



2019-24 NON-NETWORK CAPITAL EXPENDITURE

**Buildings, Property and other Non-Network Capital
Expenditure Plan**

March 2018

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1.0 INTRODUCTION

Endeavour Energy operates as a licensed 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. The location of our Huntingwood head office and our Field Service Centres (FSC) within each of our three operational regions are displayed below.

The next regulatory control period commences July 1, 2019 and concludes June 30, 2024. As part of our 2019-24 regulatory proposal, we have provided to the AER category level forecasts for capital expenditure, including non-network expenditure, in accordance with our regulatory obligations.

This document outlines our forecast capital expenditure associated with our non-network buildings, properties and other cost items (including furniture, fittings, plant and equipment) for the 2019-24 regulatory control period. We have appropriately allocated these proposed costs to the following expenditure categories in Table 2.6.1 of the Reset RIN:

- Non-network – Buildings & Property
- Non-network – Other

This document provides information regarding: how the forecasts for both categories were derived; the influencing factors driving proposed investments; and how the program of work will ensure we continue to achieve the most efficient non-system property outcomes to support the strategic objectives of the business.

1.1 OUR NETWORK PURPOSE

We are responsible for providing a range of distribution services in meeting the needs of our customers. The way we perform our day-to-day activities across the organisation is guided by our purpose:

"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.

Network investment refers to our specific and targeted programs of capital and maintenance works which are delivered in conjunction with day-to-day operational activities.

Figure 1-1: Endeavour Energy network area



Non-network investment refers to expenditure that is not directly related to the distribution system and the conveyance of electricity, but provides important supporting functions needed to operate the distribution network and support network investment.

1.2 THE PURPOSE OF THIS DOCUMENT

This document outlines our non-network facilities capital expenditure requirements for the 2019-24 regulatory period. This document will:

- describe the supporting functions performed by assets within these non-network categories;
- compare our forecasts to our expenditure in the current and previous regulatory periods;
- outline the strategies which guide our investment decisions and forecast expenditure ;
- explain the drivers of facilities investment;
- explain our expenditure forecasting and governance process; and
- review the outcomes achieved in the current regulatory period and previews those targeted for the next regulatory period.

This document has been prepared to assist the AER, customers and stakeholders to understand our non-network capital expenditure requirements for 2019-24. It seeks to demonstrate that our forecasts are efficient, has been developed with consideration of the long term needs and preferences of our customers, and is aligned with our strategic objectives.

This document 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 FACILITIES MANAGEMENT

Our Facilities Management team are responsible for managing the non-system property portfolio and supporting the accommodation needs of the organisation. Their role is essential in supporting the business to align property requirements with the operational needs across the distribution area. All expenditure attributed to the cost categories discussed in this document is exclusively managed by Facilities Management.

For both of these categories, Facilities Management are responsible for: identifying investment need; investigating viable options; selecting the most cost effective option; prioritising expenditure; seeking endorsement of proposed major investments and delivery oversight in accordance with company policies and procedures.

2.1 KEY FUNCTIONS

The key functions within Facilities Management are:

- **Strategy and accommodation:** maintaining strategic alignment and direction between property related services and core business objectives;
- **Property operations:** delivery of property upgrade and construction work as well as responsibility for facility management and maintenance across corporate property portfolio and some elements of network property portfolio.

2.2 KEY CHALLENGES

Some of the key challenges faced by Facilities Management in the next regulatory period will include:

- provision of fit-for-purpose properties and equipment to enable the efficient and effective delivery of the planned program of work;
- provision of resources required to support new program delivery models and maximise resultant efficiencies and cost savings;
- ensuring ongoing compliance with the range of legislative and regulatory compliance obligations across the property management lifecycle; and
- continuing to apply a flexible approach to depot design and office fit-out with an emphasis on functionality, safety, security and cost-efficiency.

Our operating environment has also posed some major challenges that will continue to have an impact on the way we manage our non-network property portfolio. The most significant of these are described below.

2.2.1 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, will 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.

Our growing network requires us to review the effectiveness of our existing facilities to provide distribution services. As large numbers of new customers continue to connect to our network, the capability to service additional connections from our existing FSC network requires close assessment. This is particularly the case for developments which expand outwards from more established areas and further away from FSCs, potentially impacting incident response times and the quality of service we can provide to customers. The Field Service Centre Strategy has been developed to identify these growth related constraints.

In addition, functional capabilities of FSCs may need to be modified in response to changes in the demand for the types of services we provide to customers.

2.2.2 Ageing assets

Many of our network assets are aged, deteriorated and will require replacement during 2019-24. To minimise the cost impact of these necessary investments, the proposed network capital program has been subject to a risk based prioritisation process.

Work activity at our FSCs is expected to increase as we plan to invest in more new assets and conduct greater asset replacement. Our facilities in these locations will need to be adequately equipped and capable of supporting our program of capital works.

Furthermore, some key non-network property assets are approaching end-of-life. The age and poor condition of these assets will require refurbishment and replacement and will drive investment in 2019-24.

2.2.3 Labour resourcing levels

Over recent years, our workforce numbers have fallen significantly. This reduction was required following the reduction in network investment relative to the 2009-14 regulatory period. We also focussed on increasing reliance on external contractors to provide network services at lower cost as promoted through our 'blended delivery' resourcing approach.

We have now right sized our workforce. Importantly, we have adopted new contractor focussed delivery models for a range of network programs and activities. These arrangements will see more external contractors working collaboratively with our internal staff to deliver network programs. Our depot and office facilities will be increasingly utilised and frequented by our external contracted partners.

To enable the full potential of cost savings to be realised from this approach, investment in our FSCs will needed to cater for these new, major operational changes.

3.0 EXPENDITURE PROFILE

Our forecast for buildings & property capex and 'other' non-network capex for the 2019-24 regulatory control period is provided in below.

