



Equipment Asset Management Strategy 2020-2025

January 2019

Abstract: This Strategic Plan has been developed to identify key initiatives which support Energy Queensland in achieving its Corporate Strategies.

Keywords: Tools, Equipment, Compliance, AER, CAPEX, OPEX

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Executive Summary

This Asset Management Strategy identifies key strategic initiatives for the provision and management of tool and equipment assets utilised to undertake safe and efficient construction, operation and maintenance of Energy Queensland electricity networks for the coming regulatory period, July 2020 to June 2025.

This strategy aims to provide value to the Queensland community through:

- a cost-conscious approach to procurement of EQL's Tool and Equipment Assets;
- managing risk in accordance with regulation and policy guidelines;
- focusing on safety through appropriate selection and application of tools and equipment;
- sustaining EQL equipment assets to ensure optimum availability; and
- providing effective equipment asset Management Services.

Cost Management

Capital and operational costs for equipment assets are linked to the System Program of Work (PoW), crewing structure and composition, tasks undertaken and work practices.

Replacement cycles for equipment operated by EQL are determined by:

- An asset reaching the end of its useful or statutory life;
- At a time most efficient to replace i.e. condition based assessment;
- Change in work practice; or
- When an asset is no longer required.

Based on 2017/18 dollars the following direct capital and operating expenditure is forecast for the 2020-2025 regulatory period:

- Ergon Energy
 - Capex - \$29.56 million
 - Opex - \$11.34 million
- Energex
 - Capex - \$9.89 million
 - Opex - \$60.74 million

Further Strategic Initiatives

EQL remains focused on delivering value from its equipment assets through:

- Engaging with peer organisations to conduct product review and benchmarking, increasing efficiencies, functionality and safety performance.
- The realisation of efficiencies through continuing alignment of Energex and Ergon equipment catalogues.
- Scheduled maintenance, testing and calibration is undertaken in accordance with legislation, standards and relevant specifications and reviewed to ensure only necessary activities are programmed.
- Asset utilisation is reviewed regularly with the view of optimising replacement, redeployment and maintenance strategies.
- Investigating emerging technologies including the continued introduction of battery powered tools, reducing maintenance costs and improving employee and community safety.

1 Purpose and Scope

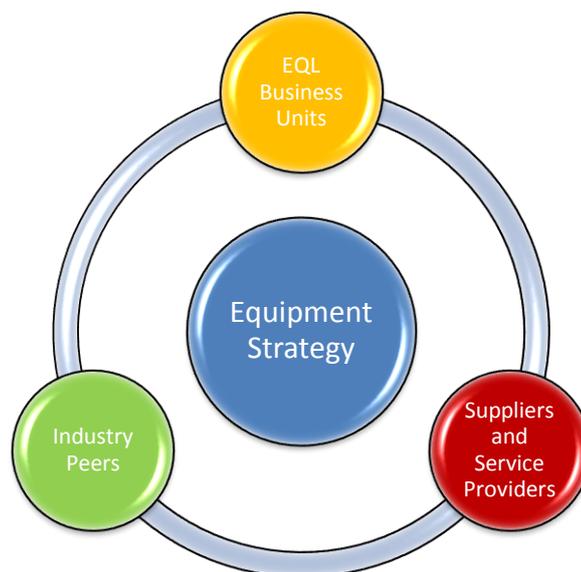
The Equipment Asset Management Strategy has been developed to identify key strategic initiatives which support Energy Queensland in achieving its Corporate Strategy to “safely deliver secure, affordable and sustainable energy solutions with our communities and customers”.

Key enabling partners supporting the Equipment Asset Management Strategy are:

- All EQL Business Units associated with building and/or maintaining the distribution network;
- Suppliers and service providers; and
- Industry peers.

Their engagement supports Equipment Asset Management Strategy to:

- Ensure a cost-conscious and prudent approach to procurement of EQL’s Equipment Assets;
- Manage risk in accordance with regulation and policy guidelines;
- Focus on safety through appropriate selection and application;
- Sustain EQL equipment assets to ensure optimum availability; and
- Provide effective equipment asset Management Services.



