Australian Government

ICT30713 Certificate III in National Broadband Network Construction

Release 2

INDUSTRY SKILLS COUNCILS
Creating Australia's Future

ICT30713 Certificate III in National Broadband Network Construction

Modification History

Release	Comments
Release 2	This version first released with *ICT10 Integrated Telecommunications Training Package Version 3.0.* Units updated to current versions.
Release 1	This qualification first released with *ICT10 Integrated Telecommunications Training Package Version 2.0.*

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Description

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

This qualification provides students with skills and knowledge to enhance employment prospects in apprenticeships and traineeships in a range of specialised NBN industry occupations specifically for the national rollout of the high speed broadband infrastructure.

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

Telecommunications linesworker/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 complex cable system faults to maximise benefits of the high speed broadband connection.

Telecommunications Fibre Splicer

This stream reflects the role of operators in applying optical fibre handling skills to splicing, testing and fault finding on live fibre cable in the fibre distribution network for NBN.

Job roles

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

- Telecommunications installer
- Broadband network linesworker
- Broadband network fibre splicer
- Telecommunications customer network cable installer.

Pathways Information

Pathways into the qualification

Preferred pathways for candidates considering this qualification include:

- after achieving the ICT20613 Certificate II in National Broadband Network Installation or equivalent qualification from this or another endorsed Training Package or endorsed course

or

- with substantial vocational experience but without a formal qualification.

Pathways from the qualification

After achieving the ICT30713 Certificate III in National Broadband Network Construction, candidates seeking to develop more specialised technical skills and knowledge, may select from a range of Certificate IV qualifications in the ICT10 Integrated Telecommunications Training Package.

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 installation work falls within the definition of construction work in the context of infrastructure provisioning. 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 III is typically 1-2 years.

Up to 4 years may be required to achieve the learning outcomes through a program of indentured training/employment.

Entry Requirements

There are no entry requirements for this qualification.

Employability Skills Summary

Employability skill	Industry/enterprise requirements for this qualification include:
Communication	• communicating benefits of high speed broadband to community for successful NBN rollout • notifying any safety aspects to supervisor • documenting test methods and results • completing cable and equipment labelling and records in cabinets and distribution hubs • interpreting plan as a set of basic functions to be implemented • conveying information to clients, colleagues and other site personnel • completing job reports and compliance forms • communicating with customers to arrange time and access for the installation of systems and equipment • documenting and communicating work-related information, including reporting of faults and problems • providing feedback to customers on operating the equipment
Teamwork	• continually fostering effective teamwork for effective NBN rollout • identifying members and roles of team between management and workforce, between cable and network equipment teams and between installation and testing teams • participating in a team structure by identifying team members, tasks and goals and recognising and responding positively to conflict • working with team members to work with clients and install equipment • relating personal role to the industry • applying interpersonal skills with clients, employer, supervisors, work associates, team members and other contractors • giving and receiving feedback to assist in meeting team and organisation goals
Problem solving	• ranking sequences of operations from planning to site preparation to cabling to equipment installation in order to ensure a methodical and effective approach to NBN rollout • working out contingencies in event of problems arising • ensuring compatibility of technologies deployed by NBN rollout

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	• identifying barriers to installation and developing strategies to overcome them within time and budget restrictions • identifying faults or optimisation options • rectifying faults and adjusting system to optimal operation • determining cable routes taking into account building services, safety, industry codes and practices, and customer requirements • following up promptly on difficulties and known problem areas • ranking likely causes of fault in order of probability to ensure a methodical approach to fault identification
Initiative and enterprise	• continually suggesting of ways for improving practices to suit specific site of NBN infrastructure rollout • prioritising urgent requests and acting according to organisational guidelines • identifying barriers to installation and developing strategies to overcome them within time and budget restrictions • adapting plan to suit specific features of site • identifying issues and possible solutions within established guidelines
Planning and organising	• preparing project specifications for deployment of NBN access network • organising work schedules for deployment of access network architectures • developing NBN rollout plans to ensure minimal disruption to the workplace and the public • identifying realistic short and long-term career objectives • planning and provisioning to meet key milestones • gathering data for the installation of systems and equipment • developing a plan for the recovery of equipment from customer premises • planning the installation of ribbon fibre cable, taking into account technical, scheduling and financial considerations • interpreting design and relating to site characteristics • prioritising work according to organisation guidelines
Self-management	• managing personal time to assist effective rollout • identifying work to be completed • identifying and setting realistic short and long-term career objectives • developing installation plans to ensure minimal disruption to the workplace • checking that tools and equipment are in safe working order and adjusted to manufacturer specification

