

Position details

Title of Position:	Power System Engineer
Reports to (position title):	Network Operations and Security Manager
Division:	Network
Function:	Network Operations and Security
Number of Direct Reports:	Nil
Grade:	4

Health, Safety & Wellbeing

ElectraNet is committed to a Safety-First culture and a work environment promoting the health, safety and wellbeing of all workers. To sustain this culture, all leaders are required to implement and maintain the areas of ElectraNet's safety management system under their control, where the health, safety and wellbeing of all workers comes first while ensuring full compliance with all legislative and policy requirements.

All employees are required to contribute to the Safety-First culture by exercising their duty of care to themselves and one another, by working safely, by adhering to all reasonable safety and security instructions, by using all equipment provided in accordance with safe and secure work methods and by promptly reporting any unsafe working practices, hazardous working conditions or security threats.

Position Overview

Power Systems Engineers contribute to power system operation and performance. They understand underlying principles and established techniques and are responsible for providing analysis and reporting functions that meet customer needs, ensuring its capabilities result in resilient performance.

They enjoy the challenge of generating and implementing new ideas and solutions that continually transform our network to meet customer needs, ensuring its capabilities result in resilient performance.

Key Responsibilities**OPERATIONAL & TECHNICAL**

Capable of working for periods under general supervision both in collaboration with other technical experts and independently, you will support provision of network security compliance, delivering technical analysis and advice, and operational support to the wider team in terms of:

- Security and reliability assessments for unplanned events, planned outages, advising key stakeholders of mid and longer-term network access opportunities.
- Assist with the development of contingency plans or recommendations to manage system security.
- Assisting in developing operating instructions to manage system security.
- Monitoring and reporting on Power System compliance issues using EMS and WAMS as per Chapter 4 in NER.
- Compiling, interpreting, validating, and processing of all network performance data.
- Providing technical recommendations and advice on real-time network performance measures and systems.
- Assisting during investigations of unplanned power system incidents (i.e. post-fault data), analysis on the event and recommendations where necessary.

- Supporting the management of the real time system's transmission network model, system tools and associated databases.
- Providing monthly, quarterly and annual network performance reports, including exception reporting and Statutory Submissions for ElectraNet, the Board and external customers and the Australian Energy Regulator.
- Providing support in relation to outage and fault event analysis.
- Contribute to inter-organisational obligations related to compliance in relation to all technical requirements, regulations and legislation certification;
- Work in conjunction with Network Development Team & AEMO in establishing network limit equations.
- Use network performance and compliance data to assist in the development of business case for future remedial actions or investment.
- Maintain an accurate record of equipment out of service and network impact

RELATIONSHIP MANAGEMENT

- Build & maintain strong working relationships with internal and external stakeholders to deliver a high level of customer service.
- Carry out the role in a professional and ethical manner and in accordance with ElectraNet's values, Code of Conduct and other policies.
- Flexible approach to working hours and after hours commitments.

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

- External Customers & Suppliers
- ElectraNet Network Development
- ElectraNet Network Services
- SA Power Networks (SAPN)
- Australian Energy Market Operator (AEMO)
- Government agencies

Equipment & Technology Used

- Energy Management Systems (EMS) and associated tools
- Wide Area Monitoring System (WAMS)
- PSS/E Knowledge on any of the applications listed below are advantageous
- PSCAD

- Power Factory
- Other specialist analysis tools, e.g. PLEXOS, Matlab

Selection Criteria

Knowledge & Experience

Essential

- Applying theoretical and practical knowledge to solve commonly encountered problems
- Applying generally accepted concepts, principles and standards in well-defined areas
- Undertake small projects delivering to short term weekly timeframes
- Undertake ongoing tasks being performed on either a daily/weekly/monthly basis
- Demonstrable knowledge of network planning & analysis
- The application of engineering analytical techniques planning, system design and operational support;
- Applying established methods and approaches to engineering problems;
- Understanding and application of physics and mathematical principles in conducting system planning and operational support;
- Applying economic impact of solutions to technical problems.
- Ability to undertake programming using Python or similar knowledge of legislated industry requirements (i.e. National Electricity Rules, ESCOSA, OTR, AEMO Guidelines)
- Well-developed analytical, investigation and problem-solving skills
- Demonstrable advanced written and verbal communication skills; good interpersonal skills
- Knowledge of transmission system reliability and performance
- Knowledge of substation and transmission system components, performance and operation
- Demonstrable ability to work as a team member and actively promote office harmony

Desirable

- As a guide minimum 3 years' experience, and demonstrated capability in an Engineering related role OR 3 years' experience in an operational role
- Electricity Industry background (advantageous)
- Flexible approach to working hours and after-hours commitments

Qualifications

- Tertiary qualification in Electrical Engineering or relevant discipline (essential)
- Eligible for membership of Engineers Australia (desirable)
- Chartered status with Engineers Australia (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.