



## Role Description

<b>Title</b>	Asset Engineer – Electrical, Fixed-Term	<b>Incumbent</b>	Vacant
<b>Reports to</b>	Asset Manager	<b>Date of Last Review</b>	1 November 2023
<b>Team</b>	Assets and Engineering	<b>Location</b>	Christchurch
<b>Direct Reports</b>	None	<b>Work Environment</b>	Office based Work in Antarctica may be part of this role. Medical clearance is required.

### Organisational Context

Antarctica New Zealand is a Crown Entity established on 1 July 1996 under the New Zealand Antarctic Institute Act to develop, manage and execute New Zealand's activities in respect of Antarctica and the Southern Ocean.

Our overarching organisational goal is to continue to play an influential role in the kaitiakitanga (guardianship) of Antarctica and the Southern Ocean as a natural resource devoted to peace and science. We do this by facilitating high-quality scientific research in Antarctica and supporting initiatives to protect the environment. Other key activities include the operation of Scott Base; managing logistics to, from and within Antarctica; and raising public awareness of the global significance of the continent and surrounding Southern Ocean.

### Business unit purpose

The Assets and Engineering team is responsible for the safe and effective management of all Scott Base facilities, infrastructure and assets, as well as delivery of the Scott Base Redevelopment project.

### Role purpose

This role will be instrumental in determining the relevant strategies required to meet Antarctica New Zealand's asset management objectives. This will help ensure our Low and Medium Voltage electrical assets continue to operate safely and effectively, in a way that improves reliability and resilience and optimises asset service life.

In addition, the role also provides support and guidance on the application of Antarctica New Zealand's engineering design and maintenance standards to the Scott Base (SB) Engineering team.

This is a fixed-term role for two years, to provide additional resource while an existing member of our team fulfils an alternative position within the organisation.

### Work of role

#### Health, Safety and Environmental Management (HSE)

- Fulfil accountabilities as documented in the Health, Safety and Environmental Management systems.
- Leads or supports HSE investigations and champions HSE improvement initiatives.
- Accountable for the technical review of electrical job tasks that have a high or critical risk to personnel or the organisation.
- Responsible for ensuring Antarctica New Zealand's safe work practices are followed.
- Proactively promotes safe behaviour and injury prevention.

- Participate in training and working safely including the proper use of safety equipment.

#### **Provide Technical Support to Scott Base Engineering team**

- Ensure safe operations at Scott Base by supporting training, induction and providing expert engineering advice to the Scott Base engineering team.
- Providing technical support to the Scott Base Engineering team and investigate performance issues for critical assets.
- Undertake asset investigations to find operational and capital solutions to issues and defects.
- Providing operational support during incidents involving our electrical assets at Scott Base.
- Working with operational staff to ensure maintenance intervention strategies are followed and decisions are made with a "best for base" approach.
- Provide operational asset management advice with the aim of ensuring efficient and effective operation of our electrical infrastructure.

#### **Asset Management**

- Contribute to the development of a 10-year organisational asset management plan that is based on rigorous data and analysis.
- Develop and execute asset performance monitoring equipment and programs for our Low and Medium Voltage electrical assets.
- Undertake and document asset condition assessments in order to identify significant failure risks
- Support the operational management and delivery of asset replacements and renewals.
- Develop a robust maintenance program that will ensure timely and cost-effective elimination of defects.
- Promote the use of asset management processes and tools.
- Facilitate, scope and ensure the approval of capital asset programmes (renewal and rehabilitation).
- Write, develop and update Standard Operating Procedures for our Electrical assets.
- Carry out targeted inspections and audits to provide assurance of asset condition and completion of works.
- Produce professional documentation including reports, business cases, investigations and proposals.
- Quality assurance through "fit for purpose" and "right first time" principles.

#### **Risk Management**

- Work closely with the Risk Manager on regulatory and risk matters to ensure all legislative and regulatory requirements are adhered to and complied with.
- Manage our risk-based, systems approach to Asset Lifecycle Planning across the asset portfolios that you are responsible for.
- Ensure that controls for critical risks are implemented and effective.

