



WAIHANGA ARA RAU

Construction and
Infrastructure

Workforce Development Council

ELECTROTECHNOLOGY PROJECT

PHASE 1 - SUMMARY & RECOMMENDATIONS FOR FUTURE DEVELOPMENT

NOVEMBER 2025

*A more aligned Electrotechnology qualification pathway
from new starter to trade apprentice and beyond.*

Publisher

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Workforce Development Council.

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PURPOSE

This report outlines the stakeholder consultation and engagement process undertaken by Waihanga Ara Rau Construction and Infrastructure Workforce Development Council during Phase 1 in 2025. It also presents recommendations to address the opportunities identified through that process.



The role of Waihanga Ara Rau

Waihanga Ara Rau Construction and Infrastructure Workforce Development Council is the standard-setting body (SSB) for construction and infrastructure vocational training. This means that we ensure qualifications and skill standards reflect industry needs and empower the sector, Māori businesses and iwi development. We provide industries and employers with increased leadership and influence in vocational education.

Waihanga Ara Rau is committed to upholding Te Tiriti principles and Te Tiriti partnership. Our success lies in employers, including Māori business owners, trusting that vocational education graduates are job-ready and that the system addresses future industry skills needs by providing high-quality training and education.

EXECUTIVE SUMMARY

Phase 1 of the Electrotechnology Project delivered a comprehensive skills framework for the electrotechnology qualification pathway and identified priorities for future development.

Waihanga Ara Rau consulted extensively with a wide range of stakeholders to develop a comprehensive Electrotechnology Skills Framework as a foundation reference point. This work encompassed a broad range of industries within the Electrotechnology sector, including electrical, electronic, and communication technology fields. The full list of qualifications within scope is provided in Appendix 3.

The framework will assist in future qualifications and skill standard development through the identification of core, transferable, and specialist skills that are used across the Electrotechnology qualification pathway.

It will support the sector to reduce duplication and retraining of the same skills, support the recognition of prior learning and foster highly competent electrotechnology professionals.

Phase 1 will conclude by completing essential activities to address the immediate needs of the Electrotechnology sector and offering clear recommendations for next steps.

SUMMARY OF RECOMMENDATIONS

The following actions will wrap up Phase 1 by the end of 2025, and provide recommendations for further work by the ETISB in 2026. Detailed information about these actions and recommendations can be found on pages 15-17.

		Waihanga Ara Rau	ET ISB	Industry	Providers	EWRB
ACTIONS TO COMPLETE PHASE 1	1. Provide Electrical Capstone Assessments - Prepare Capstone Assessment material for providers for 2026.	Lead		Endorse	Advise	
	2. Request qualification review extensions from NZQA - Gain key stakeholder support and notify NZQA to defer the formal review of qualifications.	Lead		Endorse		
	3. Provide pathways to new EWRB licence classes - Ensure industry-endorsed training pathways are available to give effect to new EWRB licence classes.	Lead		Endorse	Advise	Support
	4. Support the transition to ETISB - Provide a comprehensive summary of stakeholder feedback received during Phase 1, including the draft Electrotechnology Skills Framework.	Lead	Advise	Endorse	Advise	
2026 ACTION PLAN (ETISB)	5. Simplify the Electrotechnology qualification pathway - Review of the qualification pathway to identify opportunities to support transitioning through and across areas of specialisation within electrotechnology.		Lead	Endorse	Advise	Support
	6. Develop “New Starter” Core Electrotechnology skill standards – Develop a common set of skill standards to recognise essential foundational common skills required across electrotechnology.		Lead	Endorse	Advise	Support
	7. Strengthen the pathway from secondary school – Work with the Ministry of Education to influence the pathway from secondary schools to further industry training.		Lead	Endorse	Advise	Support
	8. Develop advanced qualifications and post-apprenticeship pathways - Identify opportunities and skill demands required to recognise areas of specialisation and progression beyond “trade” qualified.		Lead	Endorse	Advise	Support
	9. Review qualifications to include new skill standards - Prioritise, sequence and progress the review of qualifications and skill standard development to support an enhanced qualification pathway.		Lead	Endorse	Advise	Support

BACKGROUND

THE OPPORTUNITY

Eight qualifications across electrotechnology were due for review in 2025 and 2026. This, along with the introduction of skill standards, provided a timely opportunity to improve coherence across the Electrotechnology qualification pathway (see Appendix 3 on page 26 for a visual of the current pathway). There was also an opportunity to respond to broader industry feedback about opportunities to ensure that the qualification pathway remains flexible, adaptable to workforce needs, and responsive to emerging skill requirements. With the introduction of skill standards there is opportunity for the sector to refresh the current pathway, remove redundancies and improve outcomes for learners and industry. Due to the scale and complexity of this work, we began with Phase 1 – Discovery.