Table 3-1 Buildings & property and 'other' non-network capex forecast 2019-24

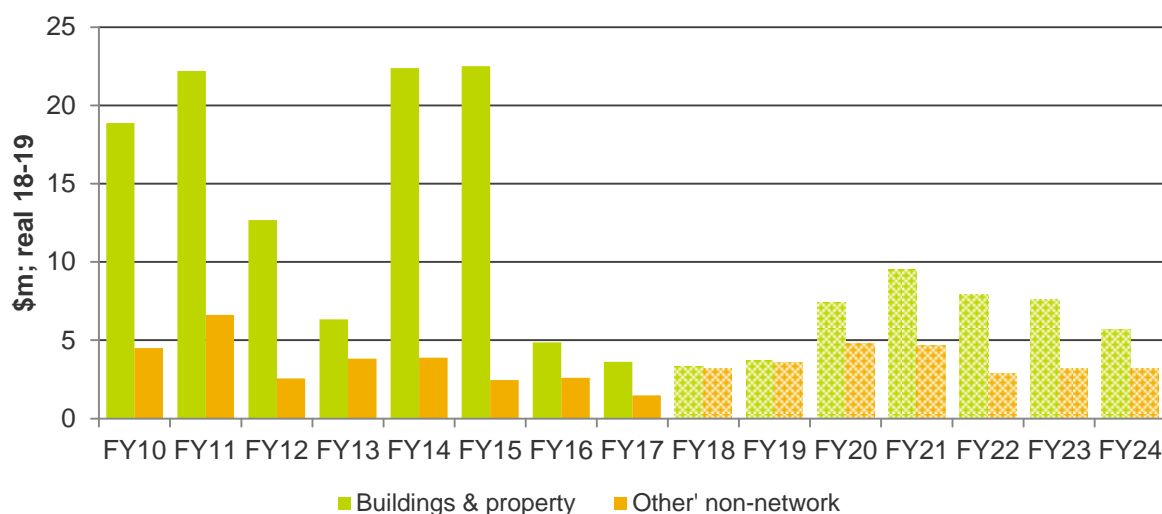
(\$m; real 18-19)	2019-20	2020-21	2021-22	2022-23	2023-24	Total
Buildings & property	7.4	9.5	7.9	7.6	5.7	38.1
Other non-network capex	4.8	4.7	2.9	3.2	3.2	18.7

The forecast in this plan mirrors the values provided in Table 2.6.1 of the Reset RIN spreadsheet and in Chapter 10 of our regulatory proposal.

In broad terms, buildings and property capex refers investment on the physical buildings and the related infrastructure which accommodate our staff and house our stored inventory. These most commonly relate to our offices, FSCs and other specialist sites. All remaining non-network capex that cannot be attributed to ICT, fleet or building and property are grouped into 'other' non-network capex. Investments included in this category include those related to furniture, fittings, plant and equipment (including security infrastructure).

A comparison of our actual and forecast annual capex for both categories over the previous, current and next regulatory period is displayed in below.

Figure 3-1 Expenditure profile for buildings and property and 'other' non-network capex.



3.1.1 Proportion of total capex allocated to non-network capex

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.

Table 3-2 indicates the share of our forecast total capex (network and non-network) attributed to our combined non-network categories for 2019-24 is lower than the proportions observed for the current and previous regulatory control periods. This demonstrates that our non-network forecast is efficient.

Table 3-2 Proportion of total capex attributed to non-network capex

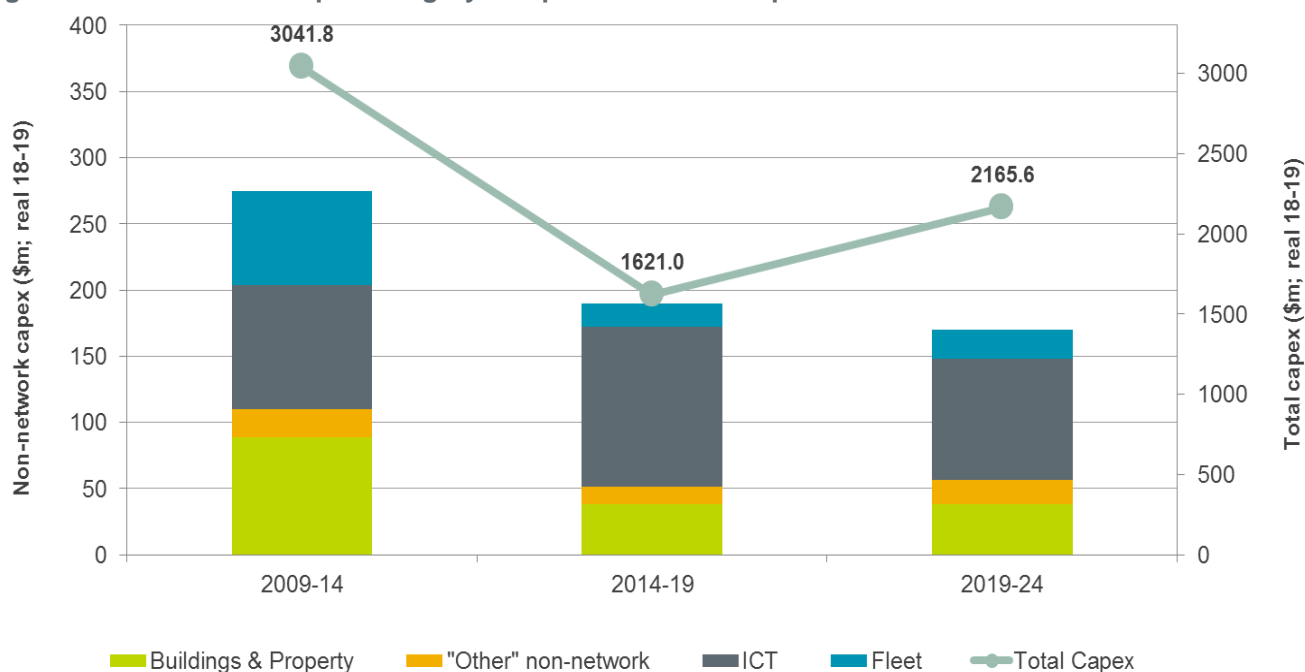
(\$m; real 18-19)	2009-14	2014-19	2019-24
Total capex	3,041.8	1,621.0	2165.6
Non-network capex	274.8	190.0	170.1
Proportion	9.0%	11.7%	7.9%

3.2 CATEGORIES OF NON-NETWORK CAPEX

Our total non-network capex forecast for 2019-24 is \$170.1m (real 18-19).

Figure 3-2 below compares our forecast total non-network capex for each of these categories against the current and previous regulatory control periods.

Figure 3-2 Non-network capex category comparison to total capex



This shows that our non-network capex will continue to fall in the next period. Our total non-network capex forecast is 10.5% lower than the current period and 38.1% less than the 2009-14 period.

Compared to the current period, we do not forecast significant inter-period expenditure volatility for each non-network category. Buildings and property will remain the second largest contributor to non-network capex and 'other' non-network capex will again contribute least.

Much of the reduction in non-network capex from 2009-14 to 2014-19 was in response to the fall in network capital investment. It is noteworthy that this falling trend in non-network capex is expected to continue in 2019-24 despite a forecast increase in total capex for this period.

