



2019-24 NON-NETWORK CAPITAL EXPENDITURE

Fleet Capital Expenditure Plan

March 2018

CONTENTS

1.0	INTRODUCTION	1
1.1	OUR NETWORK PURPOSE	1
1.2	THE PURPOSE OF THIS DOCUMENT	1
2.0	OUR OPERATING ENVIRONMENT	3
2.1	AGEING ASSETS	3
2.2	NETWORK GROWTH	3
2.3	INDUSTRY CHANGE	3
2.4	EFFICIENCY	3
2.5	FLEET SERVICES	3
3.0	EXPENDITURE PROFILE	5
4.0	OUR FLEET	7
4.1	FLEET SIZE AND COMPOSITION	7
4.2	FLEET USE AND ALLOCATION	7
4.3	LEASING VERSUS PURCHASING	9
4.4	HEAVY FLEET CUSTOMISATION	9
5.0	FLEET STRATEGY	10
5.1	FLEET ACQUISITION	10
5.2	FLEET REPLACEMENT	10
5.3	Fleet specifications and standards	12
5.4	FLEET DISPOSAL	12
6.0	CURRENT PERIOD PERFORMANCE	13
6.1	IMPROVING SAFETY, PRODUCTIVITY AND FLEET UTILISATION	13
6.2	INVESTMENT AND WORKFORCE REDUCTIONS	14
7.0	FORECASTING APPROACH	15
7.1	REPLACEMENT SCHEDULE	15
7.2	UNIT COSTS	16
7.3	COST ALLOCATION	17
7.4	WORKFORCE SUPPORT	17
7.5	INVESTMENT GOVERNANCE	17
8.0	2019-24 CAPITAL EXPENDITURE	19
8.1	CORRELATION TO LABOUR RESOURCES	19
8.2	FLEET TELEMETRY	19
8.3	FLEET REPLACEMENT, REFURBISHMENT AND DISPOSAL	19

1.0 INTRODUCTION

Endeavour Energy operates as a licenced distribution network service provider responsible for the safe and reliable supply of electricity to approximately 2.4 million people in households and businesses across Sydney's Greater West, the Blue Mountains, Southern Highlands, Illawarra and the South Coast of New South Wales. Our network area and the location of our Huntingwood head office and the Field Service Centres (FSC) within each of our three operational regions and are displayed below.

Figure 1-1: Endeavour Energy network area

1.1 OUR NETWORK PURPOSE

Endeavour Energy's purpose is:

"To be of service to our communities by efficiently distributing electricity to our customers in a way that is safe, reliable and sustainable."

This statement communicates an internal focus on providing a safe, reliable and affordable electricity supply by managing our network in a sustainable way for the long-term benefit of customers and stakeholders. With this objective in mind, we follow a robust and prudent process of risk based project prioritisation and governance to ensure our decisions are prudent, efficient and comply with our regulatory obligations.

To deliver on this purpose, we develop specific and targeted programs of capital and maintenance works which are delivered in conjunction with day-to-day operational activities. Investments that are not directly related to the distribution system and the conveyance of electricity, but provide an important supporting function that is needed to operate the distribution network is referred to as non-network expenditure. Costs can be incurred as either capex or opex, depending on the nature of the expenditure.

1.2 THE PURPOSE OF THIS DOCUMENT

The Fleet Capital Expenditure Plan provides details of the non-system capex we have forecast for the 2019-24 regulatory control period attributed to our motor vehicle fleet. The plan has been developed in consideration of the capital projects (as prioritised in the Strategic Asset Management Plan) and day-to-day operational activities that are projected to occur during this period.

The plan will be deployed with regard to our internal policies and procedures which include the identification of the most cost effective, fit-for-purpose fleet solutions in consideration of safety, utilisation, composition, size, reliability and compliance, to enable us achieve our strategic objectives.

These policies and procedures provide an over-arching framework for the day to day management and operation of the fleet assets and include:

- **Company Policy 15.2.2 – Company Vehicles and Plant** – This is the overarching fleet policy that outlines the management and administration of the company fleet;



- **Company Policy 15.2.4 – Chain of Responsibility** – This policy outlines the safe use of heavy vehicles and compliance with the Heavy Vehicle National Law (HVNL);
- **Company Policy 15.2.5 – Fleet Telematics** – This policy outlines the use of telematics in relation to safety, productivity, efficiency and tracking of the fleet;
- **Company Procedure GTT0001 – Fleet Incident Management** – This procedure provides guidance in relation to the investigation, corrective and preventative action associated with fleet accidents and incidents;
- **Company Procedure GTT0005 – Safe Loads** – This procedure provides guidance in relation to safe and compliant vehicle load management;
- **Company Procedure GTT0010 – Fleet Standardisation Process** – This procedure provides guidance in relation to designing & maintaining a consistent, fit for purpose, safe and cost effective fleet;
- **Company Procedure GTT0019 – Administration of Company Vehicles and Plant** – This procedure provides guidance in relation to the acquisition, allocation, operation, maintenance and disposal of the company fleet.
- **Company Procedure GSY0042 – Safe Driving** – This procedure provides guidance and outlines expected behaviours in relation to safe use of a motor vehicle.

This document has been prepared to assist the AER, our customers and other stakeholders to understand the capital expenditure associated with our fleet of motor vehicles that we will require to effectively support the provision of standard control services. It will demonstrate that our fleet capex forecast:

- is prudent and has been carefully considered and informed by current data and information;
- is not in excess of the amount required to efficiently support our network investment and day-to-day operational activities;
- incorporates the benefits of previous and future cost-saving initiatives and fleet productivity improvements.

