

STRATEGY

JEN FLEET ASSET CLASS STRATEGY

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1 EXECUTIVE SUMMARY

This Asset Class Strategy (**ACS**) is for JEN's fleet asset class. The fleet asset class covers the following fleet and mobile plant assets used by Jemena Electricity Networks (**JEN**):

- Heavy commercial vehicles – eg trucks;
- Light commercial vehicles – eg utes, vans;
- Material handling – eg forklifts, bobcats, tailgate loaders;
- Plant – eg compressors, trailers; and
- Passenger vehicles– eg sedans, SUVs.

This document is referred to as the Fleet ACS. This Fleet ACS sets out the asset class objectives and lifecycle strategies for fleet and plant assets used to deliver services to customers of JEN. The asset class objectives, fleet management approach and principles outlined in this Fleet ACS for JEN are also broadly consistent with those applicable to The Jemena Group's other businesses.

JEN's fleet management approach is based on two key principles. These are:

- vehicles selected are fit for purpose; and
- achieving the lowest sustainable cost.

We use a combination of age and distance thresholds to estimate the required replacement timing of each asset within our fleet.

Further information on these principles is provided in section 2.1.1.

1.1 ASSET CLASS OBJECTIVES

All of the businesses in The Jemena Group (**Jemena**), including JEN, use fleet and mobile plant assets to deliver services to their customers. This ACS aligns JEN's fleet asset class objectives to the four pillars and goals outlined in the Group Strategy. JEN's fleet asset class objectives are presented in the following table.

Table 1-1: JEN's fleet asset class objectives

Group Strategy pillar & goal	JEN fleet asset class objective
Customer Have our customers advocate for us based on their experience of our products	Manage fleet assets to ensure the safety of employees, contractors and the public
	Ensure fleet is available for timely emergency response

Group Strategy pillar & goal	JEN fleet asset class objective
Operational excellence Build efficient operations with the capacity to grow with us	Achieve the lowest sustainable cost of fleet management
Growth Grow profitably and sustainably	Ensure fleet/plant portfolio is able to grow or change with business and customer requirements
Our people Ensure we have the right people and capability to deliver the plan	Manage fleet asset lifecycles to provide strategies to deliver prudent financial and operational outcomes

A summary of performance of the asset class against these objectives is provided in section 4.3.2.

1.2 ASSET CONDITION AND RISK

The overall current condition of the fleet asset class is moderate but varies by fleet type and can fluctuate over time. Our fleet expenditure aims to maintain an efficient level of fleet asset performance (or failure) risk over the medium term, noting that the overall condition of our fleet can fluctuate over the short term due to the range of factors which influence condition and the relatively high frequency (compared to network assets) that fleet items are turned over.

JEN's objective is to ensure that we have fit for purpose, safe and legislatively compliant vehicles to support day to day operations. However, we currently have some passenger, heavy commercial and light commercial vehicles which are in a poorer condition than our target condition rating over the medium and long term. We aim to manage fleet and plant in line with our target risk ratings (as set out in section 5.1.2.3). An overview of the current risk associated with the fleet asset class is provided in section 5.1.2.

2 INTRODUCTION

The Jemena Group owns, leases and operates various fleet and plant that are built specifically to meet the requirements of its various businesses. Responsibility for fleet and plant is shared between the Group's Services and Projects Fleet Team and a contracted fleet management company. The Jemena Fleet Services Guideline (JEM NOC GU 0011) sets out responsibilities for fleet and plant related activities, including:

- budgeting, asset strategy, fleet criteria specification and endorsement of purchases and disposals within five-year forecast periods;
- procurement, management and disposal of fleet and plant equipment; and
- fleet servicing and maintenance.

2.1 PURPOSE / OBJECTIVES

The purpose of this ACS is to explain the approach and principal methods by which the fleet asset class contributes to delivering the goals of the Group Strategy, and by extension, the asset objectives defined in the JEN ABS. The JEN Fleet ACS is based on the following information:

- **asset profile** – includes information about the type, specifications, fuel type, life expectancy and age profile of fleet;
- **asset risk** – includes identifying threats, opportunities, strengths and weakness, including asset performance objectives and measures, criticality and condition, to ensure all issues, risks and opportunities are documented;
- **asset performance** – provides information about performance objectives, drivers, and service levels, and the technical and commercial risks associated with fleet management;
- **asset strategy** – outlines fleet asset management practices. This includes key fleet strategies that support the corporate and functional group business plan, strategies and objectives, and inform expenditure plans and programs of work;
- **asset class objectives** – the objectives and targets for the asset class, and how these contribute to the overall relevant JEN asset objectives. These provide the essential link between Jemena's business plan, the JEN Asset Business Strategies and Asset Investment Plans; and
- **asset expenditure assessment** – provides information about the expenditure decision-making processes (and how expenditure options are analysed) as well as historical and forecast.

We use this Fleet ACS in combination with the ACSs for other asset classes to develop JEN's Asset Investment Plan (**AIP**) and expenditure forecasts for the next seven years. The expenditure forecasts provided in the AIP form the basis of budget planning and regulatory proposals; the Fleet ACS therefore plays an important role in our asset management system.

The ACS covers the whole life of our fleet assets. The asset management practices in this ACS ensure reliable asset performance to support the efficient delivery of services to JEN's customers over the long-term, including maintaining regulatory compliance and considering risk, asset condition, performance, technology, and growth.

2.1.1 FLEET MANAGEMENT PRINCIPLES

JEN's fleet management approach is based on two key principles. These are:

1 Vehicles selected are fit for purpose.

It is essential all vehicles are safe, reliable and suitable for the task to which they are applied. The following considerations are applied when choosing vehicles:

- function/role;
- fuel type (e.g. diesel, petrol, hybrid, electric, hydrogen, etc);
- coverage of expected daily range (kms);
- availability of battery chargers, where appropriate, and technological advancements;
- availability and reliability during emergency events (e.g. storms during night or day);
- the terrain the vehicle must operate in (including ignition risks in high bushfire risk areas);
- expected annual kilometres;
- safety features (e.g. ANCAP safety rating, airbags, reversing cameras);
- compliance with Federal and State regulatory requirements; and
- compliance with manufacturer's scheduled maintenance and inspection regimes.

2 Achieving the lowest sustainable cost

We aim to achieve the lowest cost when managing fleet and plant assets over their total lifecycle – while ensuring assets are safe and fit for purpose. We assess all fleet related costs to determine the most efficient cost, including:

- purchase price;
- fuel type and all associated costs including the cost of any required recharging or refuelling infrastructure;
- repairs, maintenance and inspections;
- registration;
- resale value;
- annual kilometres; and
- hours of use (mobile plant)

In line with these principles, we monitor and replace vehicles at optimal intervals to achieve the most efficient total cost, in turn ensuring only efficient costs are paid for by our customers.

2.2 ASSET MANAGEMENT SYSTEM

The Fleet ACS creates a line of sight between the Group Strategy, the JEN ABS and the AIP.

A detailed description of Jemena's asset management system and its constituent parts is available in the JEM AM MA 0001 Jemena Asset Management System Manual and the JEM AM TP 0005 Jemena Asset Class Strategy Content Guide and Template.