#### **Leadership**

- Uphold organisational policies, demonstrate high standards of professionalism and role model the values of the organisation.
- Develop and contribute to high performing individuals, teams and cross functional relationships.
- Lead projects on a varying scale, including problem scoping, solution development and design, budget preparation and control, planning and coordination, construction supervision and commissioning.
- Deployment to Antarctica for up to three months in an engineering supervisory capacity.
- Support the recruitment of the Scott Base Engineering team and ensure selection criteria supports specific operational and asset management requirements.

#### **Other tasks**

- Represent Antarctica New Zealand in developing and maintaining effective relationships with engineering specialists throughout New Zealand and overseas.
- Fulfil accountabilities as described in the Information and Records Management Policy for creating and centrally storing accurate and complete records of your own business activities.
- Any other tasks as assigned by the Asset Manager or Project Director – Scott Base Rebuild.

## Key challenges

<ul style="list-style-type: none"> <li>● Ensure safe operations at Scott Base by supporting training, induction and providing expert engineering advice to the Scott Base engineering team.</li> <li>● Maintain current knowledge of complex Scott Base engineering systems by living and working at Scott Base.</li> <li>● Remotely manage complex high value assets and critical life support systems at Scott Base, ensuring they are always maintained and operated as a fit for purpose.</li> <li>● Maintain technical currency through proactive involvement in industry events, developing industry contacts and membership of industry working groups.</li> </ul>
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## Key functional relationships

<b>Internal</b>	<ul style="list-style-type: none"> <li>● SBR Wind Farm Project Engineer</li> <li>● Facilities Planner</li> <li>● Scott Base Engineering Team</li> <li>● Scott Base Engineering Supervisor</li> <li>● Project Director - Scott Base Rebuild.</li> <li>● GM Antarctic Operations</li> <li>● Risk Manager</li> <li>● Environmental Manager</li> </ul>
<b>External</b>	<ul style="list-style-type: none"> <li>● Event Staff</li> <li>● Engineering Consultants, Contractors, Suppliers</li> <li>● Other Antarctic programme operational staff</li> </ul>

## Minimum capability necessary to work to role

Capability area	Description
<b>Qualifications, Certificates and Memberships</b>	<ul style="list-style-type: none"> <li>● Bachelor /Diploma of Engineering (Electrical) or Electrical Engineering Technician.</li> </ul>
<b>Knowledge, Skills and Experience</b>	<ul style="list-style-type: none"> <li>● 5 years electrical systems experience</li> <li>● Exposure to instrumentation and control engineering.</li> <li>● Understanding of Asset lifecycle management.</li> <li>● Experience identifying complex problems and reviewing related information to develop and evaluate options and implement solutions.</li> <li>● Working knowledge of relevant electrical regulations, codes and standards such as AS/NZS 3000</li> <li>● Ability to create and understand electrical circuit diagrams</li> <li>● Leading teams onsite and remotely from an office</li> <li>● Proven ability to maintain productive relationships with a diverse range of stakeholders.</li> <li>● Operational experience in remote and challenging environments</li> <li>● Understanding of and commitment to tikanga and Treaty of Waitangi principles</li> <li>● Computer literacy, e.g. Word, Excel, Asset Management and Project Management software.</li> <li>● Stakeholder management / professional relationships</li> <li>● Contract management and procurement processes.</li> </ul>
<b>Judgement, temperament and influence</b>	<ul style="list-style-type: none"> <li>● Patience</li> <li>● Discretion</li> <li>● Perseverance</li> <li>● Communicator</li> </ul>

Antarctica New Zealand values

- To honour our obligation to Antarctica:**
- **Ka ngākau whiwhita tātou ki ā tātou mahi katoa**  
We are passionate about what we do
  - **Ka tiaki tātou i a tātou anō, ka tiaki hoki i te taiao**  
We care for each other and the environment
  - **Ka mahi tahi tātou**  
We work together
  - **He ngākau pono ō tātou**  
We act with integrity
  - **Ka whai tātou i ngā taumata tiketike**  
We aspire to the highest standards

**ROLE AUTHORISATIONS**

I confirm that this Role Description accurately describes the work of the Asset Engineer – Electrical, Fixed Term:

\_\_\_\_\_  
Project Director - SBR

\_\_\_\_\_  
Date

I accept this Role Description accurately describes the work of the role for which I am accountable:

\_\_\_\_\_  
Asset Engineer – Electrical, Fixed Term

\_\_\_\_\_  
Date