Our Fleet Capital Expenditure Plan forms part of a suite of similar supporting documents that explain and substantiate each sub-category of our capital expenditure forecast. Combined, these documents and the strategies and plans which underpin them demonstrate that our total capital expenditure forecast complies with the requirements of the NER and promote the NEO.

2.0 OUR OPERATING ENVIRONMENT

2.1 AGEING ASSETS

Many of our network assets are approaching an advanced age and those in poor condition will soon require replacement so we can continue to provide a reliable supply to our customers safely. Our planned replacement expenditure requirements have been prioritised in order to manage the risk posed by the deteriorating condition of assets so that network performance and service quality levels are maintained at current levels and at the lowest life-cycle cost in accordance with our Asset Management Framework.

2.2 NETWORK GROWTH

We are experiencing significant customer number and connection growth in greenfield areas in Western Sydney. Continued expansion of developments in the North-West and South-West priority growth areas, along with construction of Sydney's second airport at Badgerys Creek is expected to contribute to the projected population increase in Western Sydney of almost 1 million people by 2036. The existing distribution network will need to undergo significant augmentation to support these planned developments, with increased inspection, maintenance and incident response activities required thereafter.

2.3 INDUSTRY CHANGE

Furthermore, the electricity sector in Australia is undergoing unprecedented change led by increased regulatory reform and policy, technology advancements and greater customer response to energy consumption and generation. These significant changes will provide us with challenges as our network infrastructure will be increasingly relied upon to enable the benefits of newly identified opportunities to be realised by our customers and stakeholders.

2.4 EFFICIENCY

Our customers continue to place affordability at the top of their list of priorities for electricity services. Although we have made significant efficiency and productivity improvements over recent years, we remain committed to better managing network spending by investigating and implementing cost saving initiatives in all areas of our business operations. Regulatory reforms and additional reporting requirements have also contributed to increased transparency in our investment and operational decisions, allowing greater analysis on our relative efficiency and productivity performance.

2.5 FLEET SERVICES

The Fleet Services team are responsible for developing and delivering strategies which guide the effective provision of fleet related services that enable us to efficiently deliver planned capital projects, maintenance programs and other operational commitments. Our fleet of vehicles and associated plant items are critical in mobilising our workforce to effectively deliver network services.

The primary objectives of the Fleet Services team are to:

- Provide and maintain a fleet of safe vehicles and plant items;
- Provide and maintain a fleet that is appropriate (fit-for-purpose) and consistent for all similar operations across the company;
- Provide and maintain a fleet that is compliant and cost effective to operate;
- Provide a framework to efficiently and responsibly manage the selection, acquisition, allocation, usage & utilisation, maintenance and disposal of the fleet.

Some of the key challenges Fleet Services will face in the 2019-24 regulatory period include:

- Continuing to provide safe, reliable and fit-for-service vehicles in a timely manner to facilitate the efficient and effective delivery of our strategic direction and operational requirements
- Responding to the businesses' fleet requirements without adversely impacting or delaying delivery of the work program
- Ensuring ongoing compliance with the range of legislative and regulatory compliance obligations across the fleet management lifecycle

- Remaining up-to-date with new and emerging technologies and employing appropriate technologies into our fleet assets to ensure the safety, mobility and productivity of our employees in the most efficient manner.

3.0 EXPENDITURE PROFILE

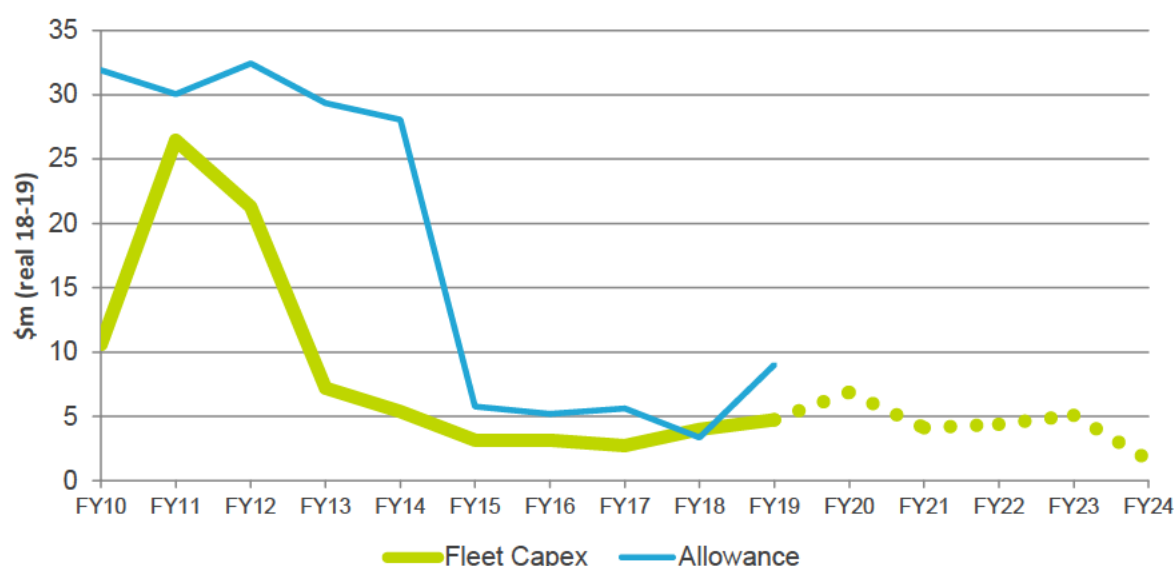
Our non-system fleet capital expenditure forecast for the 2019-24 regulatory control period is provided below.