This demonstrates the effectiveness of our *Endeavour 2020* cost savings initiatives on non-network support capex, the benefits of which have been factored into our forecast for the next period. This also supports the efficiency and prudence of our overall non-network capex forecast.

4.0 BUILDINGS AND PROPERTY

Our non-network property portfolio consists of buildings, land and facilities which accommodate staff and house plant, equipment and inventory which are used to provide distribution network services.

Our non-network building and property strategy seeks to deliver flexible, efficient, cost effective property outcomes supporting safety, environmental and service performance standards. In order to deliver on these objectives, periodic investment on our office buildings, FSCs and other specialist sites are necessary.

These investments seek to:

- maintain compliance with safety and workplace standards across all our non-network locations;
- provide fit-for-purpose premises which promotes workplace productivity and support the planned network work program;
- extend key operational efficiency initiatives across properties within the portfolio; and
- optimise building and office environments to further reduce costs across the portfolio.

This document does not extend to the needs of buildings and properties directly related to our distribution system infrastructure. Costs to manage these are considered network investments and have been incorporated elsewhere in system capex categories (e.g. replacement, augmentation and connections capex).

We have carefully examined our proposed non-network capex to ensure that forecast costs have been appropriately attributed to specified cost categories and not inadvertently duplicated elsewhere in our proposal (e.g. non-network opex).

4.1 PROPERTY PORTFOLIO

The ongoing construction, operation and maintenance of our network requires field crews, fleet and equipment to be located in areas that help us to efficiently deliver our program of works and enable us to quickly respond to network faults, minimising disruption to our customers.

The provision of safe, compliant and fit for purpose staff accommodation and inventory storage facilities is essential in ensuring that we remain capable of delivering all distribution services in accordance with our customer's needs.

These facilities provide the business with the means to effectively undertake office based activities and support field work in accordance with our strategic objectives, regulatory obligations, and expectations of our customers.

Our portfolio of non-system properties and buildings comprises of:

- **Field Service Centres (FSCs):** located across our franchise area they provide a strategic operational base from which our staff conduct construction and maintenance activities, respond to supply interruptions and several other network related issues. FSCs perform an important role in maintaining the reliability and safety of the electrical network in accordance with our compliance obligations and strategic objectives.
- **Offices:** house staff involved in planning and managing a range of network projects and activities. Other business support functions supported from our offices include finance, governance, IT, procurement, HSE, back office support, billing and transactions, facilities management etc.
- **Specialist sites:** these include logistic facilities/warehouses; pole storage yards; transformer yards; high voltage equipment and testing facilities; and technical training centre.

A growing challenge for our property portfolio is the increasing distance of significant new housing developments from our existing FSC's, particularly in Western Sydney. As planned greenfield growth continues to expand outwards from established urban areas, more time will be spent in transit to and from FSC's in the ongoing delivery of our capital and maintenance program and will increase emergency response times.

Servicing the requirements of a larger customer base and other challenges which will drive investment in 2019-24 are discussed in the following sections.

4.2 INVESTMENT DRIVERS

At a high level, we have identified four key constraints which will drive building and property investment in 2019-24. These are discussed below:

4.2.1 Support network investment

Our FSCs differ in size and capabilities. The scope and scale of the services and activities provided from each FSC is dependent on the level and type of support needed to adequately and efficiently support system infrastructure in the surrounding area.

For instance, it would not be efficient to equip Katoomba or Bowenfields FSCs (both in the Blue Mountains) with the range of capabilities provided to Kings Park or Narellan FSCs which services a much larger customer base.

The resourcing and capabilities of FSCs reflect the relative needs of surrounding customers and communities. A change in these needs may trigger a review of the services provided from each FSC, resulting in investment to ensure we continue to efficiently and effectively provide a safe and reliable network.

For 2019-24, we are forecasting significant customer growth, particularly in Western Sydney. So more customers can connect to our network, we plan to build new substations and feeders in greenfield development areas. We also plan on replacing a growing quantity of ageing network assets.

Investment in 2019-24 will focus on ensuring our FSCs can operate productively and are adequately resourced so the efficient delivery of the increased work program is not jeopardised.

4.2.2 Accommodating our workforce

Our strategy seeks to provide fit-for-purpose accommodation for our staff. In addition to supporting workforce productivity, workplace facilities need to be compliant with legislative and regulatory requirements.

FSCs need to be right sized, appropriately resourced and manage the safety risk posed by regular staff and vehicle movements in shared workspaces. The standards of office-based facilities need to support the administrative and corporate functions of the organisation.

Our increased work program will require additional workforce resources. As earlier stated, new network delivery models have recently been introduced which will result in external contractors working closely alongside Endeavour Energy employees in a more integrated and collaborative manner than previously encountered. These arrangements will allow us to provide network services to our customers in a more cost effective way.

External contractors will increasingly make use of Endeavour Energy's vehicles, tools and equipment and report more directly to Endeavour Energy managers and adopt our established processes and standards that have traditionally only applied to internal staff.

Incorporating contractors in our day-to-day operations will result in an increased presence of workers and visitors in of our network worksites, FSCs and office locations. As our new delivery models continue to evolve and expand, the prevalence of non-Endeavour Energy staff at these locations will continue to increase.

Investment in 2019-24 will focus on augmenting our FSCs to support our new models and facilitate greater integration of external service providers in our FSCs and offices.

4.2.3 Property Deterioration and failure

Existing non-network buildings and properties periodically require investment to ensure they remain fit-for-purpose and maintain their ability to support network services. Condition based assessments are used to examine the need for asset replacement or upgrade.

We are regularly required to perform repair, refurbishment and upgrade works on our buildings. This investment is considered essential to address degradation in the condition of our facilities which have the potential to adversely impact our ability to support our strategic objectives and network operations. Investment may also be planned when it provides a more long-term cost effective alternative to maintaining existing assets (e.g. efficient LED lighting).

A significant portion of our planned investment for 2019-24 will focus on corrective replacement or refurbishment of our aged, damaged, faulty or inefficient property assets. These needs are relatively recurring and generally consistent across regulatory periods and forms part of our base level program – the minimum program required to maintain existing sites, exclusive of new, non-recurring major investment.

4.2.4 Compliance to obligations

Our investment plans must enable us to achieve the capital expenditure objectives set out in clause 6.5.7(a) of the Rules. This includes achieving compliance with all applicable regulatory obligations and requirements. We regularly review our non-network property portfolio to maintain compliance with all safety, workplace and environmental compliance conditions.

