

Asset Management Strategy and Objectives



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Document No: UE PO 2050

March 2015

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1. Purpose

The purpose of this document is to describe the Asset Management Strategy and Objectives to provide clear direction for asset management planning in alignment with business objectives.

The primary audience for this document is the Electricity Network (EN) Group who are responsible for developing Asset/Non-Asset class plans, the Capex and Opex Works Program (COWP) and other initiatives that will fulfil the objectives of the organisation in relation to the electricity network.

2. Background Information

The section provides a very high level outline of the context for the development of Strategies and Objectives and describes how this document integrates into the overall Asset Management System and its supporting Asset Management Governance Framework.

This information is provided here for the reader to gain a broad appreciation of the management and governance systems that underpin the development of Asset Management Strategies and Objectives.

2.1 Asset Management System

The Electricity Network group is implementing an Asset Management System to align activities and documentation into a comprehensive and integrated framework as shown below. The Asset Management Strategy and Objectives is highlighted within the overall framework.

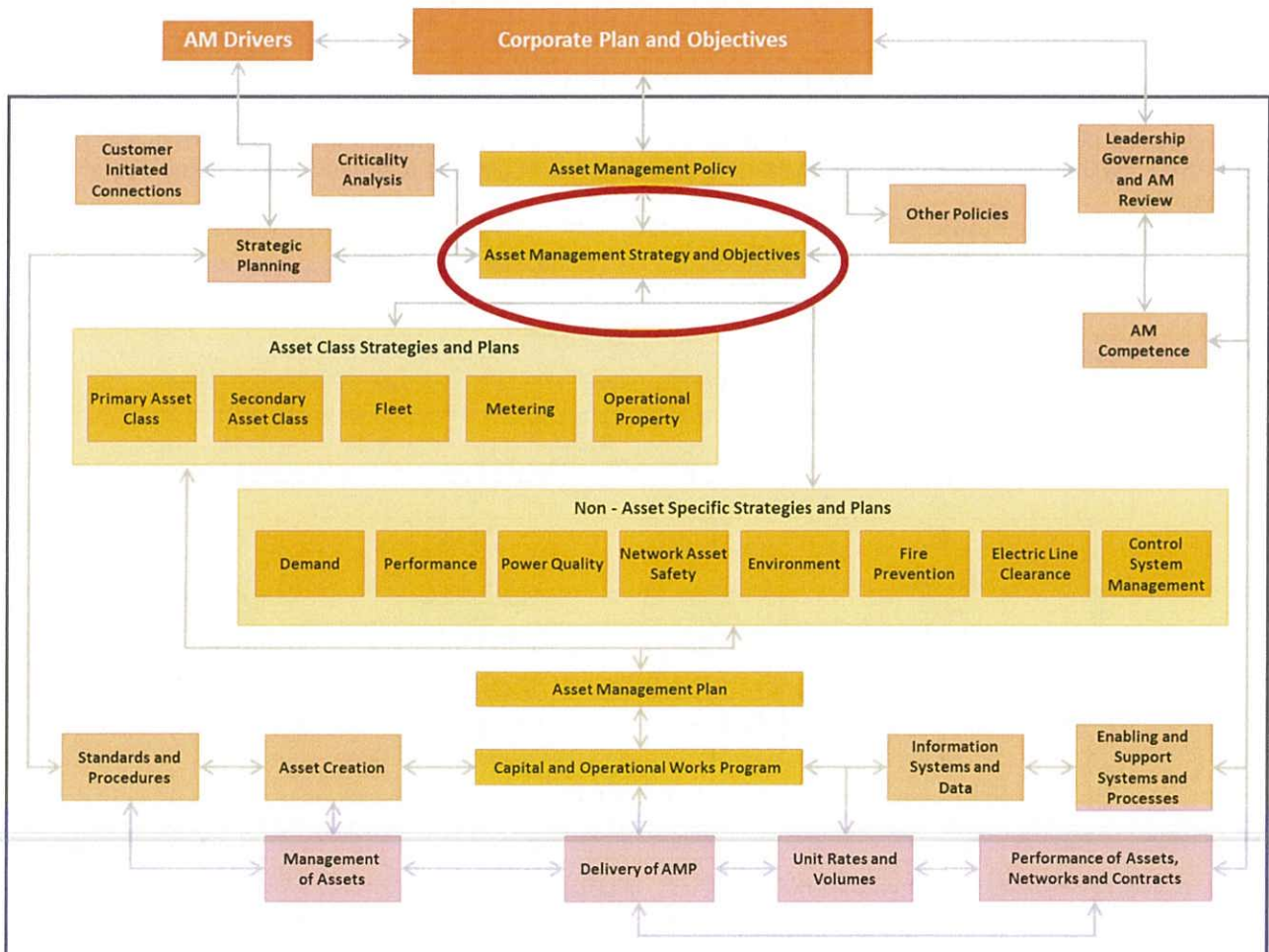


Figure 1: Asset Management System

The Asset Management system is described in detail in UE PR 2900 Asset Management System Definition.

