

Department of Planning Transport and Infrastructure (DPTI)

JOB AND PERSON SPECIFICATION

Position Title:	Senior Electrical Engineer	Division :	Safety & Service
Classification:	PO3	Directorate:	Asset Management
Position Number:	PS0329 & PS0444	Unit:	Rail Engineering & Rollingstock
ANZSCO Code:		Medical Category:	3

Role Statement Approval

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 Delegate

Organisation Overview

The Department of Planning, Transport and Infrastructure (DPTI) serves the South Australian community by enabling a safe and efficient movement of people and freight across the state and facilitating development of the State's infrastructure, in accordance with South Australia's Strategic Plan and the State Infrastructure Plan.

To deliver our core responsibilities our philosophy is for our workforce to be: **Aligned** - committed to the vision and strategic priorities; **Responsive** - focused on delivery; **Empowered** - encouraged to be bold and innovative and **Accountable** - responsible to the people of South Australia, **Safe** – a safe and healthy workplace for all.

ROLE SPECIFICATION**1. Role Overview**

The Senior Electrical Engineer is accountable to the Manager Electrical Engineering for:

- delivering specialist leadership for the management and review of complex electrical and traction power system projects and contracts that are associated with public transport services new works
- providing expert advice, consultancy, review, oversight and recommendations to guide, inform and ensure the effective and compliant planning and delivery of relevant legislative, operational and safety requirements
- providing effective leadership, management and development of the Rail Engineering team, which contributes to the safety and quality management of the workgroup
- providing an effective customer service and a positive corporate image, including the maintenance of good working relationships with senior staff, unions and the general public
- contributing to the formulation of the Rail Engineering recurrent and capital budgets and monitor expenditure

which results in the achievement of Agency goals of delivering an efficient, on-time and safe transport system.

2. Reporting/Working relationships

The Senior Electrical Engineer is accountable to the Manager Electrical Engineering and:

- works collaboratively as a specialist member of the Rail Engineering team.
- coordinates Rail Engineering activities and staff, and is required to collaborate with all members of the Engineering Section
- liaises with and forms collaborative relationships with internal customers, external service providers such as contractors, consultants, Government Departments and external agencies
- liaises internally across the department with all levels of management and staff
- participates on relevant internal and external committees and workgroups.

3. Special Conditions

- Some work outside normal hours and some intra/interstate travel involving overnight absences may be required.
- Must be prepared to be assigned to another position at the appropriate classification level or equivalent.
- The incumbent is subject to, and must attend medical assessments in accordance with Rail Safety National Law (SA) 2012 legislative requirements and departmental policy.

4. Statement of Key outcomes and associated activities

1. **Deliver specialist leadership for the management and review of complex electrical and traction power system projects and contracts that are associated with public transport new works by:**
 - a) managing and/or undertaking critical and complex projects to improve electrical systems and traction power systems, including providing expert support for traction power distribution systems and electrical services teams
 - b) leading the review and preparation of plans and documentation associated with new projects and contracts, including consulting and liaising with staff and stakeholders, making recommendations for actions or improvements, and undertaking compliance checks to ensure the application of appropriate design principles.
2. **Provide expert advice, consultancy, review, oversight and recommendations to guide, inform and ensure the effective and compliant planning and delivery of relevant legislative, operational and safety requirements by:**
 - a) reviewing, and reporting on, design documents, standards, specifications and practices, to ensure compliance with existing public transport Standards, and implementing compliance changes as appropriate, to meet organisational and regulatory requirements
 - b) providing specialist recommendations, that are underpinned by an expert and current knowledge of trends and developments in electrical engineering, in order to support continuous improvement of systems and procedures, and to guide and inform the implementation of improvements
 - c) providing high level advice and consultancy, to professional staff and project stakeholders, in relation to all aspects of electrical and traction power systems and operations, including leading processes for selecting, improving and modifying systems and equipment, and managing or conducting complex investigations into electrical problems
 - d) establishing and managing maintenance schedules, and coordinating and/or attending to, critical and complex faults and site inspections to ensure the effective continual operation of relevant systems
 - e) developing innovative electrical solutions and designs that supports the delivery of best quality electrical engineering, and the improvement of the performance of electrical railway systems, including developing complex technical specifications, which incorporate critical cost and risk considerations, for the procurement of equipment.
3. **Provide effective technical development guidance and leadership within the Rail Engineering team, which contributes to the safety and quality management of the workgroup by:**
 - a) managing resources to maximise business and customer satisfaction outcomes, including planning and allocating work schedules, defining and communicating staff roles, functions and responsibilities, ensuring that quality and continuous improvement principles are embraced, and implementing communication processes that allow timely transfer of relevant information
 - b) developing and applying new or enhanced electrical engineering work practices, procedures, problem solving tools and technologies that improve efficiency, effectiveness and cost performance, including leading and guiding staff and identifying and addressing areas for improvement through selection and training activities
 - c) developing, implementing and overseeing performance development plans for assigned graduates to support the delivery of quality and consistent work requirements that meet organisational objectives
 - d) contributing to the development of innovative and effective customer service strategies and initiatives, including providing specialist input into the development and implementation of the Infrastructure Services Business Plan, and making sure employees are aware of its key objectives and activities
 - e) developing, implementing, reviewing and reporting on a range of relevant and responsive strategies, and operational policies and procedures, in order to support safety, security and environmental risk mitigation and continual improvement processes
 - f) managing and coordinating a range of complex and special projects as required, including utilising good prudential management principles to ensure objectives are met
 - g) implementing and fostering a commitment to, and adherence with, work practices that comply with relevant Rail Safety and environmental legislation, regulations, and standards, including Australian Standards and associated policies, procedures and systems.
4. **Provide an effective customer service and a positive corporate image, including the maintenance of good working relationships with senior staff, unions and the general public by:**
 - a) maintaining open lines of communication on all matters raised between offices and employees
 - b) providing high level expertise in the timely and effective address of complex and urgent matters as they arise
 - c) achieving all Customer Service Standards and agreed Service Level Agreements
 - d) delivering expert support for customers and stakeholders to ensure the maintenance of ongoing effective business relationships
 - e) developing and modelling a productive and responsive service culture focus within the workgroup.
5. **Contribute to the formulation of the Rail Engineering recurrent and capital budgets and monitor expenditure by:**