2.3 DESCRIPTION OF ASSETS COVERED

The Fleet ACS applies to any fleet and plant that is owned, leased and operated by Jemena for use on the Jemena Electricity Network.

The different types of fleet and plant used by JEN are:

- Heavy commercial vehicles (**HCV**) – eg trucks, crane borers, EWPs;
- Light commercial vehicles (**LCV**) – eg utes, vans;
- Material handling – eg forklifts, bobcats, tailgate loaders;
- Plant – eg compressors, trailers; and
- Passenger vehicles (**PV**) – eg (sedans, SUVs)

2.4 GOVERNANCE

This ACS is reviewed every two years in order to ensure ongoing alignment with the Group Strategy and JEN ABS, and to account for any new asset performance and risk information. This document is owned by the JEN Asset Investment Team.

Table 2-1 sets out the high level responsibilities for this ACS. Detailed information on specific fleet management responsibilities is provided in the Jemena Fleet Services Guideline (JEM NOC GU 0011).

Table 2-1: RASCI governance table for JEN fleet ACS

Role	Responsibilities	Group/Person
Responsibility	Who is responsible for carrying out the entrusted task?	Fleet Management Team
Accountable (Approval)	Who is responsible for the whole task and who is responsible for what has been done?	JEN Asset Investment Manager
Support	Who provides support during the implementation of the activity / process / service?	Strategic Sourcing & Supply Chain JEN Asset Management Commercial Finance
Consultation	Who can provide valuable advice or consultation for the task?	HSE Team
Inform	Who should be informed about the task progress or the decisions in the task?	EGM Electricity Distribution

3 STRATEGIC DRIVERS

As detailed in the Group Strategy and JEN ABS, the operating environment, stakeholder expectations and work programs are crucial inputs into how we manage fleet and plant requirements. External factors, including regulations, technical standards, technological advances and customer requirements are regularly evolving, which means we must regularly review and monitor the strategic drivers for investment.

The following strategic drivers influence how we manage our assets:

- market trends and competitive position;
- customer and community expectations;
- long term sustainable costs and shareholder expectations;
- innovation and technology; and
- regulatory and legislative environment.

A summary of how these strategic drivers relates to the fleet asset class is provided in the following sections.

3.1 MARKET AND COMPETITIVE POSITION

As highlighted in the JEN ABS, the energy market in Australia is changing. Energy consumers are looking for cleaner, affordable, reliable energy, and considerable focus is being placed on whether the traditional energy network strategies in place today will be appropriate in the future. In 2018 and 2019, we held a number of meetings of a People's Panel of 43 everyday citizens, who came together to represent the customers of our electricity network and create a set of recommendations for the future of JEN. In particular, the People's Panel, along with a range of other customers JEN engaged as part of developing its regulatory proposal, articulated their expectations that we should continue to maintain our current levels of network service (including frequency and duration of network outages) over the long term at the most efficient cost. The Jemena People's Panel Engagement Report can be accessed [via this link](#).

While demand for electricity is expected to remain strong into the future, the way in which consumers source and use energy – and therefore the way JEN transports electricity – will continue to change over the coming decades. These changes in our network business have a direct impact on acquisition, retention and disposal of the equipment we use to deliver services to our customers, including our fleet assets.

Our strategic approach has been to purchase, rather than lease, the vast majority of fleet assets for the delivery of our network program of work. This approach has been based on analysis demonstrating that purchasing represents a lower total cost over the lifecycle of vehicles, in addition to the greater flexibility it provides to ensure we optimise utilisation of fleet. Consequently, JEN owns the majority of its fleet assets except where the business has chosen to rent vehicles to deal with short term requirements.

A summary of results of modelling to assess the costs of purchasing and leasing various vehicle types are attached as Appendix A. This represents the most efficient total cost option to meet current requirements. We regularly review procurement options of ownership vs leasing, and are prepared to modify this purchasing approach as the market changes. We will select the most prudent and efficient (lowest total cost of ownership) procurement approach in the prevailing market conditions.

3.2 CUSTOMER AND COMMUNITY EXPECTATIONS

As highlighted by JEN's customers through its customer engagement program (incorporated in the 'Jemena People's Panel Engagement Report' referred to in 3.1 above), at the most basic level our customers seek a safe, reliable and affordable electricity supply. As part of a safe, reliable and affordable electricity supply, our customers expect:

- timely incident response, ensuring safety remains our top priority and that our current level of network service reliability is maintained over the long-term;
- consistent levels of service to all customers; and
- prudent cost management.

These primary expectations of our customers are reflected in our two fleet management principles, of selecting vehicles that are fit for purpose (ensuring our crews are able to respond to incidents in a timely manner and deliver a consistent level of service to all customers) and of achieving the lowest sustainable cost (prudent cost management). In particular, the condition and risks associated with our fleet over the medium to long term can have a direct impact on the quality of services we provide to customers.

Through our engagement, some of our customers have also emphasised the importance of priorities such as social responsibility, addressing environmental challenges and exploring technological innovations. Although some of these priorities, such as environmental and social goals, fall outside the scope of the National Electricity Objective and the associated regulatory framework we operate within, where possible we have sought to reflect these customer expectations in this Asset Class Strategy by considering whether new and developing vehicle fuel technologies may represent a more efficient means of meeting our operational requirements, such as hybrid, electric and hydrogen vehicles.

However, our fleet principles of having fit for purpose vehicles with minimised total cost of ownership are our overriding considerations when evaluating these new vehicle technologies. For example, we ensure all vehicles are fit for purpose and fitted with the appropriate tools and equipment to allow high priority incidents to be addressed quickly, first time and to minimise outage times for customers. We also aim to standardise fleet and plant equipment to provide a safe and efficient working environment for our staff and help ensure all our customers receive a consistent level of service.

As guided by our fleet management principles, we ensure that our fleet represents the lowest sustainable cost and meets our operational requirements. Therefore, going forward, we will employ new vehicle fuel technologies in cases where they represent a lower cost option than traditional fuel types and where these vehicles are fit for our operational purposes.

3.3 LONG TERM SUSTAINABLE COSTS AND SHAREHOLDER EXPECTATIONS

As highlighted in the Group Strategy, it is vital JEN has a long term sustainable cost structure. Like most companies and corporations, our shareholders seek a reasonable opportunity to recover their investment. The fleet investment decisions we make today not only need to be prudent from our customers' perspective in the long-term, they also need to be prudent from our shareholders' perspective in the long-term.

When making decisions on fleet acquisition and management, consideration must be given to financial sustainability and risk within a governance framework. Therefore, all fleet and plant expenditure is subject to the fleet management principles (outlined in section 2.1.1).

3.4 INNOVATION AND TECHNOLOGY

Changes in technology and innovation have a direct impact on the way JEN manages and operates its network. Improvements in and customer take-up of distributed energy resources, energy storage, demand management and data management are changing the way customers think about using electricity services, and how we think about delivering electricity to customers.

Our customers expect us, and other parts of the energy industry, to innovate and plan for the future so that they can access affordable electricity in the longer term as we move towards a lower carbon future. This is why we are looking at trialling alternative technologies so we can ensure our business remains commercially sustainable in the future.

