



Asset Engineer – Traction and Electrical

Position Description

Team:	Wellington Metro Network – Network Planning and Integrity	Location:	Wellington
Reports to:	Network Planning and Integrity Manager		
Role Type:	Permanent		

About Us

KiwiRail’s Role in Aotearoa, New Zealand

KiwiRail, a proud State-Owned Enterprise, delivers sustainable and inclusive growth for our customers, communities, and people.

For more than 150 years, rail in New Zealand has connected communities, delivered freight and passengers around the country, and showcased our spectacular scenery to the world. Our purpose—Hononga Whaikaha, Oranga mo Aotearoa (Stronger Connections, Better New Zealand)—speaks to connection with our customers and the future needs of their businesses, connection with the communities we serve and operate in, and connection with each other. KiwiRail is carrying this legacy into the future, delivering connected rail and shipping transport services that create economic, social, and environmental value for New Zealand and New Zealanders.

Our Workplace

At KiwiRail, our values define the behaviour we expect from everyone. We have a team of over 4500 people, and every connection we make with each other, our union partners, our customers and all our stakeholders must be of the highest standard.



Safety, health, and well-being are our number one priority, ensuring our people return home safe and healthy every day.

About the Role

Purpose of the role

This role exists to provide engineering stewardship, assurance, and technical expertise for traction and electrical assets across the Wellington Metro network. Reporting to the Network Planning & Integrity Manager, the Traction and Electrical Asset Engineer is accountable for understanding asset condition, risk, and performance, and for providing engineering input that supports safe operations, compliant maintenance, and informed planning and investment decisions. The role does not own access or work planning but supports planners and inspectors with engineering advice and requirements.

Key Accountabilities

Within the area of responsibility, this role is required to:

- Provide engineering stewardship for Wellington Metro traction and electrical assets, including overhead line equipment, substations, power supply, and associated systems.
- Produce and complete a traction engineering inspection programme to maintain asset data records in accordance with engineering requirements
- Maintain an in-depth understanding of asset condition, performance, and risk across the electrified network.
- Produce code compliance reports identifying any non-compliances and ensuring these are escalated to the relevant teams.
- Provide engineering advice and requirements to support maintenance, renewals, and intervention activities.
- Interpret inspection findings and defect data to determine asset condition, risk, and required responses.
- Support the development and maintenance of traction asset management plans and strategies.
- Provide engineering input into access and work planning by defining constraints, requirements, and sequencing considerations.
- Support investigations, testing, commissioning, and technical assurance activities as required.
- Provide engineering advice during incidents, failures, and degraded operating conditions.
- Contribute to audits, assurance activities, and regulatory engagement related to traction assets.
- Maintain accurate engineering records, asset data, and technical documentation.
- Assess asset condition using inspection outputs, monitoring data, and engineering judgement.
- Confirm that traction and electrical assets are safe and compliant for train operations.
- Define maintenance, renewal, and intervention requirements based on condition, risk, and performance.
- Develop and maintain traction and electrical related inputs to the Asset Management Plan.
- Set engineering priorities and intervention thresholds for traction and electrical assets.
- Review and endorse traction and electrical s-related work scopes, methodologies, and standards from an engineering and asset integrity perspective.
- Identify, manage, and escalate asset risks, including recommending and supporting interim controls (e.g. speed restrictions).
- Ensure accurate and reliable asset data is maintained and used to inform engineering decisions.
- Support investigations into traction and power related defects, incidents, and performance issues.
- Provide specialist engineering advice to planners and delivery teams without owning access or work planning decisions.
- Contribute to continuous improvement of engineering standards, inspection regimes, and asset strategies.

Key challenges

- Maintaining clear evidence that Wellington traction and electrical s assets are safe to operate at all times.
- Balancing short-term operational pressures with long-term asset sustainability.
- Providing clear engineering direction in a complex, safety-critical environment.
- Supporting delivery teams while maintaining independence of engineering judgement.
- Managing complex interfaces between traction assets, rolling stock, and operations.