The key obligations and standards to which we have regard include:

- Workplace Health & Safety Act - ensuring that the property does not present any safety risks to employees, and that employees can perform all tasks required in a safe manner without health risks.
- Building Code of Australia (BCA) - for buildings to be occupied, they must comply with the BCA. Before any addition or new building is constructed, the BCA needs to be reviewed and the plans and work must comply with the BCA.
- Environmental Planning Act - to ensure that construction works and any normal business tasks do not contravene environmental laws or pose a threat to the environment, the Environmental Planning Act shall be reviewed and complied with.
- Heritage Act - some buildings or properties may be Heritage listed, in this case the Heritage Act needs to be reviewed and complied with.
- Relevant Australian Standards and local council requirements - many systems within a building and/or property have an Australian Standard that provides guidelines for the installation and maintenance of the relevant items. Some standards will be mandatory, but even if they are not by reviewing the appropriate standard, appropriate safety guidelines can be met.

Investment targeting compliance to these obligations is also a major contributor to our base capex program for 2019-24.

4.3 FIELD SERVICE CENTRE (FSC) STRATEGY

The FSC Strategy provides important analysis which is used to inform our decisions on whether investment in new FSCs is required to overcome constraints detailed in 4.2.1 and 4.2.2.

The purpose of the FSC Strategy is to review the capabilities of FSCs as key bases of operations for current and future network services. The FSC Strategy focuses on three key issues. The findings made in the most recent review are summarised below:

1. **Staff numbers at each FSC location.** The presence of external contractors in our FSCs will continue to increase as the new delivery models evolve. Existing FSCs will be able to accommodate this increase due to the decrease in FSC populations over the current regulatory period and the

potential for upgrading existing facilities to accommodate this expected increase. There are no impending capacity requirements that would justify the need for new FSC construction projects.

2. **Area specific investment and growth.** It is expected that asset maintenance and network service workload in greenfield growth areas will increase as the network continues to expand and customers connect to the distribution system. However, the early stages of new network construction will be carried out by developers and contractors, with the forecast volume of distribution capital works and maintenance in 2019-24 able to be conducted from existing FSCs.
3. **Incident response times from FSCs.** The location of FSCs and their proximity to various network asset locations is a key consideration in facility planning. Based on community feedback, we have typically considered an incident response time below 30 minutes is reasonable in most situations. Strong growth in the North-West and South-West corridors of Sydney is expected to increase road congestion, potentially impacting travel and incident response times. Currently, incident response times from existing FSC's in these areas remain reasonable, however we continue to monitor the impact of new developments on travel and response times.

Overall, the FSC Strategy suggests alternative solutions to building new FSCs would be more cost-effective to manage identified constraints.

On the basis of these recommendations, we do not plan to build any new FSCs in the 2019-24 period. Investment will be focused on ensuring we can provide solid overall coverage for customer response, staff accommodation and network investment support from our existing FSCs.

5.0 OTHER NETWORK CAPEX

All remaining non-network capital expenditure is collectively referred to as 'other' non-network capex. This category covers investment typically consisting of the following sub-categories:

- **Plant and Equipment:** Items that are required to construct, repair and maintain the network. These activities involve the utilisation of a variety of tools and equipment, some of which are highly specialised and perform a highly technical, network specific function.
- **Furniture and Fittings:** Items used to fit-out our office accommodations used by our employees to deliver network planning, operations and corporate functions. The provision of 'fit for purpose' office and FSC facilities for our staff is essential to ensuring that the business remains capable of delivering network services in accordance with customer needs.
- **Security Infrastructure:** Items used to enhance the security and safety across both network and non-network sites. CCTV, swipe card access system and locking systems are examples of expenditure used to manage access to sites, and maintain visibility of activities in critical locations. The constant and ongoing review of these systems is critical in ensuring protection of our network assets, staff and property.

'Other' non-system capex enables us to equip our staff with a fit for purpose workplace environment and equipment that fosters optimum levels of productivity, helping to fulfil our network and corporate functions and responsibilities as a DNSP.

Within this context, the role of our Facilities Management team is to support the day-to-day operations of the business in the delivery of efficient, reliable and safe network performance by providing staff with tools, equipment and workspace adequate to efficiently deliver the planned program of capital and maintenance works.

5.1 INVESTMENT DRIVERS

As with buildings and property, the main drivers of capex expenditure for residual non-network capex are correlated to workforce levels. Key drivers include:

- **Providing field staff with access to tools and specialist equipment** needed to safely and efficiently provide network services. It is important the equipment be appropriately certified and approved to carry the work it is intended for. Office workspaces need to be adequately resourced to reasonable standards. The impact of new our resourcing models (as discussed in section 4.2.2) will require additional investment in 2019-24.
- **Replacing and updating existing facilities.** As part of our search for cost savings combined with internal workforce reductions, we allowed some of our furniture, fittings and equipment to be retained beyond the expired life with no adverse consequence to employees. Further deferral cannot be achieved an investment is required to bring all poorly conditioned equipment up to reasonable standard.
- **Providing facilities, plant and equipment that are compliant to industry standards.** With safety as our number one priority, we aim to provide our staff with equipment that adheres to stringent safety standards. Furthermore, our non-network sites are subject to a range of workplace health and safety regulations. In general, compliance driven investment is made with regards to: regulatory obligations (e.g. Building Code of Australia, Australian Standards, WHS Act, Environmental Planning Act, Heritage Act etc.); Endeavour Energy Policies and Guidelines; and changing business needs.

6.0 OUR FORECASTING PROCESS

Facilities Management maintains constant discussion and consultation with internal stakeholders as a business-as-usual (BAU) function. This involvement enables us to maintain ongoing awareness of changing business priorities, the state of individual properties, and to understand the future requirements and direction of the property portfolio.

Our process for forecasting buildings and property and other non-network capex broadly involves: identifying constraints across the property portfolio; prioritising expenditure and selecting the most cost efficient option that adequately addresses identified constraints. Investment is endorsed following scrutiny applied through our internal governance process.

This sequence ensures that non-network building and property investments require the same level of justification demanded from network capital investment prior to approval.

6.1 INVESTMENT NEED

The process for identifying needs for the 2019-24 regulatory control period considers the current state of the property portfolio, drivers of investment and how changes in the underlying business environment are likely to influence requirements.

Our forecast has been guided by consultation with several business units. Involving site managers in our forecasting process has allowed us to develop an informed listing of investments which have been reviewed to ensure practicability and relevance. In addition, results of audits carried out by maintenance staff, Health & Safety staff and the Facilities and Security Team are reviewed to identify preventative, upgrade and/or replacement projects that may be required.