We monitor and will seek to evaluate the development of new technologies in fleet assets themselves, and will utilise assets with new technologies where practicable and economic to do so. Fuel type, in particular, is a key consideration, with hybrid, electric and hydrogen powered electric vehicles gradually becoming a practicable and economic option. While JEN's current fleet remains of a traditional fuel type (petrol/diesel), we will continue to consider alternative fuels in the future, in accordance with our fleet management principles of having fit for purpose vehicles with lowest sustainable cost of ownership.

We consider the benefits electric vehicles could provide savings in operational and maintenance costs and environmental sustainability in the near term. Affordability is one of the leading concerns for our customers and any savings we are able to deliver will help us to put downward pressure on power prices. We will adopt any new vehicle technology which aligns with our fleet principles only after significant market research, approval of a robust business case including detailed options with financial analysis and a successful pilot.

3.5 REGULATORY AND LEGISLATIVE ENVIRONMENT

Table 3-1 summarises the key legislative requirements and technical standards relating to fleet/plant assets. These requirements are factored into our asset management strategies and help inform the investments and operating activities we undertake.

Table 3-1: Summary of key legislative requirements and technical standards relating to the fleet asset class

Legislative requirement / technical standard	Summary of requirements
The Occupational Health and Safety Act 2004 (VIC)	Covers workplace and equipment safety for workers in Victoria.
Road Safety (Vehicles) Regulations (VIC)	Covers requirements for vehicle licensing, construction standards, vehicle mass and dimension, load restraint, towing, etc. in Victoria
AS/NZS 1418.10:2011 Cranes, Hoists and Winches Part 10: Mobile Elevating Work Platforms	Outlines standards for maintaining and using these types of plant/vehicles, including specified intervals for inspections and rebuilds.
AS 2550.10-2006 Cranes, Hoists and Winches – Safe Use	Outlines standards for maintaining and using these types of plant/vehicles, including specified intervals for inspections and rebuilds.

National Electricity Rules

National Electricity Rules governs access to electricity services and elements of broader electricity markets. They set out broad requirements for economic value tests that must be considered in relation to efficient capital and operating expenditure.

4 ASSET CLASS OBJECTIVES

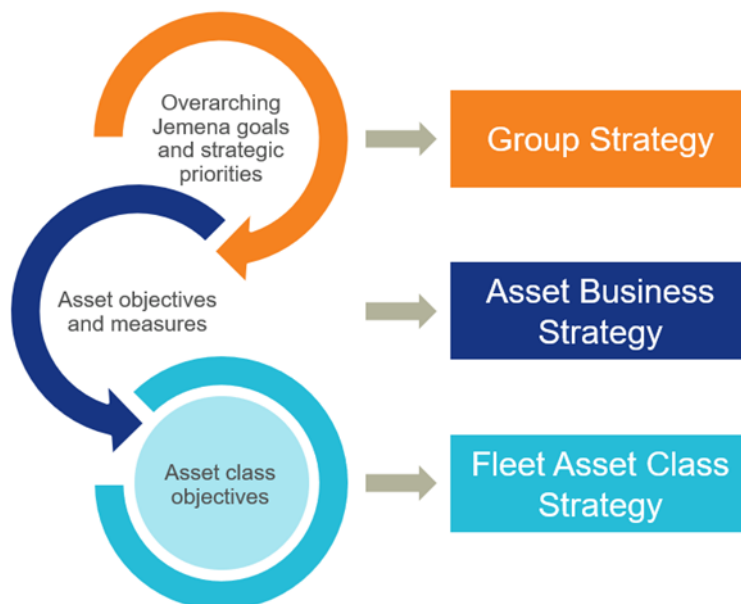
This section provides the line of sight from corporate goals through to the fleet asset class objectives.

The Fleet ACS supports the JEN business. JEN maintains an ABS, which outlines its asset objectives. The asset objectives are in turn informed by the goals described in the Group strategy.

This Fleet ACS considers the asset objectives detailed in the ABS, along with current performance data on relevant assets. It then defines a series of asset class objectives that apply to fleet assets.

These asset class objectives then help determine the appropriate fleet management strategies to support JEN deliver electricity distribution services to its customers.

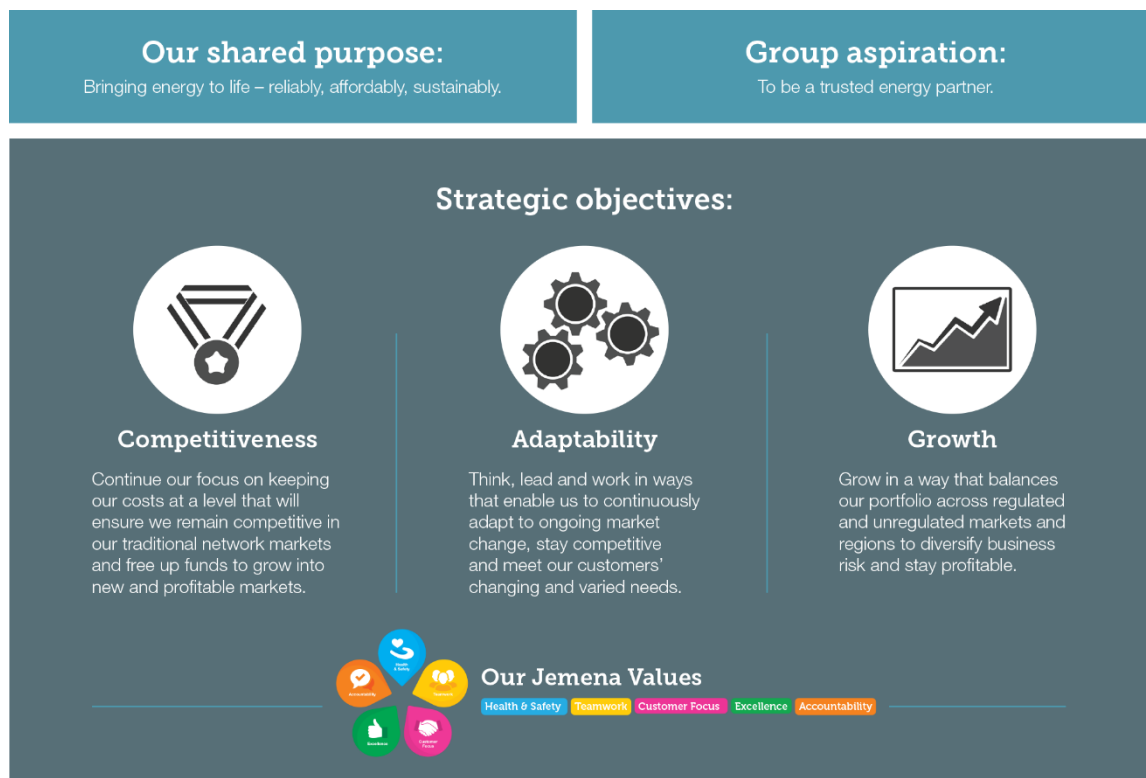
Figure 4-1: Documents that contain the various corporate and asset-specific goals, pillars and objectives.



