Property Expenditure Forecasting Methodology

2025-30 Regulatory Proposal

Supporting document [5.11.1]

January 2024

SA Power Networks

Empowering South Australia

Contents

Glossary

Term / Abbreviation	Description
ACS	Alternative Control Services
AER	Australian Energy Regulator
AMP	Asset Management Plan Specifies the detailed activities, resources, responsibilities, timescales, and risks for the achievement of the asset management objectives.
Augex	Augmentation expenditure
BAU	Business as usual
Capex	Capital expenditure
EV	Electric vehicle
EWP	Elevated work platform
ICT	Information and Communications Technology
NEO	National Electricity Objective
NER	National Electricity Rules
Opex	Operating expenditure
Property Asset Register	A database that contains details of all property assets owned by SA Power Networks
RCP	Regulatory control period
Repex	Replacement expenditure
SCS	Standard Control Services

1 Introduction

1.1 Purpose

We are developing a program of refurbishment, replacement and expansion activities in consultation with our customers to ensure that the property portfolio enables us to meet the levels of service we are committed to delivering to customers.

This document outlines how we forecast expenditure within SA Power Networks' property portfolio. We set out a structured classification system to categorise different types of property expenditure, and a methodology to forecast efficient expenditure within each category. Our objective is to ensure that our proposed expenditure will prudently and efficiently support the delivery of distribution network services consistent with the needs of our customers.

1.2 Scope

The scope of this document relates to non-network property assets, that is, property assets that are not integrated or embedded in the primary distribution network such as substations.

The SA Power Networks property portfolio comprises six industrial and three commercial office sites located in metropolitan Adelaide, and 23 depots located across the network. The portfolio includes both leased and SA Power Networks-owned properties.

The term non-network property includes:

- buildings;
- land;
- hard stands for car parking and materials storage;
- fencing, boom gates, alarms and other security assets related to property;
- office fit-outs required for fitting standard information and communications technology (**ICT**) infrastructure and client devices (fit-out only); and
- fixed plant assets, such as gantry cranes, compressors, tanks.

The items listed above are included in this forecasting methodology.

The term non-network property does not include:

- network property assets that are directly associated with network infrastructure such as zone substation buildings and land;
- fleet – including Mobile Plant Assets such as vehicles, trucks & mobile cranes;
- ICT systems, infrastructure and client devices; and
- office furniture and tools stored in workshops on property sites.

The items listed above are not included in this forecasting methodology.

1.3 Relationship with other documents

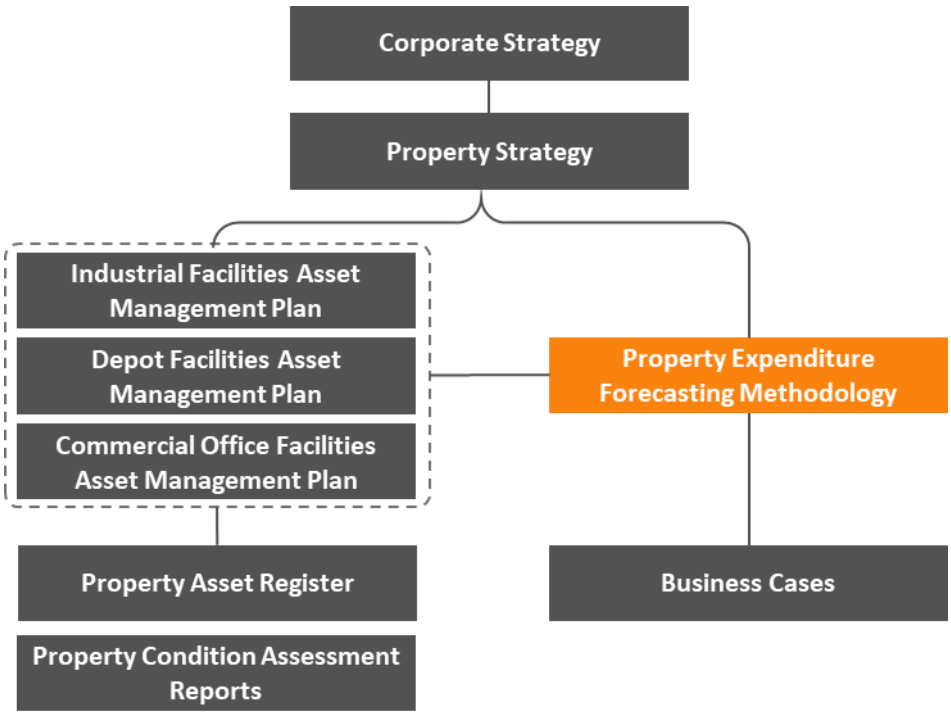
This methodology document supports the property expenditure requirements in the Regulatory Proposal to be submitted on 31 January 2024. As a portfolio-specific framework, this document links our regulatory, corporate and property-specific strategic objectives and property Asset Management Plans (**AMPs**) with the development of forecasts of expenditure required to meet these objectives.

Other property-related documents are listed below.

- **Property Strategy** – provides the strategic direction to optimise the role and value for our property assets in 2025-30 regulatory control period (**RCP**)[1] and beyond.
- **AMP** – we have prepared AMPs for each of three key property asset classes: industrial facilities, operational depots and commercial offices. The AMPs set out our approach to the lifecycle management of non-network property assets.
- **Property Asset Register** – contains data on the age, condition and criticality of all property assets within our portfolio, which informs a schedule of replacement and refurbishment activities for all property assets over time.
- **Condition Assessment Reports** – supporting the information in the Property Asset Register are reports documenting the condition of our property assets, based on assessments of actual condition as at the inspection dates. Information from the reports has been used to inform the operation and asset management strategies set out in the AMPs.

Figure 1 shows where the Property Expenditure Forecasting Methodology resides within the broader framework of relevant documents that set the context for property expenditure within the regulatory proposal to the Australian Energy Regulator (**AER**).

Figure 1: Map of other property-related documents



[1] The period from 1 July 2025 until 30 June 2030.

1.4 Consistency with the National Electricity Rules and guidance from the AER

1.4.1 Consistency with the National Electricity Rules (NER)

Forecast capital expenditure (**capex**) and operating expenditure (**opex**) on our property assets over the 2025-30 period must represent the prudent and efficient expenditure required to achieve the following expenditure objectives from the NER:

- meet and manage expected demand for standard control services;
- comply with all applicable regulatory obligations or requirements associated with the provision of standard control services;
- maintain the quality, reliability and security of supply of standard control services;
- maintain the reliability and security of the distribution system through the supply of standard control services; and
- maintain the safety of the distribution system through the supply of standard control services.

These objectives are addressed by our proposed expenditure in the ways described in Table 1.