For all prospective asset and equipment upgrades, replacements and refurbishments, the following steps are taken to assess investment requests:

- review of service reports and inspections;
- review of age, condition and capabilities of assets;
- detailed consultation with site managers;
- use of an internal prioritisation tool to determine and rank business impacts such as safety, life cycle, return cost etc;
- development of a final capex program listing based on priority grading.

The review of identified needs for the 2019-24 period identified the following specific factors that will impact on our forward looking program:

- the age, condition and limited functionality of security systems, especially in relation to IT network infrastructure;
- the inefficiencies and high maintenance costs of ageing HVAC and lighting solutions;
- inconsistent vehicle and pedestrian safety standards across FSCs;
- decay of important non-network infrastructure;
- barriers to more productive and efficient work practices due to inventory receipt, storage and monitoring processes at our FSCs;
- catering for increased vehicle and workforce movements at FSCs and offices; and
- workspace reconfigurations to support major organisational restructures.

Section 8 of this document lists the proposed projects for 2019-24 developed to address these identified constraints.

We also recognise regular investment will be required throughout 2019-24 to maintain the current standard of our facilities (generally asset replacement and compliance driven investment). The large number of these recurring activities means it can be difficult to identify needs and develop plans ahead of time. Consultation with business unit managers has helped us to understand these needs which form our base level program. We have also had regard to historical trends to inform and confirm investment needs and our forecast.

6.2 SELECT EFFICIENT OPTION

We follow our BAU process to select the most efficient option to address identified needs. Our underlying philosophy is to find the least cost solution to address the issues across the portfolio.

Prior to selecting a preferred option, we review at a range of options, including 'do nothing' (e.g. managing the constraint through efficient opex substitution), like-for-like replacement and refurbishing existing facilities. Having regard to all viable options and selecting the option which maximises the net economic benefits to consumers is consistent with our overall asset management framework for network investment.

Prior to major projects commencing, a full business case review approved by the appropriately delegated authority will be completed. The detail provided in individual business cases is commensurate with the size of proposed project and expenditure.

Investments are prioritised using an internally developed tool. Priority rankings are based on a review of such factors as cost, timing, functionality and fit for purpose.

6.3 COSTS ESTIMATES

Our expenditure forecasts reflect the efficient cost of undertaking the future program of capital works. Unit cost estimates are based on the actual costs of recently completed work of comparable type and scope. In instances where no comparable cost has been incurred or can be relied, current market costs have been used.

We have an established and well defined procurement process to ensure a fair and transparent tendering process is undertaken for outsourced capital investment. Competitive tendering of building and facility works ensures value for money is achieved.

6.4 GOVERNANCE

We have a clearly defined expenditure oversight process to apply constant scrutiny of all facilities investment.

In accordance with Company Procedure GFC 0034 - Budgeting and Forecasting, the prioritised capital program is revised each quarter based on the year to date expenditure and the projection of the remaining months to produce the annual capital forecast.

Capital investment approvals are to be obtained in accordance with applicable delegations and sub delegation of authority in accordance with Company procedure GRM 0052 Non –System Investment Proposals.

The plan is then forwarded to the Investment Governance Committee for endorsement in accordance with the IGC Charter.

7.0 OUR 2014-19 PERFORMANCE

7.1 BUILDINGS AND PROPERTY CAPEX

Over the current regulatory period, we undertook renewal, repair and upgrade works on our non-systems facilities that were necessary to support our network and corporate functions. These investments were primarily focussed on addressing issues arising from the deteriorating condition of existing buildings and facilities.

We expect our buildings and property capital expenditure for 2014-19 to be \$5.9m (real 18-19) below the AER's approved allowance with most of this underspend occurring in 2014-15.

Table 7-1 Buildings & property capex performance against the allowance (2014-19)

(\$m; real 18-19)	2014-15	2015-16	2016-17	2017-18	2018-19	Total
Actual/Forecast	22.5	4.9	3.6	3.3	3.7	38.0
Allowance	27.8	4.7	4.3	3.6	3.5	43.9
Underspend	5.3	-0.2	0.7	0.3	-0.2	5.9

Our performance highlights our ability to respond to the significant changes in our operating environment during this period. We adjusted our non-network capex plans in response to financing uncertainty and a reduction in our capital program. Underlying changes in our business environment has curtailed the need for new investment and improved consolidation opportunities across the portfolio.

Our continued efforts to keep prices low for our customers through cost efficiencies promoted through Endeavour 2020 contributed to our non-network buildings and property expenditure falling to historical lows from 2015-16.

A reduction in the size of our internal workforce also contributed to expenditure reductions. Increased vacancies meant we were able to find efficient solutions (e.g. staff relocations to more suitable existing premises) as an alternative to more costly repair and remedial work.

Despite increasing growth in customer numbers, no new non-network buildings commenced construction with investment focussed on existing facilities. Our non-network building and properties expenditure from 2015-16 onwards largely represents spending required to maintain the safety and operating efficiency of our existing sites to expected and required standards.

7.1.1 Major investments

The most significant non-network building and property projects delivered during 2014-19 include;

- **Springhill FSC refurbishment:** Springhill FSC is our major field hub for sub-transmission and distribution activities in the Wollongong and southern region of our network area. Operations had outgrown the previous site which was aged, deteriorated and no longer fit-for-purpose. Redevelopment of new offices and workshops commenced in the previous regulatory period and was completed in 2014-15. Improved operational activities can now be conducted from the new site and provides important contingency options to our Huntingwood operations. Increased capabilities, service quality and field response improvements benefit our customers in the region. Furthermore, the redevelopment of the site enabled office based staff to vacate a leased property in nearby Coniston, resulting in reduced operating costs.
- **Huntingwood HVAC system:** Air conditioning upgrade works at our headquarters (including chiller replacement and BMS upgrade) was needed to rectify escalating maintenance costs and regular system failure indicating that it had approached end-of-life. The replacement system is significantly more efficient with estimated annual electricity usage cost savings of up to \$350,000 meaning investment costs will be recouped within 5 years.

- **Huntingwood generator:** The generator which provides essential backup power to our Huntingwood head office in the event of a supply interruption had reached end-of-life. The generator (housed in a new sound attenuated building) improves security of supply to several critical network systems, strengthens our ability to maintain visibility and control of our network during outages. The new system can be maintained more efficiently and its increased capacity better reflects supply needs.

The remainder of the building and property expenditure for 2014-19 was directed towards replacing deteriorating non-network property assets, including those that no longer comply with modern day standards. These investments have been made in consideration of the objective of meeting our operational property needs in the most cost effective manner.

