

# APPENDIX 30

## Fleet, tools and equipment strategic plan

# Energex

## Non-System Asset Strategy 2015-20

Strategic Plan for Fleet (including generators), Tools & Equipment



positive energy

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# 1 Introduction

The Field Support Group (FSG) is responsible for the strategy and the provision of the fleet, tools and equipment that enable Energex to deliver the system Program of Work (PoW). Fleet includes cars, light and heavy commercial vehicles, mobile plant fleet assets (ie. Generators, Elevated Working Platforms and Crane Borers) and fleet asset management services.

The Non-System Asset Strategy 2015-20 for Fleet, Tools & Equipment (NSAS-FT&E) outlines how FSG will meet the strategic objectives and operational requirements of Energex with respect to fleet, tools and equipment services.

To achieve this aim, this Strategy identifies the most cost effective balance of asset composition, utilisation, reliability and resource requirements for the next regulatory period 2015-20 to enable Energex to achieve its strategic objectives.

This Strategy establishes the future program of work and is linked to asset management plans (Fleet Asset Management Plan (FAMP) and Tools & Equipment Asset Management Plan (TAMP)), which in turn provide the frameworks for the day to day management and operation of assets.

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## 2 Purpose

### 2.1 Purpose

The purpose of this Strategy is to identify:

- The existing and ongoing capability of the current assets;
- The strategic objectives and operational requirements of the business over the next regulatory period;
- Shortfalls between current capability and future operational objectives and requirements; and
- The most cost effective solution to close any gaps identified.

This Strategy has been prepared in alignment with Energex's Corporate Strategy.

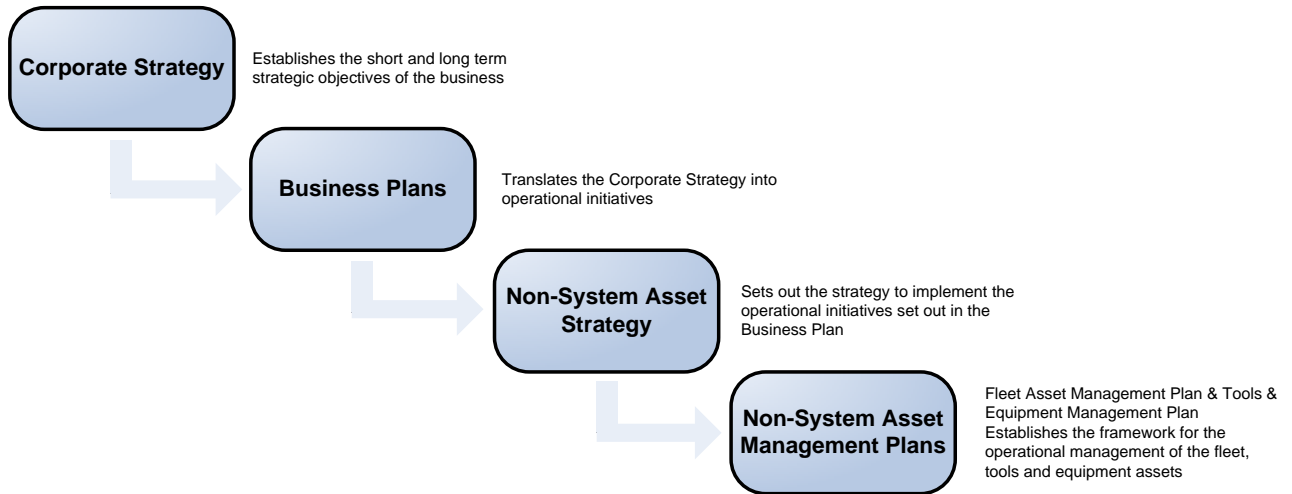
To achieve its purpose, this Strategy is structured according to the following sections:

- *Strategic Objectives* – provides an overview of the alignment of the corporate planning process and highlights how the corporate strategic objectives are translated into operational outcomes to be delivered ;
- *Existing Systems and Assets* – details expenditure and operational performance over the 2010-15 regulatory period along with the current status and capability of the existing assets;
- *Operational Requirements* – specifies Energex's operational and service requirements from fleet, tools and equipment services including drivers of future investment and describes the process to determine what assets and activities are required to deliver Energex's strategic and operational requirements over the next regulatory period;
- *Expenditure Program* – details the capital and maintenance expenditure required over the next regulatory period;
- *Performance Measures* – establishes how the performance of the Strategy and the Asset Management Plans will be measured and monitored; and
- *Governance* – sets out the governance arrangements associated with this Strategy.

# 3 Strategic Objectives

This Strategy is part of Energex’s overall strategic planning process that ensures that the corporate strategic objectives are operationalised within the business. This framework is characterised by the inter-linkages detailed in Diagram 3.1.

**Diagram 3.1: Energex’s Strategic Planning Process for Fleet, Tools and Equipment**



## 3.1 Alignment with Energex’s Corporate Strategy

Energex’s strategic objective is to achieve **balanced commercial outcomes** by understanding and effectively managing the customer, risk and financial elements of its business as represented below. For further details refer to *Summary of Energex’s 5 Year Corporate Plan*.

**Diagram 3.2: From Summary of Energex’s 5 Year Corporate Plan (June 2015)**



This strategy aligns with these balanced commercial objectives through:

- 
- Providing reliable assets to support optimal availability and functionality for Energex's field workforce in the safe and efficient delivery of work for customers (*Satisfied Customers*);
  - Ensuring that assets acquired are safe, compliant and cost effective in terms of whole of life asset management, delivering legislative obligations and meeting the ongoing operational needs of the business (*Managed Risk*); and
  - Working with key stakeholders, including Fleet Manager, suppliers and other fleet operators for continuous improvement focus in delivering this strategy prudently and efficiently (*Financial Sustainability*).

## 3.2 Field Support Group Business Plan

As part of Energex's business planning process, FSG develops an annual Business Plan which establishes FSG's contribution to Energex's performance. This plan aligns FSG's business performance objectives with Energex's Key Result Areas (KRA), establishes the Key Performance Indicators (KPI) to measure success, and highlights supporting business improvement initiatives.

Through the provision and ongoing management of assets, FSG aims to deliver sustainable outcomes for the business by ensuring that investments are prudent and efficient. FSG aims to deliver this by:

- Effective management of the non-system capital expenditure program;
- Delivery of sustainable operational efficiencies; and
- Effective continuous improvement programs

## 3.3 Asset Management Plans

While this Strategy establishes a future program of work, the relevant asset management plans provide the framework for operationalising the outputs of the Strategy. This includes delivering the fleet, tools and equipment program of works and for the day to day management of the assets. These asset management plans are underpinned by appropriate business processes and procedures.



# 4 Operational Requirements

Energex establishes its operational requirements based on the size and composition of the system PoW and the labour hours forecast to deliver this work. This is then translated into specific requirements for:

1. Fleet – including vehicle and plant types and quantities; and
2. Tools and Equipment – including types of tools and equipment and required quantities.