The Asset Management system intends to:

- Align with key aspects of the requirements of International Standard 55000 Asset Management series:
- provides a clear line of sight to ensure integration between business and Asset Management requirements expressed in the following:
 - Corporate Plan and Objectives
 - Asset Management Drivers
 - Risk Appetite statement
- includes the following interdependent document deliverables
 - Asset Management Policy - provide overarching principles that align with Corporate Objectives and Asset Management drivers.
 - Asset Management Strategy and Objectives for the management of assets that align with the Asset Management Policy.
 - Non-Asset and Asset Class plans that describe how each Non-Asset and Asset Class will achieve the requirements of the Asset Management Strategy and Objectives
 - Capex/Opex Works Program (COWP) outlining the annual works program that is used by Service Delivery to deliver projects.
 - Asset Management Plan that provides an overview of Asset Management works programs for a 5 year period

2.2 Asset Management Governance Framework

The purpose of the Asset Management Governance framework is to demonstrate the governance framework underpinning the Asset Management System to ensure a line of sight of responsibilities for key documentation deliverables.

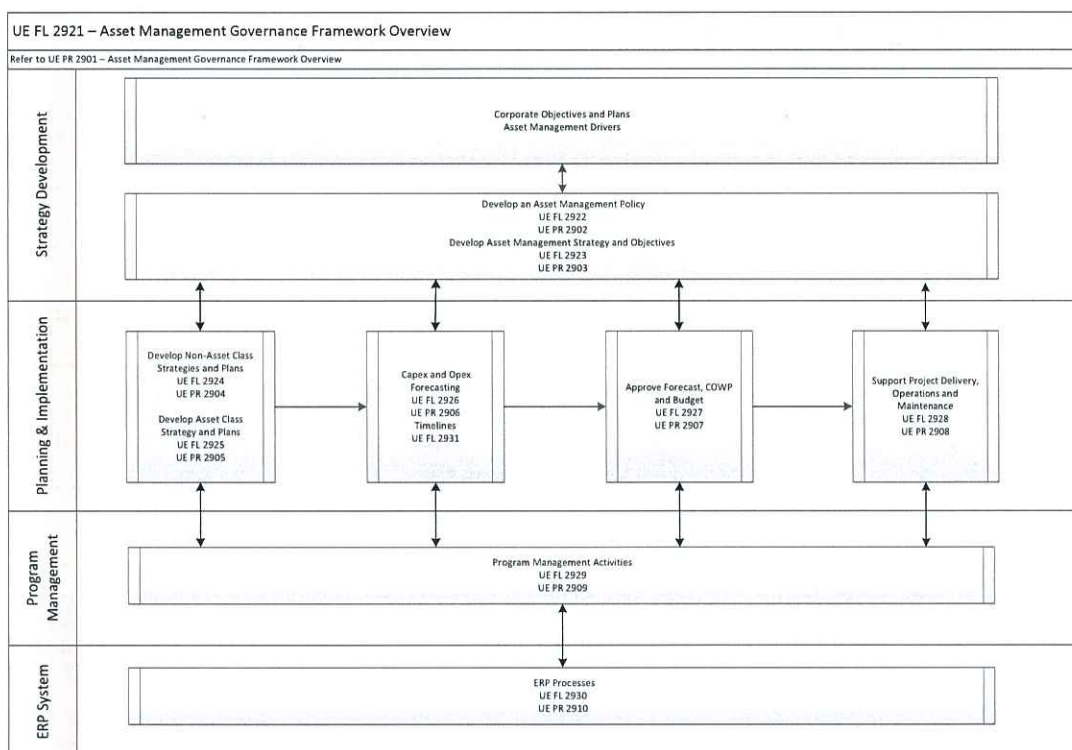


Figure 2: Asset Management Governance Framework

The Asset Management Governance Framework is described in the following documents:

1. UE FL 2921 Asset Management Governance Framework Overview (flowchart)
2. UE PR 2901 Asset Management Governance Framework Overview (procedure)

2.3 How Strategies and Objectives are derived

The development of Asset Management strategies is based on internal analysis of Asset Management Policy requirements, business objectives and other relevant asset management drivers. Strategies are created to fulfil each of the Asset Management Policy requirements.