Expenditure can target a specific constraint in a single location (e.g. asset failure) or be part of a wider rollout in a number of locations (e.g. efficient lighting solutions, A/C refrigerant replacement, handrail installations etc.). In all cases, expenditure is assessed and executed in accordance with the principles underpinning our asset management framework.

Other completed miscellaneous building and property capital works include:

- carpeting/flooring renewals;
- entry door and gates upgrades;
- roof waterproofing;
- drainage works;
- A/C refrigerant works;
- asphalt and ground resurfacing;
- FSC gantry/crane install;
- laboratory air management system;
- fire protection replacement and upgrades;
- Hoxton Park oil storage upgrade;
- sewer and stormwater waste replacement;
- building structural work and reinforcement;
- drainage pit install;
- concreting and bund works;
- CSC telecommunications upgrades;
- Huntingwood lighting upgrades;
- Katoomba vehicle shelter; and
- UPS system and battery upgrades.

These less material costs reflect business as usual property related costs and reflect a base level of investment necessary to maintain existing building and property standards. We have combined these costs into the 'base capex program' category in the table below.

Table 7-2 Buildings & property capex project breakdown (2014-19).

Expenditure (\$m; real 18-19)	2014-15	2015-16	2016-17	2017-18	2018-19	Total
Springhill FSC redevelopment	18.6	1.2	0	0	0	19.8
Huntingwood HVAC	0.7	0.5	0.5	0	0	1.7
Huntingwood generator	0	0.8	0.4	0	0	1.2
Base capex	3.2	2.4	2.7	3.3	3.7	15.3
Total	22.5	4.9	3.6	3.3	3.7	38.0

7.2 OTHER NON-NETWORK CAPEX

Over the current regulatory period, we were able to provide appropriately fitted out office spaces and workstations for our employees involved in delivering network planning, operations and corporate support functions. Similarly we were able to provide safe and compliant tools and equipment for our field staff to effectively and efficiently perform network activities.

We expect our other non-network capital expenditure for 2014-19 to be \$5.1m (real 18-19) below the AER's approved allowance.

Table 7-3 'Other' non-network capex performance against the allowance (2014-19)

(\$m; real 18-19)	2014-15	2015-16	2016-17	2017-18	2018-19	Total
Actual/Forecast	2.5	2.6	1.5	3.2	3.6	13.3
Allowance	4.4	3.5	3.5	3.5	3.6	18.4
Underspend	1.9	0.9	2.0	0.3	0.0	5.1

Workforce reductions during the period meant that we were able to achieve cost savings in furniture and fittings expenditure. By making use of equipment made idle from staff departures, we took advantage of a more cost effective alternative to replacing new for old. Opportunities for improving existing tool and equipment utilisation also contributed to our favourable performance.

7.2.1 Major investments

The most significant non-network building and property projects delivered during 2014-19 include;

- **Gantry and cable cranes:** Cranes in a number of our FSCs had failed inspection due to operational and compliance issues. Following a detailed safety assessment, it was determined that a moderate refurbishment on the existing cranes would extend their life span and preserve their safe operation. The project was completed in a period of 3 months with minimal disruption to the business.
- **Master key locking:** We strengthened our network security by upgrading our traditional keys and locks with a smart locking system. Authorised staff have been issued with personalised electromechanical keys which provide access to key assets and allow managers to monitor usage and provide or restrict access as appropriate.

Most of the remaining expenditure incurred during the period relate to numerous, relatively small cost items. These costs reflect business as usual furniture/fittings, plant, equipment and security related costs and reflect a base level of investment (i.e. excluding major, non-recurring investments) necessary to support a variety of office and field based work activities. We have combined these costs into the category 'base capex program' in the table below.

Table 7-4 'Other' non-network capex project breakdown (2014-19)

Expenditure (\$m; real 18-19)	2014-15	2015-16	2016-17	2017-18	2018-19	Total
Cranes	0	0.3	0	0	0	0.3
Master key locking	0.7	0.3	0.1	0.5	0.2	1.8
Base capex	1.8	2.0	1.4	2.7	3.4	11.3
Total	2.5	2.6	1.5	3.2	3.6	13.3

8.0 2019-24 CAPITAL EXPENDITURE FORECAST

8.1 BUILDINGS AND PROPERTY CAPEX

The provision of fit-for-purpose, functional, compliant and safe staff accommodation and inventory storage at each of our locations is paramount to ensure our employees have the facilities adequate to productively perform their role. These facilities must comply with all legal and regulatory requirements and provide a safe work environment. Our program of work for the next regulatory period is focussed on ensuring these objectives continue to be met.

Our forecast non-system capex for buildings and property is provided below.

Table 8-1 Buildings & property capex forecast (2019-24)

(\$m; real 18-19)	2019-20	2020-21	2021-22	2022-23	2023-24	Total
Buildings & property capex	7.4	9.5	7.9	7.6	5.7	38.1

Our forecast is \$0.1m (real 18-19) or 0.2% above our expenditure for the 2014-19 period. It is mainly driven by refurbishment and upgrade works in our FSCs. We have reviewed our current capabilities to support our program of works and remain committed to servicing our customers from our existing facilities.

Accordingly, our forecast comprises of specific, non-recurring major investments needed to enable us to provide standard control services to our customers in addition to capex required to support a base level program for building and property (i.e. maintain the standards and upkeep of our existing sites).

Major building and property projects planned for the 2019-24 period include:

- **FSC auxiliary power supplies:** The resilience of our FSCs to withstand power supply interruptions (during storms in particular) varies significantly. Whilst business-as-usual operations can continue in some locations during a power outage, the capabilities in other locations are limited due to insufficient auxiliary power supply infrastructure. Investment is planned to reduce the vulnerability of selected FSCs and preserving their functionality during power outages, emergencies and extreme weather events. Furthermore, we plan to upgrade storm response centres across a number of FSC locations to ensure efficiency and response times.
- **Huntingwood communications tower:** Our main communication tower is a critical piece of infrastructure which supports devices that allow information to be relayed between our head office and numerous field assets remotely. The structural integrity of the tower and the ability to adequately accommodate a growing number of communication devices is key to the network operation and control. Investment is required to correct structural weakness and preserve its life as a cost efficient alternative to constructing a replacement or supplementary tower.
- **Huntingwood and Springhill Control Room refurbishment:** The Control Rooms in both locations, responsible for management of the Network have been constructed in accordance with the current paper based process. A current project to move to a technology-based solution, due around 2019, will require a significant refurbishment of the room to accommodate multiple screens and new business processes. The upgrade will ensure the efficiency of the room is maintained and will optimise the productivity of staff working within the space.
- **Lighting upgrades:** Old and failing lighting equipment have led to increasing non-compliance issues. LED lighting offers the opportunity to significantly reduce operating and maintenance costs associated with traditional lighting solutions. We plan on replacing all end of life lighting across our Huntingwood head office and network of FSCs with monitored LED lighting systems during the period. Replacement will include internal, external and car park lighting installations. This investment will generate long term operating cost savings that will be reflected in our customers' electricity charges.