WHY THE INTRODUCTION OF SKILL STANDARDS MATTERS

Skill standards reintroduce a common currency of skills as they will be mandatory for all providers to use as the framework for learning and assessment. With skill standards as the foundation for all qualifications and credentials in the Electrotechnology qualification pathway, learners will be able to transfer their achievements between providers and across electrotechnology trades seamlessly.

SCOPE

Phase 1 of the Electrotechnology Project had two purposes:

- to deliver a comprehensive skills framework mapping all levels and areas of practice within the current electrotechnology qualification pathway, and
- to identify priorities for qualification development.

This project was primarily focused on the electrotechnology sectors, but also identified shared skills with the Electricity Supply Industry (ESI), and core construction because it includes skills relevant across the construction trades. Electrotechnology trades and specialisations within the scope of this project:

- Electromechanical (motor rewinding) – maintenance and repair
- Data cabling
- Electronics
- Electronic Security
- Electrical (including pre-trade)
- Telecommunications
- Customer Premises Systems
- Explosive atmospheres
- Emerging electrotechnology skills and areas of specialisation (for example, automation, solar installation, marine or railway signalling).

THE ELECTROTECHNOLOGY SKILLS FRAMEWORK

The draft Electrotechnology Skills Framework (the Framework) covers skills within existing New Zealand qualifications and standards, along with survey and targeted consultation insights.

The Framework classifies Technical Skills into Skill Blocks (Categories) which are defined by four Areas of Practice to group and sort skills. The groupings also allow for an easy visual reference to identify skills used across many qualifications within the pathway.

Skill Blocks (Categories)

Health and safety	Supervision	Communication & planning
Tools and equipment	EWRB Licencing	Calculations
Legislative framework	Theory	Energy flow & charge
Materials	Design	Installation
Testing	Renewable energy	Integration with premises
Other		

Area of Practice

Core Electrotechnology	Is essential and common across all electrotechnology trades, regardless of specialisation.
Electrical	A technical skill specific to the installation, maintenance, testing, or repair of electrical systems or equipment
Electronics	A technical skill specific to the design, assembly, testing, maintenance, or repair of electronic systems and devices.
Communication Technology	A technical skill specific to the installation, configuration, testing, or maintenance of systems that enable data, voice, and video communication.

This work has assisted in establishing core skills across different learner personas and experience levels to identify overlap, areas of duplication, and opportunities to streamline the transition to skill standards in future.

Persona and skill stages

New starter	Skills learned and required early in electrotechnology training (i.e. basic skills and safety measures)
Intermediate	Foundational skills and knowledge required to complete “routine tasks” to industry standards.
Trade competent	Skills that encompass a broad body of knowledge, and critical thinking to independently complete tasks to industry standards.
Specialist	Advanced skills in a specific area of electrotechnology.

Appendix 1 – Electrotechnology personas and skill stages provides further guidance how to navigate the Framework, including more descriptions of what to expect from Personas at each skill stage.



APPROACH TO CONSULTATION AND ENGAGEMENT

Engagement and consultation within Phase 1 included three main components:

- 1. Sector-wide survey
- 2. Targeted consultation
- 3. Project Steering Group.

SECTOR-WIDE SURVEY

An initial online survey was conducted to capture industry, provider, and school feedback on the current qualification pathway. Responses were invited via industry associations and newsletters, along with relevant stakeholders in Waihangara Ara Rau’s database. The survey received higher than average response rate for qualification development surveys, with approximately 85 unique responses received. The responses received were a representative mix of the different sectors within electrotechnology, providers, and schools.

The key themes from the survey feedback were grouped and used to inform targeted consultation. While not the focus for this project, industry also provided insights that are valuable in relation to delivery of programmes and ākonga support. We have noted the themes that arose in Appendix 2 – Consultation feedback.

TARGETED CONSULTATION

From May to July 2025, Waihangara Ara Rau hosted a series of online consultation hui with providers, schools, and industry stakeholders, including business owners.

These hui were to:

- Introduce the draft Framework and the value of recognising core skills.
- Provide space to wānanga (discuss and reflect).
- Gather feedback from stakeholders and industry

groups.

- Clarify the role of a standard setting body and the implications of this project in the context of upcoming changes in the Vocational Education and Training (VET) space.

All meeting participants received a copy of the DRAFT Electrotechnology Skills Framework and were invited to provide feedback to ensure it was accurate, relevant, and future-focused.

Key prompts for providing feedback

- 1. Missing skills
- 2. Duplication or overlap
- 3. Skill transferability
- 4. Level appropriateness

PROJECT STEERING GROUP

A Steering Group of external stakeholder representatives across different electrotechnology sectors was established is to provide guidance and oversight for Phase 1.

CONSULTATION OUTCOMES

Feedback from the industry survey and targeted consultation was analysed and placed into two categories, Skills Development and Qualification Pathway. The opportunities and potential actions under each theme were identified to inform priority actions for future development.