Asset Management Objectives are measurable goals and are intended to ensure alignment of asset management projects and initiatives to fulfil the Asset Management Strategies

Refer to procedure UE PR 2903 Asset Management Strategy and Objectives for a description of the business process for the creation of the Asset Management Strategy and Objectives.

3. Key Considerations

This section briefly notes considerations in the development of the Asset Management Strategy and Objectives.

These provide the reader with an outline of elements relevant to the development the Asset Management Strategy and Objectives.

3.1 Long term imperatives

There are a number of longer term business imperatives that drive the Asset Management Strategy and Objectives to ensure the business derives maximum value from the network assets.

- Safety, reliability and quality of supply
- Regulatory requirements
- Good asset management practice
- Stakeholder needs

3.2 Recent Developments

Consideration is also given to developments of the recent past, particularly those that have an ongoing impact on asset planning and management. These include.

- **Bushfire Royal Commission** – as a result of the Victorian Black Saturday bushfires in 2009, United Energy has undertaken extensive bushfire mitigation activities intended to reduce the number of firestarts from network assets. This effort will continue over the next few years.
- **Deteriorating reliability** - Has been trending downwards in the last 10 years at an average rate of 2.7 minutes per annum predominantly due to increasing equipment failure, animals, weather, vegetation and slowing response times.
- **Decreasing energy usage** – electricity usage has reduced recently as a result of changing customer behaviours, greater solar penetration (see below also), volume response to increased overall retail costs, appliance efficiency improvements and reduced manufacturing demand.
- **Increasing Peak demand** – despite energy usage reductions, customer behaviours continue to drive increasing consumption at peak periods, predominantly due to air conditioning.
- **Uptake of PV** – customers and businesses installing PV systems have contributed to a reduction in daytime throughput demand from the network and this trend is predicted to continue strongly into the foreseeable future. Despite this, peak hot weather evening demand remains high as PV input reduces towards the end of the day, i.e asymmetry between peak solar output and peak network demand.
- **Aging Assets** – due to the age of the network, an increasing value of assets are nearing end of life. The program of asset replacement, life extension, refurbishment or maintenance has been accelerated during the past few years and will continue into the future.
- **Political**– the changing economy and politicisation of issues around energy supply has increased pressure on the business, stemming from uncertainty on related environmental policies such as those related to climate change, metering, customer choice in relation to energy services, decreasing overall manufacturing sector demand and current wholesale market oversupply and energy prices, and attempts in other states to privatise or partly privatise energy networks.

3.3 Drivers of Change

There are a number of emerging influences and drivers of change in the electricity distribution industry providing both challenges and opportunities for United Energy in providing distribution services.

These drivers are summarised in the table below with a brief statement of potential impacts to the management of assets.

Table 1: Future Trend/Influences summary (March 2015)

| Future Trend/Influence | Brief Description of changes that may impact Asset Management |
|---------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Customer dynamics | <ul style="list-style-type: none"> • Increasing uptake of PV, potential growth in use of electric vehicles, battery storage developments, off grid and mini grids. • Reduction in overall energy use, energy efficient appliances |
| Government/market institutions | <ul style="list-style-type: none"> • Policies and reforms impacting (driven but not limited to the AEMC's "Power of Choice" program: <ul style="list-style-type: none"> ○ Distribution Network pricing arrangements ○ Customer access to electricity usage information ○ Reform of demand management and embedded generation connection incentive scheme ○ Demand response mechanism • Multiple trading relationships • Embedded Networks |
| Energy technology | <ul style="list-style-type: none"> • Residential PV • Commercial PV • Other generation technologies – eg wind, Combined Heat and Power (CHP) • Energy storage • Electric Vehicles • Smart Grid developments • Advanced metering infrastructure |
| Network security | <ul style="list-style-type: none"> • Smart Grid technologies raising new risks around security due to increased number of network access points. |
| Price signals | <ul style="list-style-type: none"> • Use of price signals to reduce peak capacity requirements |

In response to these drivers of change, key strategic areas of focus have been identified. A number of aims and practical initiatives have been derived for each of the focus areas and these are listed in the table below.