Table 3-1 Non-System Fleet Capex Forecast

(\$m; real 18-19)	2019-20	2020-21	2021-22	2022-23	2023-24	Total
Fleet capex	6.9	4.1	4.4	5.1	1.6	22.1

Our fleet forecast for 2019-24 of \$22.1m (real 18-19) represents a \$4.3m increase (real 18-19) from the historical low expected for the current period, but remains significantly lower than the capex amount incurred during 2009-14. To help demonstrate the reasonableness of our forecast, we have compared our forecast against our annual fleet expenditure for the current and previous regulatory periods.

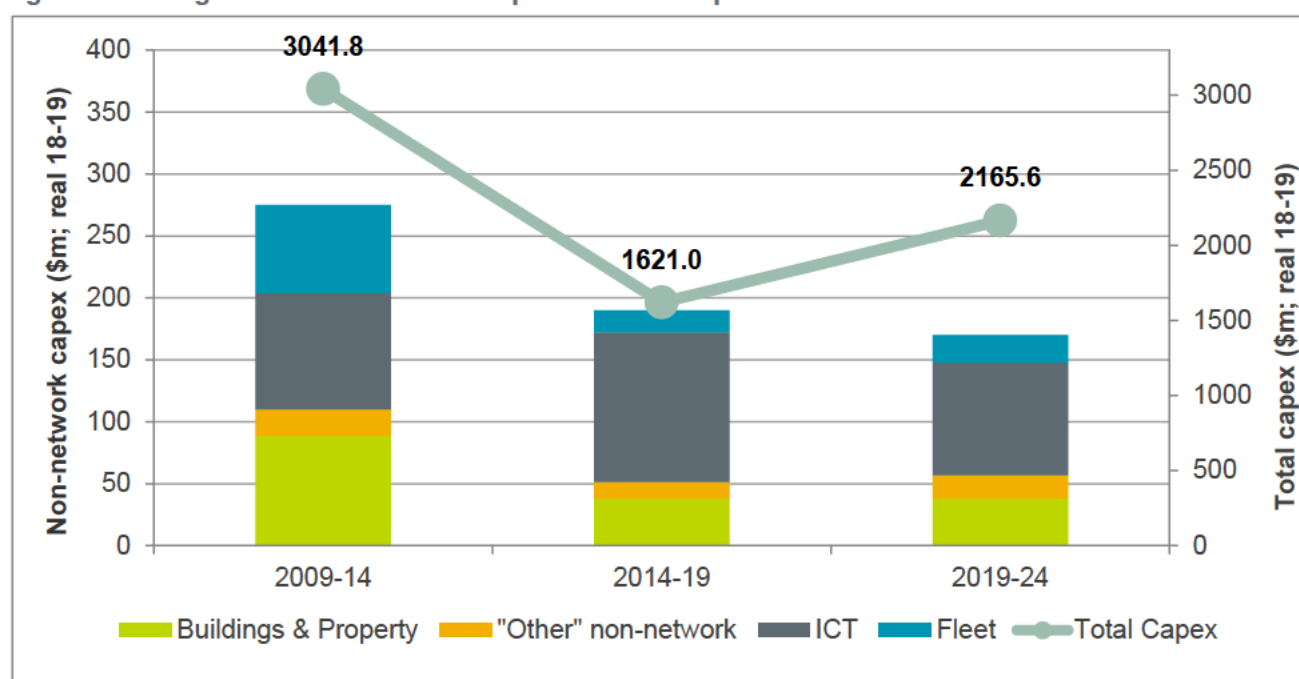
Figure 3-1 Fleet capex and AER allowance (FY10-24)



As previously stated, non-network expenditure is needed to provide essential support to network investment, asset maintenance and system operation. Changes in the level of network investment will often drive a proportional change in the amount of non-network expenditure needed to efficiently support the level of planned capital works. It would therefore be reasonable, in most cases, to expect an increase in network capital expenditure to drive a proportional increase in non-network capex.

Figure 3 below compares our forecasts of total non-network capex and total capex for 2019-24 against actual expenditure in the current and previous regulatory control periods.

Figure 3-2 Categories of non-network capex and total capex



It shows that the downward trend in non-network capex will continue in 2019-24. It also indicates the share of capex across all non-network categories will be similar to the current period. Small increases in fleet and "other" non-network capex will be more than offset by the reduction in ICT.

Most significantly, Figure 3 illustrates that the forecast reduction in non-network capex will occur despite a material increase in total capex from the current period. We expect to be able to support the increasing needs from a rise in total capital investment with proportionally less non-network capex.

Table 3-2 below reveals the relative contribution of fleet capex to total capex over this period.

Table 3-2 Relative change in fleet to total capex

(\$m; real 18-19)	2009-14	2014-19	2019-24
Total capex	3041.8	1,621.0	2,165.6
Fleet capex	71.0	17.8	22.1
Proportion	2.3%	1.1%	1.0%

The share of forecast total capex attributed to non-system fleet capex for 2019-24 is slightly lower than the proportion expected during the current regulatory period and is significantly lower than that reported for the 2009-14 regulatory period.

Declining shares of fleet and non-network capex to total capex demonstrates continued prudence in our motor vehicle purchases, efficiency in our fleet management processes, and supports our proposed fleet capex forecast.