TABLE 1:
SKILLS DEVELOPMENT – OPPORTUNITIES AND RECOMMENDED ACTIONS

Topic	Opportunities	Actions
Safety Skills	Improve consistency and quality of safety skill recognition	Define safety-related skills clearly within the framework
	Strengthen safety skills for dynamic work environments	Enhance safety standards to reflect real-world electrotechnology conditions
	Support proactive risk assessment in changing site conditions	Enhance skills for dynamic risk assessment
	Improve safety outcomes through practical skills	Document practical safety skills - calculations, instruments, testing, site precautions
Skill standard design	Improve clarity and reduce misinterpretation of standards	Use plain language and a skills-first approach in the framework
	Strengthen conceptual understanding alongside practical skills	Integrate underpinning knowledge and define skill expectations aligned to NZQA level descriptors
	Enable skill transferability across providers and credentials	Design the Framework to support alignment and transferability
Technology driven change	Meet evolving industry needs and digital integration	Define digital system integration skills to ensure future-proofing of skill standards
Foundational and interpersonal skills	Strengthen foundational and transferable skills	Confirm core transferable skills in the Framework and as skill standards are developed
	Strengthen business and interpersonal skills	Document skills for project management, financial literacy, communication, and cultural competence
Skill specialisation	Strengthen specialised technical skills (DC low voltage, IP-based tech, PLC, motors, etc.)	Update the Framework to reflect specialised skill requirements identified by different industries
Sustainability	Address missing sustainability-related skills	Update the Framework to reflect specialised skill requirements identified by different industries

TABLE 2:
QUALIFICATION PATHWAY – OPPORTUNITIES AND RECOMMENDED ACTIONS

Topic	Opportunities	Actions
Flexibility	Improve clarity and flexibility of the qualification pathway	Simplify structure, introduce modular components, and recognise prior learning to support progression
Alignment with the workplace and licencing	Align qualifications with real workplace tasks and licencing requirements	Ensure pathways reflect actual industry skills and clearly link to licencing eligibility
Specialisation	Support specialised career paths within Electrotechnology	Design pathways that accommodate diverse roles such as HVAC, medical equipment, security systems, design, industrial, marine, and railway signalling
Support for the apprenticeship model	Enhance support for learners and employers	Provide mentoring, structured on-the-job guidance, and tools for small employers
Transferability	Enable progression across trades without starting again	Design qualifications to build on existing skills and experience across roles and specialisations
	Improve speed to competency and reduce duplication	Streamline training by recognising transferable skills and avoiding repeated learning
	Ensure consistent expectations of apprentices	Define skill standards that are clear in their expectations from apprentices
Pathways from pre-trade and secondary school	Enhance to ensure preparedness for apprenticeship training	Define skills expected by industry required to prepare learners for further training in the work environment.
Capstone Assessments	Ensure the assessments are a valid and effective tool to measure competence.	Evaluate the ongoing effectiveness of the Electrical Capstone Assessments prepared by the Standard-Setting Body.

DETAILED ACTIONS AND RECOMMENDATIONS

The following actions and recommendations were validated by the project’s Steering Group and subsequently by the Electrotechnology Strategic Reference Group.

1. Actions to be complete Phase 1 to be undertaken by Waihanga Ara Rau before the end of 2025.
2. Recommendations for actions in 2026 to be undertaken by the Electrotechnology and Information Technology Industry Skills Board.

ACTIONS TO COMPLETE PHASE 1 (WAIHANGA ARA RAU)

There are four pieces of work required for the remainder of 2025 to assist the transition from Waihanga Ara Rau as the current standard-setting body (SSB) to the Electrotechnology and Information Technology Industry Skills Board (EIT ISB) in late 2025 and to lay a strong foundation for future activity.

PROVIDE CAPSTONE ASSESSMENTS FOR 2026

Waihanga Ara Rau is responsible for the Capstone Assessments for unit standards 29484 and 32619 required for the Electrical Pre-trade and Electrical (Level 4) qualifications. To ensure continuity of assessments in early 2026, Waihanga Ara Rau:

- Has made revisions to the unit standards to allow providers to develop their own assessments.
- Will prepare material for these assessments to ensure that providers will have access to them when required in 2026.

REQUEST QUALIFICATION REVIEW EXTENSIONS FROM NZQA

Six qualifications within Electrotechnology are due for review in 2025. To allow the Electrotechnology and Information Technology Industry Skills Board with the opportunity complete the design of the qualification pathway, Waihanga Ara Rau has applied to NZQA to extend to the review dates to 2026.

