Business case: Port Augusta

2025-2030 Regulatory Proposal
Property Portfolio

Supporting document 5.11.10

January 2024

SA Power Networks

Empowering South Australia

Contents

Glossary

Acronym / term	Definition
AER	Australian Energy Regulator
AMP	Asset management plan
BAU	Business as Usual
BSO	Business Services Officer
CAB	Community Advisory Board
Capex	Capital expenditure
CBA	Cost Benefit Analysis
CBD	Central Business District
EV	Electric Vehicles
EWP	Elevated Work Platform
FY	Financial Year
LV	Low Voltage
MCA	Multi Criteria Analysis
NPV	Net Present Value
OH&S	Occupational Health and Safety
Opex	Operating expenditure
PV	Photovoltaic
RCP	Regulatory Control Period
REPEX	Replacement Expenditure
SMAS	Substation Maintenance Ancillary Services
TSWE	Trade Skill Worker Electrical

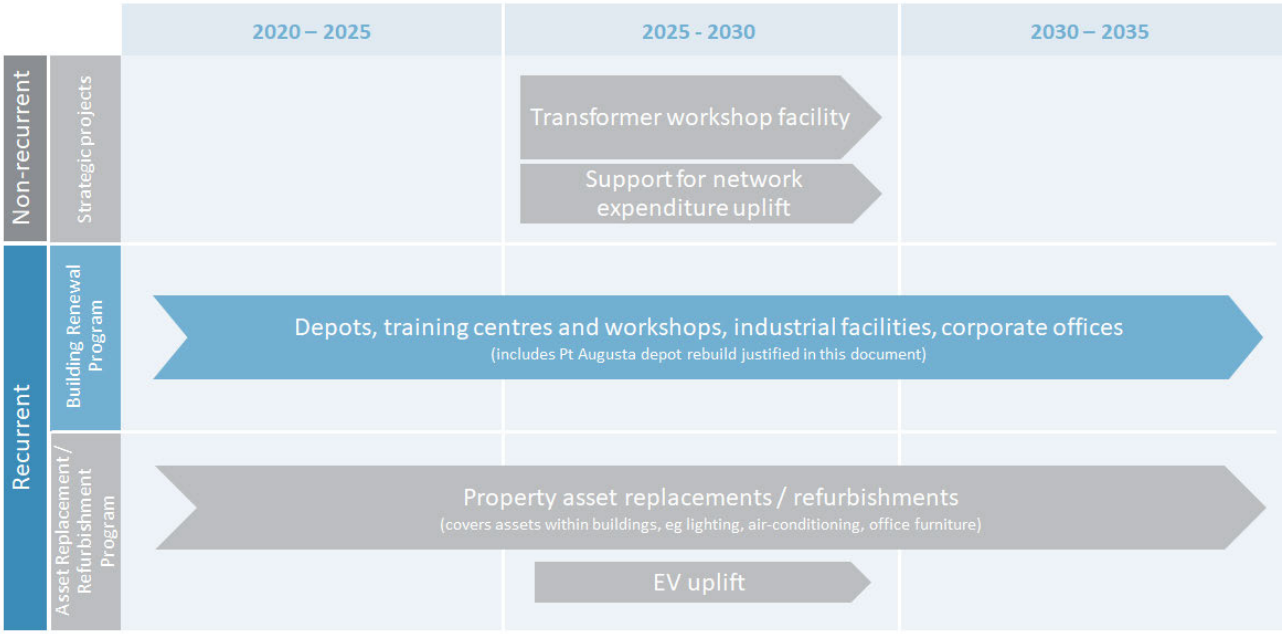
1 About this document

1.1 Purpose and context

This business case supports SA Power Networks' Regulatory Proposal for the 2025-30 Regulatory Control Period (**RCP**). It describes the drivers for investment in the Port Augusta Depot, analyses the potential options to address the identified need and sets out the preferred investment option. The options assessment is based on cost benefit analysis (**CBA**) and risk assessment, supplemented by multi criteria analysis (**MCA**).

The investment in the Port Augusta Depot forms part of our recurrent Building Renewal Program (Figure 1). Therefore, the expenditure set out in the preferred option of this business case has been included in the preferred option of the Recurrent property expenditure business case[1], which covers the entire program of the ongoing investments in the property portfolio.

Figure 1: Property expenditure classification and investment roadmap



1.2 Expenditure category

- Non-network capex: property (recurrent)

1.3 Related documents

Table 1: Related documents

Ref	Title	Author	Version / date
5.11.13	Property Condition Assessment Report 12 Chapel Street, Port Augusta	KPMG Property & Environmental Services Pty Ltd	14 December 2021
5.11.1	Property Expenditure Forecasting Methodology	SA Power Networks	January 2024
5.11.7	Property Recurrent Business Case	SA Power Networks	January 2024

[1] SA Power Networks, *Recurrent property expenditure business case*, August 2023.