- **HVAC systems:** Following the successful completion of much needed upgrades to the HVAC system at Huntingwood, it was identified the replacement of aged, inefficient and problematic HVAC systems across other sites with new energy efficient and reliable solutions would reduce maintenance and operating costs and improve workplace comfort levels. Poor air conditioning performance is compounded by the excessive heat experienced in our network area (particularly in Western Sydney) and the relatively open plan nature of our offices and FSC buildings.
- **Building management system:** The building management system reads sensors throughout the buildings and sends alarms when systems exceed pre-set parameters. The system also allows remote management of certain functions such as A/C and lighting. Replacement of this technology across a number of FSC sites and the Huntingwood head office enabling online trouble shooting and rectification resulting in significant savings in call outs costs for system rectification.
- **Pedestrian safety:** Through our routine Health & Safety assessments and feedback received from our employees, we have identified opportunities to improve the safety hazards posed by vehicle movements in several of our locations. We plan to more effectively segregate pedestrian traffic from vehicle traffic to reduce potential accidents in our busiest FSCs as well as improving traffic flow. Planned measures include installing speed humps, traffic management and speed monitoring devices. Reconfiguring car parking arrangements and pedestrian walkways will also alleviate impact risks.
- **Pole yards:** In an effort to improve customer response times, we are planning to upgrade pole yards across multiple FSC locations. In most instances, our pole storage facilities are basic, congested and are no longer fit-for-purpose. Planned work will involve increasing the capacity of yards (in preparation for greater pole replacement and installation activities), major ground resurfacing and installation of pole racks and storage facilities. Investment will improve the efficiency of recurring pole receipt, storage, monitoring and dispatch activities.
- **Workspace refurbishment:** We plan to reorganise office layouts and fit-out arrangements to improve efficiencies and productivities. Additional facilities for staff including Rapid Response Crews will necessitate an increase in other facilities such as washrooms, tea stations and parking in order to ensure compliance with the Building Cod of Australia and local Council requirements. Additionally, refurbishment of a number of sites is needed to adequately accommodate increasing staff numbers as a result of greater contractor presence in our facilities and increase in project activity across the network business.

In addition to these specific investments, we expect to incur expenditure necessary to ensure our non-network property portfolio:

- remains in a safe, compliant, efficient condition
- complies with statutory obligations and standards,
- aligns with our strategic objectives and stakeholder expectations.

These costs have been grouped as base capex in the table below.

Table 8-2 Buildings & property capex project breakdown (2019-24)

Expenditure (\$m; real 18-19)	2019-20	2020-21	2021-22	2022-23	2023-24	Total
Supplementary power supply	0.3	0.1	0	0.3	0	0.7
Main communications tower	0.5	1.0	0.1	0	0	1.6
Control Room Refurbishment	1.6	1.6	0	0	0	3.2
Lighting upgrades	0.5	0.5	0.5	0.7	0.5	2.7
HVAC systems	0.5	0.5	1.5	1.4	0	3.9
Building management system	0.2	0.1	0	0.1	0	0.4

Pedestrian safety	0.5	0.5	0.5	0.4	0.4	2.3
Pole yards	0	1	0.9	0.9	1	3.8
Workspace refurbishment	0.4	1	1.1	0.7	0.7	3.9
Base capex	2.9	3.2	3.3	3.1	3.1	15.6
Total	7.4	9.5	7.9	7.6	5.7	38.1

8.2 OTHER NON-NETWORK CAPEX

Our proposed other non-network capex for the next regulatory period is predominantly required to replace items in our FSC and offices that are in poor condition and no longer fit-for-use.

Expenditure is also driven by the need to cater for the growth in external contractors that will work alongside our employees through the Alliance partnership resourcing model. Whilst new major building infrastructure will not be required in the next period, some additional investment in furniture and fittings will be required to accommodate the increase in external workforce numbers and movements at our FSCs and office workspaces. Furthermore, increased contractor access to tools and equipment will drive plant and equipment costs. The cost saving benefits achieved by the new model is expected to considerably exceed the implementation costs, include “other” non-network expenditure designed to facilitate the transition.

A significant proportion of our expenditure will be directed towards reinforcing security protections at many locations. This investment is largely compliance driven and seeks to ensure that physical access and control of our network assets remains restricted to authorised personnel.

Part of our forecast includes expenditure on items that were planned for in the current period but were efficiently deferred. This contributed to spending below the AER’s allowance by \$5.1m (real 18-19). We plan on undertaking these projects in the next period and their costs are reflected in our forecast.

Table 8-3 ‘Other’ non-network capex forecast (2019-24)

(\$m; real 18-19)	2019-20	2020-21	2021-22	2022-23	2023-24	Total
Other non-network capex	4.8	4.7	2.9	3.2	3.2	18.7

8.2.1 PROPOSED INVESTMENTS

The most significant other non-network capex projects planned for the 2019-24 period include:

- **Security locks:** Ongoing transition of all sites and key assets to Masterkey electromechanical key systems as a result of expired patent on existing systems to ensure safety and security of electrical assets, staff and property.
- **Electronic security systems:** Upgrade of integrated security IT infrastructure at a significant number of FSC sites ensuring end of life assets are replaced ahead of failure. Forecast expenditure covers the purchase and installation costs of card readers, door controllers and other associated enabling equipment.
- **CCTV:** Installation of new CCTV systems at multiple sites to provide improved surveillance monitoring and ensure ongoing security and safety of the network and employees.
- **FSC storage solutions:** Significant upgrade of stores facilities across multiple FSC locations to enable greatly improved efficiency in stores management processes. Investment will achieve improvement in customer response times and greater capacity for storage of project related stock.
- **Mechanics workshop:** Replacement of heavy fleet handling equipment in mechanics workshops across a number of locations to ensure end of life assets are replaced prior to failure.