Energy Queensland Equipment Demographic for financial year 2017/2018

Demographic	Number
Number of equipment assets	224,000
Equipment tests annually	372,000

2 References

2.1 Energy Queensland controlled documents

- EQL Health & Safety Policy

2.2 Energex controlled documents

- Energex Equipment Catalogue
- Testing Procedure Manual

2.3 Ergon Energy controlled documents

- Ergon Equipment Catalogue
- Testing Procedure Manual

3 Legislation, Regulations, Rules and Codes

This document refers to the following:

Compliance Type	Key Requirements
Legislation Federal	Safety Recalls Australia Australian Standards International Standards Work Health and Safety Act and Regulations
Legislation State	Work Health and Safety Act and Regulations Queensland Codes of Practice
Electricity Networks Association Guidelines	National Guidelines for management of tools and equipment used in the electricity supply industry 2009

4 Energy Queensland Strategic Direction

Our Strategy

The following strategy framework provides an overview of Energy Queensland’s vision, purpose and strategic objectives.



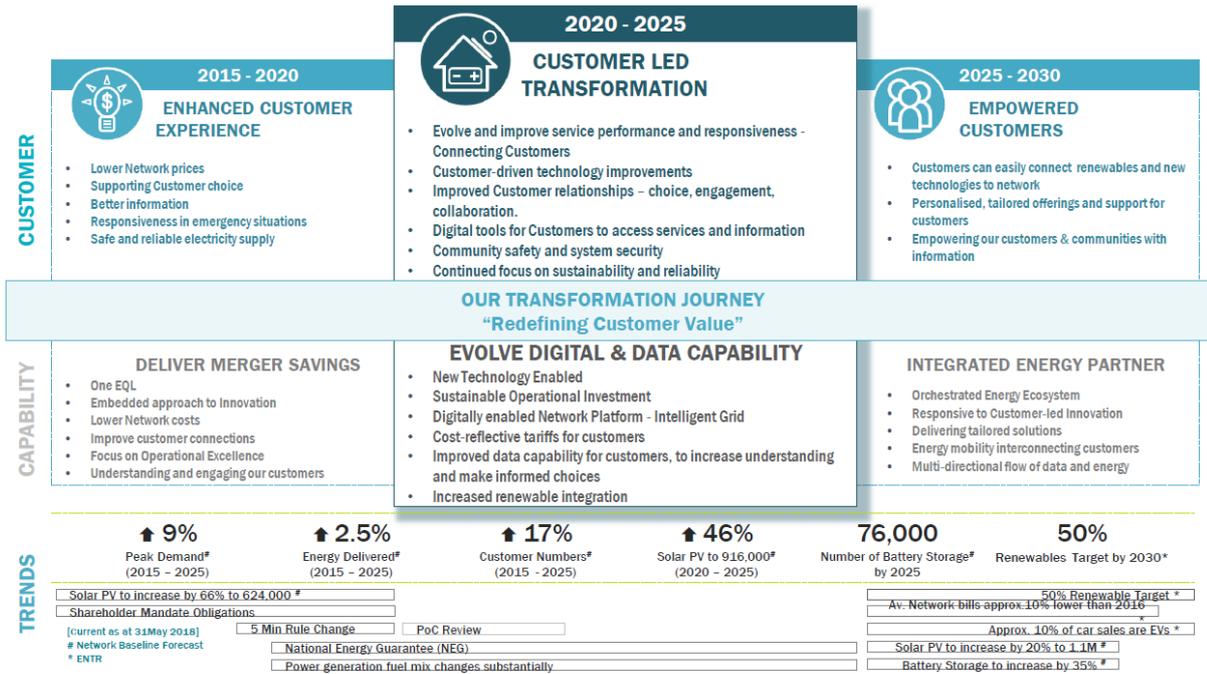
Energy Queensland’s strategic objectives place our communities and customers at the centre of all that we do. To achieve this, we must ensure that we:

- maintain and deepen our customers’ and communities’ trust by delivering on our promises, keeping the lights on and delivering an exceptional customer experience;
- continue to build a strong safety culture across the business and empower and develop our people while delivering safe, reliable and efficient operations;
- strive for a culture of continuous improvement in our processes, systems, capabilities and data; and
- innovate to deliver differentiated and compelling offerings for our communities, customers, partners and shareholders.