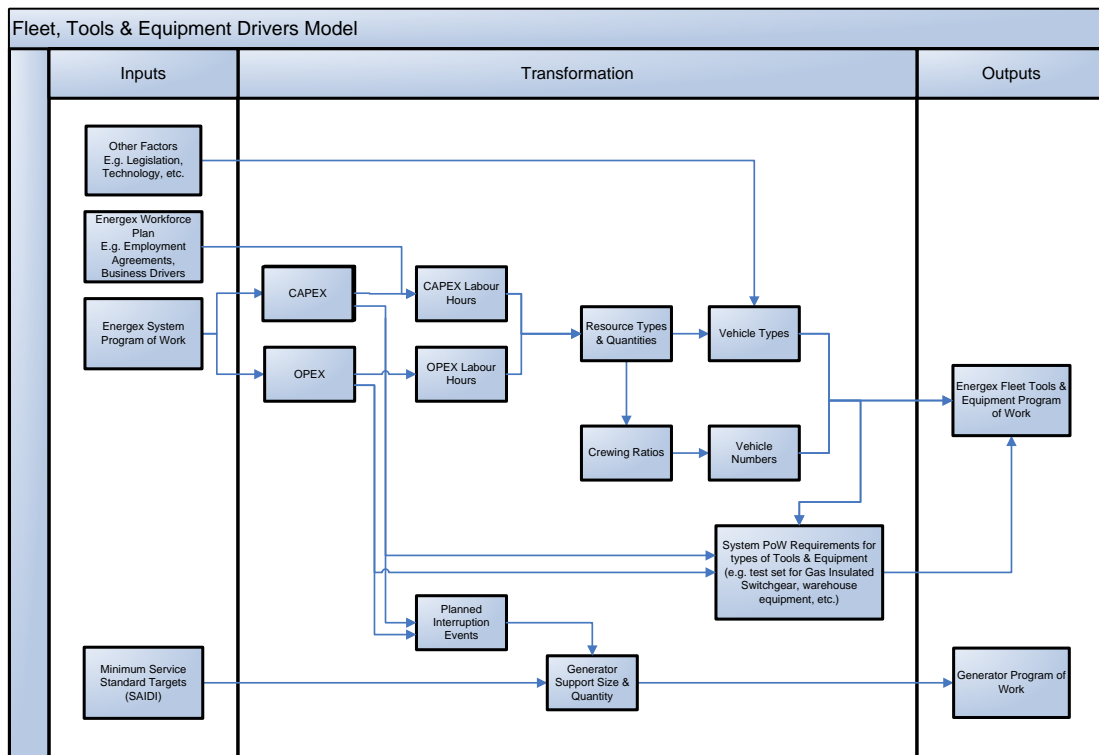
In addition, existing practices, policies and legislative requirements are also key inputs and drivers into the process to determine operational requirements.

This chapter sets out how these requirements are established.

## 4.1 Establishing Requirements Base for Energex Workforce for Fleet, Tools & Equipment

The size and the type of Energex’s fleet and tools & equipment requirements are directly linked to the size and composition of the Energex workforce, which in turn is driven by the size and composition of the system PoW. The relationship between work type, labour hours and vehicle type and quantities is explained in Diagram 4.1.

**Diagram 4.1: Fleet, Tools & Equipment Program Drivers**



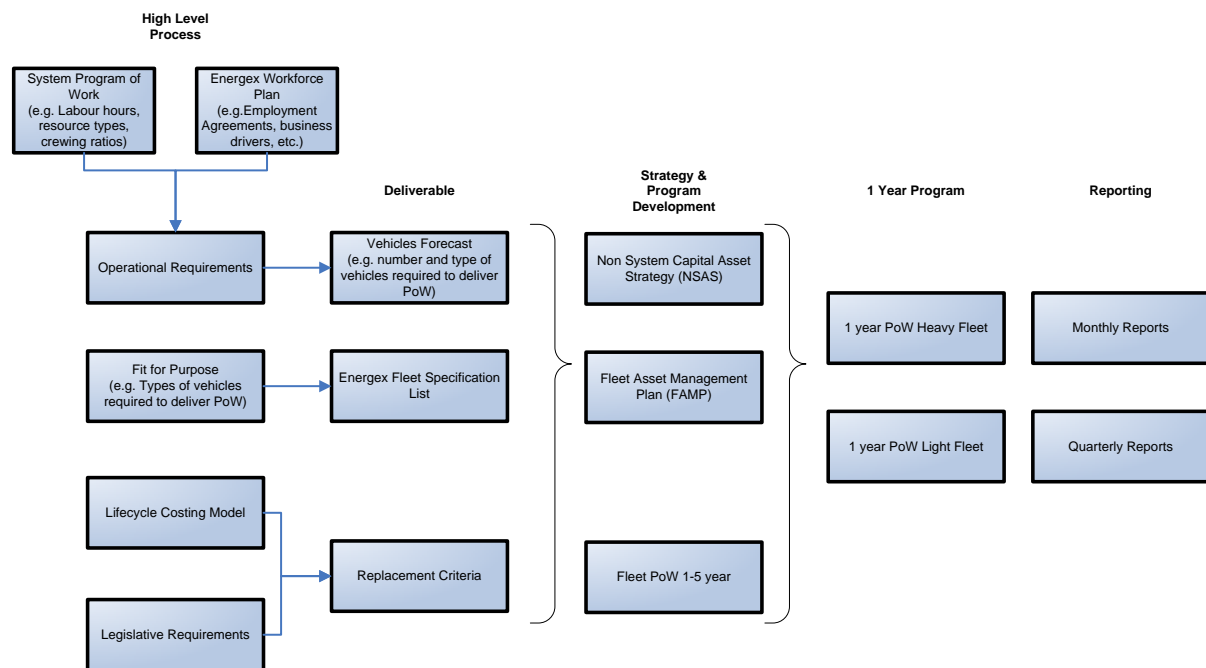
The first step in the process for determining the operational requirements for fleet and tools & equipment is the development of the system PoW. Having established the system PoW, the composition of projects and therefore work type and labour hours to deliver this work is determined. Having established labour hours, resource types and crewing structures and ratios, the types and quantities of vehicles and tools & equipment required to support this work type can be determined.

## 4.2 Setting Operational Requirements for Fleet

With the operational requirements established, an assessment is then undertaken on the capability of the existing fleet to achieve this. This assessment involves an analysis of the quantity and type of vehicle that exists, their age and condition and therefore the ability to deliver the operational requirements both in terms of vehicle types and numbers over the life of the fleet assets.

This process is detailed in Diagram 4.2.

**Diagram 4.2: Fleet Operational Requirements**



A key determinant in ensuring the efficient delivery against the operational requirements is the management of the fleet replacement program.

### 4.2.1 Energex Fleet Specification List – Fit for Purpose

Energex maintains a Fleet Specification List which sets out the fleet types that it has determined are the most cost efficient and fit for purpose. Energex has been supported by an external fleet manager since 2002 who provides information to assist in the selection of vehicles for the fleet list.