Table 1 How property contributes to meeting NER objectives

Objective	Manner of addressing the NER objectives
Meet and manage expected demand	Properties are sized sufficiently and are located appropriately to house staff required to operate and plan the development of the network to meet customer demand for Standard Control Services (**SCS**), in particular new connections.
Comply with regulatory obligations or requirements	The condition and size of buildings meet regulatory obligations, legislative requirements and recommended guidelines for staff working conditions, vehicles clearances and materials storage and disposals.
Maintain quality of supply of services	Properties are available to house crews sufficient in numbers and with appropriate equipment to conduct checks, or install devices to conduct checks, as required, to measure and monitor the quality of standard control services provided.
Maintain reliability of supply of services and of the distribution system	Depots are well-located and provisioned with facilities to keep fully operational vehicles and necessary materials and tools so that field staff can respond quickly to address unplanned network outages and broader distribution network disturbances at short notice. Facilities must also support staff and vehicles for planned network outages for maintenance, repair and construction.
Maintain security of supply of services and of the distribution system	Property facilitates security of service supply and the distribution system by enabling rapid recovery from disturbances and supporting network contingencies. Training facilities ensure that appropriately skilled staff are available, industrial facilities produce and repair the equipment, and depots provide space for buildings, vehicles and field staff to be dispersed across the network.
Maintain safety of the distribution system	Field staff are critical in maintaining safety of the distribution network by repairing and maintaining network elements. Depots provide field staff with a location for their equipment, materials and IT requirements. Industrial facilities provide spaces for equipment to be manufactured and repaired. Commercial offices provide spaces for engineers to plan network improvements.

1.4.2 Consistency with general guidance from the AER

The AER Expenditure Forecast Assessment Guideline[2] sets out the approach and techniques used to assess capex and opex in Regulatory Proposals. In developing this document, we had regard to the approaches that the AER will use in assessing forecasts of capex and opex and aimed to include the information the AER requires to undertake its assessments.

We also recognise the principles set out in the Better Resets Handbook[3], which details the AER approach and expectations in undertaking assessments of forecast expenditure, with the aim of achieving more focused and targeted reviews that deliver consumer-centric outcomes. This forecasting methodology is consistent with the guidance in the Better Resets Handbook; for instance, our methodology for forecasting large non-recurrent projects provides "quantitative cost / benefit analysis to demonstrate that the major projects / programs driving the total forecast maximises net benefits."[4]

By following the AER standard forecasting approaches, providing supporting evidence in line with AER's expectations, and consulting with the consumers, we aim to facilitate a "more efficient regulatory process for all stakeholders".[5]

1.4.3 AER guidance for evaluation of non-network ICT expenditure

In the absence of any specific guidance published by the AER with respect to expenditure related to non-network property assets, we have sought to leverage the key principles in the AER Guidance Note for Non-network ICT capex assessment approach.[6]

ICT and property assets are both classified as non-network assets and play a similar role in supporting and enabling the delivery of SCS provided by SA Power Networks.

Specifically, the ICT capex assessment approach distinguishes between 'recurrent' and 'non-recurrent' capex, with different approaches to assessment. We have adopted a similar approach to the property portfolio by dividing all property capex into two categories:

1. recurrent; and
2. non-recurrent.

We have also adopted the three sub-categories of non-recurrent ICT expenditure for the non-recurrent property expenditure:

1. maintaining existing services, functionalities, capabilities and / or market benefits;
2. complying with new / altered regulatory obligations / requirements; and
3. delivering new or expanded capabilities, functions and services.

Section 4 contains an explanation of the methodology for each category and sub-category of property expenditure.

[2] Australian Energy Regulator, Expenditure Forecast Assessment Guideline for Electricity Distribution, November 2013.
[3] Australian Energy Regulator, Better Resets Handbook, December 2021.
[4] Australian Energy Regulator, Better Resets Handbook, December 2021, p.20.
[5] Australian Energy Regulator, *Better Resets Handbook - cover letter*, December 2021, p.1.
[6] Australian Energy Regulator, *Non-network ICT capex assessment approach*, November 2019.

1.5 Structure of this document

Section 2 – *Property portfolio: description, role and historic expenditure*

Provides a summary of SA Power Networks property assets and the role they play in enabling and supporting the delivery of distribution network services.

Section 3 – *Key interactions with components of the Regulatory Proposal*

Recognises the interactions between expenditure on non-network property assets with other aspects of the Regulatory Proposal for forecast expenditure and other aspects of the regulatory framework.

Section 4 – *Drivers of property expenditure*

Considers the main cost drivers of property expenditure in general and those for the 2025-30 RCP.

Section 5 – *Expenditure forecasting approach by expenditure category*

Sets out the categories of expenditure of property assets in the 2025-30 RCP, and the approach taken to forecasting the appropriate type and level of expenditure within each category.

2 Property portfolio: description, role and historic expenditure

This section describes SA Power Networks' property portfolio, the functions that property assets perform in supporting the supply of electricity distribution services to customers and the historic expenditure on the property portfolio. Further information is available in the three AMPs.

2.1 Description and role of the property portfolio

Maintaining a property portfolio is essential to the delivery of all electricity distribution services to customers. Property sites provide buildings and facilities used to repair the network, conduct network maintenance and undertake network and operational planning. A high functioning portfolio of property assets enables SA Power Networks to deliver reliable and cost-effective services to customers. This is achieved in a manner that creates a safe and constructive working environment for our workforce.

Although the line of sight to customers is indirect for most property expenditure, high performing property assets are important in enabling and supporting the delivery of the network activities that directly impact service outcomes to customers. Table 2 summarises the nature of our property portfolio.

Table 2: Summary of the property portfolio

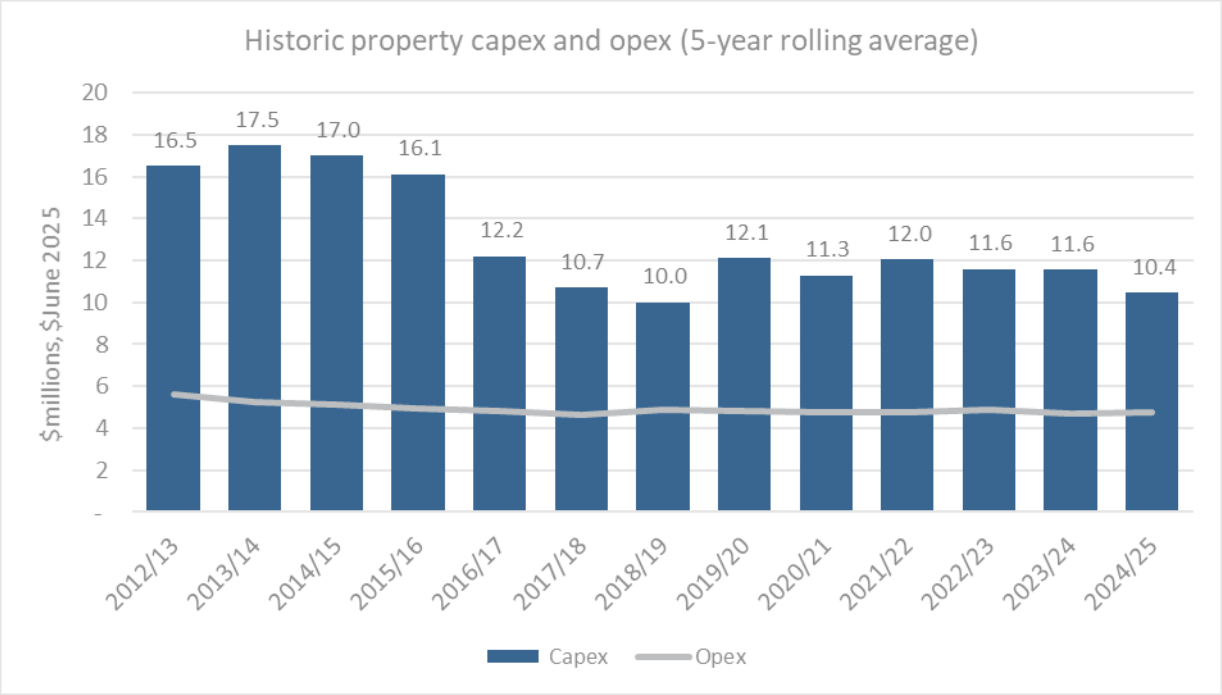
Property portfolio types	Description	Examples of supporting functions to SA Power Networks business operations
Industrial facilities	• Workshop and manufacturing facilities for network plant and equipment. • Testing and maintenance services for network assets. • Bulk equipment storage.	• Manufacturing new network elements such as transformers and poles to be deployed into the network. • Repairing network components and equipment upon breakdown or failure.
Operational depots	• Provide storage for network materials, equipment, tools and vehicles. • Provide a base for Powerline Workers and Customer Supply Restoration activities.	• Housing field crews who respond to local network outages and damage. • Store equipment, vehicles and tools used to repair local network faults network and damage. • Support the delivery of strategic planned projects on the SA Power Networks distribution system.
Commercial offices	• Provide workspaces for all SA Power Networks corporate staff, related to functions such as network operations and planning, finance and regulatory.	• Provide workstations and amenities that are fit-for-purpose for all staff performing their roles. • Provide spaces for internal collaboration between business units, and with external stakeholders.