2 Executive summary

The Port Augusta Depot was built in 1965 and is one of our Operational Works Depots. It serves 10,507 customers living and working within an area covering more than 37,000km^2. Field crews operate from the site by providing planned and unplanned restoration and repair work services to the distribution network in the Port Augusta and the surrounding mid-north region.

The identified need for the Port Augusta Depot is for an operational works depot that is of sufficient size, appropriate location, and capacity for the storage of Network equipment and facilities for field crew to meet the operational and customer needs and supports safe movements of staff and vehicles to and from the site and in the surrounding area. Addressing the identified need will maintain existing services and functionality of the Port Augusta Depot.

There are four drivers underpinning the case for strategic investment into the Port Augusta Depot:

1. **condition and asset life of the current site**: the current depot facilities are operating beyond their expected useful lives and require significant refurbishment;
2. **capacity constraints:** the current depot facilities are incapable of meeting the current service need in terms of storage and inventory requirements with no option for expansion;
3. **vehicle access:** the current facility's location in the middle of the CBD retail precinct presents access challenges for our staff and heavy vehicles and an increased safety risk to the community; and
4. **site congestion:** the current site is poorly configured, resulting in site congestion issues.

Three options were considered that would address the identified need. These were compared against the business-as-usual (**BAU**) base case. Each option was analysed on the basis of the incremental changes relative to the base case. The BAU base case is considered to not be a credible or sustainable option for investment because it does not address the identified need and will exacerbate the operational constraints.

The three options were:

1. **option 1: rebuild on the same site**, which requires demolition of the existing depot buildings and replacement with new buildings and layout configuration changes;
2. **option 2: build at a new site**, which involves remediation and sale of the existing site, purchase of an outer suburban site and construction of new buildings and hardstand[2] area; and
3. **option 3: lease a new site,** which involves leasing a suitable depot site and fitting out the site with suitable building offices and facilities.

The options are assessed via a CBA, which considers monetised costs and benefits, supplemented by an MCA, which assesses costs and benefits that are challenging to quantify, and a risk assessment. The results of the assessment are presented in Table 2.

The timeframe for assessment used for the CBA was 30 years commencing in July 2025. The costs and benefits are incremental to the BAU.

[2] Hardstand – refers to heavy duty bitumen or concrete pavement to facilitate heavy vehicle movements and storage of plant and equipment

Table 2: Summary of assessment ($m, June 2022 real, 30-year period, 4.05% discount rate)[3,4]

Option	RCP 2025-2030 Costs		30-year costs		30-year benefits	30-year NPV[5]	MCA Score	Risk Level	Rank
	Capex	Opex	Capex	Opex					
Business as Usual (BAU) Base Case	-	-	-	-	-	-	-	High	Not Credible
Option 1: Rebuild at the same site	$7.8	$0.9	$7.8	$0.9	$4.8	-$5.2	13/30	Medium	2
Option 2: Build at a new site	$8.7	$0.0	$8.7	$0.0	$18.6	$3.1	**23/30**	**Medium**	**1**
Option 3: Lease at a new site	$1.6	$6.1	$1.6	$36.9	$16.3	-$12.2	21/30	Medium	3

We also engaged extensively with our stakeholders, customers and community to inform our assessment and seek feedback on our preferred investment options. We adopted a multi-stage engagement program to develop our expenditure forecasts over five iterations over two years with our customers, in a transparent, objective and outcomes-focused manner. We asked customers to help us determine what services and programs we should deliver, and what investments we should make during the 2025-30 RCP.

The recommendation through stakeholder engagement was that we should invest in a proactive program of asset replacement and refurbishment works to address the identified needs that are not being met by the BAU approach, as detailed in this document. In continuing a BAU approach of operating and maintaining the existing facility, we forecast the site will have insufficient capacity to manage current work volumes and an inability to meet the needs of customers in coming years.

Further, continuing to operate this depot in this location is presenting an increased safety risk to the community given its proximity to the busy retail precinct of the town.[6] We engaged with customers on how to respond to the need, and they expect, as reflected in the People's Panel recommendations that we purchase a new site for this depot to be rebuilt.

Recommendation

Our analysis **recommends as the preferred option, Option 2: Build at the new site**. Option 2 is superior to the other options on the basis of the incremental Net Present Value (**NPV**) results in the CBA and strengthened further with the rating in the MCA. This is noting that Option 2:

- represents the highest NPV result of $3.1 million; and
- delivers the greatest non-quantified benefits with a rating of 23 out of 30 from the MCA. The most important benefits are socio-economic and environmental impact (relating to congestion and pedestrian risks), network reliability and safety for heavy vehicle traffic flows.