4.0 OUR FLEET

4.1 FLEET SIZE AND COMPOSITION

Our fleet of motor vehicles includes:

- passenger vehicles;
- utilities;
- vans;
- trucks and trailers;
- standalone & truck mounted plant items;
- elevated work platforms (EWPs); and
- lifter borers.

The assorted nature of our fleet reflects the need for our business to perform a variety of activities by a diversely skilled and qualified workforce. These fleet items are specified, selected and allocated based on fit for purpose operational needs of the business.

We periodically review the suitability of operation specific fleet standards in consultation with relevant stakeholders. These standards guide the selection of vehicles including modification and fit-out specifications that are required to perform and support a range of field and office based work activities. The consultation with stakeholders is facilitated through a Fleet Standards Working Group, which is also tasked with ensuring consistency of fleet standards and operations across the entire organisation. The fleet standardisation process is documented in *Company Procedure GTT 0010 – Fleet Standardisation Process*.

Our fleet is broadly split into two categories:

- Light fleet - passenger and light commercial vehicles (utilities & vans) (with GVM less than 4.5 tonnes); and
- Heavy fleet – heavy commercial vehicles (trucks), trailers and plant items (with GVM greater than 4.5 tonnes).

Our fleet numbers across each major fleet category are provided below.

Table 4-1 Fleet units (as at June 2017)

Fleet category	Fleet units
Passenger Vehicle	87
Light Commercial Vehicle	357
Lifter Borer	18
Elevated Work Platform	87
Heavy Commercial Vehicle	227
Total	776

4.2 FLEET USE AND ALLOCATION

Passenger vehicles are required by employees to conduct field inspections, general work related travel and to monitor and coordinate maintenance and construction activities in various field locations across our network regions. Vehicles are allocated to positions with a regular work-related need for mobility between work locations and made available for exclusive use or as pool vehicles shared by approved employees.

Our heavy fleet of vehicles are specialised and have been selected and appropriately fitted out to specifications deemed necessary to safely and effectively perform network maintenance and

construction work. These vehicles generally support a specific range of specialised work activities and are typically allocated to and housed at FSC.

Fleet allocation decisions, whether it be to a specific position or a FSC, are made with reference to *Company Procedure GTT 0019 – Administration of Company Vehicles and Plant* and *Company Policy 15.2.2 – Company Vehicles and Plant*. Combined, these documents detail the fleet allocation process along with other administrative elements including fleet requisition, service, repair, operation, driver responsibility and return.

Generally, fleet allocation is correlated with network investment activity and staffing levels across our network. Heavy fleet allocation considers field employee numbers and work types performed out of each FSC and their respective work volumes, whilst light fleet is provided according to the mobility needs of the respective position. Increases to light and heavy fleet volumes require business case support and ultimately CEO approval.

Temporary heavy fleet reallocations may be made in response to work “spikes” triggered by unexpected, disruptive events (e.g. breakdowns, major storms and other emergencies). Reallocations may become permanent when it is determined utilisation can be improved, network services better supported or additional purchases avoided or deferred. The allocation of our fleet types across our office and FSC locations is provided below.

Table 4-2 Fleet allocations (as at 30 June 2017)

FSC	Passenger Vehicle	Light Commercial Vehicle	Lifter Borer	Elevated Work Platform	Heavy Commercial Vehicle	Total
Bowenfels	1	11	1	4	8	25
Glendenning	3	36	1	6	33	79
Hoxton Park	20	20	1	8	22	71
Huntingwood	22	27	0	1	1	51
Kandos	0	4	0	1	0	5
Katoomba	2	7	1	4	8	22
Kings Park	5	38	2	9	21	75
Moss Vale	1	10	1	4	5	21
Narellan	8	58	1	7	39	113
Nowra	1	20	2	7	10	40
Parramatta	3	6	1	4	10	24
Penrith	4	32	2	8	18	64
Picton	0	3	1	2	5	11
Shellharbour	0	13	1	5	14	33
South Windsor	0	2	0	4	5	11
Springhill	17	68	3	11	27	126
Ulladulla	0	2	0	2	1	5
Total	87	357	18	87	227	776

4.3 LEASING VERSUS PURCHASING

Our fleet requirements can be financed by either:

- funding vehicle purchase through capex;
- entering into conditional leasing arrangements funded through opex; or
- a combination of these options.

A key consideration in our asset management framework is minimising total asset life cycle costs. Reflecting this, we actively seek to optimise the mix of opex and capex required to meet our fleet requirements. Periodic reviews of our fleet operations, standards, new products, market prices and existing commercial arrangements ensure opportunities to derive cost savings from changes to our fleet financing mix can be identified and taken advantage of.

Our fleet financing approach has been to lease our light fleet and purchase our heavy fleet of vehicles. Detailed financial analysis conducted in 2016 confirmed this mix to provide the best cost/benefit outcomes that aligns with our operational needs. In deriving our fleet capex forecast, we have assumed this approach will be maintained throughout 2019-24 unless a change in circumstances supports an adjustment in fleet financing strategy.

Fleet leasing is arranged through two fleet management organisations (FMOs) engaged through a tender process. The continued effectiveness of the leasing strategy is periodically reviewed. Having two FMOs provides on-going competitive tension and ensures cost effective and efficient operation of the light vehicle fleet.