While standard designs are adopted for body layout, these designs are reviewed regularly to ensure any improvement opportunities are identified and incorporated into future designs

where practicable, efficient and prudent. Generally, amendments to specifications are made only where a safety or productivity improvement will result. The objective of the design review process is to improve the cost-efficiency of the fleet capital spend. In this regard, adopting standard vehicle designs is an important aspect of the fleet strategy.

The introduction of any new fleet follows appropriate business procedures to ensure that any fleet in use provide:

- Appropriate safety for employees and the community;
- Holistic Risk Assessments of all products and services to ensure they are fit for purpose;
- Contribution towards prudent and efficient asset life cycle costs;
- Contribution to responsible environment management and corporate sustainability; and
- Compliance with relevant Acts, Regulations and Codes of Practice.

#### 4.2.2 Establishing Fleet Replacement Criteria

The replacement program is based upon replacement criteria determined as being optimal to maximise the performance of the fleet both from a whole of life cost management and operational flexibility perspective. The program must also be compliant with relevant Australian and International Standards and Workplace Health and Safety legislation such as the requirements for cranes, including Crane Borers and Elevated Working Platforms (EWP'S's), to undergo a major rebuild at 10 years. The relevant Standards, Australian Design Rules (ADR) and Legislative Requirements are set out in table 4.1 below.

**Table 4.1 Legislative Requirements – Fleet**

Legislative Requirement	Reference
<b>Australian Standards</b>	<ul style="list-style-type: none"> <li>• 1418 – Parts 1, 2, 5, 10, 11 – Cranes &amp; EWP's</li> <li>• 2550 – Parts 1, 2, 5, 10, 11 – Cranes, Hoists &amp; Winches – Safe Use)</li> </ul>
<b>International Standard</b>	<ul style="list-style-type: none"> <li>• 11660.2 – Cranes – Access, Guards, Restraint</li> </ul>
<b>Australian Design Rules (ADR)</b>	<ul style="list-style-type: none"> <li>• Various – Applicable to light fleet, trucks and trailers</li> </ul>
<b>Codes of Practice</b>	<ul style="list-style-type: none"> <li>• Mobile Crane Code – Code of Practice 2006</li> </ul>
<b>National Heavy Vehicle Regulator</b>	<ul style="list-style-type: none"> <li>• Heavy Vehicle National Law</li> </ul>

The replacement criteria for classes of vehicles are reviewed annually. A life cycle costing model is used to identify the least cost point in a vehicle's life by analysing the trade-offs between maintenance costs, vehicle age and sale/disposal value. This approach allows FSG to model and optimise future asset maintenance cycles, asset acquisitions and disposals. This model takes into account such alternatives as rebuilding and/or re-trucking for EWP's.

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Once potential opportunities are identified, a more specific and detailed net present value (NPV) analysis is undertaken to assess the options. Energex has recently reviewed the replacement criteria for tool of trade and pool cars and EWP's. This involved an NPV analysis that takes into account the whole of life costs for the current approach and compares it with a range of alternatives to determine the lowest cost option. The results of this analysis have been to:

- extend the replacement criteria for tool of trade and pool cars from three years to five years; and
- confirm the current approach of replacing EWP's every 10 years.

#### **4.2.3 Other Influences and Drivers of Fleet Requirements**

While the system PoW is the principal driver of operational requirements and therefore fleet numbers and composition, there are also other key internal and external drivers that influence decisions regarding how and what type of assets are procured.

In terms of the key drivers, the main influences on the operation of fleet services are:

- Greater emphasis on safety
- Australian Standards requirements relating to major mechanical and structural inspections of plant;
- Manufacturer specified warranty periods and servicing/maintenance requirements;
- Alignment with Energex Corporate environmental strategies;
- New vehicle technology;
- Supplier reliability and lead times and the timing of the PoW (e.g. lead times for specialist vehicles such as EWP's and Crane Borers can be 9 to 12 months);
- Changes in Work Practices that impact on the way the PoW is delivered and drive decisions such as the size, type and quantity of fleet required to meet operational requirements; and
- Changes in Security and Reliability Standards that impact on the PoW and drive decisions such as the size, type and quantity of generators required to meet operational requirements.

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## 4.3 Setting Operational Requirements for Tools & Equipment

The requirements for tools and equipment are impacted by the following drivers:

- Introduction of new, or changes to existing, Australian and International Standards and regulations will influence the type and lifecycle of tools and safety or protective equipment. Changes in either testing cycles, methods or pass / fail criteria will influence the effective life of existing tools and equipment while also influencing future purchase decisions;
- New technology is also a strong driver in this area. New technologies become available that present significant operational or safety benefits over previous technologies can introduce early obsolescence and early investment into the new technology;
- Changes in the type and quantity of fleet affects the tools and equipment required. Service Delivery maintains a list of the tools and equipment required on each type of fleet unit that matches the type of work that will be carried out with these assets. A change in the type and volume of work in the system PoW that changes the make-up of the fleet will impact the Tools & Equipment PoW. This also includes large items that make up the project component of the Tools & Equipment Program;
- Changes to Standards and Work Practices will change the type of tools and equipment required. These changes are primarily driven by safety requirements, changes to construction methods and changes to materials used in the construction of the network; and
- Tools and equipment are sometimes damaged beyond repair or found to be missing and require replacement.

### 4.3.1 Optimal Replacement Criteria

The process for the optimal replacement of tools and equipment is determined by:

- Life expectancy – forecast using historical failure rates;
- Compliance with legislative requirements (set out in table 4.2 below);
- Missing or damaged equipment; and
- Replacement of ageing test equipment (larger items).

**Table 4.2 Legislative Requirements – Tools and Equipment**

Legislative Requirement	Reference
Electricity Networks Association Guideline	<ul style="list-style-type: none"> <li>National Guidelines for management of tools and equipment used in the electricity supply industry 2009</li> </ul>
Australian Standards	<ul style="list-style-type: none"> <li>4202 - LV Covers and Drapes</li> <li>3527.2 – LV Insulating Tool</li> <li>5804.1 – HV Live Working – General</li> <li>5804.3 – HV Live Working – Stick Work</li> <li>3791 – Hydraulic Hoses</li> <li>1353.1 &amp; .2 – Flat Synthetic – Webbing Slings</li> <li>1666.1 &amp; .2 – Wire Rope Slings – Product Specs, Care &amp; Use</li> <li>4497.2 – Round Slings – Synthetic Fibre – Care &amp; Use</li> <li>4991 – Lifting Devices</li> <li>2790 – Transportable Generators &lt;25kW</li> <li>1657 – Fixed Platforms, Walkways, Stairways &amp; Ladders</li> </ul>
Australian Standard/New Zealand Standard – Joint	<ul style="list-style-type: none"> <li>3000 – Wiring Rules</li> <li>2225 – LV Insulating Gloves</li> <li>2978 – LV Insulating Mats</li> <li>1892.5 – Ladders</li> <li>4763 – Inverters</li> <li>1418.10 – Mobile EWP's</li> <li>3760 – Portable LV Electrical Equipment &amp; Testing</li> <li>1891.1 &amp; .4 – Fall Arrest Systems</li> <li>4991 – Lifting Devices</li> <li>3190 – Approval &amp; Test Specification - RCD</li> <li>61008 – RCD without integral OC Protection</li> </ul>
International Standard – IEC	<ul style="list-style-type: none"> <li>60903 – LV &amp; HV Insulating Gloves</li> <li>60900 – LV Insulating Hand Tools</li> <li>62237 – LW – Insulating Hoses</li> <li>60855 – Insulating Sticks</li> <li>61243.1 &amp; .2 LW HV Detectors</li> </ul>
International Standard - ASTM	<ul style="list-style-type: none"> <li>D120 – LV &amp; HV Insulating Gloves</li> <li>D1051 &amp; F496 – Insulating Sleeves</li> <li>F2320 – Insulating Covers</li> <li>F1505 – LV Insulating Hand Tools</li> <li>D1048 &amp; F479 – Insulating Covers and Blankets</li> <li>F2321 – LW Jumper Leads</li> <li>D380 – Test Method for Rubber Hose</li> <li>F1701 – Insulating Ropes</li> <li>F1825 – Insulating Sticks</li> <li>F1796 – HV Detectors</li> </ul>