The profile of spend is presented in Table 3 and Table 4, respectively, for the BAU Base Case and Option 2. The BAU costs and benefits are presented in absolute values while the Option 2 costs and benefit are incremental to the BAU, i.e., the BAU expenditure would occur whether Option 2 was to progress or not.

5 Discounted at 4.05% discount rate over 10 years
6 SA Power Networks 2025-30 Draft Regulatory Proposal - Part B p.43

Table 3: The BAU Base Case cost and benefits by cost type and RCP ($m, June 2022 real, undiscounted)

	2025-26	2026-27	2027-28	2028-29	2029-30	Total 2025 - 30	2030-31	2031-32	2032-33	2033-34	2034-35	Total 2030-35	Total 2025 to 2055
Benefits (Capex)	$0.0	$0.0	$0.0	$0.0	$0.0	**$0.0**	$0.0	$0.0	$0.0	$0.0	$0.0	**$0.0**	**$3.5**
Benefits (Opex)	$0.0	$0.0	$0.0	$0.0	$0.0	**$0.0**	$0.0	$0.0	$0.0	$0.0	$0.0	**$0.0**	**$0.0**
Costs (Customer Risk)	$0.1	$0.1	$0.1	$0.1	$0.1	**$0.5**	$0.1	$0.1	$0.1	$0.1	$0.1	**$0.5**	**$3.2**
Costs (Capex)	$0.4	$0.1	$0.1	$0.1	$0.2	**$0.9**	$0.3	$0.1	$0.2	$0.1	$0.1	**$0.8**	**$4.0**
Costs (Opex)	$0.0	$0.0	$0.0	$0.0	$0.4	**$0.4**	$0.4	$0.4	$0.4	$0.4	$0.4	**$2.0**	**$10.6**
Net benefits	**-$0.5**	**-$0.2**	**-$0.2**	**-$0.2**	**-$0.7**	**-$1.8**	**-$0.8**	**-$0.6**	**-$0.7**	**-$0.6**	**-$0.6**	**-$3.3**	**-$14.3**

Table 4: Option 2 costs and benefits by cost type and RCP ($m, June 2022 real, undiscounted)

	2025-26	2026-27	2027-28	2028-29	2029-30	Total 2025 - 30	2030-31	2031-32	2032-33	2033-34	2034-35	Total 2030-35	Total 2025 to 2055
Benefits (Capex)	$0.4	$0.0	$0.0	$0.0	$2.3	**$2.7**	$0.3	$0.1	$0.2	$0.1	$0.1	**$2.9**	**$5.3**
Benefits (Opex)	$0.0	$0.0	$0.0	$0.0	$0.4	**$0.4**	$0.4	$0.4	$0.4	$0.4	$0.4	**$2.0**	**$10.6**
Benefits (Customer)	$0.0	$0.0	$0.0	$0.0	$0.1	**$0.1**	$0.1	$0.1	$0.1	$0.1	$0.1	**$0.5**	**$2.3**
Costs (Capex)	$0.0	$0.0	$0.0	$5.0	$3.7	**$8.7**	$0.0	$0.0	$0.0	$0.0	$0.0	**$0.0**	**$8.7**
Costs (Opex)	$0.0	$0.0	$0.0	$0.0	$0.0	**$0.0**	$0.0	$0.0	$0.0	$0.0	$0.0	**$0.0**	**$0.0**
Net benefits	**$0.4**	**$0.0**	**$0.0**	**-$5.0**	**-$1.0**	**-$5.6**	**$0.8**	**$0.6**	**$0.7**	**$0.6**	**$0.6**	**$3.3**	**$9.6**

Key benefits which the new Port Augusta Depot under Option 2 will provide to our customers are as follows:

- maintain reliability of electricity supply by ensuring the location and storage of equipment is suited to fast response and repair times; and
- improved socio-economic and environmental impacts from improved traffic congestion and reduced pedestrian risks by relocating away from the CBD area.

In summary, Option 2 is the preferred solution to maintain the capabilities and services provided by the Port August Depot in line with future requirements. A project cost of $8.7 million (real $ June 2022) is recommended to build a new Port Augusta Depot at a new site.

3 Background

3.1 Scope

The scope of this business case encompasses the following.

In scope:

- Valuation of the incremental cost of capital works and maintenance of the entire Port Augusta Depot Site, including buildings, hardstand areas, fit-outs, vehicle parking areas and fencing.
- Valuation of the incremental costs of construction, project management and relocation costs of the facility where applicable.

Out of scope:

- Depot Improvement works to accommodate additional requirements from Network program uplift covered in the "Resourcing Plan for Delivering the Network Program".
- Expenditure uplift for property infrastructure to support Electric Vehicle (**EV**) charging.