Critical heavy fleet items are specifically purchased through established period contracts and include the following:

- Large, medium and light trucks (flat beds, cab chassis with operation specific bodies);
- Trucks fitted with vehicle loading cranes;
- Trucks fitted with elevated work platforms; and
- Trucks fitted with lifter borers.

Although this document provides information on our light vehicle fleet, we have ensured our forecast relates exclusively to capital expenditure on our heavy fleet in line with our current fleet strategy. Costs related to our leased light vehicle fleet are attributed to opex and not included as part of our capex forecast or duplicated elsewhere. Furthermore, our fleet of vehicles are used to provide a combination of standard control, alternative control and unregulated services. We have only included the fleet capex attributable to standard control services in our forecast.

4.4 HEAVY FLEET CUSTOMISATION

For our specialised, field based vehicles, a fit for purpose make and model of vehicle is selected along with plant items and body fitout which are designed to best suit the relevant functional requirements in consideration of safety and cost effectiveness.

The operational requirements of the heavy fleet are established in consultation with stakeholders. Structured consultation is facilitated through a Fleet Standards Working Group, which includes representation from Network Operations, Occupational Health & Safety, senior management and other subject matter experts as required. The heavy fleet requirements are specified and documented in function specific company-wide standards that are periodically reviewed and updated in consideration of on-going operational suitability, cost efficiency and improvements in the heavy vehicle and major plant industry.

5.0 FLEET STRATEGY

The decisions we make that most significantly impact our fleet capex relate to:

- Changing the size of the fleet;
- Replacing existing vehicles;
- Changing the fleet specifications and standards; AND
- Fleet disposal.

The factors and processes which guide these decisions are discussed in the following sections.

5.1 FLEET ACQUISITION

We have historically observed a strong correlation between fleet units and staffing numbers. Additional vehicles are generally been required to support staff numbers during times of increased network investment activity. Conversely, falling staff levels during times of reduced investment have necessitated lower levels of fleet support.

The fleet acquisition program is reviewed annually to ensure on-going coordination with the delivery of projects and programs and offers the most efficient combination of operational, financial and safety outcomes for the organisation. The fleet acquisition program is driven by decisions to:

- **Replace existing vehicles.** Replacement decisions are primarily based on the replacement program of existing fleet that meet the relevant replacement criteria (based on age and kilometres travelled as a proxy for usage), and includes an assessment of continued operational needs, sharing opportunities and utilisation. Replacement may also be initiated through incidents, accidents or excessive wear and tear that may be uneconomical or unsafe to repair.
- **Grow the size of the fleet.** This may be required when current fleet and utilisation levels can no longer be further optimised and are insufficient to deliver work programs and satisfactorily provide network services. The acquisition of any additional new fleet requires supporting justification (most commonly in the form of a formal business case), endorsement of the relevant General Manager and the approval of the Chief Operating Officer.

5.2 FLEET REPLACEMENT

Fleet replacement decisions are made on the basis of the condition of vehicles and the relative cost effectiveness of disposing and replacing vehicles with new equivalents or retaining them in the fleet. Decisions are made with reference to conditions prescribed in our fleet replacement criteria.

5.2.1 Fleet replacement criteria

The optimal replacement criteria for each class of heavy fleet has been carefully set to maximise the performance of the fleet from both a whole of life cost management and operational flexibility perspective. The replacement program is also developed in consideration of relevant Australian and International Standards and Workplace Health and Safety legislation. For instance, cranes and crane based plant items such as lifter borers and elevated working platforms are required to undergo a major rebuild at 10 years as per AS2550 and AS1418.

Fleet Services periodically reviews the appropriateness of the fleet category specific replacement thresholds to maximise the performance of the fleet both from a whole of life cost management and operational flexibility perspective. The fleet category specific replacement guidelines are maintained in *Company Procedure GTT 0019 – Administration of Company Vehicles and Plant*.

The age and usage threshold based guidelines are used as a reference to plan the replacement of relevant fleet items subject to a detailed conditional assessment, operational priorities and cost effectiveness. The results of these assessments are used to inform whether the vehicle will undergo refurbishment or repair and be retained in the fleet beyond their normal service life or alternatively disposed (and potentially replaced with a new equivalent). In rare instances, replacements are also initiated through major accidents or the need for major repairs which are not financially viable.

Our fleet replacement schedule is designed to ensure compliance with relevant standards and legislative obligations. The retention criteria is critical in ensuring our employees are equipped with vehicles and plant items that are safe, reliable and can adequately perform their intended function as required. Trucks and any attached plant items, e.g. elevated work platform, are replaced together. Thresholds have been selected to balance the risks associated with vehicle failure and cost considerations.

The current replacement guidelines, as documented in *Company Procedure GTT 0019 – Administration of Company Vehicles and Plant* is provided below.

Figure 5-1 Vehicle replacement criteria
Light Commercials & Passenger Vehicles

Type	Criteria (kms/years)	Examples
vans/utilities	150,000/5	iLoad, Sprinter, Ranger
cab chassis	150,000/5	Ranger
sedans/wagons/hatch	150,000/5	i30, Forester

Trucks *

GVM (kg)	Criteria (kms/years)	Examples
< 7,500	200,000/15	NPR200/300/400
< 14,000	200,000/15	FRR500/550, FSR700, FVR900/950
> 15,000	300,000/15	Freightliner/Acco Bogie/FVZ1400

The replacement of plant items is based on a periodic review of on-going operational suitability and a conditional assessment of such items. Such assessments are conducted in consultation with the end users and feedback from the heavy fleet maintenance team. Consultation is facilitated through the Fleet Standards Working Group meetings.