PROVIDE PATHWAYS TO NEW EWRB LICENCE CLASSES

There was strong feedback around availability of training pathways for the new EWRB licence classes, with training pathways coming into effect from September 2025. Waihanga Ara Rau established a working group to identify potential NZQA credentials that would provide a training pathway satisfactory to the EWRB for endorsement of the licence classes. The group presented three potential options for EWRB consideration.

Hazardous Areas

No micro-credential will be developed at this time. EWRB advised Waihangara Ara Rau in July 2025 that the New Zealand Certificate in Electrical Equipment in Explosive Atmospheres (L4) [Ref: 3614] is a recognised training pathway to the Hazardous Areas endorsement. Currently an approved programme is delivered by Western Institute of Technology (WITT) in New Plymouth. The EWRB is updating their website to reflect the confirmation of this pathway.

Mains Parallel

It was identified, and supported by EWRB, that the content of both Grid-connected PV Systems, Design and Install (Micro-credential) and Grid-connected Battery Storage Systems, Design and Install (Micro-credential) collectively meets that requirements for the Mains Parallel Licence class. Because these micro-credentials are already available through WITT and Skills Group (E-Tec) and align with the Australian pathway, there is no requirement for Waihangara Ara Rau to develop any further credentials. There should be consideration in future if the micro-credentials are transferred to the ISB and include skills standards so that these micro-credentials can be accessed by all providers.

Supervision of Prescribed Electrical Work

Industry expressed a priority need to have a training pathway for licencing endorsement in the new Supervision licencing class set by Electrical Workers Registration Board (EWRB). Waihangara Ara Rau commenced immediate development of a NZQA approved micro-credential for supervision of

prescribed electrical work that gives effect to the competencies set by the EWRB.

This is a level 5 micro-credential with 5 credits that includes understanding the regulatory requirements, their practical application, and risk assessment required for supervision of prescribed electrical work. A submission to NZQA was lodged in September 2025 to register the micro-credential on the New Zealand Qualifications and Credentials Framework. At the time of publication, the micro-credential application is still being processed by NZQA.

When the listed micro-credential is reviewed consideration should be given to industry feedback that this micro-credential should also include leadership skills. Skill standards should also be developed to support the consistency of training and delivery.

SUPPORT THE TRANSITION TO INDUSTRY SKILL BOARDS (ISB)

This report presents a comprehensive summary of the insights gathered during Phase 1. It communicates what we’ve heard from stakeholders and documents the opportunities and priorities identified to support a smooth transition to the Industry Skills Board (ISB). By clearly capturing industry needs, expectations, and areas for improvement, this report provides a guide for future qualification and skill standard development.

RECOMMENDATIONS FOR 2026 (ELECTROTECHNOLOGY AND INFORMATION TECHNOLOGY INDUSTRY SKILLS BOARD)

The transition to the Industry Skills Board (ISB) and external dependencies contributed to and informed the recommendations for next steps.

The following work is recommended to be completed within 6-12 months of the transition to the Electrotechnology and Information Technology ISB.

SIMPLIFY THE ELECTROTECHNOLOGY QUALIFICATION PATHWAY

Themes in feedback gathered throughout Phase 1 consistently showed that industry wants a clearer pathway from new starter through to experienced trade professional. An immediate review of the structure of the Electrotechnology Qualification Pathway with support of the Electrotechnology Skills Framework should be progressed.

This review should allow for progression across trades without starting again. We heard repeatedly the qualification pathway needs to enable learners to build on existing skills and experience as they move between roles or specialisations within the sector “without having to start again”.

DEVELOP “NEW STARTER” CORE ELECTROTECHNOLOGY SKILL STANDARDS

Work should commence on further defining core skills required by “new starters” across Electrotechnology. The “new starter” skills will assist in the transition to skill standards during the first qualification review, and will establish the:

- Key learning outcomes aligned with industry expectations, including essential underpinning knowledge alongside the practical requirements.

- Clear expectations for learning topics to guide training delivery.
- Important assessment information to ensure consistency and quality of graduates.

Consistent skills for “new starters” across electrotechnology will support coherent foundation skill development and recognition that industry needs, while allowing for flexibility in the qualification pathway.

STRENGTHEN THE PATHWAY FROM SECONDARY SCHOOL

The opportunity to investigate ways to improve the electrotechnology qualification pathway from secondary school to further training or employment is dependent on the Ministry of Education review of NCEA and the new subject lists for Year 12 and Year 13. When the opportunity arises, there may be a specific window of time available to for industry to have a systematic influence of the electrotechnology pathway in secondary school education.

DEVELOP ADVANCED QUALIFICATIONS AND POST-APPRENTICESHIP PATHWAYS

Industry wants a clear training pathway for experienced professionals to continue to learn and improve their skills within the Electrotechnology sector. Currently there are not clear pathways for advancing careers within the Electrotechnology sector. The needs are wide-ranging, from supervision and inspection to design work and progressing toward the New Zealand Diploma in Engineering. More analysis is needed to understand what formal NZQA credentials are needed beyond trade qualifications.