Most property sites fit neatly within the three portfolio types, although in a number of cases, a combination of functions may occur at the same property. In such cases the property site is assigned to a portfolio type according to its primary function.

2.2 Historic expenditure

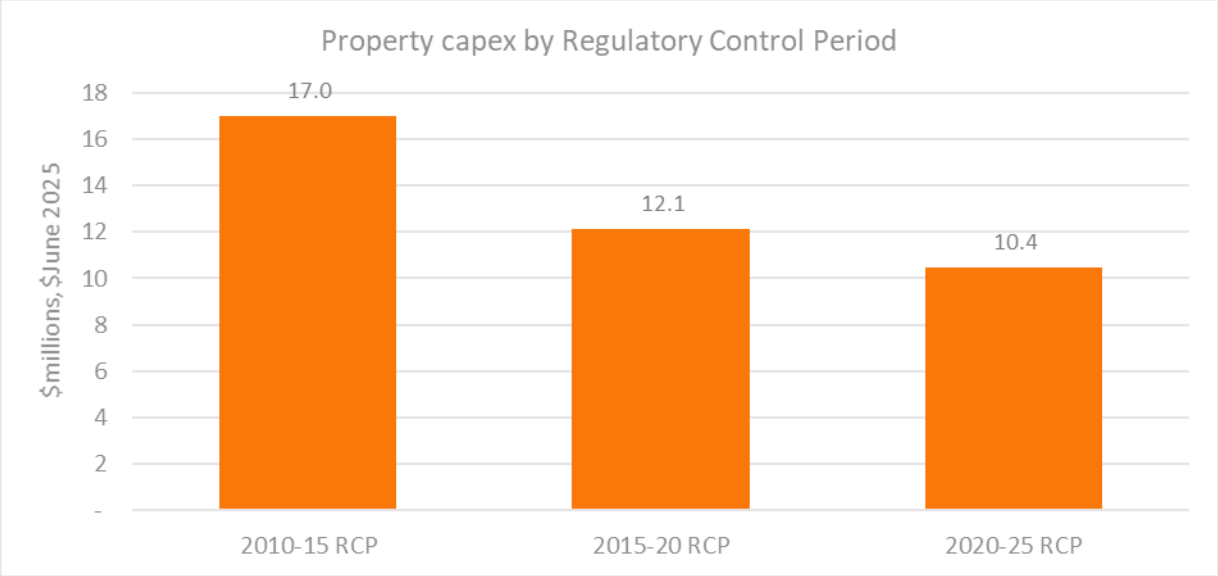
Figure 2 charts historic actual and the current period actual and estimated expenditure using 5-year rolling average, to remove lumpiness. It shows an average of approximately $12 million ($ June 2025) capex and $5 million ($ June 2025) opex on property per annum.

Figure 2: Historic property capex and opex (5 year rolling average), $million, $June 2025



When considered in five-year RCPs as in Figure 3, a decline in capex is apparent. In the period 2010-15 there was an average annual capex of $17.0m ($June 2025), in the 2015-20 RCP the average annual capex declined to $12.4 million ($June 2025), and in the current, 2020-25 period, the average annual capex is expected to further decline to $10.4 million per annum ($June 2025).

Figure 3 Historic average annual expenditure on property in five-year periods



3 Key interactions with components of the Regulatory Proposal

This section describes the property expenditure allocation methods, and the key interactions between the property expenditure forecast and other components of the Regulatory Proposal.

3.1 Cost allocation and capitalisation

Property expenditure is allocated to SCS and Alternative Control Services (**ACS**) using the allocation approaches described in the SA Power Networks Cost Allocation Method[7].

Expenditure on property assets will be classified as opex or capex in accordance with SA Power Networks' Capitalisation Policy[8].

3.2 Opex and capex trade-offs

Opex is forecast and included in the Regulatory Proposal under the AER's standard base-step-trend methodology. In some cases, capex to replace or re-develop a property asset, building or site can reduce future cost to operate and maintain the asset. In other situations, opex on monitoring or maintenance activities can reduce risk so that major capex can be deferred.

Where applicable, business cases for strategic property projects will identify any savings in future opex to be realised as a result of undertaking capex projects. Specifically, most business cases will have an option to defer the strategic project – which is where replacement is delayed to the following RCP, maintenance activities are undertaken in the interim and the costs and risks that arise from delay are assessed and accounted for.

We also note that new property assets may require an increased frequency or increased levels of planned preventative maintenance, whilst older assets rely on increased levels of reactive maintenance to continue functioning effectively. The replacement of an old asset with a new asset may not provide material reductions in maintenance expenditure. However, the performance and future replacement cycles of new assets are more predictable and reliable than those of old assets, allowing for material reductions in the risk of failure and unplanned downtime of assets.

Material reductions in opex forecast to be achieved from the proposed major capex projects, such as due to labour efficiencies, will be reflected in the cost benefit analysis and included in the forecasts of annual opex via a negative step change in the base-step-trend analysis.

3.3 Relationship between property and network expenditure

The quantum, location and nature of network asset replacement and augmentation, and customer connection activities, planned to be undertaken in the 2025-30 RCP will impact the number, size and type of properties required to support and enable the delivery of these programs of work.

We anticipate that an uplift in the replacement expenditure (**repex**) forecast for the 2025-30 RCP will impact our property strategy and expenditure on property assets by increasing the number of and / or size of depots and training facilities.

We have undertaken a detailed review of the resourcing requirements and deliverability of the forecast repex program. To ensure no double counting of costs and benefits between the property and repex

[7] SA Power Networks: Cost Allocation Method, July 2020.
[8] 5.1.6 - Accounting Practices and guidelines manual.

program, expenditure implications for property assets to support the delivery of the repex activities are included in the expenditure forecasts for the property work program, rather than the repex work program .