4.1 GROUP STRATEGY

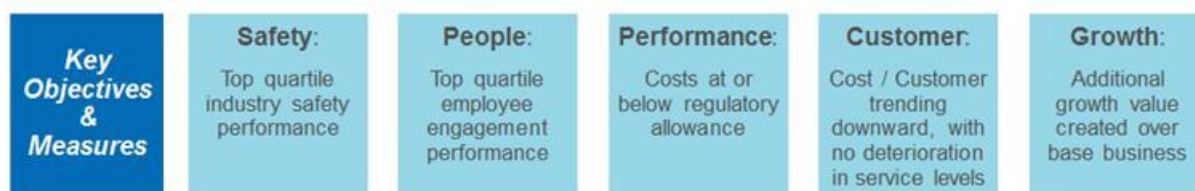
The Group Strategy is presented in Figure 4-2 below.

Figure 4-2: Overview of Group Strategy



The three pillars under the Strategic Objectives of the Group Strategy are overarching goals that apply to JEN, and are used to inform the specific fleet asset class objectives through several key objectives shown in figure 4-3 below.

Figure 4-3: Key success measures and objectives



4.2 ASSET CLASS OBJECTIVES

This JEN fleet ACS aligns the fleet asset class objectives to key strategic objectives (as shown above) which support the Group Strategy. Given the JEN ABS is directly informed by objectives which support our Group Strategy this approach ensures broad alignment with JEN's needs. The fleet asset class objectives are presented in Table 4-1.

Table 4-1: JEN fleet asset class objectives

JEN Key Objective	Fleet asset class objective	Measure	Target
Customer Have our customers advocate for us based on their experience of our products	Manage fleet assets to ensure the safety of employees, contractors and the public	Compliance management – annual vehicle registration paid, ancillary components compliance for EWPs/crane trucks in line with the manufacturer's rebuild dates, recalls/defects managed	Ensure vehicles are 100% compliant upon audit by JEN's external fleet management company.
	Ensure fleet is available for timely emergency response	Availability of on call service	24-hour servicing in place during operational periods. On call services in place during business hours on public holidays or shutdown periods.
Performance Build efficient operations with the capacity to grow with us	Achieve the lowest sustainable cost of fleet management	Motor vehicles per full time equivalent (FTE) employee	Within 10% of median of the national electricity distribution benchmarking When negative growth is experienced owned fleet can be disposed of and be cheaper to the customer instead of having inflexible leases with high exit fees
People Ensure we have the right people and capability to deliver the plan	Manage fleet asset lifecycle to provide strategies to deliver prudent financial and operational outcomes	Motor vehicles per full time equivalent (FTE) employee	Within 10% of the median of the national electricity distribution benchmarking

A summary of performance of the asset class against these objectives, as well as key projects identified to address and/or maintain performance is provided in the following section.

4.3 ASSET CLASS FUNCTION, PERFORMANCE AND REQUIREMENTS

This section provides an overview of performance across fleet asset class, measured against the asset class objectives. It includes a high level description of the asset class function, current performance and condition requirements.

4.3.1 FUNCTION

The function of JEN's fleet and plant assets is to support various business activities in a safe, reliable and cost-effective manner. JEN forecasts demand for fleet assets based on forecasted network activities as set out in the JEN AIP.

4.3.2 PERFORMANCE

The following table presents an overview of performance against the asset class objectives, including commentary on initiatives/activities required to maintain or improve performance against these objectives.

4.3.2.1 *Manage fleet assets to ensure the safety of employees, contractors and the public*

Measure	Target	Current performance
Compliance management – regos paid, ancillary components compliance for EWPs/crane trucks in line with the manufacturer's rebuild dates, recalls/defects managed	Ensure vehicles are 100% compliant upon audit.	The most recent SG Fleet audit was completed in November 2018. Achieved 90% All recalls and defects are managed by the fleet management company and reported on monthly.

4.3.2.2 *Ensure fleet is available for timely emergency response*

Measure	Target	Current performance
Availability of on call service	24-hour servicing in place during operational periods. On call services in place during business hours on public holidays/shutdown periods.	Fleet management company/nominated breakdown providers support JEN outside of business hours, including over the public holidays and shut down periods (Christmas, Easter) for all breakdowns.

4.3.2.3 *Achieve the lowest sustainable cost of fleet management*

Measure	Target	Current performance
Whole-of-life costs per annum (LCVs and PVs only). SG Fleet's Clients (Utilities) data used as a benchmark. Where possible, we also benchmark against our peers on comparable fleet categories	Within 10% of industry benchmark for each vehicle type	Whole-of-life costs per annum are currently tracking at within 10% of the industry benchmark median cost for each type of vehicle managed by the fleet management company. As our fleet is classified as being in a moderate condition, we are taking corrective action to replace the most degraded items of fleet to ensure that we continue to maintain our performance against this target.

4.3.2.4 *Ensure fleet/plant portfolio grows proportionally with business requirements*

Measure	Target	Current performance
Vehicle utilisation – average km per month. SG Fleet's Clients (Utilities) data used as a benchmark. Where possible, we also benchmark against our peers on comparable fleet categories	Within 10% variance of Vehicle type	Performance is currently tracking within 10% variance of median mileage of vehicle type
Ensure fleet/plant portfolio is able to grow or change with business and customer requirements	Within 10% of the median of national electricity distribution benchmarking	The motor vehicles per full time equivalent (FTE) employee was 0.32 in 2018

4.3.3 INITIATIVES TO IMPROVE/MAINTAIN PERFORMANCE AGAINST FLEET ASSET CLASS OBJECTIVES

A key initiative has been identified for 2019 to help improve and/or maintain performance against the fleet asset class objectives. This initiative involved increasing the planned asset replacement life of passenger vehicles from 4 years or 120,000 kms to 5 years or 150,000 kms, with actual replacement decisions made following a case-by-case conditional assessment, based on safety, of the vehicle.

This change in planned passenger vehicle replacement timing also ensures JEN compares favourably against its peers, in line with our fleet asset class objective of achieving the lowest sustainable cost of fleet management. JEN's fleet management company, SG Fleet, provided an industry comparison of planned replacement lifecycles for passenger vehicles used across other Australian utility businesses in Figure 4.3.3 below.

Figure 4.3.3: Comparative Industry Planned Passenger Vehicle Replacement Timing

Company	Passenger Vehicle
Essential Energy	60 months/150,000km
Ausgrid	48 months/150,000km
Powerlink	48 months
Ergon	48 months/100,000km
Energex	36-60 months
SA Power	60 months/150,000km
JEN	60 months/150,000km

Source: SG Fleet

Additionally, as part of its continual review of fleet assets against operational requirements, in 2019 JEN made a decision not to replace 28 fleet items (18 vehicles, 9 trailers and 1 mobile plant) which were due for replacement based on their condition. As these assets are owned by JEN (rather than

leased), they will be disposed of at public auction in 2019 and 2020 and the sale proceeds returned to our customers in accordance with the disposal process described in section 5.1.4.3.

Furthermore, where passenger, heavy commercial and light commercial vehicles are in a poorer-than-target condition, we are taking corrective action to replace the most degraded items of fleet to ensure that we continue to maintain our asset class objectives. We have identified individual vehicles requiring replacement and their replacement has been planned for CY20 and CY21.

