

Role Description

Senior Engineer OHW



Cluster	Transport
Agency	Sydney Trains
Division/Branch/Unit	Engineering & Maintenance/Engineering System Integrity
Location	Clyde Hub
Classification/Grade/Band	RC6
Role Number	50053816, 50053817, 50053839 & 51015756
ANZSCO Code	233999
PCAT Code	1119192
Job Code	81000433
Health Assessment Category - Safety	Category 3
Vision	Nil
Hearing	Category 3
Date of Approval	April 2024
Agency Website	https://www.transport.nsw.gov.au/sydneytrains

Agency overview

Sydney Trains provides train services throughout the Sydney metropolitan area and was established in July 2013. Its vision is to keep Sydney moving by putting the customer at the center of everything it does and delivering safe, reliable, and clean rail services to the people of Sydney. The organisation is focused on providing sustainable, efficient, and cost-effective services.

Primary purpose of the role

The Senior Engineer OHW provides best practice engineering advice and innovation to Sydney Trains and external clients in the areas of Overhead Wiring (OHW), 1500 V dc cable feeding arrangement and associated materials to ensure safety and reliability of Sydney Trains electrical network throughout the asset lifecycle.

Key accountabilities

- Build project plans and scheduled works for OHW and 1500 V dc cable feeding arrangement projects, to ensure they are completed in a financially responsible manner, to time, cost, quality and safety standards, as well as satisfying client / stakeholder and asset management requirements.
- Assist the design team in the production of OHW and 1500 V dc cable feeding arrangement designs to meet Sydney Trains quality, technical and safety standards.
- Prepare, analyse and evaluate technical investigation reports and technical specifications to ensure engineering systems integrity.

- Identify, develop and communicate engineering innovations relating to OHW and 1500 V dc cable feeding arrangements, to facilitate the provision of safe and commercially smart solutions to meet Sydney Trains engineering challenges.
- Assess OHW and 1500 V dc cable feeding arrangement standards, policies, procedures, guidelines and instructions to ensure they are fit for purpose to support the safe, reliable and cost-effective management of Sydney Trains assets through their lifecycles.
- Prepare concession requests to TfNSW standards for infrastructure configuration operated outside the conditions specified in the standards to enable safe and reliable operation when required outside those standard limits, including but not limited to whole of life cost and assurance that risks are still managed So Far As Is Reasonably Practicable.
- Liaise with stakeholders, delivery partners and clients across the entire cluster and implement at all times a best for Transport approach.
- Execute safety responsibilities, authorities, and accountabilities consistent with Sydney Trains Safety Management System requirements which are defined in SMS document number SMS-02-RG-3058.

Key challenges

- Keeping up to date with the range, pace and complexity of information and knowledge required to deliver quality service.
- Managing competing demands within a complex and high-volume work environment
- Balancing the sometimes competing expectations and agendas of different stakeholders

Key relationships

Internal

Who	Why
Reporting Line Manager	<ul style="list-style-type: none"> • Key relationship manager, report to, receive advice and guidance, clarify instructions and report on progress against work plans as required • Provide support to achieve operational priorities, exchange information and contribute to decision making • Escalate, discuss issues and propose solutions
Work Team	<ul style="list-style-type: none"> • Support team members and work collaboratively to contribute to achieving the team's project outcomes • Participate in meetings, provide or exchange information and respond to requests, open channels of communication, and provide input on issues • Collaborate to continually improve knowledge, build capability, and improve consistency and service quality
Stakeholders	<ul style="list-style-type: none"> • Consultation and collaboration on development of initiatives and alignment and feedback on models for improvement • Reporting, advice sharing and planning

External

Who	Why
External Stakeholders/ Customers	<ul style="list-style-type: none"> Engage with relevant stakeholders/ customers to open channels of communication, provide expert advice, gather and exchange relevant information Resolve and provide solutions to issues Seek/ maintain specialist knowledge/ advice and collaborate on implementing organisation strategies to keep abreast of best practices
Industry groups, associations and committees	<ul style="list-style-type: none"> Information and knowledge relating to latest developments within the industry

Role dimensions

Decision making

The role operates with autonomy in determining day-to-day work priorities, being proactive in suggesting new strategies and processes within the context of an agreed work plan, quality standards, deliverables and outcomes, and making associated decisions.

Decisions on complex issues or those with political ramifications are referred to a higher level of authority.

Reporting line

The role accounts and reports to the relevant reporting line manager.

Direct reports

The role has no direct reports

Budget/Expenditure

As per the approved Agency Financial Delegations.

Key knowledge and experience

- Understanding of current and emerging technologies.
- Demonstrated understanding of GIS, Database management and simulation output analysis; asset management and maintenance requirement analysis for mains infrastructure; and design tools for OHW and 1500 V dc cable feeding arrangements.
- Demonstrated knowledge of relevant codes of practice, standards, policy, procedures and guidelines relating to OHW and 1500 V dc cable feeding arrangements.
- Demonstrated experience in high level problem solving relating to OHW, 1500 V dc cable feeding arrangement and associated materials.
- Demonstrated experience in design, planning, construction, maintenance and commissioning of OHW and 1500 V dc cable feeding arrangement.

Essential requirements

- Tertiary qualifications in Electrical Engineering or relevant discipline.