We are planning to undertake a similar analysis of the augmentation and customer connection expenditure forecasts to identify any additional impacts on the property expenditure forecast.

3.4 Relationship between property and fleet expenditure

Our fleet is used by field crews to respond to electrical issues and outages in the distribution network. Depots must have sufficient space for undertaking basic vehicle maintenance, washing vehicles and storing vehicles, noting that oversized vehicles, such as Elevated Work Platforms (**EWPs**), require extra height. The fleet includes EWPs, Crane Borers, Heavy Commercial trucks, Passenger and Light Commercial vehicles. It is a legal requirement that long vehicles are not parked in municipal streets for longer than 1 hour, unless they are loading or unloading[9], therefore SA Power Networks' vehicles must be stored on depot sites.

Changes to the fleet size and composition will impact the requirements for SA Power Networks' depots, particularly site space. Currently some of SA Power Networks' depots have insufficient space to store the existing fleet. This shortage of space must be addressed in strategic project forecasts for depots.

Depots need to be sufficiently sized to store the right number of large vehicles in parking spaces, provide wash down facilities and future electric vehicle (**EV**) charging points.

It is expected that increases in future requirements for fleet will be primarily associated with supporting our expected uplift in our repex work program. The associated requirements for property will be assessed and included in the respective strategic project as detailed in Section 3.3.

[9] Local Government (Parking) Regulations 1991, clause 27.

4 Drivers of property expenditure

As a supporting function to SA Power Networks' provision of distribution services, our property portfolio must support the organisation's business as usual (**BAU**) activities and respond to the needs arising from our long-term plans and strategic directions, which, in turn, are determined in consultation with our customers with the aim to fulfil our regulatory obligations for the provision of distribution services, comply with the NER and ultimately achieve the National Electricity Objective (**NEO**).

4.1 Overview of property expenditure drivers

Property expenditure drivers are the factors that directly influence property expenditure. The anticipated changes in expenditure drivers result in forecast expenditure changes compared to the current state or create a need for new expenditure. Drivers may relate to existing asset characteristics, market or environmental conditions, regulatory or compliance requirements, and customer preferences.

The main drivers for expenditure on property assets are listed in Table 2.

Table 2: Main drivers of property expenditure

#	Property expenditure driver	Relative importance in the 2025-30 RCP
	BAU operational drivers	
1.	**Age:** As assets age, they generally require increasing levels of maintenance over time, until they are replaced.	High
2.	**Condition:** Poor condition of assets reduces the ability of property to support the supply of distribution services. Asset condition may need to be improved through additional maintenance expenditure to increase its performance.	High
3.	**Risk:** Assets that pose unacceptable levels of risk to continued supply of electricity require expenditure to reduce the risk to acceptable levels.	Medium
4.	**Safety:** Property that is congested, poorly laid-out or no longer fit for purpose, introduces safety risks to staff and potentially damages materials. Expenditure may be required to address safety concerns or rectify issues.	Low
5.	**Security:** Security improvements may be required from time to time to address identified vulnerabilities. For example, there has recently been increased theft of equipment reported across the depots. Implementing measures to reduce theft introduces additional security costs.	Medium
6.	**Inflation in input costs**: Increased costs of labour and materials increase expenditure forecasts.	Medium
	Compliance-related drivers	
7.	**Compliance with critical infrastructure provider's obligations:** As a critical infrastructure provider, SA Power Networks may need to implement a higher degree of physical and cyber security across its distribution network if required as part of its critical infrastructure obligations.	Low
8.	**Legislative:** Currently there is no legislation impacting property expenditure. There may be new legislation or changes to building codes or other regulations, such as related to emissions reductions or climate change adaption.	Low
9.	**Environment and sustainability:** As part of climate change resilience planning, we need to ensure assets remain functional and accessible in adverse climate/weather events.	Low
	Strategic drivers	
10.	**Support for changing business operations:** Changes to business operations, for example, merging of business units, shift to hybrid work, or efficiency-driven business process changes, often require property support such as site reallocations, refurbishments or technological improvements.	High

11.	**Support for repex uplift:** Risk-driven increases in network asset replacements and refurbishments and increases in demand for electricity connections across the network drive the need for new or expanded depots to support both construction and ongoing maintenance of the distribution network.	High
12.	**The views of customers**: Underpinning all expenditure decisions are the voices of our customers. In our decisions on property expenditure we address the identified needs and plan for reliability of supply to customers.	Overarching

4.2 Top three drivers for the 2025-30 RCP

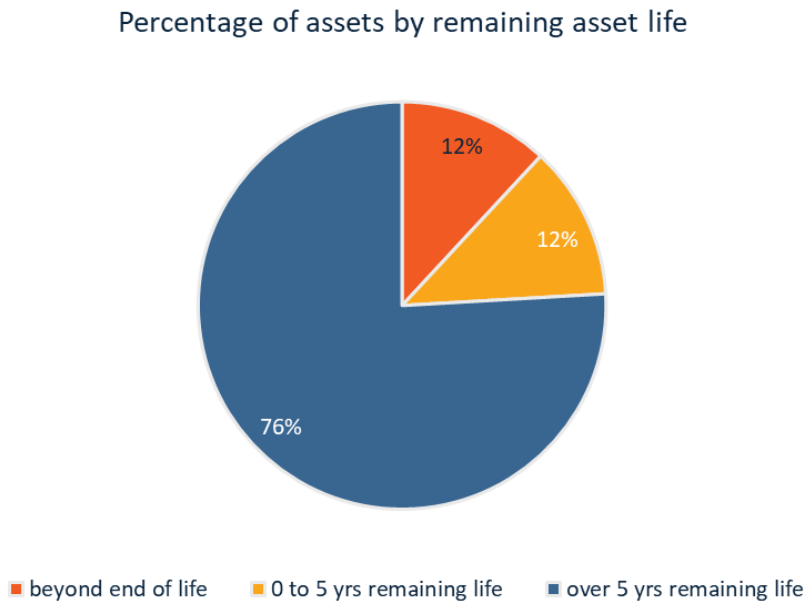
Our analysis indicates that the following are the top three drivers of property expenditure in the 2025-30 RCP:

1. **Ageing of property assets** – ageing and condition deterioration of a large number of assets associated with old buildings, and the associated implications regarding risk of failure, safety issues or non-compliance, are the most significant drivers of expenditure on property assets;
2. **Support for changing business operations** – changes to business operations, for example, merging of business units, efficiency-driven business process changes, shift to hybrid work post pandemic including increased numbers of staff partially working from home etc may require changes to building layouts, site reallocations, refurbishments or technological improvements; and
3. **Support for repex uplift** – new or expanded depots may be required to support the network field work and operations.

Ageing of property assets

Figure 4 shows the remaining asset life for SA Power Networks property portfolio. As of 2022, approximately 12% of assets are beyond their lives and another 12% will be aged beyond their remaining lives during the next five years, totalling approximately a quarter of all SA Power Networks assets.

Figure 4 Remaining life of property assets



Support for changing business operations

The business is transitioning to an asset lifecycle approach and will include managing buildings and infrastructure assets through a planned, long-term view that is adaptable and scalable to meet the changing business drivers over time. Establishing more permanent hybrid style working arrangements is one such example. This can include changes such as increased numbers of staff partially working from home and may require changes to office and building layouts and furnishing requirements such as the provision of more, collaborative workspaces, hot-desks and the systems to support bookable workspaces.

