Job Description

Position Title:	Principal Engineer - Protection
Reports To:	Transmission Team Leader
Client(s)/Key Liaison:	Niko Engineers and Project Managers, external clients
Responsible For:	Provision of protection engineering services
Issued:	August 2024

Purpose of the Role

This position provides protection engineering support to Niko external clients and internally to the Niko protection and electrical design teams. This Principal role will build on Niko's technical capability and expertise in power system protection, as well as assist in developing new business opportunities within the New Zealand and Australian markets.

This is a senior protection engineering position so the Protection Engineer may be required to mentor and coach intermediate engineers, while still focussing on the development of key protection competencies and experience of their own.

Key Tasks

Complete engineering project work, with major areas of responsibility as follows:

Major areas of responsibility include:

- Development of protection philosophies, protection concepts and relay and instrument diagrams.
- Investigation of power systems faults.
- Power system computer modelling and fault studies.
- Detailed installation design of power systems secondary systems.
- Protection relay setting calculations, reviews and co-ordination.
- Configuration of protection relays and provision of associated documentation.
- Site inspections and providing support to test technicians for protection testing and commissioning.
- Report preparation.
- Preparation of proposals for protection projects.
- Carry out Quality Assurance reviews of work by other Protection Engineers.
- Provide coaching and direction to Intermediate Protection Engineers.

Person Specification

Education/Qualifications

- 10+ years in the power systems protection field.
- Tertiary qualified, ideally with a BE(Electrical) or equivalent, but not essential for those with significant industry experience.

Knowledge/Skills Required

- Advanced theoretical understanding of power systems and power systems protection.
- Significant experience with power system computer modelling and fault studies, (ideally DigSilent Power Factory).
- Familiarity with New Zealand transmission/generation/ distribution utility standards & systems (essential).
- Familiarity with IEC61850 and DNP3 for SCADA mapping.
- Detailed knowledge of installation design for protection systems.
- Protection relay setting calculations, reviews, and co-ordination.
- Extensive experience of configuration of numerical relays.
- Wide experience in the preparation of technical reports.
- Familiarity with the Microsoft 365 suite of software.

Competencies Required

- Attention to detail and a drive for technical excellence. Niko's reputation relies on high quality design outputs.
- An aptitude for solving problems based upon a mixture of analysis, wisdom, experience, and judgment.
- Ability to establish and maintain strong working relationships with clients and colleagues and gain their trust and respect.
- Desire to develop and enhance your theoretical knowledge of power systems protection.
- Ability to organise and manage multiple tasks.
- Strong self-motivation and desire to work with minimal supervision.
- Ability to prioritise workload.
- Ability to confer with engineering staff and other personnel to resolve problems.

Values

Personal values and behaviours that align to our company values:

- Be friendly and approachable, whilst being professional in your dealing with internal and external clients.
- Have consideration for the safety of themselves and others at the place of work.
- Respect for colleagues.
- Act in good faith and be fair.
- Willing to work and share knowledge within a close-knit team.
- Commitment to ***outstanding*** customer service.