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### **4.3.2 Fit for Purpose**

FSG maintains a catalogue of the tools and equipment that are required for the business to deliver the system PoW. The introduction of any new item will follow appropriate business procedures to ensure that any tools and equipment in use provide:

- Appropriate safety for employees and the community;
- Holistic Risk Assessments of all products and services to ensure they are fit for purpose;
- Contribution towards prudent and efficient asset life cycle costs;
- Contribution to responsible environment management and corporate sustainability; and
- Compliance with relevant Acts, Regulations, Codes of Practice and Work Practices.

### **4.3.3 Special Projects**

New technologies in tools and equipment that can improve safety and productivity impact the type and number of tools and equipment required. New items would generally be trialled before being accepted widely into service. The trial is funded through the Special Projects category of funding.

The Special Projects category of funding also includes larger one-off purchases. All items not currently listed in the tools and equipment catalogue are required to have a business case to demonstrate the business benefit before they will be adopted.

## **4.4 Broader Strategies**

### **4.4.1 Optimal Procurement Strategies**

FSG works with the Procurement and Supply Group to ensure that the fleet, tools and equipment purchased represent value for money. It does this by undertaking market research, testing the market to obtain competitive pricing, considering alternative ways to structure contracts and opportunities to consolidate purchasing activities under procurement arrangements rather than making one off individual purchases wherever possible.

### **4.4.2 Optimal Management Strategies**

The management strategies adopted for fleet, tools and equipment are set out in the FAMP and TAMP. FSG uses established acquisition, maintenance, repair and disposal strategies to ensure that assets are managed efficiently and effectively. Costs are driven by fixed and variable cost components over the life cycle of the asset. The maintenance and capital expenditure are the major drivers of cost and where FSG invests its efforts to manage costs.

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### 4.4.3 Role of the Investment Review and Non-System Capital Governance Committees

The role of the Investment Review Committee (IRC) is to endorse the non-system program of work capital expenditure and the annual budget. Individual project expenditures are approved in accordance with the Energex Delegation of Authority Policy.

The Non-System Capital Governance Committee (NSCGC) reviews the performance of the business against the achievement of the non-system program of work. The Committee is an advisory body that helps resolve priorities, endorses proposals prior to approval by the prescribed delegation of authority, and monitors progress of the expenditure against target.

The role of the NSCGC is to:

- Assess the forward strategy for non-system capital items including non-system property, fleet and tools & equipment.
- Assess capital expenditure performance results against targets, evaluate the implications of these outcomes and ensure short to mid-term plans are in place to continue to achieve targets. The committee is accountable for 'direct costs' and physical delivery of the regulated non-system expenditure.
- Monitor progress to strategies and plans and evaluate current and emerging issues and determine action to be taken to mitigate issues that may impact on the achievement of performance targets.
- Oversee the development and continual review of the plan and review risks and mitigations

The progress to plan of both physicals and financials is reported quarterly to the NSCGC. The operational performance is also presented by way of the KPIs outlined in this strategy document.



## 5 Fleet Performance & Forecast

An understanding of the capability of the current assets is a key input into the determination of the fleet resources required for the 2015-20 regulatory period.

Once this is established, an informed decision can be made on whether the existing capability can satisfy the future operational requirements or whether there is a shortfall that needs to be addressed.

This chapter details Energex performance over the 2010-15 regulatory period, the current status of its fleet assets and their operational capabilities and the forecast requirements for the 2015-20 regulatory period.

### 5.1 Performance over the Regulatory Period 2010-15

#### 5.1.1 Fleet Capital Expenditure over the Regulatory Period 2010-15

Table's 5.1 to 5.3 outline actual capital expenditure, fleet acquisitions and fleet inventories over the current regulatory period, together with the expected forecasts for the remaining years of the current period.

**Table 5.1: Fleet Units Held at the End of Each Year during the 2010-15 Regulatory Period**

Fleet Units	2010-11	2011-12	2012-13	2013-14	2014-15*
<b>AER Categories</b>					
<b>Cars</b>	756	737	679	644	644
<b>Light Commercial Vehicle</b>	197	200	188	184	184
<b>Heavy Commercial Vehicle</b>	320	312	300	282	282
<b>Light Commercial Vehicle - EWP's</b>	-	-	-	-	-
<b>Heavy Commercial Vehicle - EWP's</b>	249	254	245	244	244
<b>Other</b>	435	431	460	456	456
<b>Total (actual/forecast)</b>	<b>1,957</b>	<b>1,934</b>	<b>1,872</b>	<b>1,810</b>	<b>1,810</b>

Notes:

- '\*' denotes Forecast value

Data Source: SG Fleet Australia (Energex Fleet Management provider).

**Table 5.2: Fleet Capital Expenditure over the 2010-15 Regulatory Period**

Capital Expenditure	2010-11	2011-12	2012-13	2013-14	2014-15*	Total
AER Categories	\$M	\$M	\$M	\$M	\$M	\$M
<b>Cars</b>	7.6	5.8	9.4	5.4	4.2	<b>32.4</b>
<b>Light Commercial Vehicle</b>	0.9	2.9	2.3	2.1	4.1	<b>12.3</b>
<b>Heavy Commercial Vehicle</b>	8.1	9.6	3.8	3.6	4.0	<b>29.1</b>
<b>Light Commercial Vehicle - EWP's</b>	0.0	0.0	0.0	0.0	0.0	<b>0.0</b>
<b>Heavy Commercial Vehicle - EWP's</b>	9.7	1.3	5.6	12.3	19.0	<b>47.9</b>
<b>Other</b>	1.4	2.8	1.5	1.0	14.3	<b>21.0</b>
<b>Total (actual/forecast)</b>	<b>27.7</b>	<b>22.3</b>	<b>22.6</b>	<b>24.3</b>	<b>45.6</b>	<b>142.5</b>
<b>AER Approved</b>	<b>33.1</b>	<b>43.0</b>	<b>44.8</b>	<b>35.2</b>	<b>52.5</b>	<b>208.6</b>
<b>Difference</b>	<b>(5.4)</b>	<b>(20.7)</b>	<b>(22.2)</b>	<b>(10.9)</b>	<b>(6.9)</b>	<b>(66.1)</b>

## Notes:

- Table Values are in Nominal dollars
- '\*' denotes Forecast value
- There is a timing difference between when fleet capital expenditure is incurred and when the fleet unit is put into service (operation) which creates an artificial alignment issue between physicals and financials within financial year cycles.
- The variations in capital expenditure across the period for each of the fleet segments is historically driven by the variability in the volume of fleet purchased annually together with a varying range of retention periods.
- In 2014-15 the increase in 'Other' capital expenditure is due to a \$13.4M allocation for the 10 year replacement program for mobile generators.