Key Relationships Here are the key relationships relevant to this role		Manage /Lead	Deliver to	Collaborate with	Advise or inform
Internal	Network Planning and Integrity Wellington		✓	✓	✓
	Network Maintenance Wellington		✓	✓	✓
	Network Intervention Wellington		✓	✓	✓
	Commercial and Operations Wellington			✓	✓
	Engineering and Asset Management		✓	✓	✓
	Integrated Delivery Planning and Performance			✓	✓
	Internal service providers				✓
External	Regulators i.e NZTA, Worksafe				✓
	Technical Service Providers				✓
	Service Providers				✓

What you will do to contribute

Health Safety and Wellbeing

- Ensure traction and electrical assets are safe and compliant for operations.
- Identify hazards and implement or recommend risk mitigations.
- Support safe systems of work through engineering input.
- Actively engage with staff to discuss safety, through Toolbox meetings, Safe Work Conversations and Control Verification

Asset Management

- Identification of the condition of assets to provide support for future renewal prioritisation
- Prioritisation of infrastructure maintenance or replacement based on Asset Condition, Criticality of Asset, Company Business plan, Company Asset management plan and infrastructure standards.
- Provide support to the following, using knowledge of Engineering standards, route knowledge and asset condition.
 - Ensure Traction and Electrical infrastructure is maintained to the correct code.
 - Application of appropriate mitigating measures where infrastructure does not meet code

Customer Focus

- Provide a positive customer experience
- Support a customer-focused culture at KiwiRail
- Support reliable and predictable network performance.
- Provide engineering advice that minimises disruption while managing risk.
- Develop solutions to meet customer requirements
- Solve complex customer issues
- Work with colleagues to improve customer outcomes

High Performing Teams Skills

- Set clear performance standards aligned with KiwiRail's goal
- Work collaboratively with planners, inspectors, and delivery teams.
- Provide clear, practical engineering advice.
- Provide technical link between Engineering and Field staff
- Support development of asset and inspection capability.
- Actively seek diverse perspectives in problem-solving

Commercial Acumen

- Consider financial implications when making recommendations
- Understand and comply with procurement guidelines
- Work with suppliers to ensure quality outcomes
- Recognise how financial decisions impact KiwiRail's overall position
- Support efficient targeting of maintenance and renewal investment.
- Avoid unnecessary interventions through sound engineering judgement.

Role specific domain

- Apply Metro-specific traction and electrical engineering standards, rules, and assurance requirements.
 - Interpret inspection and monitoring data to confirm asset condition and fitness for service.
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- Define engineering requirements and acceptance criteria for traction and electrical s works.
 - Maintain independence from access and work planning decisions.
 - Apply asset management policies
 - Implement asset management frameworks
 - Choose and adapt appropriate risk management frameworks
 - Identify and forecast risks, issues, and opportunities
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Decision Making

This role is responsible for engineering decisions that protect the safety and integrity of the Wellington traction and electrical s network.

Key decision-making includes:

- Confirming asset condition and fitness for passenger and freight operations.
- Determining appropriate maintenance, renewal, or interim control responses.
- Endorsing engineering aspects of traction and electrical s work scopes and standards.
- Escalating unacceptable risks or non-compliances to the Network Planning & Integrity Manager.

Human Resources Delegations	Nil
Direct reports	Nil
Finance Delegations	Level 8: Budgeted Operating Expenditure and Capital Expenditure \$10k.
Budget (operating and capital)	Nil
Travel Delegations	Nil
Statutory powers	Nil

Physical demands and the nature of work

This role requires a mix of in-office and in-field tasks:

- extended periods of standing and walking while performing inspections
- working in various weather conditions and environments
- exposure to mechanical equipment, electrical systems, vibration and noise
- prolonged sitting and high computer usage
- carrying of laptop and paperwork when alternating between home and office
- protective equipment usage including safety boots, hard hats, eye/ear protection

Your role may include other tasks suited to your level, as your manager directs. This job description shows your current duties. We'll review and update it with you if your responsibilities change.

About you

Knowledge and experience

- You have extensive experience in traction, electrical, or heavy electrical engineering roles.
- You will have 5+ Years of experience in Traction and Electrical engineering, asset management, or rail infrastructure.
- You have strong knowledge of electrified rail systems, including 1500V DC traction systems.
- You understand asset management principles and engineering assurance.
- You have experience supporting operations and responding to incidents in a rail environment.
- You have experience interpreting inspection, condition, and performance data.
- Experience in keeping asset management records up to date and ability to produce queries and reports.
- You understand rail engineering standards, operating rules, and safety requirements.
- Expertise in analysing, evaluating and problem-solving

Ways of working / Work-related qualities

- You apply sound engineering judgement
- Familiar with engineering codes and code supplements.
- You communicate technical issues clearly.
- You balance risk, performance, and practicality.
- You remain calm and objective in safety-critical situations.
- You work effectively across organisational boundaries.
- Willingness to complete required rail and health & safety training

Other Requirements

- Ability to meet required medical, drug and alcohol, and background checks.
- Comfortable wearing PPE and following site access rules.
- Current and valid NZ driver's licence.

Qualifications

You need either:

- You have a relevant degree in engineering
- You have a post tertiary education qualification.

And

- You hold relevant industry certifications
- Traction and electrical s engineering or rail-specific certification is highly desirable.