DEVELOP SKILL STANDARDS AND REVIEW QUALIFICATIONS

In 2026 the ISB will need to undertake 8 qualification reviews with industry and stakeholders. This will be an opportunity to develop and introduce of mandatory skill standards that will provide industry with the opportunity to shape a consistent curriculum for learning and assessment. The ISB will need to work with Industry to determine the priorities and sequence for skill review and skill standard development.

- New Zealand Certificate in Electrical Pre-Trade (Level 3) [4316] (2025)
- New Zealand Certificate in Electronic Engineering (Level 4) [2981] (2025)
- New Zealand Certificate in Electronic Security (Level 4) with optional strands in Electrical Appliance Serviceperson (Endorsed), and Electrical Installer [3818] (2025)

- New Zealand Certificate in Telecommunications (Level 4) [3970] (2025)
- New Zealand Certificate in Electrical Trade (Level 4) with strands in General Electrical, and Electricity Supply [4204] (2025)
- New Zealand Certificate in Electrical Engineering (Electromechanical Maintenance and Repair) (Level 4) with optional strand in Electrical Service Technician (EST) [2565] (2025)
- New Zealand Certificate in Telecommunications (Level 3) with strands in Copper Network Maintenance, Optical Fibre Network, and Transmission [3767] (2026)
- New Zealand Certificate in Customer Premises Systems (Level 4) with strands in Structured Cabling, Control and Automation, Signal Reception and Distribution, and Wireless Systems [2769] (2026)

APPENDICES

APPENDIX 1: ELECTROTECHNOLOGY PERSONAS AND SKILL STAGES

PERSONAS

Personas are used to define experience levels of ākonga as they advance through their training.

New starter

A New starter is classified as a beginner with limited knowledge but able to perform some tasks, can identify problems, can communicate basic information, and can work under supervision.

At this stage, learners typically:

- Have foundational skills in reading, writing, maths, science, and comprehension from school or prior work experience.
- Are relatively fast learners as they are introduced to new environments and tasks.

Challenges that may prevent successful entry or progression include:

- Selling the dream – difficulty with seeing the value and opportunities within the industry.
- Relationships with employers – limited connections or lack of employer engagement.
- Length of an apprenticeship – perceived as too long or demanding.
- Knowledge about the industry – low awareness of career pathways, roles, and expectations, especially in smaller areas of electrotechnology industry specialisation.

Key competencies and areas of development include:

- Understanding safety risks and controls relevant to the work environment.
- Interpreting and applying calculations in electrotechnology (e.g., calculus, algebra, trigonometry).

- Basic physics and chemistry concepts – especially around energy.
- Using hand tools for routine tasks with confidence and accuracy.
- Recording work clearly and consistently for compliance and learning.
- Strong work ethic – including physical stamina, manual dexterity, punctuality, and time management.
- Confidence and communication – especially the ability to ask questions and seek clarification.

Intermediate

As ākonga progress in their training, they will move into the Intermediate persona where they have knowledge of key facts and information, can:

- perform familiar tasks
- solve familiar problems
- share knowledge with others
- communicate and share ideas
- work autonomously and they take some responsibility for their own learning.

Experience and challenges at this stage:

- Often it can be a frustrating period during training with low retention.
- Apprentices may still be doing basic tasks (e.g. sweeping floors) despite eagerness to progress.
- Lack of visible progress can lead to disengagement.

Opportunities of engagement:

- Introduction of industry-led milestones to celebrate progress (e.g. first supervised job, first on-job task)

- Recognition and reward achievements to promote growth and motivation.

→ Availability of wraparound support from employers, including:
 - Technical mentoring
 - Academic guidance
 - Pastoral care

Key competencies and areas of development include:

→ Developing core technical skills, such as:
 - First fix work (cable pathways, trays, support systems)
 - Small appliance repairs
 - Equipment maintenance

→ Safety testing and health & safety awareness

→ Be expected to work independently under remote supervision.

→ Need support to build confidence and capability for autonomous tasks.

→ Begin exposure to specialisation areas to guide future pathways.

Trade Competent

As ākonga advance and develop more skills through their training they become Trade Competent when they fully understand key concepts and principles. They can:

→ perform unfamiliar and complex tasks or solve problems

→ collaborate with colleagues and listens to contributions of others

→ handle unpredictable environments

→ works autonomously and have responsibility for supporting others.

Experience and challenges

→ Success in the role is closely tied to safety awareness and practice.

→ Risk of self-teaching without adequate support - can lead to mistakes or safety issues.

Key competencies and areas of development include:

→ The goal: “The lights are on, and they’re safe!”

