



CHAPTER 5

Asset management overview

- 5.1 Introduction
- 5.2 Overview of approach to asset management
- 5.3 Flexible and integrated network investment planning
- 5.4 Asset management implementation
- 5.5 Further information

5 Asset management overview

Key highlights

- Powerlink is committed to sustainable asset management practices that consider and recognise our customer and stakeholder requirements.
- Powerlink's asset management practices provide safe, reliable, secure and environmentally conscious services that provide the platform to enable the transformation to a more sustainable, cost-effective, and climate resilient energy system.
- Powerlink's approach to asset management:
 - delivers value to our customers and stakeholders by optimising whole of life cycle costs, benefits and risks while ensuring compliance with relevant legislation, regulations and standards
 - is underpinned by Powerlink's corporate risk management framework and good practice international risk assessment methodologies
 - is aligned with Powerlink's corporate objectives.

5.1 Introduction

Powerlink's asset management system captures significant internal and external drivers on the business and sets out initiatives to be adopted.

Factors that influence network development, such as energy and demand forecasts, generation development (including asynchronous generation development and potential synchronous generation withdrawal), emerging industry trends and technology, and risks arising from the condition and performance of the existing asset base are analysed collectively in order to form an integrated network investment outlook over a 10-year period.

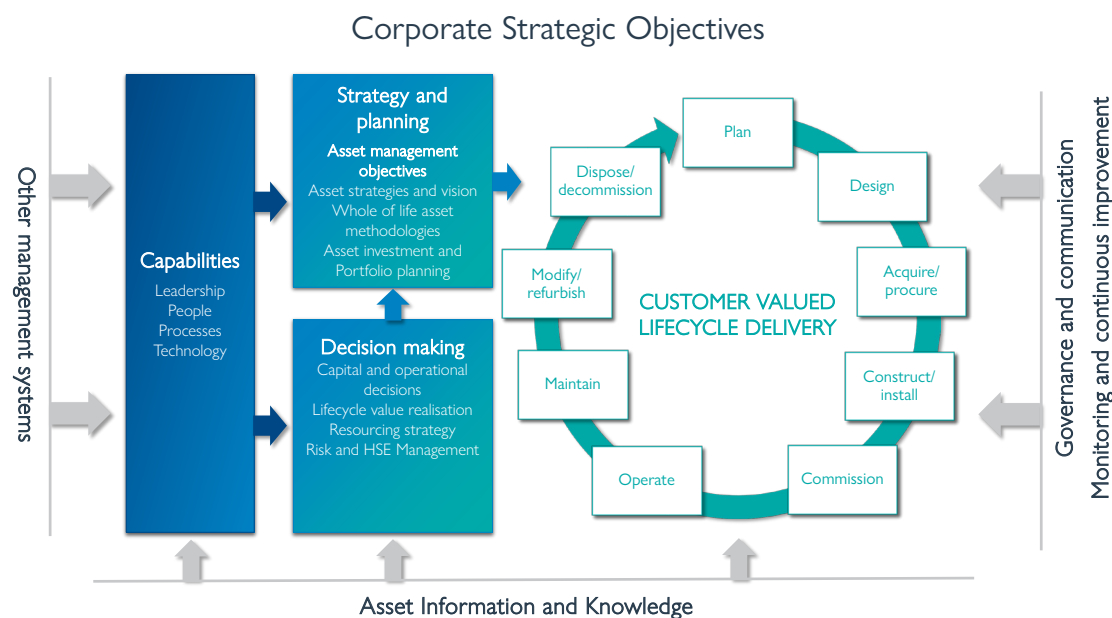
5.2 Overview of approach to asset management

Powerlink's asset management approach ensures assets are managed in a manner consistent with overall corporate objectives to deliver cost-effective and efficient services. Powerlink's asset management system is adapted from the Institute of Asset Management (IAM) and aligns with ISO55000 Asset Management Standards (refer to Figure 5.1) to ensure a consistent approach is applied throughout the life cycle of assets. The Asset Management System guides Powerlink's analysis of future network investment needs and key investment drivers.