5.2.2 Changes to the replacement criteria

It is to be noted that our latest review to ensure on-going appropriateness of the fleet replacement thresholds has identified efficiency improvement opportunities through reducing the heavy fleet replacement threshold from 15 years to 10 years. Furthermore, it has been recognised that the current heavy vehicle thresholds (which were initiated by the now dissolved Networks NSW) have failed to deliver the cost saving benefits to Endeavour Energy as expected at the time of its inception.

As a result, we are in the process of formalising a more flexible assessment based 'blended' approach for fleet replacement. This transitional approach avoids a one-off fleet investment spike that would be incurred by enforcing an immediate strategy change to all current fleet items that are beyond the new ten year threshold.

Our revised replacement criteria will enable us to use a combination of:

- replacing specific fleet items prior to the new ten year threshold;
- retain other fleet items until the previous fifteen year threshold; and
- conducting major overhauls where most appropriate.

This outcome is supported through NPV analysis and consideration of several adverse cost and non-cost factors associated with retaining the heavy fleet for the longer 15 year period. It is also consistent with best industry practice and informed from feedback from the major auction houses regarding disposal values.

It is expected that the new fleet replacement threshold will be confirmed and take effect during 2018. Our fleet replacement program for 2019-24 has been updated accordingly and is reflected in our fleet capex forecast.

5.3 Fleet specifications and standards

Our vehicles need to be sufficiently equipped to safely and effectively perform the tasks they are designed to conduct. Operational changes in the field may have an impact on the fleet standards. Changes to a fleet standard are reviewed in consideration of global consistency. Minor changes may be limited to deviations in the vehicle fit out design or the addition of small accessories. However major changes may require considerably greater investment, impacting the vehicle selection, plant specifications and the fitout design.

For instance, a change from wooden poles to concrete poles in a bush fire prone area will require a different plant (Crane Borer) with a larger auger, higher torque motor and a cab chassis with a higher GVM capacity suited to concrete pole operations, being much heavier than the wooded equivalents.

Changes in industry vehicle safety and performance standards may also prompt us to review our compliance to relevant Code of Practices and regulatory obligations.

We work with internal business units to understand the specifications and standards they require from our vehicles to support field activities. We aim to overcome potential limitations by improving vehicle utilisation including fleet reallocations between FSCs. We review leasing opportunities to cater for temporary work “spikes” and adopt the most cost-effective solution.

5.4 FLEET DISPOSAL

By tracking the age and travelled distance of our heavy fleet, we are able to effectively plan and prepare for their replacement. In order to confirm vehicle deterioration has occurred in line with expectations, Vehicle and Plant Workshop team conduct a detailed conditional assessment of the company owned fleet once milestones are reached. The outcome of this assessment determines whether vehicles and plant items are repaired, refurbished and retained as part of the existing fleet or disposed.

This decision is made by Fleet Services in consideration of operational priorities and cost effectiveness. Retention beyond usage thresholds or continued use of vehicles earmarked for disposal can only be permitted with delegated approval and requires business case support.

Our heavy fleet is disposed via a reputable auction house. This ensures we are able to recover remaining fair value of our fleet. Identified defects in our disposed fleet may be repaired prior to disposal (if the resale gain from doing so is expected to exceed the repair cost) or otherwise listed as defective upon hand over to the auction house.

6.0 CURRENT PERIOD PERFORMANCE

Our fleet capital expenditure relative to our allowance for the current regulatory period is provided in Table 6-1. It indicates that we expect to underspend the AER's allowance by approximately \$11.2m during 2014-19.

Table 6-1 2014-19 fleet capex versus the approved allowance

(\$m; real 18-19)	2014-15	2015-16	2016-17	2017-18	2018-19	Total
Allowance	5.8	5.2	5.6	3.4	9.0	29.0
Actual/forecast (ex. disposals)	3.1	3.1	2.7	4.0	4.7	17.8
Underspend	2.7	2.1	2.9	-0.6	4.3	11.2

The fleet capex underspend during 2014-19 is predominantly attributed to cost saving benefits attained from improved vehicle utilisation and greater than expected workforce reductions requiring reduced fleet support. These two issues are further discussed in the sections below.

6.1 IMPROVING SAFETY, PRODUCTIVITY AND FLEET UTILISATION

As part of our business wide focus on improving operational efficiency over the current regulatory control period, we have been actively reviewing how our fleet of vehicles are used in performing our day-to-day activities. By leveraging our remote vehicle monitoring capabilities, we have been able to identify vehicles that were, or were likely to be underutilised and therefore considered surplus to requirements.

Removing underutilised vehicles from our combined fleet (most typically by electing not to replace aged fleet with new equivalents at disposal), where it was determined their removal would not adversely impact network safety or service performance, has allowed us to achieve improved fleet utilisation performance, contributing to a reduced need for new fleet purchases during the first three years of the current period.

Table 6-2 demonstrates the degree to which our fleet has reduced in size over recent years.

Table 6-2 Categorised fleet units (2013-14 to 2016-17)

Fleet category	2013-14	2014-15	2015-16	2016-17	Period Reduction
Passenger Vehicle units	177	145	98	87	90; 51%
Light Commercial Vehicle units	490	440	373	357	133; 27%
Lifter Borer units	18	19	18	18	0; 0%
Elevated Work Platform units	100	98	90	87	13; 13%
Heavy Commercial Vehicle	304	264	230	227	77; 25%
Total fleet units	1089	966	809	776	313; 29%

Fleet Services are currently in the process of expanding and updating fleet telematics system to all vehicles. We expect this investment will further improve fleet monitoring capabilities and increase vehicle utilisation and sharing opportunities.