Table 2: Strategic Focus Areas, Aims and Initiatives

| Strategic Focus Area | Aim(s) of Focus Areas | Initiatives |
|-------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Non-Network Solutions | Support customer demand management | <ul style="list-style-type: none"> • “Non-network” solutions and associated network support agreements • Virtual Power Plant (VPP Project) or storage behind the meter • Build demand management capability leveraging the Summer Saver Trial • Flexible/Dynamic Pricing and Tariffs • Smart Grid Activation |
| Data Analytics | Enhance network demand forecasting Enhance customer initiated capital forecasting Support non-network solutions Optimise network operation Manage power quality issues | <ul style="list-style-type: none"> • Network Planning Analytics Platform • Network Real Time Analytics project • Demand Management IT Platform |
| Customer Focus | Customer information provision Enable Demand Side Participation (DSP) Customer efficient investment | <ul style="list-style-type: none"> • Consumer Data Access • Demand Response Mechanism • Enabling Technology • Customer and stakeholder engagement |
| Distribution System Operator | Accommodate Distributed Energy Generation into the network Support economic solutions | Refer to the Network Planning Analytics Platform and Network Real Time Analytics Projects above. |
| Security | Cyber/physical security risks Third party access security risks | Part of UE/MG Information Security Strategy |

3.4 United Energy Business Objectives

In addition to the Network Asset Management focus of the previous section, United Energy has derived business focus areas that support strategy and decision making throughout the business as part of fulfilling the corporate vision to build an “Intelligent Utility”.

These focus areas are reviewed annually and summarised here with a broad view of the implications for the management of assets.

Table 3: FY2016 corporate focus areas

| UE Business Focus Area | Implications for the management of assets |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p>Strong Financial Management</p> <p>We are optimising our financial position to maximise shareholder distributions and deliver the greatest value possible.</p> | <p>Balancing business needs and good asset management practice to optimise value derived from our assets, systems and people.</p> |
| <p>Innovation and Continuous Improvement</p> <p>We are innovating to drive greater value out of our gas and electricity businesses to prioritise safety, efficiency and reliability of service.</p> | <p>A focus on innovation in the management of assets will increase opportunities to improve safety, efficiency and reliability of service, and thus enhance the potential value derived from the assets for the business.</p> |
| <p>Customer focus</p> <p>We are developing a customer focussed operating model to deliver an effortless experience for our customers.</p> | <p>The management of assets is the prime contribution to the delivery of an effortless customer experience</p> |
| <p>Future Focus</p> <p>We are responding to our changing environment with a focus on industry leadership, emerging technologies and new growth opportunities.</p> | <p>By optimising engagement with the industry, stakeholders and new technologies we will be best placed to effectively support the business in developing new ideas for growing the value derived from our customers, network, systems and people.</p> |
| <p>Winning Culture</p> <p>We will build a unique, winning culture that is set apart by the capability of its leaders and employees, the standards of behaviour and performance it lives by, and its relentless drive for innovation, continuous improvement and results.</p> | <p>A long term view of skills development and transfer is required to promote a stable workforce and highly knowledgeable staff able to deliver outstanding asset management that meets organisation objectives.</p> |

3.5 Asset Management Policy

The Asset Management Policy outlines principles for the management of network assets to facilitate the organisation achieving its business objectives as shown here.

Table 4: Asset Management Policy Principles

| Asset Management Policy Principle |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Employ good asset management practices to prudently manage and operate the assets over their total life cycle. |
| Minimise our long-term cost structure considering the potential downturn in future grid consumption. |
| Build our reputation as a trusted company with customers and stakeholders by striving for active industry leadership, agility, reliability, safety and good customer service in light of changing customer and community expectations. |
| Meet all legal and regulatory requirements. |
| Adhere to the relevant Australian, international and industry standards and any other requirements to which United Energy subscribes. |
| Manage reasonably foreseeable and credible safety risks to as low as reasonably practicable. |
| Develop high performance operations by engaging our people and having the right skills and capabilities within the organisation. |
| Embed continuous Improvement and innovate to drive efficiency. |
| Monitor and evaluate appropriate metrics to effectively manage the network and customer service performance. |

Refer to UE PO 2001 Asset Management Policy.