Powerlink's asset management and joint planning approaches ensure asset reinvestment needs are not just considered on a like-for-like basis, rather the enduring need and most cost-effective options are considered. A detailed analysis of both asset condition and network capability is performed prior to proposed reinvestment and where applicable, a Regulatory Investment Test for Transmission (RIT-T) is undertaken in order to bring about optimised solutions that may involve network reconfiguration, retirement and/or non-network solutions.

Powerlink's asset management is committed to achieve sustainable practices that ensure Powerlink provides a valued transmission service to meet our customers' needs by optimising whole of life cycle costs, benefits and risks while ensuring compliance with applicable legislation, regulations and standards.

Figure 5.1 Powerlink's Asset Management approach



5.2.1 Strategy and planning

Powerlink considers obligations across a wide range of legislation and regulation, including the expectations of Powerlink's customers and stakeholders at the asset management strategy and planning stage. The asset management objectives set the context and performance measures for life cycle decisions. The strategy and vision sets the roadmap for assets, coupled with methodologies for asset management and investment plans. Development of asset management objectives based on a whole of life approach with a long-term vision guides efficient asset investment and portfolio planning.

5.2.2 Decision-making

Key decisions assist to achieve the strategy and decision-making throughout the life cycle stages. This includes decisions on capital investment and operational expenditure, resourcing, life cycle value realisation, risk and health and safety management.

Powerlink's asset management decision framework is fundamental in supporting the appraisal of future reinvestment needs, particularly in relation to:

- monitoring and analysis of asset health, condition and performance
- identifying the emerging needs for asset intervention to enable considered and prudent decision-making
- consideration of all economic and technically feasible options (including non-network options)
- assessment of benefits, risks and costs
- whole of life cycle planning.

Reinvestment in assets approaching the end of their technical service life forms a substantial part of Powerlink's future network investment plans across the 10-year outlook period. Accordingly, the assessment of risk associated with the condition and performance of these assets is of particular importance. In order to inform such risk assessments, Powerlink undertakes periodic reviews of network assets considering a broad range of factors, including physical condition, capacity constraints, performance and functionality, statutory compliance and ongoing supportability.

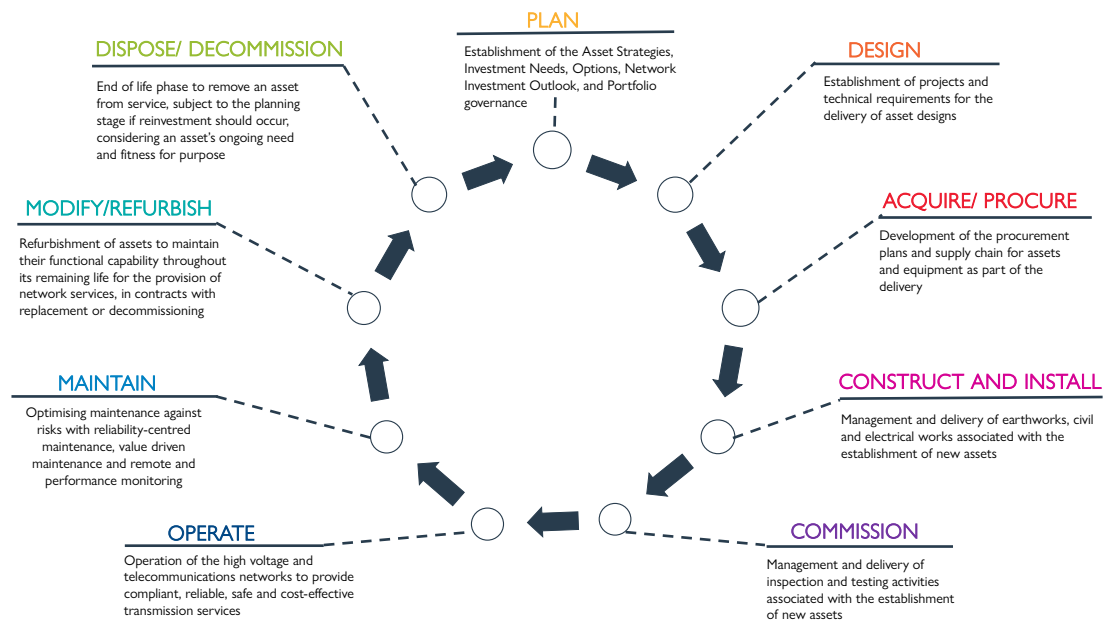
Risk assessments are underpinned by Powerlink's corporate risk management framework and the application of a range of risk assessment methodologies set out in [AS/NZS ISO 31000:2018 Risk Management Guidelines](#).

