

POSITION DESCRIPTION

Senior Network Planning Engineer

Location: Rangiora, Canterbury	Reports to: Head of Future Networks	Team: Future Networks
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About MainPower NZ Ltd

MainPower is the electricity lines company serving the communities of Waimakariri, Hurunui and Kaikōura. With a century-long legacy, we take great pride in owning, operating, and maintaining the essential infrastructure of poles, wires, and underground cabling that powers home and businesses throughout our network.

With a commitment to safety and reliability, MainPower ensures a secure electricity supply to over 44,000 connections, positively impacting the lives of the people who call North Canterbury home. From bustling urban centres like Rangiora and Kaiapoi to the picturesque farmland of Hurunui, the renowned wine country of the Waipara Valley, and iconic tourist destinations of Hanmer Springs and Kaikōura, MainPower plays a vital role in supporting the diverse needs of our region.

Position Purpose

The Senior Network Planning Engineer role is about strategic and technical leadership, leading or contributing to short-term and long-term network strategy and associated development plans to help prepare MainPower for a changing New Zealand energy environment on its journey to net-zero 2050. This is a collaborative role focused on providing industry-leading plans and solutions across network transformation, strategy, performance, resilience, network development, planning and investment activities.

This role incorporates customer's network reliability and resiliency requirements, changes driven from network and customer innovations, emerging technologies, operational and safety best practice and engages with both regional and national organisations to ensure alignment.

Principal Skills

The following are the principal skills for a candidate to be effective in this role:

Core skills	Technical skills	Self-management skills
Analytical thinking, complex problem-solving, critical thinking, active learning, resilience, and flexibility.	Technology use, monitoring and analysis, technology design and system design, data analysis and evaluation.	Initiative, integrity, time management, dependability, and adaptability.

Technical Skills

- **Electrical Engineering Expertise:** Deep knowledge of electrical engineering principles, especially in distribution networks.
- **Network Planning and Modelling:** Proficiency in network system modelling, load flow analysis, voltage optimisation, and network development planning.
- **Distributed Energy Resources (DER) and Electric Vehicle Integration:** Understanding of DER, grid-connected generation, and electric vehicle infrastructure.
- **Regulatory and Standards Knowledge:** Familiarity with industry regulations, standards, and compliance requirements.
- **Technical Software Proficiency:** Experience with ADMS, GIS, network analysis tools, data and BI tools, and Microsoft Office suite.

Analytical and Problem-Solving Skills

- **Strategic Thinking:** Ability to develop long-term strategies and align plans with organisational objectives.
- **Economic and Investment Analysis:** Skills in investment justification, economic analysis, and cost-benefit evaluation.
- **Risk Management:** Competence in identifying, assessing, and managing risks using structured frameworks.
- **Data Analysis:** Ability to analyse network loads, performance, and stability, and to interpret technical data.

Leadership and Change Management

- **Change Leadership:** Championing change and fostering a constructive workplace culture.
- **Decision-Making:** Recommending and implementing timely, impactful decisions.
- **Continuous Improvement:** Commitment to ongoing learning, professional development, and process enhancement.

Interpersonal and Communication Skills

- **Stakeholder Engagement:** Building effective relationships with internal and external stakeholders, including customers, contractors, and regulatory bodies.
- **Customer Centricity:** Placing customer needs at the centre of planning and decision-making.
- **Teamwork & Collaboration:** Working constructively within teams and across departments.
- **Knowledge Sharing:** Willingness to share expertise and provide training to others.
- **Effective Communication:** Clear, concise, and professional communication, both written and verbal.

Digital and Technology Skills

- **Digital Literacy:** Adapting quickly to new digital systems and tools.
- **Technology Integration:** Researching and implementing technology solutions such as network flexibility, DERMS, and OpenADR.

Self-Management and Professionalism

- **Initiative and Drive:** Proactive approach, volunteering for new challenges, and demonstrating motivation.
- **Planning and Organisation:** Strong planning, prioritisation, and workload and time management.
- **Professional Integrity:** Maintaining high standards of professionalism, ethics, and integrity.
- **Health and Safety Leadership:** Embedding safety by design and acting as a role model for health and safety practices.

