

Programme Overview

Learner name:	
Company name:	

New Zealand Apprenticeship in Electrical Trade Level 4 Electricity Supply Strand

Credits	259	NZQA#	4204	Duration	42 Months
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Programme Number: **PR-40642**

How is this Programme Completed?

A combination of on-job assessment and 3 years of off job provider night classes or distance learning, are required to complete this programme.

Workbooks	On-job assessment through workbooks which are provided electronically as PDFs through the Connexis LMS.	<input checked="" type="checkbox"/>
Provider Delivery	Off-job delivery including block courses, night classes or distance learning through one of the following providers: <ul style="list-style-type: none"> • Ara • EIT • TOPNZ • Otago Polytech 	<input checked="" type="checkbox"/>

Programme Entry Requirements

You **must** be working in the electricity supply industry in a full-time apprentice electrician role and have enough exposure to gain the relevant skills covered within this programme.

You **must** hold NCEA Level 2 with Mathematics and English subject, or equivalent.

You **must** hold an EWRB Trainee Limited Certificate when starting this programme, or completed within the first three months of this programme, for your training, assessment and experience to be accepted by the EWRB for registration as an electrician.

UNIT STANDARD	CREDIT	LEVEL	NOTES		
Introductory On-job – Working Safely in the Electrical Industry					
It is recommended that the following Unit Standards are completed in the first three months:					
32605	Demonstrate knowledge for working safely in the electrical industry	6	3	Compulsory <i>Required for TLC</i>	<input checked="" type="checkbox"/>
32607	Apply knowledge of working safely in the electrical industry	8	4	Compulsory <i>Required for TLC</i>	<input checked="" type="checkbox"/>
32608	Apply knowledge of tools, fittings, and plans in the electrical industry	7	3	Compulsory	<input checked="" type="checkbox"/>
Year 1 Off Job					
32606	Demonstrate knowledge of tools, fittings, and plans in the electrical industry	5	3	Compulsory	<input checked="" type="checkbox"/>
32609	Demonstrate knowledge of mathematical principles, conductors and insulators	7	3	Compulsory	<input checked="" type="checkbox"/>
32610	Demonstrate knowledge of voltage, power and energy, and DC circuits	6	3	Compulsory	<input checked="" type="checkbox"/>
32611	Demonstrate knowledge of magnetism and AC generation	6	3	Compulsory	<input checked="" type="checkbox"/>
32612	Demonstrate knowledge of legislation, industry governance bodies and AS/NZS 3000 for the electrical industry	4	3	Compulsory	<input checked="" type="checkbox"/>
32613	Demonstrate knowledge of cords, cables, and cable installation	4	3	Compulsory	<input checked="" type="checkbox"/>
32614	Demonstrate knowledge of electrical faults, circuit protection, commissioning, and de-commissioning	6	3	Compulsory	<input checked="" type="checkbox"/>
Year 1 Capstone					
32619	Demonstrate fundamental knowledge for working in electrical trades	1	3	Compulsory	<input checked="" type="checkbox"/>



UNIT STANDARD		CREDIT	LEVEL	NOTES	
Year 2 Off Job					
32620	Demonstrate knowledge of electrical plans, switching circuits, and lighting systems	5	3	Compulsory	<input checked="" type="checkbox"/>
32621	Demonstrate knowledge of wiring support systems and cable installation	5	3	Compulsory	<input checked="" type="checkbox"/>
32622	Demonstrate knowledge of the national supply grid, MEN system, and earthing	6	3	Compulsory	<input checked="" type="checkbox"/>
32623	Demonstrate knowledge of circuit protection and distribution board wiring	5	3	Compulsory	<input checked="" type="checkbox"/>
32624	Demonstrate knowledge of electrical installation testing, fault finding, and rectification of discovered faults	6	4	Compulsory	<input checked="" type="checkbox"/>
32625	Demonstrate knowledge of damp situations, SELV and PELV systems, and single-phase transformers	5	3	Compulsory	<input checked="" type="checkbox"/>
32626	Demonstrate knowledge of capacitors, inductors, and electronics in the electrical trade	5	3	Compulsory	<input checked="" type="checkbox"/>
32629	Demonstrate knowledge of electric motors and alternators	5	4	Compulsory	<input checked="" type="checkbox"/>
32632	Design switching circuits and a PLC programme	4	4	Compulsory	<input checked="" type="checkbox"/>
Year 2 Capstone					
29484	Demonstrate knowledge of theory and practice for electrical workers	1	3	Compulsory	<input checked="" type="checkbox"/>

UNIT STANDARD		CREDIT	LEVEL	NOTES	
Year 3 Off Job					
32638	Demonstrate knowledge of earthing systems and switchboards	6	4	Compulsory	<input checked="" type="checkbox"/>
32639	Demonstrate knowledge of cable selection, underground cable systems, and specialised cables	4	4	Compulsory	<input checked="" type="checkbox"/>
32640	Demonstrate knowledge of power factor, three-phase AC power, and transformer safety and performance	6	4	Compulsory	<input checked="" type="checkbox"/>
32641	Demonstrate knowledge of electric motors and motor faults	3	4	Compulsory	<input checked="" type="checkbox"/>
32642	Demonstrate knowledge of de-commissioning, commissioning, and verification of electrical installations	6	4	Compulsory	<input checked="" type="checkbox"/>
32643	Demonstrate knowledge of alternative energy system	3	4	Compulsory	<input checked="" type="checkbox"/>
32644	Demonstrate knowledge of hazardous areas, construction and demolition sites, and special installations	5	4	Compulsory	<input checked="" type="checkbox"/>
32649	Install electric motors and diagnose and repair faults	5	4	Compulsory	<input checked="" type="checkbox"/>
Year 3 Capstone					
1702	Demonstrate knowledge of electrical legislation, New Zealand Codes of Practice, and Standards	5	4	Compulsory	<input checked="" type="checkbox"/>
21766	Demonstrate knowledge of electrical theory for registration of electricians	6	4	Compulsory	<input checked="" type="checkbox"/>