Capabilities for the role

The [NSW public sector capability framework](#) describes the capabilities (knowledge, skills and abilities) needed to perform a role. There are four main groups of capabilities: personal attributes, relationships, results and business enablers, with a fifth people management group of capabilities for roles with managerial responsibilities. These groups, combined with capabilities drawn from occupation-specific capability sets where relevant, work together to provide an understanding of the capabilities needed for the role.



The capabilities are separated into focus capabilities and complementary capabilities

Focus capabilities

Focus capabilities are the capabilities considered the most important for effective performance of the role. These capabilities will be assessed at recruitment.

The focus capabilities for this role are shown below with a brief explanation of what each capability covers and the indicators describing the types of behaviours expected at each level.

Focus capabilities

Capability group/sets	Capability name	Behavioural indicators	Level
	Display Resilience and Courage Be open and honest, prepared to express your views, and willing to accept and commit to change	<ul style="list-style-type: none"> Be flexible, show initiative and respond quickly when situations change Give frank and honest feedback and advice Listen when ideas are challenged, seek to understand the nature of the comment and respond appropriately Raise and work through challenging issues and seek alternatives Remain composed and calm under pressure and in challenging situations 	Adept
	Act with Integrity Be ethical and professional, and uphold and promote the public sector values	<ul style="list-style-type: none"> Represent the organisation in an honest, ethical and professional way and encourage others to do so Act professionally and support a culture of integrity Identify and explain ethical issues and set an example for others to follow Ensure that others are aware of and understand the legislation and policy framework within which they operate Act to prevent and report misconduct and illegal and inappropriate behaviour 	Adept



Communicate Effectively

Communicate clearly, actively listen to others, and respond with understanding and respect

- Present with credibility, engage diverse audiences and test levels of understanding
- Translate technical and complex information clearly and concisely for diverse audiences
- Create opportunities for others to contribute to discussion and debate
- Contribute to and promote information sharing across the organisation
- Manage complex communications that involve understanding and responding to multiple and divergent viewpoints
- Explore creative ways to engage diverse audiences and communicate information
- Adjust style and approach to optimise outcomes
- Write fluently and persuasively in plain English and in a range of styles and formats

Advanced



Work Collaboratively

Collaborate with others and value their contribution

- Encourage a culture that recognises the value of collaboration
- Build cooperation and overcome barriers to information sharing and communication across teams and units
- Share lessons learned across teams and units
- Identify opportunities to leverage the strengths of others to solve issues and develop better processes and approaches to work
- Actively use collaboration tools, including digital technologies, to engage diverse audiences in solving problems and improving services

Adept



Plan and Prioritise

Plan to achieve priority outcomes and respond flexibly to changing circumstances

- Consider the future aims and goals of the team, unit and organisation when prioritising own and others' work
- Initiate, prioritise, consult on and develop team and unit goals, strategies and plans
- Anticipate and assess the impact of changes, including government policy and economic conditions, on team and unit objectives and initiate appropriate responses
- Ensure current work plans and activities support and are consistent with organisational change initiatives
- Evaluate outcomes and adjust future plans accordingly

Adept



Think and Solve Problems

Think, analyse and consider the broader context to develop practical solutions

- Undertake objective, critical analysis to draw accurate conclusions that recognise and manage contextual issues
- Work through issues, weigh up alternatives and identify the most effective solutions in collaboration with others
- Take account of the wider business context when considering options to resolve issues
- Explore a range of possibilities and creative alternatives to contribute to system, process and business improvements
- Implement systems and processes that are underpinned by high-quality research and analysis
- Look for opportunities to design innovative solutions to meet user needs and service demands
- Evaluate the performance and effectiveness of services, policies and programs against clear criteria

Advanced



Technology

Understand and use available technologies to maximise efficiencies and effectiveness








- Identify opportunities to use a broad range of technologies to collaborate
- Monitor compliance with cyber security and the use of technology policies
- Identify ways to maximise the value of available technology to achieve business strategies and outcomes
- Monitor compliance with the organisation's records, information and knowledge management requirements

Adept

Complementary capabilities

Complementary capabilities are also identified from the Capability Framework and relevant occupation-specific capability sets. They are important to identifying performance required for the role and development opportunities. Note: capabilities listed as 'not essential' for this role are not relevant for recruitment purposes however may be relevant for future career development.

Capability group/sets	Capability name	Description	Level
	Manage Self	Show drive and motivation, an ability to self-reflect and a commitment to learning	Adept
	Value Diversity and Inclusion	Demonstrate inclusive behaviour and show respect for diverse backgrounds, experiences and perspectives	Intermediate

	Commit to Customer Service	Provide customer-focused services in line with public sector and organisational objectives	Adept
	Influence and Negotiate	Gain consensus and commitment from others, and resolve issues and conflicts	Adept
	Deliver Results	Achieve results through the efficient use of resources and a commitment to quality outcomes	Intermediate
	Demonstrate Accountability	Be proactive and responsible for own actions, and adhere to legislation, policy and guidelines	Adept
	Finance	Understand and apply financial processes to achieve value for money and minimise financial risk	Intermediate
	Procurement and Contract Management	Understand and apply procurement processes to ensure effective purchasing and contract performance	Intermediate
	Project Management	Understand and apply effective planning, coordination and control methods	Intermediate