Data Source: Energex Ellipse General Ledger

**Table 5.3: Fleet Units Purchased over the 2010-15 Regulatory Period**

Fleet Units	2010-11	2011-12	2012-13	2013-14	2014-15*	Total	% of Total Spend
<b>Cars</b>	300	141	256	174	101	<b>972</b>	<b>23%</b>
<b>Light Commercial Vehicle</b>	40	46	28	53	58	<b>225</b>	<b>9%</b>
<b>Heavy Commercial Vehicle</b>	54	82	56	39	24	<b>255</b>	<b>20%</b>
<b>Light Commercial Vehicle – EWP's</b>	0	0	0	0	0	<b>0</b>	<b>0%</b>
<b>Heavy Commercial Vehicle - EWP's</b>	13	10	0	48	48	<b>119</b>	<b>34%</b>
<b>Other</b>	32	8	39	27	65	<b>171</b>	<b>15%</b>
<b>Total (actual/forecast)</b>	<b>439</b>	<b>287</b>	<b>379</b>	<b>341</b>	<b>296</b>	<b>1,742</b>	<b>100%</b>
<b>AER Approved</b>	<b>444</b>	<b>548</b>	<b>607</b>	<b>429</b>	<b>624</b>	<b>2,652</b>	
<b>Difference</b>	<b>(5)</b>	<b>(261)</b>	<b>(228)</b>	<b>(88)</b>	<b>(328)</b>	<b>(910)</b>	

Notes:

- '\*' denotes Forecast value
- There is a timing difference between when fleet capital expenditure is incurred and when the fleet unit is put into service (operation) which creates an artificial alignment issue between physicals and financials within financial year cycles.
- The variations in fleet units across the period for each of the fleet segments is historically driven by the variability in the volume of fleet purchased annually together with a varying range of retention periods.

Data Source: Energex Ellipse General Ledger Additions Report (based on in service date).

### 5.1.2 Fleet Capital Expenditure Efficiency over the Regulatory Period 2010-15

The underspend in fleet capital expenditure when compared to the AER allowance primarily relates to reductions in cars and the heavy commercial vehicle fleet numbers; ongoing competitive pricing for cars and the light commercial vehicle fleet; and savings resulting from procurement activities.

The reduction in the system PoW has not yet resulted in an equivalent reduction in the size of the commercial vehicle fleet. Whilst the size of the system PoW has reduced in dollar terms through a reduction in contractor and material costs related to transmission projects that are no longer proceeding, the internal labour hours, and thus the commercial fleet requirements, have not reduced significantly. The savings resulting from the unit reductions shown in Table 5.3 are predominantly a result of the work undertaken to optimise the car and heavy commercial vehicle fleets in combination with ongoing reductions in the number of staff that require access to pool and tool of trade vehicles. These vehicles were removed from service and disposed of as well as being removed from the replacement program.

Efficiency gains have also been made through review of vehicle specifications and replacement criteria. During the current regulatory period FSG has extended the replacement criteria for tool of trade and pool cars from three years to five years. However, due to staff employment agreements, the remainder of the car fleet remain on either 2 or 3

year replacement schedules. FSG also undertook detailed analysis to review the strategy of replacing EWP's at 10 years. The analysis confirmed that this was the least cost option when compared with earlier replacement and rebuilding and/or re-trucking to extend replacement (see section 4.2.1 Establishing Fleet Replacement Criteria for more detail).

Savings have also been made in procurement of units at a lower price than forecast.

More information on these activities is provided in section 4.2 *Setting Operational Requirements for Fleet*.

### 5.1.3 Fleet Operational Performance over the Regulatory Period 2010-15

While FSG has delivered efficiency outcomes in terms of operational and procurement practises, it has done so while meeting the business's operational requirements.

Over the period, FSG has delivered an outcome where all vehicle types required to deliver the system PoW have been made available, without either excess or shortage in fleet inventory. This has in part been managed through the utilisation of small fleet loan pools and fleet hire options to provide coverage for critical types of fleet such as EWP's.

### 5.1.4 Fleet Operating Expenditure over the Regulatory Period 2010-15

Table 5.4 outlines the actual operating expenditure to date for the current regulatory period, together with the expected forecast for the remainder of the period.

**Table 5.4: Fleet Operating Expenditure over the 2010-15 Regulatory Period**

Operating Expenditure	2010-11	2011-12	2012-13	2013-14	2014-15*	Total
	\$M	\$M	\$M	\$M	\$M	\$M
<b>Total (actual/forecast)</b>	<b>27.4</b>	<b>27.7</b>	<b>25.5</b>	<b>25.5</b>	<b>26.7</b>	<b>132.8</b>

Notes:

- Table Values are in Nominal dollars
- '\*' denotes Forecast value
- In 2012-13 the reduction in the operating expenditure is due to the receipt of an accumulated \$1.65M fuel tax credit for the period 2010-11 to 2012-13. For 2013-14 an amount of \$1.0M in fuel tax credits was received (\$200k relating to 2012-13) and an expected credit of approximately \$594k p.a. every year from 2014-15 onwards.
- The ATO has deemed that Energex will be liable for an additional \$700kp.a. of Fringe Benefits Tax related to staff parking at the Newstead corporate office from 2014-15 onwards based on the emergence of commercial parking being available in the near vicinity.
- Above figures include Generator Operating Expenditure

Data Source: Energex Ellipse General Ledger.

Table 5.5 outlines the average annual maintenance cost for each vehicle type to date for the current regulatory period.

**Table 5.5: Fleet Assets; Average Age, Annual Kilometres and Operating Costs for 2013-14**

Fleet Assets AER Categories	Number of units	Average Age (yrs)	Average Annual kms (km/yr) / vehicle	Average Annual Operating Costs (\$/yr)
Cars	644	1.9	27,781	7,233
Light Commercial Vehicle	184	2.5	25,313	10,803
Heavy Commercial Vehicle	282	3.8	22,674	23,763
Light Commercial Vehicle - EWP's	-	-	-	-
Heavy Commercial Vehicle - EWP's	244	6.5	19,695	40,262
Other*	456	6.6	1,206	5,093
<b>Total</b>	<b>1,810</b>			

Notes:

- Table Values are as at 30 June 2014 with costs in Nominal dollars.
- '\*\*' The "Other" category includes units that do not have registered kms e.g. trailers.