6.2 INVESTMENT AND WORKFORCE REDUCTIONS

For a variety of reasons (including lower than forecast demand, removal of licence conditions, Endeavour 2020 driven efficiency improvements) network investment for the current period is significantly lower relative to the 2009-14 period. This relative reduction was anticipated at the time of submitting our regulatory proposal for 2014-19.

Consequently, a reduction in our workforce numbers was required to better align staffing levels with the program of work planned for the current period. We have reduced the number of FTE staff by approximately 30% from 2012 levels. We were able to achieve these staff reductions primarily through a targeted voluntary redundancy program. Reductions through natural attrition and recruitment freeze were also introduced with positions made permanently redundant upon vacancy in many circumstances.

As a result of this relative rapid reduction in staffing levels, a lower level of fleet support has been required. To ensure the prudence of our fleet expenditure, we have analysed our fleet requirements with regard to changing staff numbers and achieved unit reductions that correspond closely the drop in employee numbers.

Besides maintaining the rigour that has enabled achieving the significant reduction in the fleet size, there has also been a drive to consolidate variations in fleet related requirements leading to standardisation of the fleet. This in-turn has led to operational efficiency improvements including improved sharing of the fleet resources and significant cost savings through streamlined maintenance and service processes.

7.0 FORECASTING APPROACH

Our fleet capex plan is based on minimising the total life cycle cost of our fleet assets in meeting our operational requirements and regulatory obligations for the 2019-24 regulatory control period. This is achieved by ensuring our employees are equipped with vehicles and plant items that are capable of supporting our planned network capex and opex work programs through the optimum mix of fleet resources.

The key forecasting considerations include:

- the planned fleet replacement cycle;
- the cost of maintaining each vehicle and plant item against the alternative to replace;
- current market costs for each fleet and plant item;
- the extent to which vehicle support regulated and unregulated services; and
- on-going availability of suitable fleet to enable efficient operations and provide timely response to network incidents in a safe and cost effective manner.

7.1 REPLACEMENT SCHEDULE

As discussed in section 5, our vehicle replacement criteria provides us with the ability to monitor our entire fleet and develop a whole of fleet schedule to identify ahead of time vehicles that will require replacement or need a major refurbishment and overhaul.

Table 7-1 outlines the number of our vehicles (by category and type) that we expect will require major overhaul or replacement according to our revised replacement criteria for each year of the 2019-24 regulatory period. It indicates that 113 vehicles (or 34% of our heavy vehicle fleet) will require capex for either replacement or refurbishment over the period.

Table 7-1 Fleet replacement and overhaul schedule

Fleet types	2019-20	2020-21	2021-22	2022-23	2023-24	Total
Lifter Borer & Cab Chassis	6	0	0	0	0	6
Elevated Work Platform & Cab Chassis - Live Line Tx	2	2	1	3	0	8
Elevated Work Platform & Cab Chassis – Live Line Dx	2	5	2	14	0	23
Elevated Work Platform & Cab Chassis – General Purpose	1	6	6	4	0	17
Elevated Work Platform & Cab Chassis – Street Light	8	2	5	3	0	18
Elevated Work Platform & Cab Chassis – Fitter	0	0	0	1	0	1
Heavy Commercial Vehicle – Small Service Truck(4X2)	0	0	1	2	1	4
Heavy Commercial Vehicle – Small Service Truck(4X4)	0	0	0	0	2	2
Heavy Commercial Vehicle – Large Service Truck	2	3	1	4	1	11
Heavy Commercial Vehicle – Large Crane Truck(6X4)	2	0	2	0	0	4
Heavy Commercial Vehicle – Extra Large Crane Truck(8X4)	0	0	1	0	1	2
Heavy Commercial Vehicle – Prime Mover (Pole Delivery)	2	0	0	0	1	3
Heavy Commercial Vehicle – Small Tipper	0	0	1	0	0	1

7.3 COST ALLOCATION

Our fleet of heavy vehicles can be used to perform a range of regulated and unregulated activities. In order to ensure only fleet capex attributable to standard control services is included in our forecast, we have divided our network wide fleet capex requirements into each of the following categories:

- Standard Control Services;
- Alternative Control Services; and
- Unregulated Distribution Services.

The capex attributed to alternative control services and unregulated distribution services are not included in our fleet capex forecast in compliance of the Rules.

The proportion to which fleet capex is allocated to each category reflects the predicted usage of the vehicle type in providing each type of service. Some vehicle types lend themselves to a variety of activities. Others however may be more activity specific and offer limited flexibility in the tasks which it can support. This means that the proportion of costs for each of these service types will not be uniform across every class and category of motor vehicle.

7.4 WORKFORCE SUPPORT

Through our workforce planning strategies, we analyse and determine the skill and resourcing requirements of the business. This is to ensure we have the capacity and capability to efficiently deliver our network growth and asset replacement programs whilst continuing to deliver important day-to-day operational activities and services.

Through workforce planning, we:

- analyse the factors impacting current and future employee turnover;
- forecast resource demand;
- promote the implementation of talent pipelines for key skills areas; and
- set targets to allocate resources to the areas they are needed.