→ Competent across all aspects of their field of electrotechnology:
 - Reading and interpreting drawings and specifications
 - Installation, commissioning, and testing
 - Producing certification and documentation

→ Testing Proficiency:
 - Testing is seen as a critical skill, not just procedural but predictive.
 - Should understand what the test result will indicate before performing it.
 - Proper testing reduces complacency and improves work quality.

→ Strong knowledge and awareness in specialist areas.

→ Ability to work autonomously and lead others, including mentoring junior staff.

→ Understand scope of work, when to ask for help, and where to seek information.

→ Awareness of next steps for career progression and broader industry context.

→ Knowledge of legislation and regulatory obligations.

→ Consideration of business responsibilities, such as insurance.

Specialist

The Specialist persona are workers who hold specific industry knowledge in a sub-domain of electrotechnology and have developed skills over years of training and experience.

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APPENDIX 2: CONSULTATION FEEDBACK

SURVEY FEEDBACK

This section provides a description of key feedback themes, as gathered through the survey carried out as part of Phase 1.

SKILLS DEVELOPMENT THEMES

Core Technical and Trade Skills	Practical, hands-on skills remain critical, especially safe electrical work, fault finding, diagnostics, commissioning, and testing. A strong foundation in electrical theory (e.g., Ohm’s Law) and real-world applications such as containment, cable management, and data systems is essential. There is also need for recognition of varied specialist roles (e.g., electronic security, medical equipment technicians) required beyond traditional electrician qualifications.
Safety and Compliance Knowledge	Safety must be foundational, starting with “how to work with electricity safely.” Understanding hazard identification, risk management, earthing, testing, and compliance with legislation and standards (e.g., PEW, AS/NZS 3017) is key to ensure real-world readiness.
Communication and Business Skills	Communication, customer care, and cultural competence (including Te Tiriti o Waitangi and Te Ao Māori contexts) are important essential skills. Alongside skills to support apprentices moving towards leadership, self-employment, or small business ownership such as quoting, estimating, project management, basic accounting, financial literacy and client relationship management.
Digital and Emerging Technology Awareness	Qualifications need to prepare learners for evolving technologies in residential and industrial settings. Digital literacy gaps exist, including basic computer skills (spreadsheets, Microsoft Word) and understanding of smart systems, IoT devices, automation, and network infrastructure.

QUALIFICATION PATHWAY THEMES

Clarity and Flexibility	There is strong support for clearer, simpler qualification pathway that is easier for learners, employers, and educators to navigate. Modular components and flexible entry/exit points that recognise prior learning and experience are highly valued to avoid duplication, improve speed to competency, and support career progression.
Alignment with Real Work and Licensing	athways should closely reflect actual workplace tasks and better align with licensing requirements. Clearer links between qualifications and eligibility for licenses (e.g., EST) after a defined period of work experience are important for creating a compliant and competent workforce.
Specialised Career Pathways	Recognition that the electrotechnology sector includes diverse roles beyond electricians, such as HVAC, medical equipment, and electronic security, suggests that pathways need to accommodate different specialist career tracks with relevant skills.
Leadership, Continuous Learning, and Adaptability	Leadership and mentoring skills, along with a commitment to ongoing professional development, are valued. Flexibility to learn continuously and adapt to new technologies and practices is important for future-proofing qualifications.
Support for Learners and Employers	Enhanced mentoring, structured on-the-job guidance, and tools for employers are needed to support apprentices, especially in smaller businesses.

TRAINING SYSTEM FEEDBACK

This section provides a description of key feedback themes, as gathered throughout all consultation activity during Phase 1.

Note on Feedback Context

Evaluation of the current training system was outside the scope of this review. Waihanga Ara Rau did not actively seek feedback; rather, it was received organically through engagement and has been captured below.

The feedback is presented verbatim, with only minor edits applied by Waihanga Ara Rau. It has not been confirmed or validated, and in some instances, comments are conflicting. Opportunities have only been noted where there is a relationship to the role of standard-setting functions.

Feedback relating to programme delivery, student experience, and pastoral care has been shared with the relevant schools and providers+.

Topic	What we heard	Opportunities
Training environment	The unstructured nature of on-job learning leaves many apprentices unsupported and undertrained.	
	Self-paced students can lose focus and fail to complete study.	
	Work-based learning integration: Emphasis should be placed on structured, high-quality on-job learning, supported by competent mentors.	
	Maybe having a mentor function built into the Provider duties.	
	Flexible learning works best - online, paper based, in class, remote, or a mixed/blended model.	
Resources	Learners have different requirements – good to have a suite of options available. Holistic approach for learners.	
	A skills framework is nice but will there be consideration for resource requirements, development costs, internal training, etc	
	Burden on schools to create resources e.g. no pre moderated assessments, no exemplars create further challenges. Existing resources used in schools is old fashioned.	
	Physical resources in campus-based or school environments is becoming hard to get.	
Consistency of training and skill progression	Electrotechnology training is lacking consistency among providers, tutors, and regions.	Enable skill transferability by developing a shared framework that will inform skill standards used by all training providers.
	Ensuring training is valuable skills, time and \$\$ for the learner.	
	Quality of training and transferability needs to be improved.	