Key Accountabilities

Key Result Area	Accountabilities
Leadership <i>Lead and deliver sustainable network development plans and strategies.</i>	• Provide senior strategic and technical leadership to the Assets and Operations team and wider business across strategic thinking, network planning, and engineering. • Provide senior technical and strategic leadership on innovations and opportunities to improve network development plans and investment strategies. • Research and present opportunities to improve network architecture and planning, network performance, operations and resilience, driving continuous improvement and innovation.
Network strategy, development and planning <i>MainPower's strategic network analysis, forecasting, planning and investment activities.</i>	• Contribute to MainPower's 10-year network development plans and yearly expenditure budgets for the Asset Management Plan, covering categories of: ▪ Major projects ▪ Network reinforcement ▪ Network innovation and flexibility ▪ Network intelligence and modelling • Support scenario-based network energy forecasting to inform development of MainPower's network development investment plan for Major Projects, Network Reinforcement and Future Networks. • Provide network development documentation, including detailed project concept scopes, presentations and investment business cases for internal audiences and MainPower Board of Directors. • Develop long term development plans (10 – 30 years) to ensure coordinated development of infrastructure. Develop strategies, budgets, delivery timeframes in coordination with other utilities. • Propose upgrades and enhancements to the 66kV, 33kV, 22kV, 11kV and 400V networks to meet MainPower's target levels of customer service. • Undertake, monitor, make recommendations or provide technical expertise on network development related activities, including: ▪ Network system modelling, including voltage optimization and load flow analysis ▪ Embedded generation including connection and use of system agreements ▪ Customer initiated connection projects or works ▪ Health and Safety ▪ Design standards ▪ Network investment prioritisation. ▪ Network reporting and investigations

	Identify, research and undertake economic analysis to find cost effective ways to deliver electricity.
Industry engagement <i>Represent MainPower and contribute to industry initiatives and working groups.</i>	Support the Head of Future Networks with industry initiatives, working groups and work with EDB peers to collaborate, standardise and align Network Development and Future Network activities.
Audit, risk and compliance <i>Identification, assessment, monitoring and management of risks, using the Risk Management Framework.</i>	- Ensure MainPower's risk framework is incorporated into network planning activities. - Attend industry best practice courses, events and ensure that MainPower's network planning systems, policies and procedures are current and world class. - Research, understand and apply relevant industry standards and procedures relating to network performance and resilience.
Team participation <i>Contribute to and work with the Network team and wider Company, to deliver a constructive workplace culture.</i>	- Ensure the Head of Future Networks is made aware of issues and kept informed of Future Networks and Electricity Industry activities. - Provide quality service and support to all contact areas within MainPower, including backup support as required. - Participate fully in meetings with colleagues, contributing as appropriate and supporting colleagues as required. - Engage with and develop positive and effective relationships with customers, staff members, suppliers, and contractors. - Share technical knowledge and expertise; provide training for other staff as required, and customer knowledge to enhance customer service. - Provide support to MainPower during emergency response and adverse weather events. This support may include work that draws on current or previous experience within the industry or secondment to other areas of the business as required in order providing support to the customer and community. - Undertake any further responsibilities as requested by the Head of Future Networks.
Professional development <i>Undertake all professional development required to fulfil position competencies and accountabilities.</i>	- Actively participate in performance reviews with the Head of Future Networks. - In conjunction with the Head of Future Networks, prepare and keep current a professional development plan. - Participate in 1-on-1 meetings to discuss progress and address any training or resourcing requirements of the role.
Health and Safety <i>Provide support to the Network department to contribute towards a culture of health and safety.</i>	Under the New Zealand Health and Safety at Work Act (HSWA) 2015, employees have specific duties: - follow safety procedures - use provided safety equipment correctly - report hazards or unsafe conditions - cooperate with health and safety policies and practices

	- engage actively in maintaining a safe work environment and adhere to instructions aimed at reducing risks and ensuring safety at work. In addition: - Ensure 'safety by design' is considered and integrated in all network planning activities. - Positively contribute to MainPower's health and safety culture through active support and adherence to internal policies and procedures. - Act as a role model for health and safety practices and policies.
Living our values	Demonstrate and promote high standards of values and integrity in all business dealings. Foster an inclusive and diverse work environment where employees are treated with respect and fairness.

Key Relationships

Internal - Head of Future Networks - Chief Assets and Operations Officer - Network Assets and Operations team (Asset Management and Control Centre) - Engineering and Design team - Project Delivery team - Commercial and Finance teams - Customer and Corporate Relations - Safety and Business Risk	External - MainPower's consumers, stakeholders, and external consultants - Industry bodies (such as ENA, EEA, and Transpower) - Other Electricity Distribution Businesses.
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Qualifications/Experience

Qualifications	A Tertiary level electrical engineering qualification
Experience	A comprehensive understanding and knowledge of the electricity industry, preferably with at least 10 years of proven experience in network development planning, engineering, design, economic analysis, network reliability, security, and quality of supply.

This document is not intended to be exhaustive in terms of detailing the role and responsibilities of the position but to at least to provide a 'flavour' of the requirements of the role – you may be asked to complete other duties for the betterment of the business from time to time.