Beyond these specific projects, our forecast incorporates a base capex category of expenditure. This will allow us to undertake base level investment to maintain fit-for-purpose workspaces and support our program of network investment, maintenance and service activities. Base expenditure item include:

- Office furniture and fitting upgrades; and
- Tool and equipment provision and replacement

Table 8-4 'Other' non-network capex project breakdown (2019-24)

Expenditure (\$m; real 18-19)	2019-20	2020-21	2021-22	2022-23	2023-24	Total
Security locking	0.7	0.6	0.5	0.5	0.5	2.8
Electronic security systems	0.4	0.5	0.5	0.2	0.3	1.9
CCTV	0	1	0	0.8	0.2	2
FSC storage solutions	0.9	0.4	0.2	0	0	1.5
Mechanics workshop	0.6	0.6	0.1	0	0.5	1.8
Base capex	2.2	1.6	1.6	1.7	1.7	8.8
Total	4.8	4.7	2.9	3.2	3.2	18.7

APPENDIX A: MAJOR BUILDING & PROPERTY CAPEX INVESTMENTS.

FSC auxiliary power supplies	
Description	Upgrade auxiliary mains supplies; implementation of generator housings for weather protection; installation of remote monitoring and alarms; upgrade switchboards; review generator supported services across the site and reconfigure as necessary; reconfigure UPS units in communications rooms.
Benefits	Provides a reliable emergency supply to enable storm/event response – restoration of power to customers. Safe workplace for staff responding to storms. Reduces maintenance costs of generators by providing improved protection/housing. Investment will contribute to customer service improvements.
Huntingwood communications tower	
Description	Refurbishment to improve the structural integrity of the tower which shows significant signs of decay. Work will involve rust removal/treatment and metal reinforcement at the most vulnerable sections including employee access and attachment points. The project will include a complete repaint.
Benefits	The tower supports SCADA and is a critical component for network functionality. Investment will mitigate tower failure risk and secure our ability to monitor and control the network, comply with our regulatory and licensing obligations and contribute to improved incident response times and other customer service outcomes. Also used by GRN/emergency services (police etc). Refurbishment will prolong the life of the tower and ensure it remains safe as a significant structure well into future regulatory periods.
Lighting upgrades	
Description	Replacement of old fittings with new LED light fittings.
Benefits	Significantly reduced energy costs; significantly reduced maintenance costs (globe changes etc.); considerably longer asset lives and improved reliability. Combined, these will help reduce electricity prices paid by our customers.
HVAC systems	
Description	HVAC systems are nearing end of life – review of design/engineering of existing systems with a view to upgrade, replace/ or renew.
Benefits	Environmental benefits; significantly improved energy efficiency; ensure appropriate levels of comfort for occupants – work health and safety compliance. Investment also will reduce the ongoing costs paid by our customers to maintain our old A/C units and facilitate high levels of workplace productivity.
Building management system	
Description	Upgrade programming and associated equipment such as sensors etc. for the BMS system based on current capability across sites. Connection of additional devices to BMS such as generators providing additional visibility of asset use patterns and increasing opportunities for efficiencies.

Benefits	Improved visibility of issues as and when they occur; improved remote monitoring – allows items to be corrected remotely saving call out and improved response times for staff. Automates some compliance processes required by BCA (e.g. remote testing of fire exit lights). Ability to save cost of power due to ability to turn items off remotely when not in use. Can provide immediate response to requests to turn items on – e.g. A/C when staff are using site after hours. Resulting improvements in the way we manage our buildings and facilities will significantly reduce the costs we pass on to our customers.
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Pedestrian safety

Description	Review of traffic management plans on a site by site basis. Investment is driven by implementing necessary corrective action. Works in multiple sites include design and installation of speed humps, line marking, signage, electronic speed radar, bollards etc. Reconfiguration of vehicle access areas may be made to improve safety.
Benefits	Improved safety and common standards across all our FSCs and offices – maintaining compliance with BCA and WH&S legislation. Investment will predominantly benefit our staff and visitors to sites and will be critical given our FSCs will increasingly be frequented by contractors through our new program delivery model.

Pole yards

Description	Upgrade pole yards including installation of racks and ground resurfacing, lighting, access roads/guttering/kerbs to increase capacity.
Benefits	Investment will enable poles to be stored more conveniently and appropriately. It will: eliminate current constraints such as not being able to carry poles in certain locations at certain times of the day; improve workplace safety across all pole yards; improve response times in emergency events; improve pole monitoring, asset tracking and ordering processes; contribute to completion of network works program in planned/scheduled timeframe.

Workspace refurbishment

Description	Changing business needs and new ways of working necessitates reorganisation of space throughout franchise. Major organisational restructure implemented by our new ownership partners and senior management team target long-term cost savings. Enabling workspace refurbishment investment includes: demolition of existing space; design of new accommodations; installation of workstations; construction of space including office/workspace, meetings rooms, car parks, inventory and spares storage, amenities etc.
Benefits	Refurbishment will achieve optimum workplace operational productivity and maintain compliance to BCA and WH&S conditions. This will help us to facilitate organisational reform and provide services to increasing number of customers at lowest cost.

APPENDIX B: MAJOR 'OTHER' NON-NETWORK CAPEX INVESTMENTS.

Security locks	
Description	Installation of smart, electromagnetic locks throughout all non-network sites to improve the security of our locations.
Benefits	Replacement of system for which patent is now expired – security of assets; public and workforce safety; auditing of access to sites/visibility and automated expiration of keys after a specific period for greatly improved safety. Risks associated with unauthorised operation and control of network assets (classified critical infrastructure by IPART and subject to enhanced licence conditions) will be significantly reduced.

Electronic security systems	
Description	Review of security assets nearing end of life, replace units which are no longer supported/failing with significantly improved technology. Installation of new units where monitoring is required.
Benefits	Significantly improved monitoring of critical infrastructure in accordance with new requirements per Counter Terrorism NSW. Avoids potentially high costs in the event of compromised security and safety.

CCTV	
Description	Replacement of end of life CCTV cameras and monitoring systems with significant improved modern technology. Installation of new units where monitoring is required.
Benefits	Significantly improved monitoring of critical infrastructure in accordance with requirements per Counter Terrorism NSW. Avoids potentially high costs in the event of compromised security and safety.

FSC storage solutions	
Description	Investment aims to address several current identified constraints, unique and common, in several FSCs. Expenditure will include design review, redesign and construction of improved storage – pallet racking, storage systems etc.
Benefits	Greatly improved efficiency in stores management processes, enabling a reduction in overall numbers of store persons and improved receipt, storage and dispatch efficiency.

Mechanics workshop	
Description	In order to comply with Australian Standards, regular inspection of heavy fleet handling equipment is required. Inspection has revealed the need for major repair work of these items. Furthermore, many are approaching end of life and will require replacement during 2019-24.
Benefits	Australian Standards compliance; improved efficiency through using modern equipment/technology; maintain safety standards and processes.