, product, product features and facilities</li><li>• relating current or intended role to career objectives in a positive manner</li></ul>                                                                                                                                                                                                                                       |
| Technology | <ul style="list-style-type: none"><li>• familiarising with new fibre technologies for NBN deployment</li><li>• ensuring that range of technologies (optical &amp; radio) used in NBN infrastructure rollout are effectively and efficiently deployed to manufacturers specifications</li><li>• checking that advanced tools and equipment are in safe working order and adjusted to manufacturer specifications</li><li>• testing and measuring of broadband network infrastructure</li><li>• installing, configuring and operating NBN optical and radio equipment and products</li><li>• identifying, replacing or repairing faulty parts and equipment</li></ul> |

## Packaging Rules

**Total number of units = 12**

**7 core units *plus***

**5 elective units, *of which*:**

- **3 units must be from Group A Telecommunications linesworker or Group B Telecommunications broadband network installer**
- **2 units must be from Group C General elective units or from elsewhere in this Training Package, another Training Package or accredited course at Certificate II or III level.**

Elective units chosen must be relevant to the work and industry context for project practice.

This qualification meets the requirements for the NBN infrastructure rollout and has been developed for specific occupational outcomes. Due to the specialised technical nature of the work, there is provision for choice of specialisation streams but there is no allowance for substitution of elective units in the specialised group. However, the two elective units from Group C can be selected to meet relevant national broadband work outcome and local industry requirements

### Core units

CPCCOHS1001A Work safely in the construction industry

ICTCBL2064A Haul underground cable

ICTCBL2065B Splice and terminate optical fibre cable for carriers and service providers

ICTCBL2163A Install a cable lead-in

ICTTEN2008A Use electrical skills in telecommunications work

ICTWHS2170B Follow work health and safety and environmental policies and procedures

ICTWOR2141A Work effectively in a telecommunications technology team

### Elective units

#### Group A Telecommunications linesworker

ICTCBL2131A Install an above ground equipment enclosure

ICTCBL2133A Construct underground telecommunications infrastructure

ICTCBL2134A Fix aerial cable

#### Group B Telecommunications broadband network installer

ICTBWN3090B Install lead-in module and cable for fibre to the premises

ICTCBL2136B Install, maintain and modify customer premises communications cabling:

ACMA Restricted Rule

ICTCBL2137B Install, maintain and modify customer premises communications cabling:

ACMA Open Rule

ICTCMP2239B Perform restricted customer premises broadband cabling work: ACMA Restricted Rule

**Group C General elective units**

BSBSUS201A Participate in environmentally sustainable work practices

HLTAID001 Provide cardiopulmonary resuscitation

HLTAID003 Provide first aid

ICTOHS2153B Work safely near power infrastructure

ICTTEN2219A Install and test an internet protocol device in convergence networks

ICTTEN2140B Use hand and power tools

TLILIC2005A Licence to operate a boom-type elevating work platform (boom length 11 metres or more)

**Prerequisite Units**

*The following unit in this qualification has the prerequisite unit detailed below.*

| <b>Code and title</b>                                                                             | <b>Prerequisite unit required</b>                                                                       |
|---------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------|
| ICTCBL2137B Install, maintain and modify customer premises communications cabling: ACMA Open Rule | ICTCBL2136B Install, maintain and modify customer premises communications cabling: ACMA Restricted Rule |
| ICTCMP2239A Perform restricted customer premises broadband cabling work: ACMA Restricted Rule     | ICTCBL2136B Install, maintain and modify customer premises communications cabling: ACMA Restricted Rule |