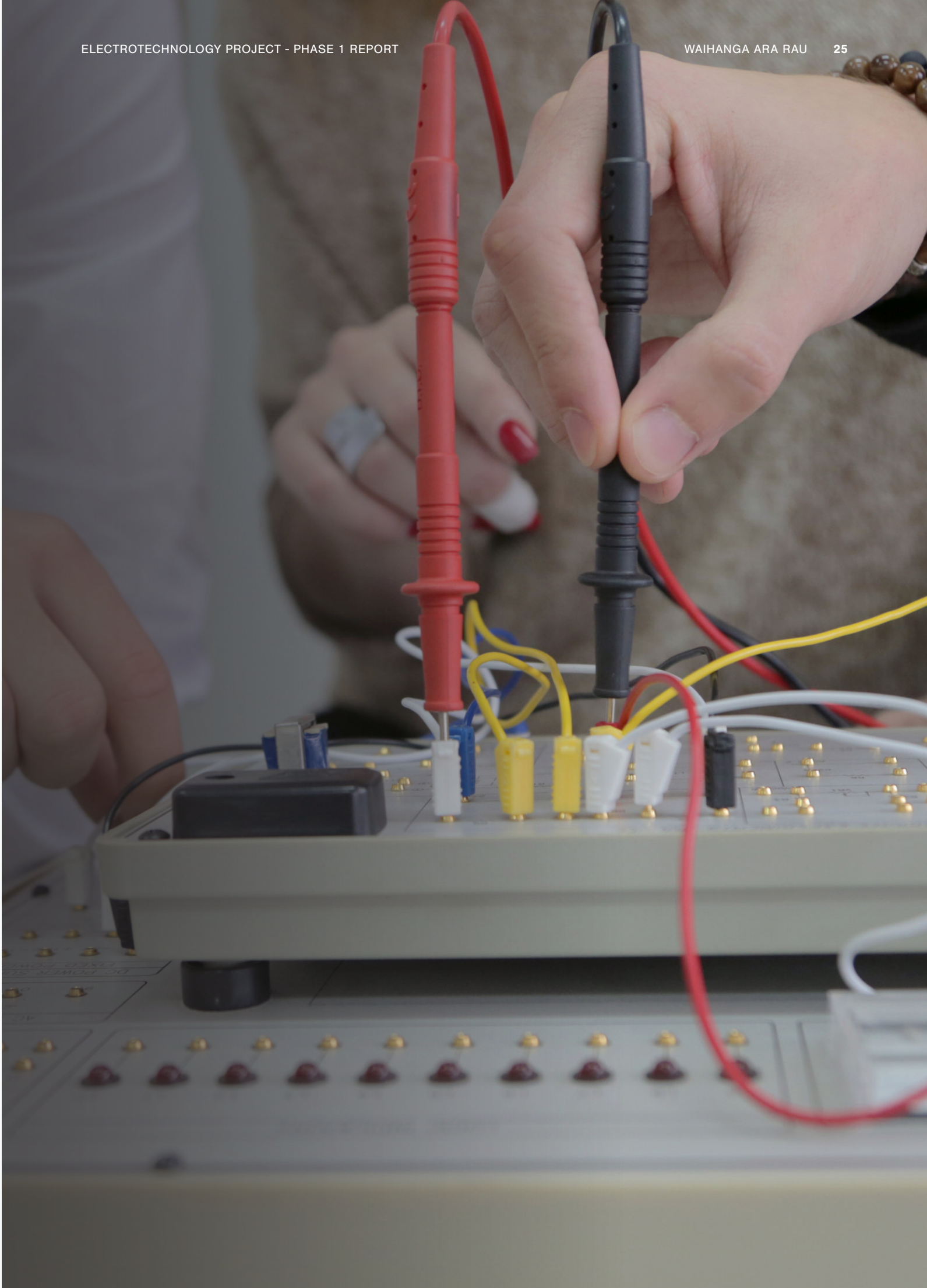
Topic	What we heard	Opportunities
Consistency of training and skill progression (contd)	Centralised platforms to connect students, schools, and employers to streamline apprenticeship entry.	Increase transparency around skill development and progression through coherent set of skill standards.
	Transparency of training progress is limited, e.g. no online system to track learning progress.	
	A learning pathway that allows students to see their progress and creates interest in the courses.	
Cost barriers	High training costs, especially in electronic security, limited access for local youth and increase reliance on immigration.	Establishment of a coherent set of skill standards across electrotechnology qualifications will enable a reduction to programme development costs and improve access to niche areas.
	The time and cost to develop a programme impacts providers viability to begin looking at new programmes.	Establishment of a coherent set of skill standards across electrotechnology qualifications will enable a reduction to programme development costs and improve access to niche areas.
	Niche programmes with low learner levels increases the length of time a provider needs to run the programme to recoup development and internal training costs.	
Learner support	Training access needs to be equitable across urban and rural areas to ensure all learners have the same opportunities.	
	Diversity of learners is growing, including backgrounds, accessibility (regional, technology, internet), and learner academic ability.	
	Some schools are noticing lower math skills and reliance on calculators for simple math problems.	Strengthen the relevant mathematical skills for people early in their electrotechnology qualification pathway.
Entry requirements	16 yrs should be the minimum age to enter into electrotechnology training - maturity and readiness for the workforce.	
Assessment practice	Previous OFF-JOB units were moved to ON-JOB, such as Safety Training and transformers. Ākonga now finding it difficult to get these completed. Challenges around on job requirements not being able to be achieved.	Ensure skill standards define clear expectations based on qualities and scope of application, enabling more flexible, accessible, and context-appropriate assessment.
	Where possible, embedded workplace assessments and modular progression could be considered.	
	Do not lock standards into on-job or off-job	
	Flexibility in being able to adapt assessments.	
	Moderation through different ITOs that there is a lack of trust in teachers signing off work. e.g. taking photos with students to prove work has been done.	

