



## **National Certificate in Electricity Supply**

### **Optional strands:**

Electrical  
Electrical Fitter  
Line Mechanic

level of qualification: 2

credit total: 50

### **Purpose and content of the National Certificate**

#### **Purpose:**

This National Certificate is an introductory qualification for people working in the electricity supply industry. It combines a broad, common foundation of electricity supply skills, with additional specialist skills and knowledge in the form of optional strands to suit the nature of particular trades or enterprises. The compulsory section of the qualification includes standards relating to the protection of personal safety and health, general knowledge of the electricity supply industry, communication skills, and basic work-based skills. The optional strands contain standards chosen to match the range of work available in an apprentice's enterprise.

#### **Content:**

#### **Compulsory unit standards**

##### **work and study skills**

		level	credit
1978	Identify basic employment rights and responsibilities, and sources of information and assistance	1	2

##### **core electrical**

15848	Demonstrate knowledge of safeguards for use with portable electrical appliances	2	2
15851	Demonstrate knowledge of electrical safety and safe working practices for electrical workers	2	3

##### **core skills**

10507	Use personal protection equipment within an electricity network environment	2	4
10508	Identify electricity systems in preparation for work	2	6
12300	Demonstrate knowledge of electricity industry safety statutes and codes	2	6
17026	Demonstrate knowledge of safe entry into restricted areas in an electricity supply environment	2	6
18038	Demonstrate knowledge of and apply health and safety in the electricity supply environment	3	5
18274	Demonstrate knowledge of electricity supply networks	3	6



		level	credit
18275	Demonstrate knowledge of the New Zealand electricity supply industry	2	2
<b>core health</b>			
6401	Provide first aid	2	1
6402	Provide resuscitation	1	1
<b>interpersonal communications</b>			
1277	Communicate information in a specified workplace	2	3
9677	Participate in a group/team which has an objective(s)	2	3
<b><u>Electrical optional strand</u></b>			
<b>core electrical</b>			
750	Demonstrate knowledge of electrical test instruments and take measurements	2	2
15844	Select and install flexible cords	2	3
15845	Draw and explain simple electrical diagrams	2	4
15846	Demonstrate knowledge of capacitors and semiconductor diodes	2	3
15847	Demonstrate knowledge of mathematics and mechanics for electrical trades	2	4
15849	Perform manual soldering and de-soldering procedures for electrotechnology work	2	2
15852	Isolate and test low-voltage electrical subcircuits	2	2
25070	Explain the properties of conductors, insulators, and semiconductors and their effect on electrical circuits	2	7
25071	Demonstrate knowledge of electromotive force (e.m.f.) production	2	3
25072	Demonstrate knowledge of electromagnetism theory	2	5
<b><u>Electrical fitter optional strand</u></b>			
<b>engineering core skills</b>			
2395	Select, use and care for, engineering hand tools	2	4
2396	Select, use and maintain portable hand held engineering power tools	2	4
21912	Apply safe working practices on an engineering worksite	2	2
<b>engineering drawing and design</b>			
2430	Draw and interpret engineering sketches under supervision	2	4



		level	credit
<b>engineering machining and toolmaking</b>			
11661	Produce components by performing basic engineering drilling operations	2	8
<b>engineering – measurement</b>			
4433	Select, use, and care for simple measuring devices used in engineering	1	2
<b><u>Line mechanic optional strand</u></b>			
<b>core skills</b>			
10509	Climb and work on electricity network structures	3	6
17025	Carry out a rescue from an electrical structure	3	2
18276	Operate light lifting and rigging equipment in the electricity supply environment	2	2