UNIT STANDARD	CREDIT	LEVEL	NOTES		
Electricity Supply Strand - On Job					
10544	Install electrical lines and cables in an electricity supply environment	6	4	Compulsory	☑
14287	Use and maintain test instruments used in the high voltage electrical industry	4	3	Compulsory	☑
18028	Demonstrate knowledge of earthing in high voltage (HV) electricity network installations and works	2	3	Compulsory	☑
20091	Read and interpret single line diagrams in the electricity supply industry	3	3	Compulsory	☑
27352	Demonstrate knowledge of supervision of trainees undertaking prescribed electrical work	2	4	Compulsory <i>Resource Under Development</i>	☑
30265	Apply health and safety risk assessment to a job role	8	3	Compulsory	☑
32059	Select and install an electrical switchboard in the electricity supply industry	3	4	Compulsory	☑
32615	Demonstrate cable handling and fixing techniques, pre-wire electrical circuits, and join and test TPS cables	5	4	Compulsory <i>Resource Under Development</i>	☑
32616	Apply knowledge of common cords, cables, and electrical fittings	6	4	Compulsory <i>Resource Under Development</i>	☑
32630	Establish new worksites and interpret plans	4	4	Compulsory <i>Resource Under Development</i>	☑
32631	Install, join, and terminate cables	7	4	Compulsory <i>Resource Under Development</i>	☑
32633	Install electrical equipment in damp situations and install earthing and lighting	9	4	Compulsory <i>Resource Under Development</i>	☑
32650	Install a complete electrical installation	10	4	Compulsory <i>Resource Under Development</i>	☑
32652	De-commission and commission electrical installations	6	4	Compulsory <i>Resource Under Development</i>	☑



UNIT STANDARD		CREDIT	LEVEL	NOTES	
Choose a minimum of 28 credits, maximum of 41 credits, from the following Unit Standards:					
10509	Climb and work on electricity network structures	6	4	Elective	<input type="checkbox"/>
10526	Operate electrical equipment associated with electric lines or cables up to 66kV	4	3	Elective	<input type="checkbox"/>
12295	Apply and remove earths from conductors on electricity supply networks	4	4	Elective	<input type="checkbox"/>
12387	Operate electrical switchgear in the electricity supply industry	10	4	Elective	<input type="checkbox"/>
14269	Locate faults in power cables	5	4	Elective	<input type="checkbox"/>
14290	Joint, test and commission specialist communication cable systems	5	4	Elective	<input type="checkbox"/>
16280	Compile and action switching plans to maintain electricity supply power network security	9	4	Elective	<input type="checkbox"/>
16285	Plan for scheduled work on electricity supply power system equipment	10	4	Elective	<input type="checkbox"/>
17025	Rescue a victim from an electrical structure	2	3	Elective	<input type="checkbox"/>
17027	Demonstrate the requirements for holding access permits for work on high voltage electrical lines, cables, and equipment	4	3	Elective	<input type="checkbox"/>
18026	Carry out a rescue from an electricity supply services pit	2	3	Elective	<input type="checkbox"/>
23898	Describe and carry out polarity and phasing tests on low voltage electricity networks	2	3	Elective	<input type="checkbox"/>
23899	Describe and carry out phasing tests on high voltage electricity networks	2	3	Elective	<input type="checkbox"/>
27655	Demonstrate familiarity with common faults, relay systems, and components of diagrams in power system protection systems	4	4	Elective	<input type="checkbox"/>
28195	Demonstrate knowledge of fault diagnosis and power restoration on electricity supply network plant and equipment	4	4	Elective	<input type="checkbox"/>
32057	Carry out routine inspection and service of a power transformer	6	4	Elective	<input type="checkbox"/>
32058	Carry out routine inspection and service on a high voltage circuit breaker	6	4	Elective	<input type="checkbox"/>
32060	Install an earthing and bonding system for equipment used in the electricity supply industry	3	4	Elective	<input type="checkbox"/>
32651	Carry out verification of an electrical installation	5	4	Elective <i>Resource Under Development</i>	<input type="checkbox"/>



Pricing

Domestic pricing applies to NZ and Australian citizens or residents.

International pricing applies to all other learners (some exemptions may apply).

CSAM will confirm applicable pricing for each learner, please refer to the Domestic vs International Learners flow chart for more information.

Workbooks and Provider Delivery	Domestic Pricing <i>all prices excl GST</i>	International Pricing <i>all prices excl GST</i>
In-house Assessor		
Paid in Total on Enrolment	<input type="checkbox"/> \$18,200	<input type="checkbox"/> \$26,500
Split Across 2 Years	<input type="checkbox"/> Year 1 \$9,100 Year 2 \$9,100	<input type="checkbox"/> Year 1 \$13,250 Year 2 \$13,250
External Assessor		
Paid in Total on Enrolment	<input type="checkbox"/> \$19,300.00	<input type="checkbox"/> \$27,650
Split Across 2 Years	<input type="checkbox"/> Year 1 \$9,650 Year 2 \$9,650	<input type="checkbox"/> Year 1 \$13,825 Year 2 \$13,825
<i>Pre-trade option is not available for this programme in 2024, please talk to your CSAM about other programme options if a pre-trade qualification is held.</i>		
Fee Total:		
Fee Due on Enrolment:		
<i>Additional Service Fee \$700.00 pa (charged at expected end date plus 2 months) will be charged every year until completion or termination. Refer to Connexis Training Agreement Terms and Conditions, clause 3.</i>		