To deliver on these objectives, Energy Queensland will continue to transform our approach to redefine customer value as shown in Figure 4.1 below by:

- understanding and partnering with our customers to be responsive to their rapidly changing needs and expectations;
- delivering price and cost savings whilst providing high reliability and customer service performance outcomes; and
- ensuring we are at the forefront in integrating distributed, renewable energy and other technologies into the grid.

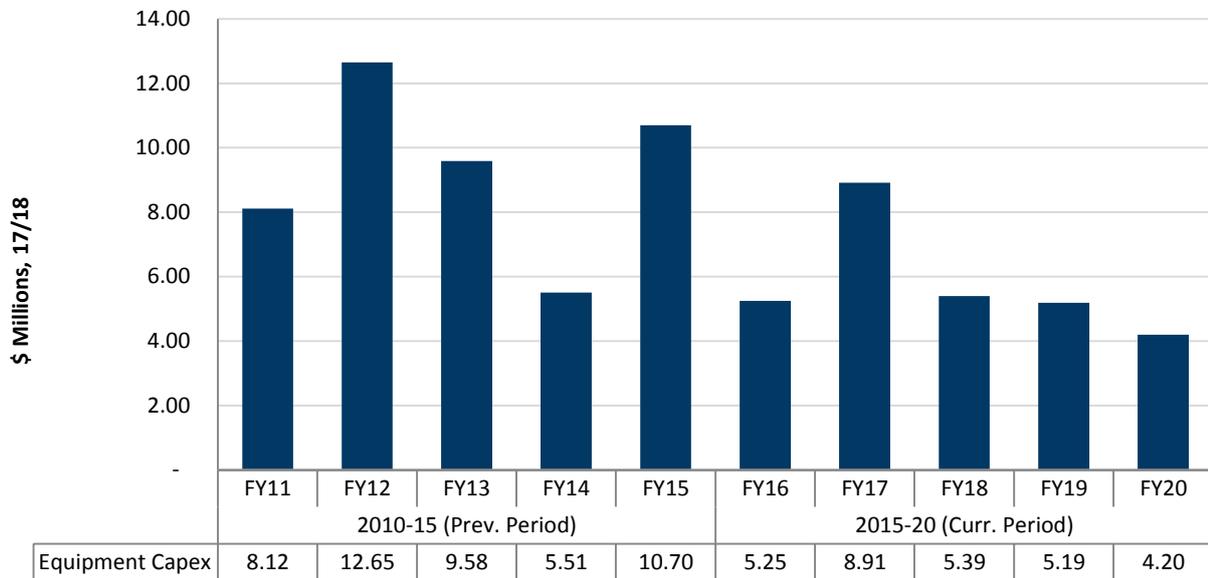
Figure 4.1



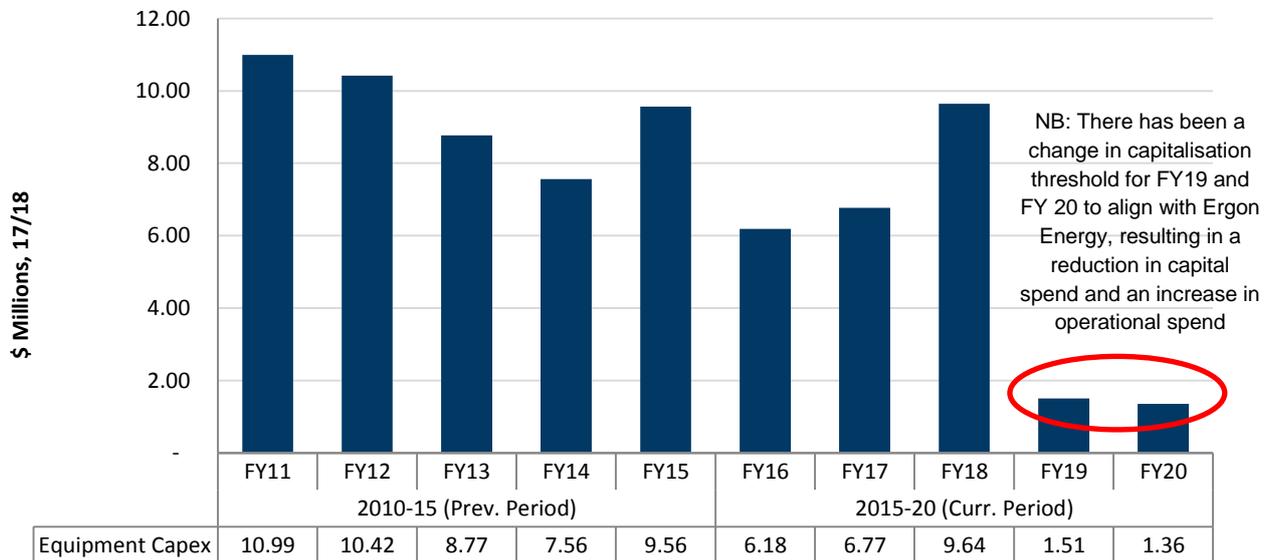
5 Historical Equipment Capital and Operational Expenditure Performance