Furthermore, we have recently adopted a new delivery model designed to take advantage of the resourcing flexibility and cost savings offered by combining internal and external labour to deliver our capital and maintenance works. Through our 'Alliance' partnership, our staff will work alongside external contractors in a more integrated, collaborative and coordinated manner. As part of these arrangements, external contractors will increasingly make use of Endeavour Energy owned vehicles, report more directly to Endeavour Energy managers and adopt our established processes and standards that have traditionally only applied to internal staff.

Fleet support requirements are strongly influenced by labour resources. As previously stated, increasing staff numbers will require additional fleet to provide functional and operational support. Our fleet plans closely monitor the workforce planning strategy to ensure business outcomes and the strategic objectives of the company are not constrained or adversely affected by insufficient provision of appropriate fleet.

Our fleet forecast aims to improve the use of existing vehicles prior through improved utilisation. This may require vehicle reallocation between positions and locations across our network. When no further improvements can be made, a business case is developed to justify additions to the fleet. Similarly, cost savings are achieved when fleet reductions occur in response to decreased utilisation. Fleet utilisation can inform us the relative importance of a specific vehicle and is an important input in determining efficient fleet numbers and composition.

7.5 INVESTMENT GOVERNANCE

The annual fleet budget and long term (5-10 year) forecast, including detailed supporting documents are reviewed and scrutinised by Fleet Services management before being submitted to the Investment Governance Committee (IGC) for evaluation and endorsement. The IGC supports the Chief Executive Officer and the Board in the evaluation of such investments in a consistent manner.

Quarterly reporting of actual spend versus the approved budget is submitted to the IGC for on-going monitoring of performance. The long term forecast is also reviewed and submitted to the IGC on an annual basis. The forecast submitted to the IGC is consistent with our fleet capex plan for the next regulatory period. The annual review is to ensure on-going coordination with the delivery of projects and programs and offers the most efficient combination of operational, financial and safety outcomes for the organisation.

8.0 2019-24 CAPITAL EXPENDITURE

Our forecast for fleet capex for each year of the 2019-24 regulatory control period is provided in Table 8-1. Relative to the current period, it is \$4.3m (real 18-19) above our actual capex and \$6.9m (real 18-19) below the AER's allowance.

Table 8-1 Forecast fleet capex

(\$m; real 18-19)	2019-20	2020-21	2021-22	2022-23	2023-24	Total
Fleet capex	6.9	4.1	4.4	5.1	1.6	22.1

Our forecast fleet capital expenditure will allow us to efficiently:

- replace the fleet we expect will no longer be fit for use because of their condition;
- conduct major vehicle refurbishments and overhauls following condition based assessment triggered at major service life milestones;
- provide our staff with safe and reliable vehicles that comply with appropriate industry and company safety and performance standards and other legislative requirements; and
- support the delivery of our planned program of capital and maintenance work.

8.1 CORRELATION TO LABOUR RESOURCES

Through our continuous effort on 'right-sizing' the workforce, staff numbers have now reached efficient and sustainable levels that are appropriate to efficiently and safely deliver network services. Our targeted voluntary redundancy program has now ceased and we have ended our temporary recruitment freeze. We will continue to carefully monitor our staffing needs and ensure workforce increases are supported by justifiable business cases.

Given the correlation between staff and fleet numbers, further reductions in fleet can no longer continue to sustain current and future staffing levels and our forecast network investment plans. Consequently, we expect no further reductions in the size of our fleet, although the composition of the fleet may alter to reflect changing business requirements.

8.2 FLEET TELEMETRY

We are not planning to increase our heavy vehicle numbers during the course of the 2019-24 period despite a forecast increase in network capital investment relative to the current period. We are confident that planned network investment and routine operational and maintenance activities can be managed by the existing fleet through continued improvements in job scheduling and work planning. These improvements will be facilitated by rolling out our new vehicle monitoring system.

Our upgraded vehicle monitoring system will provide our workers with a greater range of safety protections such as a series of alarms capable of warning drivers of potentially dangerous driving situations. As the rollout of the system extend to all of our owned heavy fleet,

Furthermore, the system is expected to further enhance fleet management by improving productivity through enabling managers to locate and direct crews for rapid response and to monitor and review the allocation of work. Managing vehicle servicing, availability and allocation will be improved resulting in less lost time due to vehicle availability constraints. We also expect overall vehicle utilisation will increase as our "Alliance" partners will be provided greater access to our fleet.

8.3 FLEET REPLACEMENT, REFURBISHMENT AND DISPOSAL

Our fleet capex forecast is driven by our fleet replacement criteria. As detailed in section 5.1.2, the appropriateness of the service milestones which make up the criteria have been recently reviewed and updated. New retention thresholds for the 2019-24 period will optimise whole-of-life fleet costs for the company whilst ensuring inefficient premature vehicle replacement is avoided and disruption from vehicle failures and breakdowns from prolonged service is minimised.

A large portion of recent fleet reductions has been achieved by not replacing vehicles at the time of disposal with new equivalents. The decision not to replace aged vehicles has contributed to a relatively

low fleet capex spend between 2014-15 and 2016-17. We expect to resume a more sustainable replacement regime of existing fleet items reflective of future workforce and investment requirements. The impact of the need to replace more vehicles during the 2019-24 period than we have done in 2014-19 will drive the small increase in fleet capex.

Our forecast also incorporates the major refurbishment work of vehicles and plant items purchased during the 2009-14 period. Fleet purchases during this period were deemed necessary to support historically high system investment. Of these vehicles that remain in our fleet, many are now approaching their mandatory replacement review and overhaul milestones. Capital expenditure required to address these needs have been captured and included in the forecast.