	• personally applying all related OHS requirements and work practices, including job safety analysis (JSA), protective clothing and personal safety items • relating own role to the industry and establishing own work schedule • using strategies to present a professional image to customers • interpreting and applying relevant regulations and standards
Learning	• learning from previous experiences in order to improve future practices in NBN rollout • learning of methodologies of new ribbon fibre splicing and adapting to current practices • assessing customer's expertise and training needs and conducting training in the use of systems and equipment • making clients aware of opportunities that exist for with higher broadband speed offered by NBN and offering training • seeking assistance from team members when necessary • giving and receiving feedback to assist in meeting team and organisation goals • seeking assistance from team members when necessary • providing suitable training and assessment opportunities for work team members on NBN technologies by equipment suppliers • providing training to customers on system, product, product features and facilities • relating current or intended role to career objectives in a positive manner
Technology	• familiarising with new ribbon fibre technologies for NBN deployment • ensuring that range of technologies used in NBN infrastructure rollout are effectively and efficiently deployed to manufacturers specifications • checking that advanced tools and equipment are in safe working order and adjusted to manufacturer specifications • testing and measuring of broadband network infrastructure • installing, configuring and operating NBN equipment and products • identifying, replacing or repairing faulty parts and equipment • ensuring compatibility and interoperability between newly deployed NBN infrastructure and existing customer network • providing solutions for improved compatibility

	• identifying, replacing or repairing faulty parts and equipment

Packaging Rules

Total number of units = 14
9 core units *plus*
5 elective units, *of which*:

- **2 units must be from Group A Linesworker/installer or Group B Fibre splicer**
- **3 units from Group C General elective units or** from elsewhere in this Training Package, another Training Package or endorsed course at Certificate II, III or IV 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 but there is no allowance for substitution of elective units in the specialised group. However, remaining elective units from Group C can be selected to meet relevant work outcome, local industry requirements and the qualification level.

Core units

CPCCOHS1001A Work safely in the construction industry
ICTBWN3088B Install optical fibre splitters in fibre distribution hubs
ICTBWN3205B Use optical and radio frequency measuring instruments
ICTCBL2065B Splice and terminate optical fibre cable for carriers and service providers
ICTCBL3018A Install underground enclosures and conduit
ICTTEN2008A Use electrical skills in telecommunications work
ICTTEN3056A Install telecommunications network equipment
ICTWHS2170B Follow work health and safety and environmental policies and procedures
ICTWOR3127A Supervise worksite activities

Elective units

Group A Linesworker/installer

ICTBWN3090B Install lead-in module and cable for fibre to the premises
ICTCBL3019A Install underground cable

Group B Fibre splicer

ICTBWN3100B Work safely with live fibre to test and commission a fibre to the x installation
ICTCBL3240B Install ribbon fibre cable in the FTTX distribution network

Group C General elective units

BSBSUS201A Participate in environmentally sustainable work practices
HLTAID001 Provide cardiopulmonary resuscitation

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

ICTCBL2131A Install an above ground equipment enclosure

ICTCBL2133A Construct underground telecommunications infrastructure

ICTCBL2134A Fix aerial cable

ICTCBL2136A Install, maintain and modify customer premises communications cabling: ACMA Restricted Rule

ICTCBL2137B Install, maintain and modify customer premises communications cabling: ACMA Open Rule

ICTCBL2162B Install a cable lead-in

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

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 units in this qualification have the prerequisite units detailed below.

Code and title	Prerequisite units required
ICTCBL3240B Install ribbon fibre cable in the FTTX distribution network	ICTCBL2065B Splice and terminate optical fibre cable for carriers and service providers
ICTCBL2137B Install, maintain and modify customer premises communications cabling: ACMA Open Rule	ICTCBL2136B Install, maintain and modify customer premises communications cabling: ACMA Restricted Rule
ICTCMP2239B Perform restricted customer premises broadband cabling work: ACMA Restricted Rule	ICTCBL2136B Install, maintain and modify customer premises communications cabling: ACMA Restricted Rule