The above initiatives will contribute towards the following fleet asset class objectives:

- Manage fleet assets to ensure the safety of employees, contractors and the public;
- Ensure fleet is available for timely emergency response; and
- Achieve the lowest sustainable cost of fleet management.

5 ASSET CLASS STRATEGIES

The following sections provide information on lifecycle management of fleet and plant assets, from asset creation through to disposal.

5.1 FLEET ASSETS

5.1.1 INTRODUCTION

Jemena owns and operates various fleet and plant items that are built specifically to meet our operational requirements when providing distribution services to customers. Fleet and plant assets are managed in accordance with JEN's Fleet Asset Management principles, outlined in section 2.1.1.

5.1.2 RISK

The primary types of risk that impact fleet/plant assets are:

- fleet/plant not delivered on time;
- fleet/plant not delivered to required specification;
- cost variation in procurement due to fleet/plant specification changes;
- mechanical failure or breakdown;
- for electric vehicles, insufficient battery life and remaining charge to complete daily jobs;
- third party impacts and accidents;
- inappropriate asset use (human error);
- fleet/plant does not comply with regulatory or legal obligations or technical standards; and
- inaccurate data records.

5.1.2.1 Criticality

Using the corporate risk framework (see Table 5.2), the criticality of fleet/plant as an asset class is rated as minor. While this rating applies to the asset class as a whole, the criticality of different types of fleet may vary to some extent. For example, specialist operational vehicles such as EPVs are more critical to the ongoing operation and maintenance of the network than passenger vehicles.

Given the cost, availability and relative flexibility of fleet/plant assets (as opposed to physical network assets), the overall criticality of fleet/plant assets to the safe, reliable and affordable provision of electricity services by JEN is low.

5.1.2.2 Failure modes

The following table outlined the typical failure modes for fleet and plant assets, and the controls in place to help prevent failure.

Table 5-1: Secondary failure mode assessment

Asset	Failure type	Failure mode	Controls
Fleet and heavy plant	Operational	Mechanical breakdown through wear and tear	Preoperational checks Scheduled maintenance/services Periodic asset replacement / rebuilds
	Operational	Third party hits (accidents)	High visibility markings, safety features Driver training / licensing requirements Traffic management (where appropriate)
	Operational	Inappropriate use of assets (human error)	Driver training / licensing requirements Manufacturer instructions
	Regulatory	Technical / regulatory obsolescence	Fleet audits Monitoring relevant Australian Standards and Legislation Periodic asset replacement / rebuilds

Current risks associated with fleet and plant assets, many of which are related to the above failure modes, are summarised in the following section.

5.1.2.3 Current risks

Risks related to fleet/plant assets are recorded in the fleet and plant asset risk register. The following table gives an overview of the current risks.

Table 5-2: Summary of fleet and plant asset risks

Type of risk	Description of specific asset sub-class risk	Likelihood	Consequence	Target risk rating	Current risk rating	Control
Operational	Fleet/plant not delivered on time	Unlikely	Minor	Low	Low	Delivery scheduled and quality managed/ monitored regularly to ensure agreed lead times are met. Provide performance feedback to the respective vendors.
Operational	Fleet/plant not delivered to specifications	Unlikely	Minor	Low	Low	Detailed specifications provided to the vendor with each official order. Vendors required to sign JEN's specification documents to confirm that they understand JEN's requirements
Operational	Fleet/plant not maintained to recommended manufacturers service intervals	Unlikely	Minor	Low	Moderate	The current moderate risk rating is being mitigated by replacing identified vehicles which are in poorer-than-target condition in CY20 and CY21 Services and Projects to conduct spot checks and advise the respective fleet users of the findings. JEN Fleet is working with Jemena's IT team on a National Test and Tag solution. This will help monitor the servicing requirement of the JEN fleet, plant and equipment.
Financial	Increase in capital costs due to specification changes during vehicle build/acquisition	Unlikely	Minor	Low	Low	Detailed specifications to be provided to the JEN Fleet team prior to issuing each official order. JEN end users are to sign the JEN's specification documents to confirm that the document clearly articulates their requirements. Matching of truck and EWP lifecycles—when a new EWP (crane unit) is procured, it is generally only installed onto a new truck chassis, to avoid misalignment in replacement timeframes requiring increased 'swapping' of chassis

Type of risk	Description of specific asset sub-class risk	Likelihood	Consequence	Target risk rating	Current risk rating	Control
						and crane assets in future (increased cost and time vehicle out of service).
Safety	Third party impacts (accidents)	Possible	Serious	Moderate	Moderate	Operational vehicles are fitted with appropriate safety features, including high visibility markings and lighting. All operational fleet/plant users are required to hold appropriate licences at all times and undergo competency checks periodically. Traffic management is utilised where appropriate. This is the responsibility of the relevant personnel undertaking works.
Safety Reputational	Inappropriate use of assets (human error)	Possible	Serious	Moderate	Moderate	All operational fleet/plant users are required to hold appropriate licences at all times and undergo competency checks periodically.
Financial Operational	Asset becomes obsolete (no longer fit-for-purpose) due to changes in regulatory or technical requirements	Unlikely	Minor	Low	Low	JEN Fleet monitors changes to relevant Australian Standards and regulations. Fleet/plant specifications are modified accordingly. Periodic asset replacement / rebuilds in line with Australian Standards.

5.1.2.4 Existing controls

Refer to Table 5-2.

5.1.2.5 Other risks and potential mitigations

An emerging focus for fleet management is Chain of Responsibility (**CoR**), which provides a framework for managing and preventing health and safety breaches. CoR is similar to Workplace Health & Safety law.

CoR includes the following areas of focus;

- ANCAP safety rating on vehicle procurement;
- mass management (for vehicles > 4.5 tonnes gross);
- driver fatigue management;
- speed management; and
- load restraint.

We regularly review our capabilities and risk levels in each of these areas, and will conduct assessments through a workshop process (aligned to a WHS risk workshop) to identify controls /processes required. A summary of the current status of these risks and risk management activities is provided below.

Mass management

Increased focus is required to manage the issue of overladen HCVs & LCVs. Our aim is to implement measures to help prevent HCVs & LCVs being loaded beyond their maximum capacity.

Initial actions have included putting GVM (gross vehicle mass) decals on all vehicles.

Driver fatigue management

This area is currently managed by controls such as policies, procedures or scheduling. As technology advances, systems such as eye-tracking technology that detects signs of drowsiness (and then alerts drivers)¹ are possible solutions. While the technology requires further refinement, there is the potential for these driver fatigue systems to be installed in HCVs within the next 2-5 years.

Speed management

JEN is currently considering the acquisition of telematic devices for fleet assets. Telematic devices provide visibility of driver behaviour, namely speeding analytics. While JEN will initially install these devices on selected fleet assets, future specifications may include the installation of these devices for all new fleet assets if JEN's trial of the technology demonstrates that it is successful at mitigating this risk.

Load restraint

Current WHS legislation focuses on the hazards associated with working at height including from the back of vehicles. Fall restraint devices are required where an employee is required to access a fleet item and there is a risk of falling from one level to another. These requirements are considered and installed at the production or procurement stage.