The following graphs provide an overview of the actual and forecast spend versus the approved AER funding for the 2010-2015 and 2015-2020 periods.

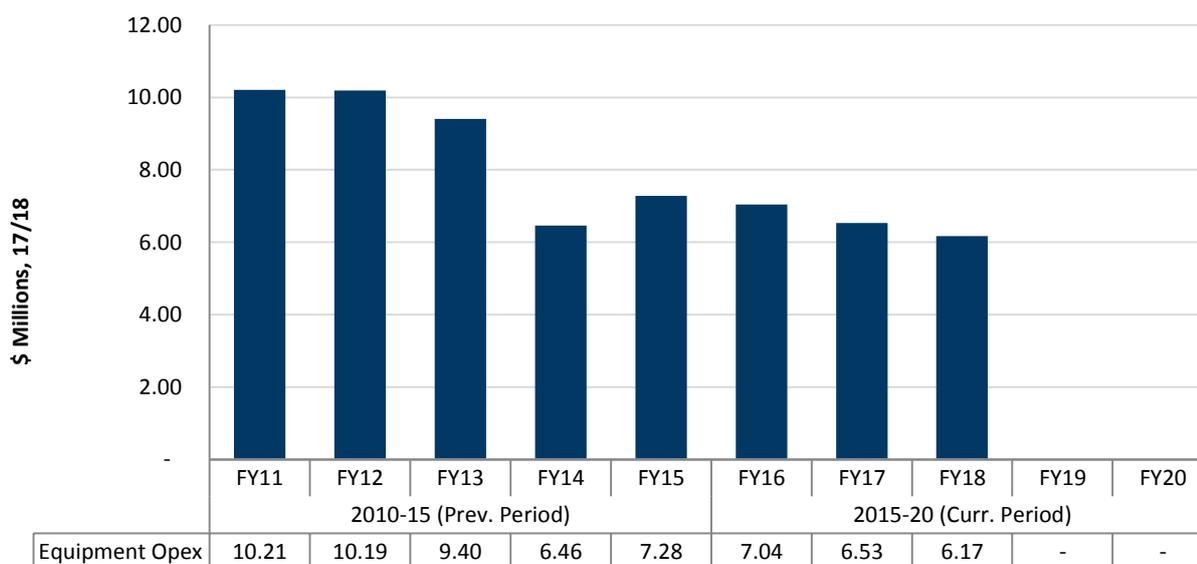
Graph 5.1 Ergon Energy Equipment Capital Expenditure Trend



Graph 5.2 Energex Equipment Capital Expenditure Trend



Graph 5.3 Energex Equipment Operational Expenditure Trend



6 Equipment Asset Strategy Statement

The aim of the Equipment Asset Management Strategy is to provide equipment assets which meet business requirements based on the principle of fit-for-purpose assessment considering safety, industry standards, business priorities and cost efficiency. Requirements for equipment are assessed following a documented business process, considering the business requirements, alternatives and cost-effectiveness.

7 Equipment Asset Proposal

As an enabler to business operational requirements, equipment assets are linked to System Program of Work (PoW), crewing structure and composition, tasks undertaken and related work practices. Equipment assets are utilised by the business to undertake construction, maintenance and service activities and to enable support services to deliver core functions.

To enable this, EQL requires access to a considerable and diverse range of equipment assets. The main factors that affect the capital expenditure on equipment are:

- The forecast demand for equipment;
- The appropriateness of the current equipment;
- Emerging technologies; and
- Changes to the PoWs and associated work practices.