Other changes to operations include optimising the efficiency, utilisation and performance of existing sites and buildings, changes to the business risk management approach, merging or reduction of business units, reducing or deferring the need for new sites, and meeting changes to the business strategic objectives.

Support for repex uplift

As discussed in Section 3.3, we anticipate that an uplift in repex forecast for the 2025-30 period will impact our property strategy and expenditure on property assets by increasing the number of and / or size of depots and training facilities. The key considerations driving property expenditure to support the repex program are:

- **Location:** Depots need to be located in the vicinity of forecast network asset expansions and replacements. Proximity to network locations where replacement, repairs and augmentation activities take place is an important feature of depot facilities and additional expenditure may be required to relocate or rebuild facilities to optimise travel time or facilitate work bundling.
- **Size:** Properties need to be of sufficient size to house forecast numbers of staff, equipment, materials and vehicles. Funding is required to expand or relocate depots to a larger site, if they are too small to serve the local needs of the network based on levels of customer demand for new connections and reliability.

5 Expenditure forecasting approach by expenditure category

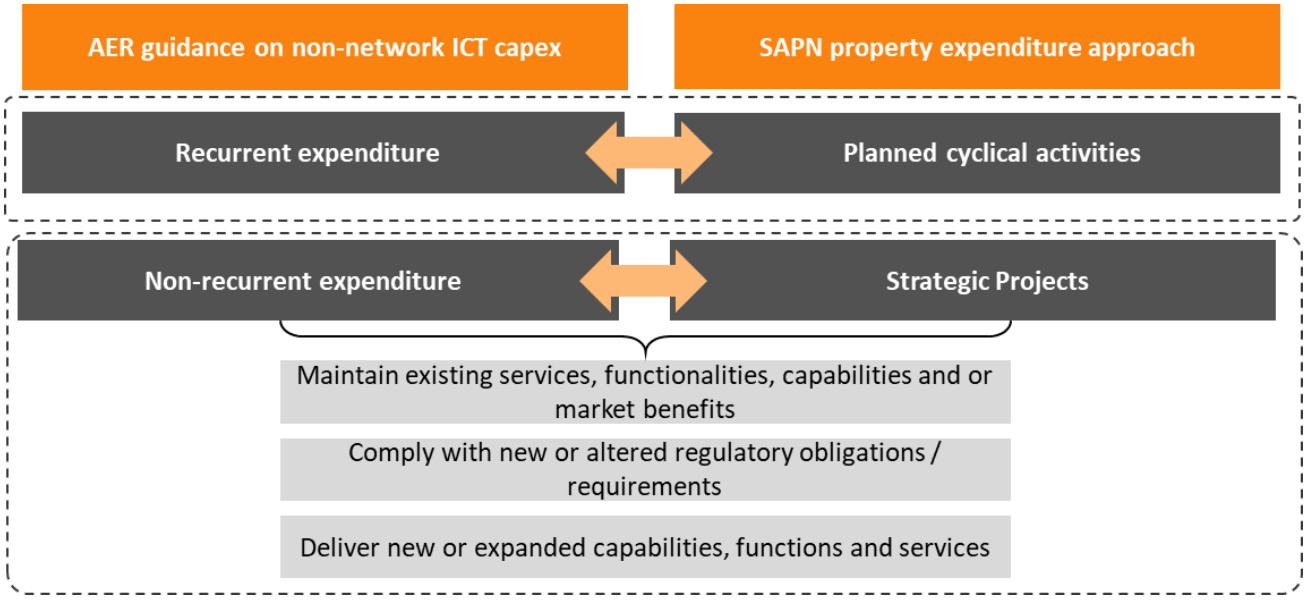
This section discusses our approach for forecasting property expenditure across recurrent and non-recurrent categories. This expenditure classification applies across all three property portfolio types described in Section 2.1: industrial facilities, operational depots and commercial offices.

5.1 Categorisation of property expenditure

SA Power Networks categorises work activities and the associated expenditure on property assets into the following two categories: i) planned cyclical replacement and refurbishment activities; and ii) strategic projects. These two streams of work are consistent with the categorisation in the AER non-network ICT capex assessment guideline, with planned cyclical activities corresponding to recurrent expenditure and strategic projects corresponding to non-recurrent expenditure (Figure 5). Consistent with the AER guideline, strategic projects are further divided into the following sub-categories:

1. maintain existing services, functionalities, capabilities and/or market benefits;
2. comply with new or altered regulatory obligations / requirements; and
3. deliver new or expanded capabilities, functions and services.

Figure 5: Adopting the principles of the non-network ICT approach to non-network property expenditure



While applying the general principles of the AER's ICT guideline, we recognise that there are differences in the function and nature of property compared to ICT assets, which has implications for the nature of expenditure associated with each asset type. In applying the principles of the ICT approach, our approach to property expenditure reflects the specific characteristics of the assets to which the spend relates. In particular, the recurrent expenditure category contains some maintenance activities that recur with a frequency longer than the five years used for ICT because property assets generally have longer expected lives than ICT assets.

The categories and sub-categories of property expenditure are explained in the following sections.

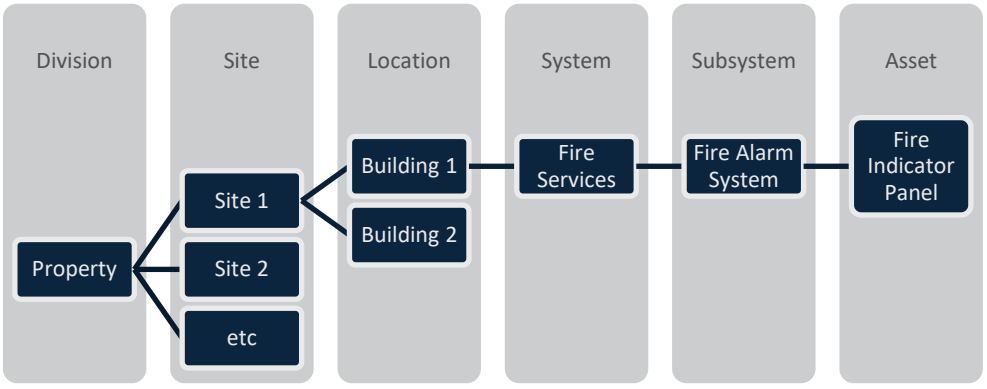
5.1.1 Recurrent expenditure: planned cyclical activities

Recurrent expenditure encompasses planned cyclical activities undertaken to retain existing functionality, capability and service levels, and occur on regular cycles. Our recurrent property expenditure consists of two programs of work: Building Renewal and Asset Replacement / Refurbishment (Figure 6). The need to rebuild one or more depots exists in every RCP due to a large number and different ages of depots, and therefore the entire Building Renewal Program is classified as recurrent[10].

Figure 6: Recurrent and non-recurrent programs of work

Each property asset is identified and listed in the Property Asset Register, assigned to an asset sub-system in accordance with the asset hierarchy (Figure 7) and linked to the building and site address. The activity to maintain the functionality of each asset is documented in the Property Asset Register, which conforms to industry benchmark standards. The associated frequency of each maintenance activity is noted.