****Note*** – The total capital investment costs for the preferred option for Port Augusta Depot have been included in the total costs displayed in the '*Document 5.11.7 - SA Power Networks – Property Recurrent Expenditure business case'*.

3.2 The Property

3.2.1 Overview of Port Augusta Depot Site

The Port Augusta Depot is our operational works facility that serves the Port Augusta and mid-North region. An overview of the Port Augusta Depot is presented in Table 5 and Figure 2. The depot is located about 310 km from the City of Adelaide in a busy retail precinct of the Port Augusta CBD. The majority of the buildings at the site were built when the site was acquired in 1965. The storage shed was built in 2013. The depot is located between two supermarkets and a mixed retail shopping centre.

Table 5: Property Overview

Key property characteristics	Values
Street and Other Addresses	12 Chapel Street, Port Augusta, SA
Property Title:	Lot A144, Plan Number F216396 Lot A143, Plan Number F216396
Site Area:	Lot A144, Plan Number F216396 – 2,089 m^2 Lot A143, Plan Number F216396 – 3,739 m^2 Total site area: C. 5,828 m^2
Site Configuration:	The site is located on the corner of Gibson Street and Chapel Street. The site is irregular in shape. The main office building is shared between two tenancies – SA Power Networks and Country & Outback Health. The main entrance to the tenant office is via an unnamed road to the eastern boundary. Dedicated parking to the tenant office is located along the eastern boundary. The remaining buildings on site include: • garage / storeroom; • a storage shed;

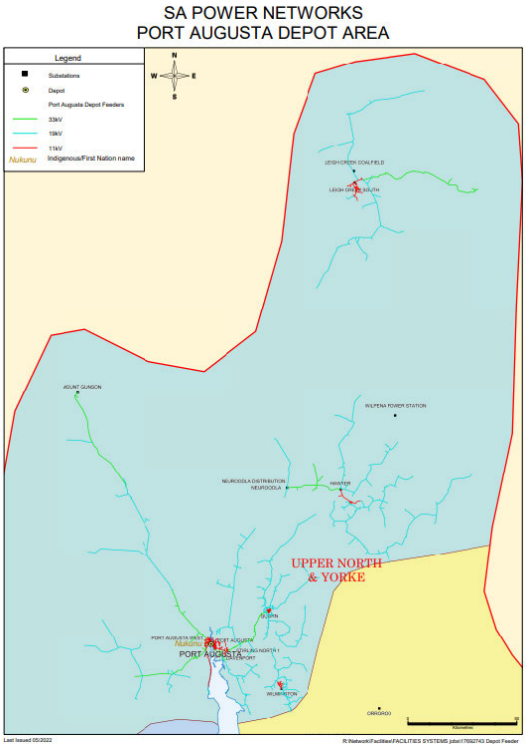
Key property characteristics	Values			
	• a carport; and • a workshop / store.			
Site Access:	The main site access is via Gibson Street. Rear access is available along the northern boundary – via El Alamein Road.			
Site Topography:	The site and surrounding natural topography are flat.			
Site Acquired:	1965			
Building Summary	Name	Building Area (m^2)	Levels	Year of Construction
	Building 1 – Office building	645	1	1965
	Tenant office	520	1	1965
	Building 2 – Garage / store	335	1	1965
	Storage shed	78	1	2013
	Carport	175	1	1965
Hard Stand Area:	No dedicated concrete hardstand area.			
Parking Spaces:	C.25 parking bays			

Figure 2: Site map of Port Augusta Depot

3.3 Our performance to date

The Port Augusta Depot serves the surrounding area of 37,000 square kilometres, which is 3.7 % of the total area of South Australia as shown in Figure 3. The population of the Port Augusta Local Government Area is 10,500 people, with the furthest customer 270 km from the depot. The depot supports 18 field and support staff members working in Field Services Operations, Field Services Logistics, Network Management and Customer Solutions. The site stores a number of elevated work platforms, flat trucks and tools.

Figure 3: Map of customer and distribution feeder locations serviced by Port Augusta Depot



3.3.1 Functions of the Port Augusta Depot Site

The main support services that Port Augusta Depot provides to the electricity network and customers include the following:

Network construction and maintenance

The depot constructs and maintains the physical infrastructure of the electricity distribution network, including power lines, transformers, substations, and other equipment. Maintenance activities involve ongoing inspections, repairs, and upgrades to ensure that the network remains in good working order.

Emergency response

The depot is responsible for responding to emergency situations such as power outages, equipment failures, and natural disasters. This involves mobilising crews and equipment to the affected area, coordinating with other SA Power Networks depots and external agencies as necessary, and communicating with customers to provide updates and information.

Fault location, isolation, and supply restoration

When faults occur in the part of an electricity network that it serves, the depot is responsible for identifying the location of the fault and making supply restoration as quick as possible. This can involve using specialised equipment such as fault locators and cable testers, as well as conducting visual inspections and other diagnostic tests to isolate the fault.