The forecast equipment capital (CAPEX) and operational (OPEX) programs for the 2020-25 regulatory period have been derived applying the principles set out above and is based on a like-for-like replacement of existing assets and is detailed in tables 7.1 and 7.2 (note: all figures are in 2017/18 \$).

There is a notable difference between the Ergon Energy and Energex operational expenditure. In Ergon Energy, approximately \$5.1M per annum of equipment, with a unit value less than the capitalisation threshold, is expensed to the local Distribution workgroup and is not accounted for in Table 7.1. In addition, there are costs associated with the electrical compliance testing of Mobile

Elevated Work Platforms, testing laboratories and the repair of equipment that do not appear in Ergon operational expenditure.

Table 7.1 Ergon Energy Equipment Replacement Capital and Operational Expenditure

Ergon Energy	2020-21	2021-22	2022-23	2023-24	2024-25	2020-25
CAPEX	5,914,115	5,912,667	5,911,223	5,911,223	5,911,223	29,560,451
OPEX	2,681,063	2,406,381	2,083,666	2,083,666	2,083,666	11,338,442

Table 7.2 Energex Equipment Replacement Capital and Operational Expenditure

Energex	2020-21	2021-22	2022-23	2023-24	2024-25	2020-25
CAPEX	1,514,667	2,240,893	2,043,462	2,043,462	2,043,462	9,885,946
OPEX	12,480,696	12,264,248	11,999,660	11,999,660	11,999,660	60,743,924

8 Equipment Asset Measures

Delivery of the strategy is monitored and measured by the indicators listed in the table below:

Indicator	Description
Finance	Capital Expenditure (CAPEX) Operating Expenditure (OPEX) Written off assets due to loss or damage
Safety	Recalls Corrective Action or Improvement Plans Incidents
Compliance	Compliance with Legislation Third-party certification to: <ul style="list-style-type: none"> ASAS/NZS ISO 9001:2015 – Quality Management System AS/NZS ISO 14001:2015 - Environmental Management System AS/NZS 4801:2001 – Safety Management System
Performance	Equipment Composition Delivery of Annual Replacement Programs
Partnering	Supplier / Manufacturer Performance Distribution Improvement Forums

9 Relationship Management

Critical to EQL meeting its corporate strategy is being able to have effective relationships between internal business units and external organisations that foster productive outcomes. EQL actively engages suppliers and service providers that add value through the introduction of improved technologies, practices and processes. Supplier and service provider performance is routinely monitored to develop and retain a consistently high standard of fit-for-purpose products and services.

EQL will continue to engage with peer organisations to conduct product review and benchmarking activities to identify opportunities to increase efficiencies, improve functionality and safety performance and reduce costs.

10 Equipment Asset Management Process

A lifecycle approach is taken to equipment asset management.



This strategic plan supports the AER period 2020-2025 to deliver prudent financial and operational outcomes and additionally considers impacts for future regulatory periods. The procurement, commissioning and maintenance of equipment assets adhere to EQL corporate goals of managing its duty of care to employees and community safety. This is achieved by ensuring equipment assets comply with all legislative, regulatory (including environmental) and original equipment manufacturer (OEM) requirements. Further to this, EQL maintains a Register of Health and Safety Legislative Obligations and routinely reviews and monitors the equipment environment for changes.

Replacement cycles for the various types of equipment operated by EQL are determined by:

- An asset reaching the end of its useful or statutory life;
- At a time most efficient to replace i.e. condition based assessment, failure in operation;
- Change in work practice; and
- When an asset is no longer required.

The above are reviewed on an on-going basis to ensure optimum return on investment. EQL monitors operational expenditure (OPEX) to identify assets that are outside the industry norm and may require early intervention. The procurement of all equipment assets adheres to EQL's purchasing policies, guidelines and procedures through a combination of tenders, contracts, assessing Government supply arrangements and quotations. Scheduled maintenance, testing and

calibration are undertaken in accordance with the OEM's specifications and the program of maintenance for the various equipment assets operated by EQL.

EQL will continue to standardise the range of fit-for-purpose equipment assets provided to support the broad range of activities undertaken to build and maintain the distribution network. Asset utilisation is reviewed regularly with the view of optimising replacement and maintenance strategies driving and maintaining asset optimisation. EQL remains committed to investigating emerging technologies that aid in supporting process and system efficiencies.