Figure 7: Property asset hierarchy



The age, condition and remaining life of each asset are recorded in the Property Asset Register, and the asset's condition is periodically assessed and updated. An additional assessment is conducted to determine the risk and criticality of the asset to the operations of SA Power Networks.

Using the information on age, remaining life, condition and risk / criticality, a schedule of planned cyclical replacement and refurbishment activities is determined for each asset.

[10] Except for larger one-off rebuilds considered strategic in nature.

5.1.2 Non-recurrent expenditure: strategic projects

Non-recurrent expenditure (also referred to as Strategic projects) includes less frequent replacements and larger value facility upgrades to address specific business requirements, which are strategic projects that do not fall under planned cyclical works in recurrent expenditure. Strategic projects are categorised according to the AER sub-categorisation for ICT capex:

i. **Maintain existing services, functionalities, capabilities and/or market benefits.**

   Strategic projects in this sub-category include:

   - aggregated programs of work to undertake off-cycle replacement or refurbishment of multiple assets, driven by business operations requirements or efficiency considerations; and
   - major once-off building works, such as a once-off re-building of an existing site or re-location to a new site, where existing functions are sought to be maintained[11].

ii. **Comply with new/ altered regulatory obligations / requirements.**

   Currently there is no forecast expenditure attributable to this subcategory. Over time, however, the following requirements may arise:

   - **regulatory/legislative changes:** An example is the current Federal Government focus on the electricity industry to transform to reduce carbon emissions whilst becoming increasingly important in adaption to climate change, such as for air-conditioning;
   - **new building standards** that are mandatory for existing structures, eg, asbestos replacement; and
   - **requirement for older buildings to comply with the current standards:** Previous changes to building standards are not always implemented by SA Power Networks at the time they are introduced. In most cases new planning regulations do not apply retrospectively to buildings already in place. However, when a building is replaced it must be built to comply with the latest standards in place. Many of the older buildings SA Power Networks owns do not meet current standards. SA Power Networks routinely assesses property to consider the continued use of buildings that don't comply with current standards. Over time the risks to safety and liability costs escalate. This is a key driver of condition ratings and a reason to rebuild aged facilities.

iii. **Deliver new or expanded capabilities, functions and services.**

   Strategic projects that increase capabilities are expected in high growth corridors where a new facility needs to be built or significant new network support is required.

To identify strategic projects for the 2025-30 RCP, we will consider the following factors:

- the locations where forecast demand for distribution connection services are expected to grow, such as in the southern region;
- expected changes in technology, the impact on electricity demand for load and export, the associated impact on and property; and
- customer requirements.

These factors will be compared with the current condition and age of assets within a building or site, and the criticality of assets to support network operations and development across the portfolio.

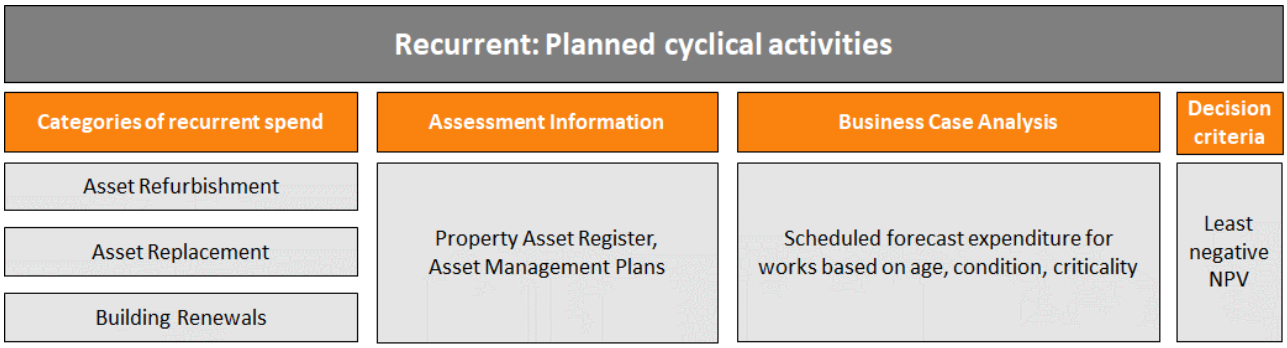
[11] Note that the majority of depot rebuilds fall under recurrent category due to the recurrent nature of the Building Renewal Program.

5.2 Approach to expenditure forecasting and assessment

5.2.1 Recurrent expenditure: planned cyclical activities

Figure 8 summarises our approach to forecasting recurrent expenditure, and our decision criteria.

Figure 8: Assessment approach for recurrent property expenditure



Our approach to forecasting recurrent expenditure is based on a bottom-up cost build-up in accordance with planned replacement cycles set out in the AMPs, supplemented with historical expenditure analysis. We will develop a business case for the program of work for planned cyclical activities. The business case will set out the forecast costs by asset system and explain how the forecast was prepared including replacement age, condition and criticality. Options considered will seek to maintain risk at an acceptable level while prolonging lives of assets by optimising timing and scope of refurbishment cycles.

Deciding which assets to replace or maintain at which locations and when that activity should be undertaken is driven by asset age, condition and risk/criticality, as explained in the following sections.

Asset age and condition

A program of building condition assessments was completed by KPMG independent Building Inspectors between September 2021 and June 2022 to develop a robust source of information about the condition of our property assets. The assessment involved physical inspections of the condition of our property assets, following which the assets were recorded in the Asset Register and assigned a condition rating using the rating system documented in the Institute of Public Works Engineering Australasia Guidelines.[12]

[12] Institute of Public Works Engineering Australasia Building Condition and Performance Assessment Guidelines – Buildings Practice Note 3 v2 2016. These ratings assist practitioners in applying best practice for condition assessment for various asset classes and to foster a national approach and encourage consistency of data and outputs and are intended to be used by local government, public works or other organisations (public or private) that rely on a number of buildings and related properties throughout their overall asset portfolio, in order to provide the services that are demanded of them by the community stakeholders, they serve. This includes Works depots, Administration Centres and public works entities, rely on buildings and property as a part of that service delivery mechanism.

Table 3: Asset condition rating system

Condition	Description	Explanation	2025-30
1	Very Poor/Failed	Very poor, potential structural, operational problems or not operational. Major defects, wear and non-compliance exist. Extensive defect of wear, 20% to 0% of asset useful life remaining. Cost to maintain is no longer viable. Replacement essential. Equipment outdated or redundant technology that are less efficient compared to modern equivalent.	Targeted for replacement
2	Poor	Poor, significant defects, wear and non-compliance exist. Rehabilitation of asset required. Component replacement more costly than maintenance. 30% to 20% of asset useful life remaining. Equipment operating on older technology and less efficient compared to modern equivalent.	Targeted for replacement
3	Fair	Fair, wear and degradation to external surfaces required maintenance Defects or wear to 5% to 20% affected. 60% to 30% of asset useful life remaining. Equipment operating on older technology and less efficient compared to modern equivalent.	Continue planned preventative maintenance
4	Good	Good, minor defects, ear and non-compliance exist. Little to no impact on operation or intended use. 80% to 60% of asset useful life remaining.	Continue planned preventative maintenance
5	Excellent	Excellent. No defects.	Continue planned preventative maintenance

The Property Asset Register sets out the activities required to be undertaken on a cyclical and forward-looking basis. It is updated periodically to reflect the current replacement activities as assets progress through their life cycles and conditions change.