Topic	What we heard	Opportunities
Recognition of Prior Learning (RPL)	Clear RPL pathways help experienced workers formalise their skills and advance their careers	The introduction of skill standards will enable consistent recognition of skills across qualifications and providers. SSB to identify transition relationships between existing unit standards and replaced skill standards at the time of review.
	Ensure other providers recognise other providers Qualifications.	
	Like the idea of recognised prior learning (including historic learning).	
EWRB licencing and programme versions*	With some qualification and/or programme versions, there is a disconnect between revised/ updated expectations of the EWRB examinations. (N.B. as qualifications are replaced, they allow time for providers to continue to deliver the superseded version of the qualification for a period of time to allow for updated programmes to become available).	New skill standards and/or credentials may be developed to align with EWRB licence endorsements where training is currently unavailable and industry demand exists

* Note – Since Phase 1 of this project was completed, the Government has released of the Electricity (Safety) Amendment Regulations 2025. The regulations change how standards are cited within law, allowing the most current edition versions to be referenced.

As a result, from 12 November 2026, AS/NZS 3000:2018 will be the only compliant version of the Wiring Rules standard.

The Industry Skills Board (ISB), launching on 1 January 2026, will play a pivotal role in ensuring that qualifications, training products, and programme materials reflect these regulatory changes. The Industry Skills Board (ISB) will need to collaborate with providers, EWRB and industry to ensure qualifications system products and programme material are current, and to ensure learners are suitably prepared to meet the requirements of the EWRB exams and current industry practice.



APPENDIX 3: CURRENT ELECTROTECHNOLOGY QUALIFICATION PATHWAY

Level 2	Gateway									
Level 3	NZC Electrical Pre-trade [4315]	NZC Electrotechnology [2767] with strands in: - Installation - Service	NZC Data Cabling [5057]	NZC Telecommunications [3767] with strand in: - Copper Network Maintenance - Optical Fibre Network - Transmission						
	* Electrical Service Technician	* Electrical Service Technician * Electrical Appliance Serviceperson (E)								
Level 4	NZC Electrical Trade [4204] with strands in: - General Electrical - Electricity Supply	NZC Electrical Engineering (Switchgear Fitting) [3470] with optional strand: - Electrical Installer	NZC Customer Premises Systems [2769] with strands in: - Structured Cabling - Control & Automation - Signal Reception & Distribution - Wireless Systems	NZC Electrical Equipment in Explosive Atmospheres [3614]	NZC Electronic Security [3818] with optional strands in: - Electrical Appliance Serviceperson (Endorsed) - Electrical Installer	NZC Electronic Engineering [2981]	NZC Electrical Engineering (Electromechanical Maintenance and Repair) [2565] with optional strand in - Electrical Service Technician (EST)	NZC Telecommunications [3970]	NZC Industrial Measurement and Control (Theory) [2252]	NZC Industrial Measurement and Control (Practice) [2251]
	* Electrician	* Electrical Installer	* Electrical Service Technician * Electrical Appliance Serviceperson (E)	* Hazardous Areas	* Electrical Appliance Serviceperson (E) * Installer	* Electrical Service Technician	* Electrical Service Technician			
Level 5	NZC Industrial Measurement and Control [2253] with strands in - Process Control - Process Automation									

* Notes alignment between qualifications and EWRB Licence class/es. There is an alignment between individual unit standards and the Electrical Inspectors licence that is not represented on this diagram.



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