Vehicle storage, maintenance and repair

A fleet of vehicles, including trucks, Elevated Work Platforms (**EWP**s), vans, and other commercial vehicles, require regular maintenance and repair, undertaken at the depot site. This can include routine services such as oil changes, tire rotations, brake inspections. The arid lands, regional terrain in the Mid-North region also requires a larger proportion of 4x4 vehicles and larger sized EWPs.

Equipment maintenance and repair

In addition to vehicles, the depot has a range of specialised equipment, such as power tools, generators, and safety equipment, that require regular maintenance and repair to ensure safe and efficient operation.

Material handling and storage

The Port Augusta Depot has a range of materials and supplies, such as electrical components and hardware, that need to be stored and handled safely and efficiently. This involves tasks such as inventory management, stock replenishment, and order picking.

3.4 Drivers for change

Current operations at the depot are constrained by several key operational and safety limitations including:

- its location in a busy retail precinct of the towns central business district (**CBD**) is unsuitable for Heavy vehicle access,
- its area is too small for current inventory storage requirements, and
- the layout of the site is not functioning well.

From this, four key drivers have been selected as the major drivers for change in this business case.

3.4.1 Condition and building lifecycle age of the current site

The Port Augusta Depot buildings has been in operation for almost 50 years and has exceeded their expected useful lives of 40 years. An independent property condition assessment of the Port Augusta Depot was conducted in September 2022, covering the current condition of buildings on site, including the internal and external fabric, structural adequacy, and operation of its services. The condition assessment provided condition ratings across each building against the structure, roof area, façade, internal and external areas, mechanical services, electrical services, fire protection services, hydraulic services and vertical transportation services. Most buildings were assessed as 'fair', however the main office building was rated 'poor'.

The main issues associated with its condition and compliance with current obligation are set out on KPMG Condition Report for Port Augusta and are summarised in Table 6.

Table 6: Summary of the issues of the Port Augusta Depot

Structure	Issue	Description	Ratings
Building 1	Office	Internal Areas: The office requires new flooring, ceiling tiles and re-painting. Facilities require overhaul. Asbestos removal required under floor and behind panels. Smoke detection faults.	Poor
	Roof	Leaks from front awning. Roof assessment required to ensure gutters cleaned and have sufficient capacity.	Fair
Building 2	Garage/Store	Removal of asbestos lined internal walls and façade. Repair torn sarking in storeroom.	Fair
Carport	Roof	Leaks and numerous corrosion points between joints and roof sheeting contact points with roof purlins. Consideration to replace.	Fair

Structure	Issue	Description	Ratings
Washbay	Floor	Poor bunding may result in water seeping through the adjacent buildings. Consideration to replace.	Fair

	Condition Rating	Condition Explanation
5.0	Excellent	Excellent. No defects
4.0	Good	Good, Minor defects, wear and non-compliance exist. Little to no impact on operation or intended use. 80% to 60% of asset useful life remaining.
3.0	Fair	Fair, Wear and degradation to external surfaces require maintenance, Defects or wear to 5%-20% affected. 60% to 30% of asset useful life remaining. Equipment operating on older technology and less efficient compared to modern equivalent.
2.0	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.
1.0	Very Poor / Failed	Very Poor, Potential structural, operational problems or not operational.Major defects, wear and non-compliance exist. Extensive defect or wear, 20% to 0% of asset useful life remaining. Cost to maintain is no longer viable. Replacement essential. Equipment outdated or redundant tech technology and less efficient compared to modern equivalent.

Given the lifecycle age of the Port Augusta Depot and its recent assessment of its degraded condition. Significant refurbishment work is required to update the facilities so that the depot can continue to support field staff conducting network repairs safely and reliably, network expansion and store equipment. This indicates that these buildings require significant repairs or renovations to bring them up to an acceptable standard. To ensure the safe and efficient operation of the depot and to meet the needs of our customers, we need to address the identified issues in a timely manner.

The poor condition and building compliance issues with the Port Augusta Depot result in a range of risks associated with the operation, safety, inefficiencies, and reliability of supply. Table 7 summarises the key risks by category. The risk categories used align with our Rick Management Framework[7].