Age, condition and criticality provides a current view of the asset status (as an overall score) and indicates the most effective type of intervention. The scores provided by the framework for each property are comparable across the entire portfolio and provide the rationale for strategic decision making.

Asset selection for cyclical replacement and refurbishment

The program of work activities for cyclical replacement and maintenance of property is based on our Risk Management Framework[13] and is applicable to all business activities, including to identify and mitigate risks for each property asset class. This Framework is aligned with AS/NZS ISO 31000:2009.

The data in the Property Asset Register contains records of the asset age, remaining life, condition and criticality of the asset. Asset age is used as an indicator for cyclical replacement, but condition and criticality dominate the decision-making for replacement timing:

- critical assets are those property assets that are essential to support SA Power Networks' operations, defined by a high-risk consequence in the event of failure, with likely implications for service delivery, safety or compliance; and
- asset age, condition and critically are rated to assist in determining whether maintenance or replacement is the better approach for the asset to continue to function effectively.

[13] Refer to SA Power Networks Risk Management Framework.

Our strategy is to replace assets based on:

- performance – where performance fails to meet the required level of service due to poor condition of the asset, in terms of reliability, capacity and efficiency;
- economic considerations – it is no longer cost effective to continue repairing or maintaining the asset; and
- risk – the risk and consequence of asset failure in terms of financial, environmental and social impact as a result of inaction.

Where the performance, economic and risk outcomes of deferring replacement, with consideration of the age, condition and criticality of the asset, allow us to continue distribution operations out of depots and facilities, we will defer replacement and continue with planned preventative maintenance.

The costs for undertaking replacement and maintenance activities are listed in the asset register. The costs are based on SA Power Networks actual per unit costs paid under competitively awarded contracts. The fixed term five-year maintenance contract for undertaking maintenance activities is with a well-known, experienced competitive market service provider and reviewed annually to reflect inflation. Forecast costs will reflect forecast inflation in the construction industry consistent with construction rates used in other parts of regulatory submissions.

5.2.2 Non-recurrent expenditure: strategic projects

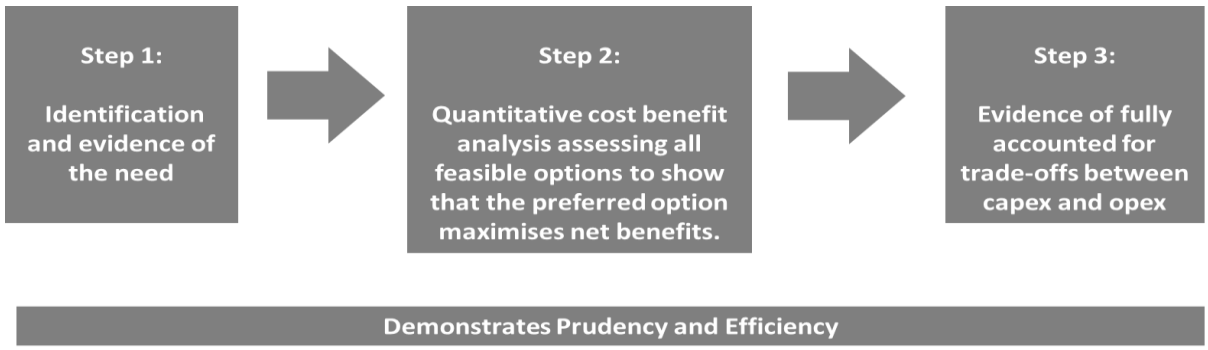
Table 4 summarises our approach to forecasting non-recurrent expenditure and our decision criteria

Table 4: Expenditure forecasting approach for non-recurrent property expenditure

Non-recurrent: Strategic projects				
	Sub-categories of non-recurrent property expenditure	**Base case**	**Options**	**Decision criteria**
1	Maintain existing services, functionalities, capabilities and / or market benefits	BAU recurrent planned cyclical replacement and maintenance	Option 0: BAU Option 1: Re-build in situ Option 2: Build at new site Option 3: Delay	Highest NPV (ie, the least negative or the most positive NPV: options with negative NPV are acceptable in this sub-category)
2	Complying with new /altered regulatory obligations / requirements	BAU recurrent planned cyclical replacement and maintenance	Option 1: Comply (Note: several compliance options could be put forward)	N/A if only one compliance option is available Least negative NPV if more than one compliance option has been identified
3	New capability, functions and services	Do nothing	Option 0: Do nothing Option 1: Build at new site Option 2: Delay	The most positive NPV (projects with negative NPV will not be considered)
	Expanded capability, functions or services	BAU recurrent planned cyclical replacement and maintenance	Option 0: BAU Option 1: Redevelop in situ Option 2: Build at new site Option 3: Delay	

Our approach is based on the AER recommended process used to forecast expenditure for key capital expenditure projects as set out in Figure 9.[14]

Figure 9 Process to demonstrate prudency and efficiency of key projects and programs



[14] AER (2021) Towards Consumer Centric Network Proposals p.21.

We use a range of information to identify requirements for the strategic projects to be undertaken in the next RCP. Cost benefit analysis is an important tool to assist decision making. The decisions about which assets at which locations need to be replaced and when, are made with consideration of the relative net benefits of different options. The business cases will compare options with a BAU or a 'do nothing' counterfactual. Depending on the sub-category of non-recurrent expenditure, the decision criteria will be either the least negative NPV, where no or few benefits are evaluated, or the relative value of the benefits is low, or the most positive NPVs, where the value of benefits are quantified and surpass the costs.

Deferred timing for undertaking a strategic project is considered as an option, and the NPV is compared against completion of the project in the 2025-30 RCP to determine the optimal timing.

Strategic projects that maintain existing services, functionalities, capabilities and/or market benefits

Projects to maintain existing capability at a site generally involve many assets in poor condition, which are efficient to replace within a short timeframe managed as a single project. In many cases, the options of re-developing at the site or re-building at another site will likely deliver higher NPV relative to BAU maintenance. Most of SA Power Networks strategic projects are in this category.

Identified need

The identified need is to maintain the capabilities of the operations of the property in alignment with future requirements. The identified need will vary depending on function that the site performs. For example, the identified need for depots is to deliver the functions of storage and warehousing. The identified need for a workshop facility is to manufacture and repair equipment.

Base case and options

The options for strategic projects that maintain existing capability are assessed against a base-case counterfactual of BAU maintenance. The BAU option is the scenario where the strategic intervention to re-develop, re-build or re-locate the property is not undertaken, and instead the existing assets continue to be managed in accordance with the schedule developed under the recurrent expenditure program of cyclical replacement and refurbishment.

The strategic options that are relevant and credible to address the identified need will vary depending on the nature of each project. The following options represent a generic set of options that may be assessed for a strategic project that maintains existing services, functionality or capability:

- Option 1 – re-development in situ;
- Option 2 – build at new site; and
- Option 3 – delay build.

Decision criteria

Assessment of the strategic options against the base case seeks to validate that deviating from the BAU scenario to undertake a strategic project represents an efficient and prudent course of action to maintain existing capabilities.

