

Position details

Title of Position:	Experienced Lines Engineer
Reports to:	Manager Lines and Cable Engineering
Division:	Delivery
Function:	Lines and Cable Engineering
Number of Direct Reports:	Nil
Grade:	6

Health, Safety & Wellbeing

ElectraNet is committed to co-creating a workplace of choice and enriching the communities in which we operate.

As an industry leader, ElectraNet is at the forefront of the clean energy transition. We are socially and environmentally ambitious, and our continued commitment to developing, operating and maintaining our network in a way that creates opportunities for people and nature to thrive is essential to achieving our vision of energising South Australia's Clean Energy future.

Our commitment also drives our focus to create a physical and psychosocial environment that supports the health, safety and wellbeing of our people.

We all contribute to ElectraNet's workplace culture and have a duty of care to ourselves and one another to work safely, assess and manage risk, courageously speak up and promptly report any unsafe working practices, hazardous working conditions or security threats and to collectively learn and grow from every opportunity.

Position Overview

The Experienced Lines Engineer is responsible for specialised work relating to line engineering services and infrastructure thus ensuring compliance to ElectraNet's Regulatory performance and network operation obligations. The Experienced Lines Engineer will deliver as an SME in technical aspects of design delivery such as functional and detailed design, equipment selection, construction and commissioning (including installation, testing and operation). They enjoy collaborating with internal and external stakeholders to generate and implement new ideas and solutions that continually transform our network to meet customer needs, ensuring its capabilities result in resilient performance.

This role focuses on electrical aspects of transmission line and cable systems as well as interfacing with other technical disciplines such as substation, civil and telecommunication. The Electrical discipline for Lines focuses on whole of life transmission and cable infrastructure systems, transmission line route options, environmental and community interface management, line survey practices, line design and cable modelling, design and selection of insulator arrangements and line hardware as well as other specialist areas covering earthing systems, insulation coordination, line uprating solutions, line induction, earth potential rise, lightning protection, EMF, corona and RFI/TVI.

Success in this role is characterised by proficiency in Lines design, strong technical expertise, clear strategic thinking, effective communication, and an ability to build relationships across broad stakeholder groups to drive complex resolutions effectively.

Key Responsibilities

Operational & Technical

- Develop the preparation of relevant technical deliverables including customer service proposals, technical resource plans, design briefs, engineering scopes, concept and detailed designs, technical investigations, contract technical specifications, construction quality management and develop application documentation for lines engineering projects.
- Ensure specialist technical support for whole of life transmission line and cable infrastructure systems from concept, design, construction, procurement, materials, operation and performance, maintenance and disposal.
- Identification and analysis of transmission line route options with due consideration of technical, planning, environment and cost.
- Lead the quality review of technical design and investigation reports.
- Development and improvement of functional requirements specification, line/cable design philosophy and design standards.
- Actively contribute to "Safety in Design" for lines engineering projects and operations.
- Ensure the quality of and that design specifications comply with industry safety and reliability standards and ElectraNet requirements.
- Clearly communicate technical information and requirements to customer and stakeholders both internally and externally.
- Provide engineering advice to relevant stakeholders in areas including on-site asset construction, operational and maintenance technical support.
- Developing a good understanding of the ElectraNet Transmission network.
- Ensuring best practice approach is applied to the delivery of lines design.
- Continually assess the design, manufacture, and construction of lines to ensure it complies with industry safety and reliability standards and ElectraNet requirements.
- Support the performance and analysis of site acceptance tests for lines and cable infrastructure.
- Provide interpretation of inspection test plans to ensure safe energisation and operation of lines and cables as part of project delivery.

Behavioural

- Build and maintain strong working relationships with and between internal and external stakeholders, delivering a high level of customer service.
- Create and develop a respectful workplace environment that values cultural diversity, innovation, open discussion and cross functional collaboration to help drive high performance.
- Lead by example; role model desired behaviour and priorities, demonstrate personal accountability for self-development and for achieving quality and timely result.
- Demonstrate behaviour that is consistent with ElectraNet's values, Code of Conduct and Acceptable Use of Technology Resources Policy while performing the role in a professional and ethical manner.
- Promote safe work practises that support the safety of all workers and the security of ElectraNet's assets, proactively reporting safety incidents, near misses and security threats.

Significant Working Relationships

- Lines and Cables Engineering team and Manager
- Lead Lines Engineer

- Principal Lines Engineer
- Project Delivery Division
- Asset Engineering Team
- External Contractors and Consultants
- Original Equipment Manufacturers

Equipment & Technology Used

- CDEGS
- PSCAD
- PLS-CADD
- CYMCAP
- ETAP
- MicroStation and AutoCAD
- EMTP
- Microsoft Office

Selection Criteria

Knowledge & Experience

Essential

- Proficient in line and cable design, construction, operation and materials.
- Proficient knowledge of the whole of life function and operation of high voltage electricity transmission networks and transmission line practices.
- Proficient knowledge of electrical line design principles relating to line uprating solutions, line induction, earth potential rise, earthing, lightning protection, EMF, corona and RFI/TVI.
- Proficient knowledge of specifications, installation, testing methods of overhead line materials (e.g. conductor, OHEW, OPGW and hardware) and/or underground HV cable.
- Proficient knowledge and experience of route selection, environmental and community interface management, line survey practices, line design and cable modelling, design and selection of insulator arrangements and line hardware, and preparation of "for construction" design documentation.
- Knowledge of principles of insulation coordination and electric/magnetic transient analysis for application to line engineering, HVDC, HSIL.
- Proficient knowledge and experience of CDEGS, PSCAD, PLS-CADD, CYMCAP, ETAP and other electrical, structural and line design software & tools.
- Knowledge of civil, structural, engineering survey, geotechnical investigations, construction management and live line maintenance procedures.
- Demonstrated ability to prepare and review line specifications.
- Good understanding of related disciplines such as telecommunication and substation primary design.
- Knowledge of legislated industry requirements (WHS, National Electricity Rules, ESCOSA, OTR, AEMO Guidelines) as well as relevant Australian and IEC standards as applicable to line design.
- Proven ability to assess, recommend and implement new technologies in accordance with approved policies and procedures.
- Competent contract administration capabilities.
- Advanced analytical, investigation and problem-solving skills.
- Advanced time management, coordination, and organisation skills.

- Advanced written and verbal communication skills; good interpersonal skills.
- Flexible approach to working hours and after-hours commitments.

Desirable

- Minimum 5 years' experience, in the design, installation/commissioning, operation and/or maintenance of transmission line and cable assets.

Qualifications

- Tertiary qualification in Electrical/ Mechanical/ Civil Engineering or relevant discipline (essential)
- Eligible for membership of Engineers Australia (essential)
- Chartered status with Engineers Australia (desirable)
- AL: General Substation Access (desirable)
- White Card training (desirable)

Background Checks

- Pre-employment checks, including background and security checks (such as global criminal checks) are required for this position, completed prior to commencement and repeated on a regular basis after appointment.

NOTE: Copies of the above listed qualifications/licences/certificates are required as evidence on appointment.