Table 7: Key risks

Risk category	Description
Safety risks	• Traffic flows: Port Augusta Depot has daily heavy vehicle traffic associated with the delivery and transport of equipment and materials and large EWP's. Being in a busy retail area, this leads to increased traffic congestion, posing a risk to pedestrians, cyclists, and other drivers. • Noise pollution: Port Augusta Depot often generates significant levels of noise, particularly during loading and unloading of materials and equipment. This can be disruptive to residents and can affect the quality of life in the surrounding area. • Air pollution: Heavy vehicle traffic generates air pollution, particularly if the vehicles are older and emit higher levels of pollutants. This can have negative health impacts on residents, particularly those with pre-existing respiratory conditions. • Fire and explosion risk: Port Augusta Depot contains hazardous materials and equipment, such as fuel, lubricants, and batteries. If a fire or explosion were to occur, it could pose a significant risk to nearby residents and businesses. • Asbestos exposure: Buildings on the Port Augusta Depot site contain asbestos, which can pose a health risk if it is disturbed or released into the air.

[7] The SA Power Networks Risk Management Framework is designed to outline the risk management activities of SA Power Networks. The risk categories relate to the principles and guidelines described in AS/NZS ISO 31000:2009.

Risk category	Description
Operational inefficiency	The current depot facilities are at full capacity, stretching their ability to meet the current service need. Equipment and materials are currently stored at external storage facilities. This can result in various operational challenges that can impact the quality and efficiency of service delivery.

3.4.2 Vehicle access

The current facility's location presents access challenges for our staff and a potential community safety risk.

The location of the Port Augusta Depot in the retail shopping district is not suited to the frequent heavy vehicle movements required for the operation of an electricity distribution depot. Currently, large vehicles travel daily via the suburbs into the town and up and down that main street, turning in and out of the depot. The shopping street has many small cars parking, turning, and stopping as well as pedestrians. With the lower visibility of large vehicles, our staff conduct their activities with a heightened safety awareness to mitigate risk and fortunately, there have been no accidents to date. Our staff are required to assist vehicles moving safely in and out of the site, as traffic controllers. The many stops and starts of heavy vehicles increase the amount of fuel consumed and emissions. The public also experiences traffic congestion in the shopping district, reducing their efficiency in movements and fuel consumption and creates risks of vehicle and pedestrian accidents. There are limitations on the nearby bridge capacity for heavy vehicles near the Depot.[8]

3.4.3 Capacity constraints

The current depot facilities cannot meet current service needs for storage and inventory requirements.

The Port Augusta Depot is operating beyond full capacity of the site. The Depot is too small to store the equipment and vehicles required to conduct maintenance and replacement work in the region. Another site outside the city centre, the Davenport Training Facility, is leased and used to store equipment, including poles, wires, transformers, long trailers and other assets. This creates inefficiency in staff movements between the depot and loading equipment at the leased site. There is no option to expand into a neighbouring site at the current Depot site. The site is operating currently at full capacity and vehicle storage is problematic, particularly the elevated work platforms.

The Davenport Training Facility site is an interim solution. This is not a sustainable solution in the long term as future expansion of training operations at that external site will absorb the space currently being utilized for storage. Additional time is taken to collect equipment from off-site. A fit-for-purpose and sustainable solution is required to meet current and expanded requirements for Depot facilities in the Port Augusta area.

If the depot cannot meet the current need, this can negatively impact our customers, including:

- reliability of supply: the most immediate impact is the time required to resolve power outages, which disrupt daily life, impact residential and businesses operations, and may pose safety hazards; and
- reduced customer satisfaction: due to reduced reliability, negatively affecting our reputation.

3.4.4 Site congestion

The current site is poorly configured and has site congestion issues:

- the layout of the buildings, storage, and parking on the site is not well designed;
- the site is constrained for turning vehicles in the site, requiring moving of stationary vehicles and pedestrians. There is a continuing risk of heavy fleet interacting with staff and pedestrians on and

[8] Bridge weight restrictions leave two options for heavy fleet access both right through the CBD shopping district and main pedestrian crossing to the Depot site.

around the site. Modern layouts allow separate entry and exit driveways, so traffic moves around the site in a single flow. This also allows for separation of the site into different uses;

- the current site does not allow for a single flow path for vehicles, restricting efficiency and adding time to operations for management of vehicle movements; and
- there is a lack of undercover parking bays for vehicle checks. There is therefore a need for improved depot design and configuration to improve operational efficiencies.

3.4.5 Other considerations: operational and strategic drivers

The drivers above can be considered as contributing to the operational or strategic success of operations at the Mt Barker Depot. Key drivers and their relative importance to in the 2025-30 RCP are summarised in Table 8 below.