3.6 Asset Management Policy/Business Focus mapping

The table below shows the Asset Management Policy principles mapped back to the UE Strategic Business focus Areas to ensure all areas are included in Asset Management strategies and objectives.

Table 5: Mapping of AM Policy Principles to UE Strategic Business Focus Areas

| Related UE Strategic Business Focus Area(s) | Asset Management Policy Principle |
|----------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Strong Financial Management | <p>Employ good asset management practices to prudently manage and operate the assets over their total life cycle</p> <p>Minimise our long-term cost structure considering the potential downturn in future grid consumption.</p> <p>Meet all legal and regulatory requirements</p> <p>Adhere to the relevant Australian, international and industry standards and any other requirements to which United Energy subscribes</p> <p>Prudently manage reasonably foreseeable and critical hazards and risks to as low as reasonably practicable.</p> |
| Innovation and Continuous Improvement | <p>Embed continuous Improvement and innovate to drive efficiency</p> <p>Monitor and evaluate appropriate metrics to effectively manage the network</p> <p>Minimise our long-term cost structure considering the potential downturn in future grid consumption</p> <p>Adhere to the relevant Australian, international and industry standards and any other requirements to which United Energy subscribes</p> |
| Effortless Customer Experience | <p>Build our reputation as a trusted company with customers and stakeholders by striving for active industry leadership, agility, reliability, safety and good customer service in light of changing customer and community expectations</p> <p>Monitor and evaluate appropriate metrics to effectively manage the network.</p> |
| Future Focus | <p>Build our reputation as a trusted company with customers and stakeholders by striving for active industry leadership, agility, reliability, safety and good customer service in light of changing customer and community expectations</p> |
| Winning Culture | <p>Develop high performance organisation by engaging our people and having the right skills and capabilities within the organisation.</p> |

4. Asset Management Strategies and Objectives

This section outlines the Objectives that provide direction for Asset and Non-Asset Class Planning plus other projects within the EN group.

The number of objectives allows for the tracking and reporting of network and non-network projects driven by the EN group to ensure alignment of projects to Asset Management Strategies and Objectives.

Table 6: Asset Management Strategies and Objectives alignment

| Asset Management Policy Principle | Asset Management Strategies | Asset Management Objectives |
|---------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p>1. Employ good asset management practices to prudently manage and operate the assets over their total life cycle.</p> | <p>1.1 Enhance longer term efficiencies and benefits from the management of assets.</p> <p>1.2 Maintain a safe, reliable network.</p> | <p>1.1.1 Complete 20 year financial evaluation of investment decisions.</p> <p>1.1.2 Implement projects to increase efficiencies and benefits from the management of assets.</p> <p>1.2.1 Meet performance targets as set by the AER (SAIDI, SAIFI, CAIDI and MAIFI).</p> <p>1.2.2 Reduce the number of catastrophic failures and fire-starts.</p> <p>1.2.3 Revise standards to reduce risks of public safety incidents from the design and construction of network assets.</p> <p>1.2.4 Implement Power Quality metrics and reporting and ensure UE meets the required standards.</p> <p>1.2.5 Implement a robust testing routine.</p> |
| <p>2. Minimise our long-term cost structure considering the potential downturn in future grid consumption.</p> | <p>2.1 Potential deferral of capacity augmentation</p> | <p>2.1.1 Develop a methodology to manage risk around large capital deployment for augmentation and consider uncertainty in investment decisions.</p> |

| Asset Management Policy Principle | Asset Management Strategies | Asset Management Objectives |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p>3. Build our reputation as a trusted company with customers and stakeholders by striving for active industry leadership, agility, reliability, safety and good customer service in light of changing customer and community expectations</p> | <p>2.2 Potential deferral of large scale asset replacement</p> | <p>2.2.1 Develop a methodology to manage risk around large replacement capital deployment and consider uncertainty in investment decisions. Reduce short terms costs.</p> |
| | <p>3.1 Ensure the group is well placed to adapt to changing requirements in the management of assets.</p> | <p>3.1.1 Implement regular reporting of external trends, actual or potential impacts on Asset Management and ensure this information is shared throughout the group.</p> |
| <p>4. Meet all legal and regulatory requirements</p> | <p>3.2 Positively engage with industry and other Asset Management related forums to increase the influence and reputation of UE.</p> | <p>3.2.1 Participate in relevant forums, to proactively inform and influence regulatory and government policy outcomes and provide feedback to the group</p> |
| | <p>3.3 Keep abreast of related trends and practices and implement initiatives to improve network reliability, safety and customer engagement.</p> | <p>3.3.1 Implement regular reporting within the group of trends and practices related to network reliability, safety and customer engagement.</p> |
| <p>4. Meet all legal and regulatory requirements</p> | <p>3.4 Seek to share and benefit from industry experiences and learnings to increase group agility in anticipating and responding to change.</p> | <p>3.4.1 Identify and attend opportunities for experience sharing within the electricity industry and instigate tracking and reporting to capture learnings.</p> |
| | <p>4.1 Regulatory Obligation Governance Framework to ensure effective management of UE compliance activities.</p> | <p>4.1.1 Regulatory Governance Framework and ensure ongoing compliance to the requirements of the Framework.</p> |