¹ See article: https://www.seeingmachines.com/wp-content/uploads/2019/03/The-Australian_Mine-technology-may-wake-tired-pilots_5.03.19-1.pdf

5.1.3 PERFORMANCE

Performance against the current asset class objectives is provided in section 4.3.2.

5.1.3.1 Requirements

Assets are replaced subject to ongoing performance and condition assessments. Prior to a decision being made on whether to replace an individual fleet asset, the vehicle is subject to a condition assessment to determine whether it actually requires replacement, or whether alternative options (such as maintenance or rebuilds if applicable) may allow for the deferral of that asset's replacement if it remains able to efficiently and safely meet our operational requirements. Similarly, when assessing fleet replacement requirements we regularly assess whether there are opportunities to down-size (i.e. not replace) our fleet if any assets are surplus to operational requirements (or whether alternative options like short term hire of that type of vehicle/plant may be more efficient).

The following table summarises the maintenance and replacement cycles for the different types of fleet and plant assets.

Table 5-3: Summary of JEN fleet and mobile plant, maintenance and replacement cycles

Vehicle type	Purpose	Number of vehicles required throughout RY22-26 period	Maintenance cycle	Replacement
Elevating Platform Vehicle	See below	See below	See below	See below
Single Person Elevating Platform Vehicle	<p>The units are small 10.4 tonne gross vehicle mass (GVM) trucks fitted with 11 – 13 metre reach elevating platforms. The vehicles are allocated to various roles and are designed for on call response for emergency response that may arise on the Jemena Electricity Network.</p> <p>As these vehicles have a GVM greater than 4.5 tonnes, for Regulatory Information Notice reporting purposes these vehicles fall within the elevated work platform (HCV) category.</p>	10	Every 3 months	Replaced with new units after 10 years of age. (In accordance with the Australian Standard, these either need to be replaced or rebuilt. The smaller units have higher usage of the EPV and kilometres travelled. Every hour the EPV is used equates to 50 kilometres travelled. So the truck has approximately 400-500,000 kilometres and when combined with the hours used and kilometres travelled which is extremely high for the small trucks)
Large Elevating Platform Vehicle	The large EPVs generally consist of large trucks with 15 – 22.5 tonne GVM, fitted with elevating platforms with a working height of between 14 – 22 metres. These units are designed mainly to support the construction works	13	Every 3 months	In line with the Australian Standards, large EPV vehicles are rebuilt at 10 years. Replaced with a new

	<p>within the electricity networks and are also utilised to assist with faults.</p> <p>The large EPVs reside at the respective depots and are returned each day. From time to time a large EPV may be deemed unsuitable for rebuild after the initial 10 years of service. This can be attributed to extreme factors, such as but not limited to prolonged use in harsh environments, extreme metal fatigue or deemed un- financial to rebuild.</p> <p>These units will be flagged to the relevant General Managers via a business case to justify the reasons and financial benefits in purchasing a new unit.</p> <p>As these vehicles have a GVM greater than 4.5 tonnes, for Regulatory Information Notice reporting purposes these vehicles fall within the elevated work platform (HCV) category.</p>			unit prior to the next 15-year anniversary
Heavy Commercial vehicle	<p>The vehicles outlined within this category range from the 5 tonne GVM through to 22.5 tonne GVM. The majority of all the heavy commercial vehicles reside at the depots and are returned each day. Line Construction Trucks – (10.4 tonne GVM truck fitted out with extensive toolboxes)</p> <ul style="list-style-type: none"> • Large Task Trucks – 22.5 tonne GVM truck fitted out with a front mounted crane and heavy duty tray; • General Tray Trucks; and • Crane Borers – 22.5 tonne GVM truck fitted out with a Proline Crane borer. 	22	Every 3 months	<p>Replaced at 10 years based on condition of vehicle.</p> <p>All heavy commercial vehicles that have cranes attached must be replaced at 9 or 10 years but prior to the 10 -year anniversary as stated within the Australian Standards (Australian Standard 1418.10 – Crane, Hoist and Winches & 2550.1 Crane4 Hoist and Winches – Safe Use)</p> <p>As per the large EPVs, these vehicles will be assessed for their suitability to undergo the mandatory 10 year rebuild.</p> <p>Crane borer vehicles are rebuilt at 10 years, and replaced with a new unit prior to the next regulatory 15 year rebuild time (10 years + 5 years).</p>

Light Commercial Vehicle - LCV	The light commercial vehicle specifications range from the off the shelf utility/van to a specific fit for purpose fit out.	72	Serviced as per manufacturer's instructions	Earlier of five years and 150,000 km, following an individual condition assessment.
Passenger Vehicle - PV	Passenger vehicles are assigned to Operational Manager as site-based pool vehicles that support field resources, corporate staff and project planners/ managers. Vehicles assigned to a role for the purpose of emergency management or operating can return to primary residence to be able to respond to on call availability duties from time to time. Vehicles assigned to corporate staff and planners reside at the respective depots and are returned each day.	52	Serviced as per manufacturer's instructions	Earlier of 5 years and 150,000 km, following an individual condition assessment.
Trailers	The trailer specifications range from general 7x5 box trailers to heavy duty pole trailers that are coupled behind the crane borers.	35	Serviced as per manufacturer's instructions	Every 15 years
Mobile Plant	Mobile plant comprises of yard crane, backhoes, excavators, bobcats, trailer-mounted compressors / generators and fork lifts. These units are assigned to respective depots.	14	Serviced as per manufacturer's instructions	Trailer-mounted compressors / generators replaced after 10 years. Fork lifts, yard crane, excavators, bobcats and backhoes are assessed after a five year period to determine if the plant life can be extended for another five years and replaced after 10 years.

On a monthly basis, delivering vehicle dealers are measured on the following criteria:

- fleet and plant are delivered on time and budget;
- fleet and plant are delivered to the required specifications;
- provide end user with checklist that is inclusive of order specifications;
- manage and notify JEN of accident, incident, recall of vehicle(s) and plant; and
- initiate/support investigations into vehicle and or plant failure(s).

Support spot check are also conducted on existing fleet to ensure that the following is adhered to:

- units are clean and maintained fit for purpose;
- all accident damage is reported and rectified;
- all regulatory maintenance requirements are up to date; and

- all vehicle registrations are current.

5.1.3.2 Life expectancy

The life expectancy of fleet and plant assets varies depending on the asset type. For example, passenger vehicles are typically replaced at the earlier of five years and 150,000 kms depending on assessment of whether the vehicle can be driven safely, whereas heavy commercial vehicles with ancillary items such as cranes are typically replaced or rebuilt prior to ten years, in line with Australian Standards.² As set out above, all vehicles (regardless of whether a time or distance-based replacement threshold exists) are subject to an individual condition assessment prior to any replacement or rebuild decision being made for an individual asset. Vehicles replaced based on kilometres travelled will be rotated between people to promote even wear and tear.

To forecast required replacement expenditure for each vehicle type, the average annual kilometres travelled is calculated for each asset class (i.e. light commercial vehicle or passenger vehicle), which is then used to calculate a forward projection of the expected distance travelled by each individual vehicle over the forecast period, thus determining the time at which each asset will fall due for replacement.