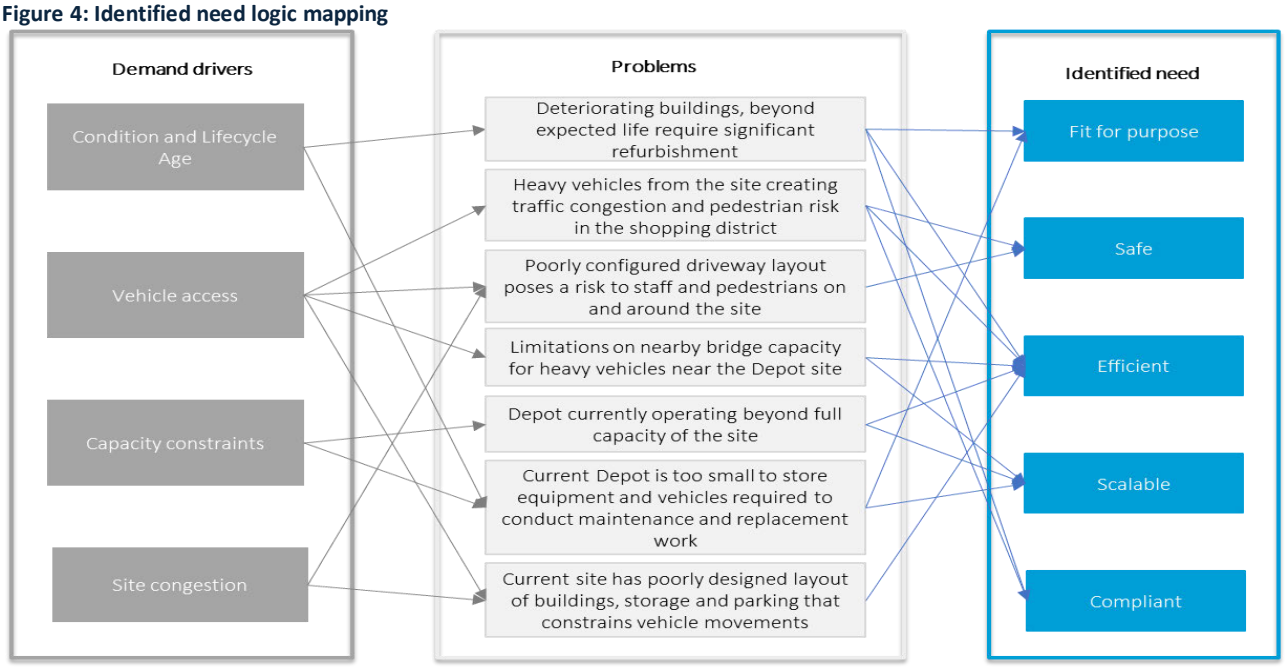
Table 8: Key Drivers

#	Port Augusta Depot expenditure drivers	Relative importance in the 2025-30 RCP
	BAU operational drivers	
1	**Condition:** Poor and very poor condition of these assets reduces the ability of the Depot to support the supply of distribution services. Asset condition may need to be improved through high additional maintenance expenditure to increase its performance.	Medium
2	**Safety:** The existing Port Augusta Depot is poorly laid-out and located in a busy shopping district. It is not fit for purpose, introducing safety risks to staff and visitors. Expenditure may be required to address safety concerns or rectify issues.	High
3	**Age:** As the assets that comprise the Port Augusta Depot age, they require increasing levels of maintenance over time, until they are replaced.	Medium
	Strategic drivers	
4	**Support for current & future business operations**: The current depot site is incapable of meeting the current & future service need, involving increase in storage of equipment and inventory.	High
5	**Customers:** Significantly improve and enhance the commitment, service, and support to our customers by investing in and optimising the field delivery presence at the Port Augusta Depot.	High

4 The identified need

The identified need is for a depot in the Port Augusta area that adequately supports operational requirements and supports safe movements of staff and equipment to and from the site and in the surrounding area. This depot must be **fit-for-purpose, safe, efficient, compliant** and **scalable** to provide sufficient capacity to meet expected increases in demand for network repairs and refurbishment. Sufficient capacity of the Depot is critical to ensuring a safe and efficient electricity supply to customers. Figure 4 maps out the key demand drivers, current issues and the requirements driving the need for investment.

Figure 4: Identified need logic mapping



To address the key issues underpinned by the demand drivers shown in section 3.3, the following requirements were identified:

- **fit-for-purpose:** we require a fit-for-purpose facility to efficiently manage the workflow to support high levels of customer reliability and connection outcomes in the supply of electricity;
- **safe:** the safety of our employees and visitors to the Port Augusta Depot is crucial. Improved safety features must be installed to mitigate the present safety risks and meet future safety standards;
- **promote operational efficiency:** upgrading the building's infrastructure, such as electrical, plumbing, hard stand areas and the network equipment used, including the site layout for moving vehicles is required to improve efficiency;
- **scalable**: as the demand for network installation, repairs and refurbishment has grown in the past and is expected to grow in the future, the Depot needs to increase its capacity to accommodate the stored equipment for restoring network outages; and
- **Compliant:** the depot must comply with relevant regulations and building codes, such as those related to fire safety, disability access, structural integrity, and toilet and changing room amenities

To address these requirements, an efficient and prudent investment in the Port Augusta Depot must be made as the following risks of not progressing with the investment are not acceptable:

- ongoing investment in infrastructure that is no longer fit for purpose;
- increased likelihood of unexpected maintenance expenditure to address failing assets;
- continuing risk of accidents from heavy vehicle movements and pedestrian interactions; and
- risks to employee well-being, health, and safety.