Data Source: Energex Ellipse General Ledger and SG Fleet Australia (Energex Fleet Management provider).

Energex is currently working with our Fleet Management provider on benchmarking its fleet against its peer group to better understand its fleet performance and to identify any opportunities for cost reductions and efficiency improvements.

## 5.2 Forecast for the Regulatory Period 2015-20

This section consolidates the financial requirements to deliver fleet for each year of the next regulatory period.

### 5.2.1 Fleet Program of Work

The non-system PoW is separated into capital and operating expenditure. Capital relates to expenditure for new and replacement vehicles whereas operating costs relate to the ongoing management and maintenance of the fleet of vehicles.

#### 5.2.1.1 Fleet Capital Expenditure

The forecast fleet capital program for the 2015-20 regulatory period has been derived applying the principles set out in Section 4 – Operational Requirements.

FSG has engaged extensively with its business partners including external suppliers to review any future impacts by the other major influencers and drivers of fleet. These include crewing ratios, crewing structures, work practices, technology and safety drivers. This review indicated that the only effect on the fleet size in the forward period will be due to

optimisation of the crewing ratios and structures which will see a forecast reduction in the fleet required to deliver the forward program of work.

Based on this analysis the fleet capital program for the 2015-20 regulatory period is modelled on a like-capability replacement for the reducing fleet and is detailed in Tables 5.6, 5.7 and 5.8.

The replacement of fleet units is carried out through a continuous improvement process which drives ongoing unit cost reductions, performance improvements and overall gains in fleet efficiency.

**Table 5.6 Forecast Fleet Capital Expenditure for 2015-20 Regulatory Period**

Capital Expenditure	2015-16	2016-17	2017-18	2018-19	2019-20	Total \$M
AER Categories	\$M	\$M	\$M	\$M	\$M	
<b>Cars</b>	7.2	4.7	9.5	7.1	5.6	<b>34.1</b>
<b>Light Commercial Vehicle</b>	1.6	1.7	1.3	4.4	3.3	<b>12.3</b>
<b>Heavy Commercial Vehicle</b>	6.4	6.1	6.5	6.7	5.8	<b>31.5</b>
<b>Light Commercial Vehicle - EWP's</b>	0.0	0.0	0.0	0.0	0.0	<b>0.0</b>
<b>Heavy Commercial Vehicle - EWP's</b>	14.2	12.8	4.1	11.5	13.1	<b>55.7</b>
<b>Other</b>	0.8	1.7	1.0	1.1	1.5	<b>6.1</b>
<b>Total (forecast)</b>	<b>30.2</b>	<b>27.0</b>	<b>22.4</b>	<b>30.7</b>	<b>29.3</b>	<b>139.6</b>

Note:

- Table Values are in \$2014-15.

Data Source: SG Fleet Australia (Energex Fleet Management provider) and FAMP assumptions.

**Table 5.7 Forecast Fleet Units to be Purchased for 2015-20 Regulatory Period**

Fleet Units AER Categories	2015-16	2016-17	2017-18	2018-19	2019-20	Total	% of Total Spend
<b>Cars</b>	164	108	239	169	131	<b>811</b>	<b>24%</b>
<b>Light Commercial Vehicle</b>	22	23	19	62	47	<b>173</b>	<b>9%</b>
<b>Heavy Commercial Vehicle</b>	46	49	49	55	49	<b>248</b>	<b>23%</b>
<b>Light Commercial Vehicle - EWP's</b>	-	-	-	-	-	-	<b>0%</b>
<b>Heavy Commercial Vehicle - EWP's</b>	37	27	8	25	29	<b>126</b>	<b>40%</b>
<b>Other</b>	15	37	33	26	35	<b>146</b>	<b>4%</b>
<b>Total (forecast)</b>	<b>284</b>	<b>244</b>	<b>348</b>	<b>337</b>	<b>291</b>	<b>1,504</b>	<b>100%</b>

Data Source: SG Fleet Australia (Energex Fleet Management provider) and FAMP assumptions.

**Table 5.8: Forecast Fleet Units Held at the End of Each Year during the 2015-20 Regulatory Period**

Fleet Units AER Categories	2015-16	2016-17	2017-18	2018-19	2019-20
<b>Cars</b>	638	633	628	628	628
<b>Light Commercial Vehicle</b>	183	178	173	173	173
<b>Heavy Commercial Vehicle</b>	272	263	254	254	254
<b>Light Commercial Vehicle - EWP's</b>	-	-	-	-	-
<b>Heavy Commercial Vehicle - EWP's</b>	243	234	225	225	225
<b>Other</b>	456	456	456	456	456
<b>Total (actual/forecast)</b>	<b>1,792</b>	<b>1,764</b>	<b>1,736</b>	<b>1,736</b>	<b>1,736</b>

Data Source: SG Fleet Australia (Energex Fleet Management provider) and FAMP assumptions.

### 5.2.1.2 Fleet Operating Expenditure

The forecast operating expenditure has also been derived by applying the principles set out in this Strategy. The operating expenditure for the 2015-20 regulatory period is reducing commensurate with the reductions in fleet units over the period and is detailed in Table 5.9. In order to contribute to the Energex Efficiency Target, the business will target improvement initiatives such as: design review; fleet management intelligence; and whole of life costing reviews.

**Table 5.9 Forecast Fleet Operating Expenditure for 2015-20**

Operating Expenditure	2015-16 \$M	2016-17 \$M	2017-18 \$M	2018-19 \$M	2019-20 \$M	Total \$M
<b>Fleet Operating Expenditure</b>	27.2	26.9	26.5	26.5	26.5	<b>133.6</b>
<b>Energex Efficiency Target</b>	(1.0)	(1.4)	(1.3)	(1.3)	(1.2)	<b>(6.2)</b>
<b>Base Step Trend</b>	26.2	25.5	25.2	25.2	25.3	<b>127.4</b>

Note:

- Table Values are in \$2014-15.
- Above figures include Generator Operating Expenditure

Data Source: Energex Ellipse General Ledger actuals for 2013/14, and Base Step Trend analysis.

Table 5.10 sets out the forecast weighted average operating and capital costs per kilometre.

**Table 5.10 Forecast Weighted Average Costs for Fleet Units 2015-20**

Weighted Average Cost	2015-16	2016-17	2017-18	2018-19	2019-20
<b>Operating Cost/km</b>	\$0.99	\$0.97	\$0.95	\$0.95	\$0.95
<b>Capital Cost/km</b>	\$1.19	\$1.03	\$0.87	\$1.20	\$1.12
<b>Average Kilometres Travelled</b>	24,707	24,707	24,707	24,707	24,707

Note:

- Operating Cost is based on Operating Expenditure Table 5.9 excluding costs associated with "Other" Vehicles.
- Capital Cost is based on Capital Expenditure Table 5.6 excluding costs associated with "Other" Vehicles.
- Average kilometres are 2013-14 actuals, excluding kilometres associated with "Other" Vehicles.