The replacement cycles for the different vehicle types is provided in Table 5-3. These replacement cycles have been developed to reflect the most efficient replacement cycle based on the way that these vehicles are used on our small, mostly urban network, where vehicles are likely to make a higher number of relatively short trips in heavy traffic (compared to a larger network covering a rural area).

5.1.3.3 Assessment

5.1.3.3.1 Age profile

The age profile of fleet varies by vehicle type. Fleet and plant assets are replaced or rebuilt periodically. The replacement cycles for the different vehicle types is provided in Table 5-3.

5.1.3.3.2 Condition assessment

Fleet and plant assets are serviced regularly and inspected prior to use for any defects or issues. Information on specific asset condition is recorded in the relevant prestart/logbook. The overall current condition of the fleet asset class is moderate but varies by fleet type and can fluctuate over time. Our fleet expenditure aims to maintain an efficient level of fleet asset performance (or failure) risk over the medium term, noting that the overall condition of our fleet can vary over the short term due to the range of factors which influence condition and the relatively high frequency (compared to network assets) that fleet items are turned over. A summary of the overall condition of our fleet assets is provided in section 4.3.2.3.

5.1.3.3.3 Utilisation

Fleet and plant assets are used by operational personnel to construct, inspect, maintain and replace network assets. Fleet assets also play an important role in incident response.

Utilisation is a key condition indicator for fleet and plant assets. It is usually measured by hours worked, or distance travelled in a nominated timeframe. Knowledge of actual utilisation in kilometres or engine hours (levels and usage pattern) enables the Fleet Management Team to plan and schedule:

² Australian Standards AS1418 – Crane, Hoist and Winches and AS2550 - Crane, Hoist and Winches – Safe Use.

- servicing based on manufacturers' recommended service intervals (planned maintenance); and
- replacement and acquisition.

Where low utilisation is identified, we assess whether the low utilisation is acceptable and it is still economical to own the vehicle or plant and equipment item, or whether the item should instead be provided through short-term hire. This decision is dependent on availability of a suitable short-term hire option, geographic location and the specialist nature of the work the item is required for.

5.1.3.3.4 Control effectiveness

JEN's objective is to ensure that we have fit for purpose, safe and legislatively compliant vehicles to support day to day operations, however, there are some passenger, heavy commercial and light commercial vehicles which are in a poorer condition than our target condition rating over the medium and long term. We are taking corrective action by replacing the vehicles in poorer condition in CY20 and CY21. We aim to manage fleet and plant in line with our target risk ratings (as set out in section 5.1.2.3). An overview of the current risk associated with the fleet asset class is provided in section 5.1.2. Current controls are described in Table 5-2.

5.1.3.3.5 Performance analysis

Specific performance analysis (beyond individual asset inspection) is not conducted on this asset class. Refer to the fleet management company ad hoc reports for information on specific asset performance.

5.1.4 LIFE CYCLE MANAGEMENT

We manage the life cycle integrity of assets as outlined in section 7 of the JEM AM MA 001 Jemena Asset Management System Manual.

5.1.4.1 *Acquire Assets*

We forecast demand for fleet assets based on forecast network activities as set out in the JEN AIP. This includes details of the activities including work type and quantity and therefore the resources (including fleet) required to deliver the program of work.

The Jemena Procurement Policy for delegated financial authority (DFA) approval is applied for the purchase of fleet and plant. JEN's requirements for its mix of different vehicle types are generally constant over time. Unless an assessment of future operational needs deems a particular asset to no longer be necessary (in which case it is disposed of and a replacement is not procured), all fleet, plant and equipment due for replacement are replaced with like-for-like units, once a condition assessment on the individual asset demonstrates that the asset has reached the end of its useful life. For example, a heavy commercial vehicle is replaced with a new unit of similar specifications and characteristics.

It should be noted that manufacturers' lead times for some specialised heavy commercial vehicles may require the Fleet Management Team to make a commitment via an official purchase order prior to the budget period in which the vehicle will be delivered. Funds will only be released post-delivery.

5.1.4.2 *Asset operation and maintenance*

Fleet maintenance is conducted by a contracted fleet management company. All fleet, plant and equipment is maintained in line with the manufacturers recommended service intervals. All fleet, plant and equipment that are registered with the respective state road traffic authorities are to be maintained in a roadworthy condition. Specialised plant and equipment such as cranes must be

maintained and rebuilt in line with the relevant Australian Standards.³ All fleet maintenance costs are reviewed and managed by the Fleet Management Team.

5.1.4.3 *Asset replacement/disposal*

Fleet assets are typically disposed of due to the following events:

- when condition assessment demonstrates that an asset has reached the end of its useful life; or
- when an asset is no longer required, written off or not repairable.

Once any fleet, plant and equipment has been replaced, the Fleet Management Team arranges for the retired unit to be picked up and sent to public auction. The auctioneers provide a valuation.

The Fleet Management Team seeks approval in accordance with the current DFA to release the vehicle for sale. DFA approval is obtained via an Asset Master Data Amendment Request Form. Once the fleet or plant has been sold, the Fleet Management Team processes the final sales documents/cheques and advises the Jemena Fixed Asset Accountant and Fleet Management Team.

The vehicle is removed from the asset register after the sale has occurred. Passenger and light commercial vehicle auctions occur weekly. HCV, plant and equipment auctions occur monthly. All net sale proceeds (less costs) are returned to our customers in the form of a reduction to JEN's Regulated Asset Base.

5.2 INFORMATION

Jemena's AMS provides a hierarchical approach to understanding the information requirement to achieve our business objectives at the asset class. In summary, the combination of Jemena's Business Plan, the JEN ABS and this ACS all provide the context for and determine the information required to deliver the JEN fleet asset class objectives.

As presented in section 4.2, JEN's fleet asset class objectives are:

- Manage fleet assets to ensure the safety of employees, contractors and the public;
- Ensure fleet is available for timely emergency response;
- Achieve the lowest sustainable cost of fleet management;
- Ensure fleet/plant portfolio is able to grow or change with business and customer requirements; and
- Manage fleet asset lifecycle to provide strategies to deliver prudent financial and operational outcomes.

From these objectives, it is possible to identify at a high-level the business information systems' content required to support these objectives (Table 5-4).

Table 5-5 identifies the current and future information requirements to support the asset class's critical decisions and their value to the asset class.

All of the information required by the fleet asset class is available within Jemena's current business systems.

³ Australian Standards AS1418 – Crane, Hoist and Winches and AS2550 - Crane, Hoist and Winches – Safe Use.