- a) assisting with the preparation and monitoring of the Electrical Engineering budget
- b) contributing to the Rail Engineering recurrent and capital budgets formulation
- c) managing Rail Engineering expenditure, reporting and analysing expenditure, making recommendations to meet targets
- d) approving expenditure within delegated authorities.

6. Ensure that a safe and healthy work environment, free from discrimination is provided for employees by:

- a) implementing departmental human resource policies
 - b) ensuring that the principles of Equal Employment Opportunity, Customer Service and Ethical Conduct are a normal part of doing business
 - c) making respect for a range of cultures, in particular the cultures of Aboriginal people and Torres Strait Islander people evident in business operations, decision-making and service delivery;
 - d) managing industrial relations issues appropriately as they arise.
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Acknowledged by occupant

(Print name)

(Signature)

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PERSON SPECIFICATION

1. Essential Minimum Requirements

1. Educational/Vocational Qualifications

- a) Bachelors degree in Electrical Engineering or equivalent, providing eligibility for membership as a Professional Engineer of the Institution of Engineers, Australia.
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2. Personal Abilities/Aptitude/Skills/Experience/Knowledge

- a) Extensive experience in electrical and electronic systems, electrical maintenance and the application of electricity regulations and standards.
 - b) Experience in applying project management principles and contract and tendering conditions, and undertaking project scheduling, reporting, and administering project management systems.
 - c) Well developed and proven analytical and problem solving skills, including fault finding and developing innovative solutions for the maintenance, design and construction of electrical engineering assets.
 - d) Knowledge of quality, risk management, railway safety and environmental management concepts and principles.
 - e) Proven high level interpersonal and communication skills, including the ability to communicate effectively at all levels, listen to customers, empathise and provide appropriate solutions to achieve satisfactory results, and to successfully negotiate and resolve conflict in a commercial environment.
 - f) High level ability to work independently under minimal direction, lead a team of engineers and technical specialists, identify performance outcomes, plan activities and set priorities to achieve objectives and meet strict deadlines, often in a context of competing priorities and expectations.
 - g) Demonstrated commitment to the principles and practices of Equal Employment Opportunity, Customer Service and Ethical Conduct, and an understanding of, experience in, and ability to manage to the spirit and principles of the Premier's Safety Commitment and the legislative requirements of the Work Health & Safety Act, utilising AS/NZS 4360 Risk Management, or to an equivalent set of standards.
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2. Desirable Characteristics

1. Educational/Vocational Qualifications

- a) Nil
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2. Personal Abilities/Aptitude/Skills/Experience/Knowledge

- a) Experience in AUTOCAD or equivalent computer aided drafting packages.
b) Knowledge of DPTI Trackforce Rules and ARTC Code of Practice.
c) Experience in substation design and maintenance