These strategic projects are largely driven by asset age, condition and criticality. Therefore, it is unlikely that material new benefits will be realised in undertaking the work, or if there are benefits, their value will not exceed the costs. As such, the options will likely be assessed on the basis of least cost and the option selected will represent the least negative NPV to meet the identified need.

Strategic projects to comply with new or altered regulatory obligations or requirements

At this point in time, there are no strategic projects that address new regulations or obligations. Generally these projects are not discretionary so the least cost solution that addresses the issue at hand is appropriate.

Strategic projects to deliver new or expanded capabilities, functions and services

These projects include upgrades to facilities at one or more sites to address a future need that cannot be addressed by the existing property portfolio.

Examples include:

- adding a new depot to a site, that is not a relocation from elsewhere;
- consolidating seven separate substation maintenance and ancillary services teams to be brought together in a co-located facility to improve efficient work practices; and
- network replacement expenditure requiring two new depots and a new training facility.

Identified need

The identified need for the strategic projects within this category involves a requirement to support additional or expanded services, or a new type of capability being provided by SA Power Networks. Customer requirements for new connections and the impact of network replacement activity on facilities are relevant to forecasting expenditure requirements in this subcategory.

Base case and options

Strategic projects that aim to deliver new or expanded functions or capability may be assessed against a base-case counterfactual of 'do-nothing' if that is deemed to be more appropriate than the BAU replace and maintain. This is because the asset may not exist, or may not require significant maintenance to continue functioning. It may simply need to be expanded to meet future network requirements.

The strategic options that are relevant to address the identified need will vary across each project. As such, we will tailor the options that are defined and assessed to the nature of each project. The following options represent a generic set of options that may be assessed for a strategic project:

- Option 1 – re-development in situ;
- Option 2 – build at new site; and
- Option 3 – delay build.

Selection of preferred option

Assessment of the strategic options against the base case determines whether deviating from the schedule of planned replacement and maintenance to undertake a strategic project, will realise additional benefits.

The option selected will represent the highest NPV to meet the identified need.

For some projects, there may be relevant non-quantifiable benefits that are important to take into account. These are benefits that arise from undertaking the option for which there is not a robust means of quantifying the level of the benefit to include in the cost benefit analysis. Where the benefit is credible, the business case will describe in detail the nature and likely impact of the benefit associated with undertaking

the project. We will include non-quantified benefits in our decision making, which may lead to selection of an option that has not produced the highest NPV in some cases. Any assumptions about non-quantified benefits will be clarified and supporting materials provided as evidence of the reasons for the assumptions.

5.3 Cost estimation

Cost estimation process for property follows SA Power Networks broader governance process for Asset Management and Service Delivery and targets the realisation of 'value for money' for all stakeholders by seeking to determine the efficient project cost to deliver the scope of works.

Forecast costs of property assets works across the planned replacement and refurbishment activities are estimated internally and validated against the rate cards of the outsourced service provider selected from SA Power Network Vendor Panel to undertake the work.

Forecast costs for strategic projects are estimated using the unit costs for 2022 labour and materials in the construction markets, building size and type, previous experience in actual costing.

5.4 Benefit estimation

Forecasting the value of benefits uses high level data from across the business, as well as data that is specific to the strategic project being evaluated. SA Power Networks cost-benefit analysis model clearly identifies any assumptions that are used to quantify benefits.

Table 5 describes the value dimensions that reflect broad categories into which the benefits from property expenditure can be allocated. Where feasible and appropriate, these benefits are evaluated for each option to align the benefits with the National Electricity Objective (NEO).

Where benefits accrue to SA Power Networks, such as from operational efficiencies, these will offset operational expenditure and flow to customers through lower prices. The benefits that accrue to customers from the value dimensions such as environment or customer value of reliability (which are not a financial transfer in the form of lower charges) are realized by customers when SA Power Networks delivers the preferred project and the environment is protected or reliable services are delivered.

Table 5: Value Dimensions for the Property Portfolio[15]

Value Dimension	Scope for Property	Description
Reliability	Property assets, particularly depots, contribute to the reliability of the network by supporting field staff to respond and repair network outages faster.	• Avoided cost of loss of supply
OH&S	Properties have an important role in safety outcomes. Well maintained properties that are in good condition and in appropriate locations create safe workplaces.	• Avoided OH&S cost / value of avoiding personal injury and death for staff and public
Environment	Environment captures the impacts that property has on the land, water and air quality, including CO2 emissions. An example is energy efficiency improvements.	• Greenhouse gas emission remediation cost
Bushfire	Property, particularly regional depots, significantly contributes to bushfire restoration activities.	• Safety consequences • Property damage • Environmental damage
Compliance	Compliance accounts for the costs incurred for not complying with legal and/or regulatory obligations	• Avoided cost of non-compliance

[15] Consistent with the value dimensions in SA Power Networks Value Framework

Value Dimension	Scope for Property	Description
Operational Benefits	Replacing old property with new property will result in reduction of maintenance expenditure. In addition, there are annual operational savings (e.g. improved labour productivity) resulting from new property asset installed and operating on the network. This is relevant for new depots located to support network replacement	• Avoided opex • Avoided capex • Productivity benefits (employee productivity based on saved time)
Asset	Assets relate to the direct financial cost to the network operations that occur because of asset failures, separate to reliability impacts.	• Avoided cost of procurement • Avoided cost of theft • Leasing cost of land

5.5 Deliverability

In structuring the identified activities into a sequenced program of work to be undertaken in the 2025-30 RCP, we have given consideration to the level and nature of property works that can be delivered, noting the availability of resources and materials.

We outsource the delivery of capital and maintenance works on our property assets. Both Capital Construction and Operational Maintenance are undertaken by outsourced service providers. Administration and Project Management functions are undertaken by internal SA Power Networks resources.

We have existing arrangements in place with a number of suppliers in the market to provide resources or skills as required, noting that specialised electrical skills are not generally required for the majority of property works. Vendor Panels are in place with suppliers for Architecture, Engineering, Trade and Building Works. Appointment of each supplier to panel is subject to a process of negotiation to ensure the contracted arrangement reflects the efficient cost to procure the resources as and when required.

In developing the proposed program of work, we have assessed the optimal timing and resourcing of all proposed strategic projects. The total program of expenditure has been considered in terms of the timing and site location of each item. The register of works in each year at each site are then assessed against:

- forecast resource availability; and
- other items of work to be undertaken at similar points in time or at the same site.

Through this assessment, we undertake pro-active workforce planning by seeking to identify gaps in resource capacity and opportunities to achieve cost efficiencies in the delivery of multiple items of work.

5.6 Sensitivity analysis

Sensitivity testing will be undertaken to ensure that the rankings of the options are robust to changes in input parameters. This provides confidence that the identification of the preferred option is the most prudent option for the project, under the difference scenarios. In particular, sensitivity on customers benefits will be important to ensure the impacts on customers are correctly included, particularly where the valuation is dependent on assumptions.

Sensitivities considered will consider the nature of the costs and benefits applicable to each property site. High and low scenarios will be tested around key cost and benefit values. For costs, the key variables that will be tested are input costs for labour, services and materials. For benefits, the high value benefits, particularly where assumptions are made, will be tested. Costs and benefits will be adjusted for expected inflation.