Table 5-4: Fleet asset class objectives and information requirements

Business objective	Jemena information sources
Manage fleet assets to ensure the safety of employees, contractors and the public	<ul style="list-style-type: none"> Group Strategy ELE PL 0019 JEN ABS ELE AM PL 0012 JEN AIP JEM HR PO 0663 Motor Vehicle Policy Jemena Compliance and Risk System (JCARS) JEM AM MA 0001 AMS Manual SAP Fleet Module
Ensure fleet is available for timely emergency response	<ul style="list-style-type: none"> JEN KPI reporting
Achieve the lowest sustainable cost of fleet management	<ul style="list-style-type: none"> Group Strategy ELE PL 0019 JEN ABS ELE AM PL 0012 JEN AIP JEM HR PO 0663 Motor Vehicle Policy JEM PO 0026 Procurement Policy JEM PO 1600 Scrap Materials Policy
Ensure fleet/plant portfolio grows proportionally with business requirements	<ul style="list-style-type: none"> Group Strategy ELE PL 0019 JEN ABS ELE AM PL 0012 JEN AIP
Manage fleet asset lifecycle to provide strategies to deliver prudent financial and operational outcomes	<ul style="list-style-type: none"> Group Strategy ELE PL 0019 JEN ABS ELE AM PL 0012 JEN AIP JEM HR PO 0663 Motor Vehicle Policy JEM PO 0026 Procurement Policy

Table 5-5: Fleet assets critical decisions business information requirements

Critical business decision	Current information usage	Information requirement	Value to asset class (High, Medium, Low with justification)
Whether to own or lease fleet assets. Could vary by fleet asset type.	Preference to own or lease based on fleet principles (fit for purpose and lowest cost per kilometre over the asset's lifecycle)	Model to compare current costs of asset lease and ownership for all fleet asset types. Data for input includes purchase cost, salvage value, lease cost, financing costs, capital requirements, tax implications	High. Without this information it is impossible to make an informed decision on the optimum fleet strategy.
What type of fuel technology (diesel, petrol, hybrid, electric, hydrogen etc.) should our vehicles use.	Information is obtained on current fleet operating costs and from vendors/other external providers on	Continue to assess costs of traditional and new vehicle fuel types regularly as technologies continue to develop and new	High. Ensuring vehicle fuel type chosen minimises total fleet lifecycle costs is critical to meeting our customers'

	alternative capital/operating costs, to determine which fuel technology represents the lowest total lifecycle cost.	information becomes available, to ensure that all future decisions allow for the lowest total lifecycle cost. costing to include any ancillary expenditure (eg Battery Charger installation) required to make ensure the viability of the new vehicle's fit for purpose is preserved	expectations around energy affordability, and may also have impacts on vehicle operational availability.
When to expand or contract the size of the fleet.	Information is provided by JEN's Asset Investment Plan and business units to determine the optimal size of the fleet based on network activities which need to be performed.	Accurate forecast of fleet volume requirements for the next 10 (or 20 year strategy as mentioned at the beginning) years for each fleet asset type. Specification of redundancy required for each asset type & location.	High. The wrong number of fleet assets or a sub-optimal mix of fleet asset types will result in either insufficient resources or unutilised assets
What is the optimal age to replace fleet assets / when can the life of fleet assets be safely extended.	Annual assessment/review of individual vehicles to be replaced	Inputs include Australian Standard requirements, individual vehicle condition assessment, age, profile of maintenance costs and purchase costs for each fleet asset type.	Medium. Replacement at sub-optimal point will result in higher lifecycle asset cost.
What is the optimal maintenance cycle for fleet assets.	As per the manufacturers recommendations and Australian Standards requirements.	Vehicle manufacturer make and model to determine optimal maintenance profile. Inputs include historical age profile of maintenance costs and purchase costs for each fleet asset type.	Medium. Maintenance at sub-optimal point will result in higher lifecycle asset cost.

6 CONSOLIDATED PLAN

Table 6-1 provides a high level estimate of capex expected to be incurred over the next 7 years. The long-term expenditure profile in this ACS maintains a line of sight through to the Group Strategy via the JEN Asset Business Strategy.

This long-term expenditure profile is used to help inform the various asset class strategies, providing an expenditure order of magnitude for the Fleet Management Team to work within. The shorter term expenditure forecast within the works program and contained in JEN's regulatory proposal, form the basis of budget setting. The JEN Capital and Operating Work Plan (COWP) contains details on optimised expenditure over a two year period.

6.1 CAPITAL FORECAST

The high-level long-term fleet capex forecast for JEN is presented in the following table.

Table 6-1: Forecast JEN long term fleet capital expenditure

Fleet Type	Forecasted CAPEX (\$'000s, \$2019)					
	2020	2021	2022	2023	2024	2025
Car	647	484	535	66	93	404
Light Commercial Vehicle	2,603	1,201	0	1,086	54	478
Elevated Work Platform (HCV)	2,394	1,201	300	151	0	0
Heavy Commercial Vehicle	828	1,513	439	443	222	658
REFCL – Testing Equipment & Truck (HCV)	0	400	0	0	0	0
Mobile Plant/Trailers	647	484	353	66	93	404
Total Fleet Capex ⁴	7,119	5,283	1,672	1,812	462	1,944

⁴ Gross capex, not adjusted for sale proceeds.

7 TERMS AND DEFINITIONS

Term	Definition
ABS	Asset Business Strategy
ACS	Asset Class Strategy
AIP	Asset Investment Plan.
AMS	Asset Management System
Capex	Capital expenditure. Expenditure to buy fixed assets or to add to the value of existing fixed assets to create future benefits.
CoR	Chain of Responsibility
DFA	Delegated Financial Authority
GVM	Gross Vehicle Mass
HCV	Heavy Commercial Vehicle
JEN	Jemena Electricity Networks
LCV	Light Commercial Vehicle
Opex	Operating expenditure. Expenditure (ongoing) for running a product, business, or system.
PV	Passenger Vehicle

8 APPENDIX A - JEN FLEET: ANALYSIS OF PROCUREMENT OPTIONS

The table below shows results of total cost of ownership analysis for purchasing and leasing for each type of vehicle required by JEN. The types of key input data used in this analysis and their sources are set out in the table below.

Input data	Source
Vehicle purchase price	Written quotes obtained from dealers based on JEN's current specifications (required vehicle options, equipment etc.).
Vehicle lease price	Written quotes obtained from leasing companies based on JEN's current specifications.
Vehicle maintenance and running costs	<p>Under purchase scenario – Fleet team estimate based on information including known running costs for similar vehicles recorded in Jemena's fleet management system or from Jemena's fleet management company.</p> <p>Under lease scenario – maintenance and running costs are the responsibility of the lessor, and are therefore built into the quoted lease price.</p> <p>Any vehicle operating costs which do not differ between the purchase and lease scenario (such as road tolls, insurance etc.) are excluded from this analysis for simplification purposes.</p>
Sale proceeds upon disposal (portion of initial cost)	Fleet team estimate based on information including recent auction proceeds (net of sale costs) for similar vehicles owned by Jemena.

The table below summarises the results of the total cost of ownership analysis under both the purchasing and leasing scenarios for each type of vehicle required by JEN during the next regulatory period. All NPV results are presented in real 2019 dollars.

Vehicle type	Assessment period for analysis	NPV of total ownership costs (\$'000)		Lowest cost procurement approach
		Purchase	Lease	
Passenger Vehicle	5 years	28.5	37.3	Purchase
Light Commercial Vehicle	5 years	42.0	44.1	Purchase
Heavy Commercial Vehicle	10 years	358.9	413.8	Purchase
Elevated Work Platform (HCV) – small	10 years	218.5	248.8	Purchase
Elevated Work Platform (HCV) – large	10 years	331.6	373.2	Purchase
Plant (forklift)	5 years	18.1	19.4	Purchase