| Asset Management Policy Principle | Asset Management Strategies | Asset Management Objectives |
|-------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| | <p>4.2 Implement the Safety Management Scheme and actively enhance the UE relationship with ESV to increase visibility of UE governance activities.</p> | <p>4.2.1 Comply with the Electrical Safety Management System and undertake optimum reporting and engagement with ESV.</p> |
| <p>5. Adhere to the relevant Australian, international and industry standards and any other requirements to which United Energy subscribes</p> | <p>5.1 Engage with Asset Management related Australian and International Standards Forums to ensure UE is effectively responding to changes.</p> | <p>5.1.1 Achieve agreed compliance for UE assets.</p> |
| <p>6. Prudently manage reasonably foreseeable and critical credible safety hazards and risks to as low as reasonably practicable.</p> | <p>6.1 Identify and manage safety risk to ALARP to ensure the prudent but effective management of the assets.</p> | <p>6.1.1 Continue to develop Risk registers to provide ALARP risk management tracking and reporting and implement programs to address safety issues.</p> |
| <p>7. Develop high performance operations by engaging our people and having the right skills and capabilities within the organisation.</p> | <p>7.1 Focus on succession planning and skills transfer to ensure younger staff benefit from the experience of the aging UE workforce.</p> <p>7.2 Focus on developing staff to integrate changing technologies to enhance the management of assets.</p> | <p>7.1.1 Implement Staff development planning with a Skills Transfer Process that can be implemented as required in alignment with formal workforce Succession Planning.</p> <p>7.1.2 Focus on succession planning and development of staff.</p> <p>7.2.1 Be actively involved in research programs to develop the skills of staff in the latest technological advances.</p> <p>7.2.2 Formalise process for sharing of key learnings applicable to Asset Management throughout EN group.</p> |

| Asset Management Policy Principle | Asset Management Strategies | Asset Management Objectives |
|---------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p>8. Embed continuous improvement and innovate to drive efficiency</p> | <p>8.1 Optimise information and process management and sharing within the group to drive improved quality and efficiencies</p> | <p>8.1.1 Implement a knowledge management system including a document management system and group Intranet site to improve information management and sharing within the group and the wider UE organisation</p> |
| <p>9. Monitor and evaluate appropriate metrics to effectively manage the network</p> | <p>9.1 Use enhanced metrics and reporting to facilitate improvements in the management of the network.</p> | <p>9.1.1 Improve use of Network Management Metrics Framework to provide quality reporting.</p> |

5. Definitions

| Acronym or Term | Description |
|-----------------|-------------------------------------|
| AEMC | Australian Energy Market Commission |
| AER | Australian Energy Regulator |
| COWP | Capex and Opex Works Program |
| EN | Electricity Network |
| ESV | Energy Safe Victoria |
| | |

6. References

List all documents that have been referenced throughout this document

| Document No | Document Title |
|--------------------------------------------------|-------------------------------------------------------------------------------------|
| UE PR 2900 | Asset Management System Definition |
| UE PR 2901 (procedure) UE FL 2921 (flowchart) | Asset Management Governance Framework |
| n/a | UE Business Objectives and Plan 2014 |
| UE PO 2001 | Asset Management Policy 2014 |
| TBC | EN Future Networks Strategy 2015 |
| Various | Asset/Non-Asset Class Plans |
| ISO 55000 | Asset management – Management systems – Overview, principles and terminology |
| ISO 55001 | Asset management – Management systems: Requirements |
| ISO 55002 | Asset management – Management systems – Guidelines for the application of ISO 55001 |