5 Asset management overview

5.2.3 Life cycle delivery

Life cycle delivery establishes how and what is needed to achieve the decisions made for assets in consideration of the Asset Management System. Powerlink defines asset life cycle and main activities throughout nine stages shown in Figure 5.2.

Figure 5.2 Powerlink's asset life cycle stages



5.2.4 Asset information and knowledge

Asset information is key for Powerlink's asset decisions as asset data and asset knowledge is used for option assessments and to understand the cost and benefits based on risk. Asset information comes from analysis of asset data which is used to inform decisions on how Powerlink's assets are managed both for short-term operational purposes and long-term strategic plans.

5.2.5 Capabilities

Capabilities of people and the organisation set how the business is able to achieve the strategy and plans. Leadership is essential in managing and optimising Powerlink's assets and value to customers. Executive sponsorship of asset management strategy, objectives and processes is essential to lead decisions, performance, risk management, and improvement. For each stage of the asset life cycle it is critical to define roles and responsibilities, systems and processes to be successful in the implementation of asset management. Leadership, structure, culture, supply chain management and competency framework underpin this function.

5.2.6 Governance and communication

Powerlink's Asset Management governance ensures asset management is applied by using multidisciplinary and integrated activities. The objective of Asset Management governance is to enable Powerlink individuals and teams to understand their roles in improving and enhancing services. Powerlink promotes better asset management practices by monitoring current progress, providing support and direction.

5.2.7 Monitoring and continuous improvement

Powerlink continuously monitors and reviews network, asset and business performance outcomes. It focuses on reviewing the implementation of strategies to identify and adopt improvements by ensuring that strategies deliver to organisational obligations and the expectations of customers.

5.3 Flexible and integrated network investment planning

A fundamental element of the Asset Management System involves the adoption of processes to manage the life cycle of assets, from planning and investment to operation, maintenance and refurbishment, to end of technical service life.

A range of options are considered as part of a flexible and integrated approach to network investment planning. These options may include retiring or decommissioning assets where there is unlikely to be an ongoing future need, refurbishing to maintain the service life of assets, replacing assets with different capacity or type to match needs, alternate network configuration opportunities, and non-network solutions.

The purpose of Powerlink's network investment planning is to:

- apply the principles set out in Powerlink's Asset Management Policy, Strategic Asset Management Plan and related processes to guide network asset planning and reinvestment decisions
- provide an overview of asset condition and health, life cycle plans and emerging risks related to factors such as safety, network reliability, resilience and obsolescence
- provide an overview and analysis of factors that impact network development, including energy and demand forecasts, generation developments, forecast network performance and capability, and the condition and performance of Powerlink's existing asset base
- identify potential opportunities for optimisation of the transmission network
- provide the platform to enable the transformation to a more sustainable, cost efficient and climate resilient energy system.

5.4 Asset management implementation

Powerlink has adopted implementation strategies across its portfolio of projects and maintenance activities aimed at efficiently delivering the overall work program including prudent design standardisation by considering emerging trends in technology, portfolio management and supply chain management.

One of Powerlink's objectives includes the efficient implementation of work associated with network operation, field maintenance and project delivery. Powerlink continues to pursue innovative work techniques that:

- reduce risk to personal safety
- optimise maintenance and/or operating costs
- reduce the requirement for and minimise the impacts of planned outages on the transmission network.

In line with good practice, Powerlink also undertakes regular auditing of work performed to facilitate the continuous improvement of the overall Asset Management System.

5.5 Further information

Further information on Powerlink's Asset Management System may be obtained by emailing networkassessments@powerlink.com.au.

5 Asset management overview