Data Source: Energex Ellipse General Ledger and SG Fleet Australia, our Fleet Management Provider.



# 6 Tools & Equipment Performance and Forecast

An understanding of the capability of the current assets is a key input into the determination of the tools and equipment resources required for the 2015-20 regulatory period.

Once this is established, an informed decision can be made on whether the existing capability can satisfy the future operational requirements or whether there is a shortfall that needs to be addressed.

This chapter details Energex performance over the 2010-15 regulatory period, the current status of its tools and equipment and their operational capabilities and the forecast requirements for the 2015-20 regulatory period.

## 6.1 Performance over the Regulatory Period 2010-15

### 6.1.1 Tools & Equipment Capital Expenditure over the Regulatory Period 2010-15

Table 6.1 outlines the actual capital expenditure to date for the current regulatory period, together with the expected forecast for the remainder of the period.

**Table 6.1: Tools & Equipment Capital Expenditure over the 2010-15 Regulatory Period**

Capital Expenditure	2010-11 \$M	2011-12 \$M	2012-13 \$M	2013-14 \$M	2014-15* \$M	Total \$M
<b>Tools</b>	2.3	1.7	1.8	2.4	2.6	<b>10.8</b>
<b>Test Instruments</b>	2.8	5.2	3.8	2.1	2.3	<b>16.2</b>
<b>Safety Equipment</b>	4.4	2.4	2.4	2.6	2.8	<b>14.6</b>
<b>Total (actual/forecast)</b>	<b>9.5</b>	<b>9.3</b>	<b>8.0</b>	<b>7.1</b>	<b>7.7</b>	<b>41.6</b>
<b>AER Approved</b>	<b>13.4</b>	<b>11.2</b>	<b>11.3</b>	<b>11.5</b>	<b>11.8</b>	<b>59.2</b>
<b>Difference</b>	<b>(3.9)</b>	<b>(1.9)</b>	<b>(3.3)</b>	<b>(4.4)</b>	<b>(4.1)</b>	<b>(17.6)</b>

Notes:

- Table Values are in Nominal dollars.
- '\*' denotes Forecast value

Data Source: Energex Ellipse General Ledger and Energex Tools & Equipment Asset Management Database (AMPRO).

The underspend in Capital Expenditure when compared to the AER allowance relates to the following:

- Lower than estimated purchase prices for tools and equipment;
- Savings made through the efficient redeployment of the tools and equipment returned from decommissioned vehicles;
- Rationalisation of specialist tool requirements through optimised crew structures;
- Special projects that were originally allowed for but ultimately did not achieve sufficient justification to proceed and were cancelled; and
- Reductions in Service Delivery discretionary tools and equipment spend.

Table 6.2 shows the relative savings in the program.

**Table 6.2: Tools & Equipment Asset Base each year during the 2010-15 Regulatory Period**

Asset Base	2010-11 \$M	2011-12 \$M	2012-13 \$M	2013-14 \$M	2014-15* \$M	Average \$M
<b>Tools</b>	6.6	6.9	6.7	7.0	7.0	<b>6.8</b>
<b>Test Instruments</b>	13.0	13.7	13.4	14.0	14.0	<b>13.6</b>
<b>Safety Equipment</b>	10.3	10.9	10.5	11.0	11.1	<b>10.8</b>
<b>Total (actual/forecast)</b>	<b>29.9</b>	<b>31.5</b>	<b>30.6</b>	<b>32.0</b>	<b>32.1</b>	<b>31.2</b>

Notes:

- Table Values are in Nominal dollars and are as at 30 June each year.
- '\*\*' denotes Forecast value

Data Source: Energex Ellipse General Ledger and Energex Tools & Equipment Asset Management Database (AMPRO).

## 6.1.2 Tools & Equipment Operating Expenditure over the Regulatory Period 2010-15

Table 6.3 outlines the actual capital expenditure to date for the current regulatory period, together with the expected forecast for the remainder of the period.

**Table 6.3: Tools & Equipment Operating Expenditure over the 2010-15 Regulatory Period**

Operating Expenditure	2010-11 \$M	2011-12 \$M	2012-13 \$M	2013-14 \$M	2014-15* \$M	Total \$M
<b>Testing</b>	2.7	3.0	2.9	2.5	2.9	<b>14.0</b>
<b>Maintenance</b>	3.1	3.7	3.2	2.7	3.5	<b>16.2</b>
<b>Total (actual/forecast)</b>	<b>5.8</b>	<b>6.7</b>	<b>6.1</b>	<b>5.2</b>	<b>6.4</b>	<b>30.2</b>

Notes:

- Table Values are in Nominal dollars
- '\*' denotes Forecast value
- The variations in operating expenditure across the period for each of the categories is historically driven by the variability in the volume of tools purchased annually together with a varying range of retention periods/useful lives for different types of tools and equipment.

Data Source: Energex Ellipse General Ledger.

## 6.2 Forecast for the Regulatory Period 2015-20

This chapter consolidates the financial requirements to deliver tools and equipment for each year of the next regulatory period.

### 6.2.1 Tools & Equipment Program of Work

#### 6.2.1.1 Tools & Equipment Capital Expenditure

The forecast tools and equipment capital program for the 2015-20 regulatory period has been derived applying the principles set out in Section 4 – Operational Requirements.

FSG has engaged extensively with its business partners including external suppliers to review any future impacts by the other major influencers and drivers of tools and equipment. These include crewing ratios and structures, work practices and technology and safety drivers. This review indicated that the tools and equipment required for the delivery of the forward program will reduce commensurate with the reducing fleet due to crewing ratio and structure optimisation.

Based on this analysis the fleet capital program for the 2015-20 regulatory period is modelled on a like-capability replacement for the reducing tool and equipment requirement and is detailed in Table 6.4.

The replacement of tools and equipment is carried out through a continuous improvement process which drives ongoing unit cost reductions, performance improvements and overall gains in efficiency.

**Table 6.4 Forecast Tools & Equipment Capital Expenditure for 2015-20 Regulatory Period**

Asset Type	2015-16 \$M	2016-17 \$M	2017-18 \$M	2018-19 \$M	2019-20 \$M	Total \$M
<b>Tools</b>	1.8	1.5	1.3	1.3	1.3	<b>7.2</b>
<b>Test Instruments</b>	3.1	3.1	3.1	3.1	3.1	<b>15.5</b>
<b>Safety Equipment</b>	2.6	2.6	2.6	2.6	2.6	<b>12.9</b>
<b>Total (forecast)</b>	<b>7.5</b>	<b>7.2</b>	<b>7.0</b>	<b>7.0</b>	<b>7.0</b>	<b>35.6</b>

Notes:

- Table Values are in \$2014-15

Data Source: Energex Tools & Equipment Asset Management Database (AMPRO) & TAMP assumptions

### 6.2.1.1 Tools & Equipment Operating Expenditure

The forecast operating expenditure has also been derived by applying the principles set out in this Strategy and reflects the reduction in the tools and equipment capital expenditure. The operating expenditure for the 2015-20 regulatory period is detailed in Table 6.5.

**Table 6.5 Forecast Tools & Equipment Operating Expenditure for 2015-20 Regulatory Period**

Expenditure Type	2015-16 \$M	2016-17 \$M	2017-18 \$M	2018-19 \$M	2019-20 \$M	Total \$M
<b>Testing</b>	3.1	3.0	3.0	3.0	3.0	<b>15.1</b>
<b>Maintenance</b>	3.3	3.2	3.2	3.2	3.3	<b>16.2</b>
<b>Total (forecast)</b>	<b>6.4</b>	<b>6.2</b>	<b>6.2</b>	<b>6.2</b>	<b>6.3</b>	<b>31.4</b>

Note:

- Table Values are in \$2014-15.

Data Source: Energex Ellipse General Ledger for 2013-14.

# 7 Measuring Performance

Energex aims to deliver a balanced scorecard approach to monitor outcomes.

Performance measures are used to monitor performance against the plan as well as to identify improvement opportunities, and to quickly address inadequate performance.

In addition, Energex collects performance measurements consistent with the AER's expectations as set out in its Expenditure Forecast Assessment Guidelines.

## 7.1 Performance Indicators

Key performance measures to be recorded on an annual basis are detailed in table 7.1.

**Table 7.1 Key Performance Measures**

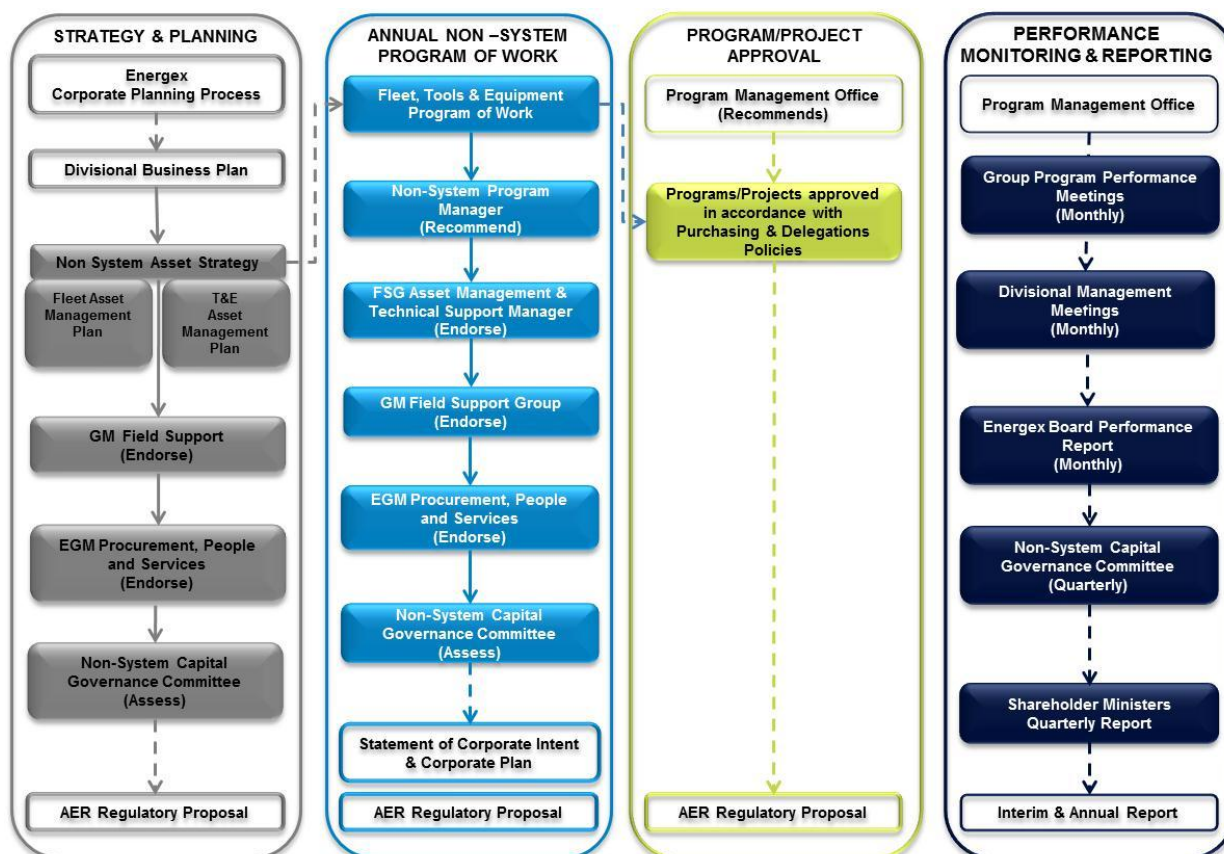
KRA	KPI	Target
<b>Finance</b>	Non-System Capex vs AER Allowance	<100% (with no operational impact and risks managed)
<b>AER</b>	Average kms travelled per vehicle type per annum	Actuals
	Average annual maintenance costs per vehicle type	Actuals

# 8 Governance

This chapter sets out the governance arrangements that will apply to the Non-System Asset Strategy.

## 8.1 Overview

**Diagram 8.1: Overview of Fleet, Tools & Equipment Governance Process**



## 8.2 Ownership

This Strategy is owned by FSG. Any changes can only be made by the owner and must be recorded in a version control in the front of this document.

## 8.3 Approval

The following approval process applies to this Strategy:

- Initial endorsement by the Group Manager Field Support Group; and
- Endorsement and recommendation to NSCGC by the EGM Procurement, People & Services

- 
- Endorsement by the NSCGC.

The financial outputs of this Strategy are to be included in Energex's 2015-20 Regulatory Proposal, subject to the following approvals:

- Initial approval of the Regulatory Proposal by the Customer and Strategy Committee; and
- Final approval of the Regulatory proposal Energex Board.
- Annual Budget is approved through the business planning process.

## **8.4 Performance Monitoring and Reporting**

Performance against the AER approved expenditure is to be presented quarterly to the Non-System Capital Governance Committee or an early interval as requested.

Performance against KPIs are to be presented quarterly to the Non-System Capital Governance Council or an early interval as requested.

## **8.5 Review**

This Strategy is to be reviewed annually by FSG as part of Energex's annual business planning process.

## **8.6 Publication**

The most current version of this Strategy must be made available on the FSG page of Energex's intranet.

## 9 Glossary

Acronym	Definition
<b>ADR</b>	Australian Design Rules
<b>AER</b>	Australian Energy Regulator
<b>BEP</b>	Business Efficiency Plan
<b>BMS</b>	Business Management System
<b>EWP'S</b>	Elevated Work Platform
<b>FAMP</b>	Fleet Asset Management Plan
<b>FSG</b>	Fleet Support Group
<b>KPI</b>	Key Performance Indicator
<b>KRA</b>	Key Result Area
<b>NPV</b>	Net Present Value
<b>NSCGC</b>	Non-System Capital Governance Committee
<b>PoW</b>	Program of Work
<b>TAMP</b>	Tools & Equipment Asset Management Plan