5 Comparison of options

The options presented in this section are the credible options that were compared to a counterfactual BAU base case. The options represent substantially different commercially and technically credible options. Credible options are those that meet the following criteria:

- address the identified need;
- reflect commercially prudent expenditure and are technically feasible; and
- can be implemented in sufficient time to meet the identified need.

5.1 The options considered

The strategic options that are relevant and credible to address the identified need are summarised in Table 9. Each credible option is further described in the subsequent chapters of this business case. The BAU base case is not a viable option for investment because it does not address the identified need.

Table 9: Summary of options considered

Option	Description
The base case (BAU)	The BAU base case reflects the continued operation of the current Port Augusta Depot under previous management practices (Statutory Maintenance and Break-Fix Repairs and Replacements) supplemented with the minimum work and supplemental storage required to continue technically feasible operations.
Alternative options considered	
Option 1: Rebuild on the same site	This option is to rebuild the Port Augusta Depot on the same location, utilising the same footprint where the current depot is situated. The current depot would be demolished and unable to provide support to network support services during the reconstruction period. This option will require leasing of a site for 12-18 months to use for storage and temporary offices during construction. The construction of the project would take place over 10-12 months during 2029/30.
Option 2: Build at a new site	This option is to construct a new depot at new Port Augusta site which is located outside the city centre in the outer suburbs, allowing for a larger space. Facilities would be built to modern standards. The existing Port Augusta depot will continue to provide network services during construction of the new depot. This option involves sale of the existing site, purchase of an outer suburban site and construction of new buildings and storage areas. The construction of the project will take place over 10-12 months during 2028/29 and 2029/30.
Option 3: Lease	This option is to permanently vacate and sell the current Port Augusta depot site. Instead the depot would be relocated to a leased site owned by a third party in 2025/26. SA Power Networks would install facilities and make improvements to ensure site security.

5.2 Options investigated but deemed non-credible

The option to delay construction was considered but not progressed. This involves delaying any strategic investment in the existing Port Augusta Depot until the next RCP. This option was not considered credible due to the risks involved in not meeting the identified need for the Port Augusta Depot during the RCP.

5.3 Approach to the evaluation of options

To evaluate the credible options listed in Table 9, an assessment of both quantitative and unquantifiable factors is undertaken to provide a complete understanding of the potential outcomes of each option. The analysis brings together the non-monetised or qualitative factors and the results from the CBA for the quantified factors to ensure all factors are appropriately considered when selecting a recommended option for an investment decision. This approach is summarised in Table 10.

Table 10: Summary of the approach used for the evaluation of options

	Evaluation Measure	Description	Assessment Approach
Costs, benefits	Monetary	Impacts that can be reasonably identified and valued in monetary terms. This includes both direct construction costs and indirect costs that can be quantified in monetary terms, in addition to benefits that have a measurable monetary impact.	Cost analysis of credible options
	Qualitative	Impacts are known to exist but are not valued in monetary terms due to the absence of market signals or opportunity cost estimates.	Some risk quantifications in CBA and Multi-criteria Analysis (MCA) of credible options Risk level

Costs and benefits are assessed on an incremental basis relative to the BAU base case. The modelling period in the CBA is 30 years for each option. NPV represents the net value of future cash flows after accounting for the time value of money and the initial investment.

Forecasting the value of cost and benefits uses high level data from across the business and detailed building asset data, as well as data that is specific to the Port Augusta Depot project being evaluated.

A summary of the costs and benefits is presented in Table 11.

Table 11: Summary of benefits and costs considered by option

Benefits	Description	Option 1	Option 2	Option 3
Avoided maintenance cost	Avoided maintenance cost is the amount of money saved by avoiding the need for planned maintenance activities on an asset. It represents the saving that the given option delivers with reference to the cost that would have been incurred for the maintenance activities if the BAU base case was followed.	Y	Y	Y
Avoided works	Avoided works refers to the costs that are saved by avoiding the need for construction or renovation activities that would be required as part of the BAU base case.	Y	Y	Y
Avoided reactive cost	Avoided reactive cost refers to the cost that is saved by avoiding or reducing the need for reactive repairs and maintenance activities on assets or equipment.	Y	Y	Y
Avoided depot asset replacement cost	Avoided depot asset replacement cost is the cost to replace assets, due to their condition and recommended lifecycle age, at the current depot that are avoided.	Y	Y	Y

Benefits	Description	Option 1	Option 2	Option 3
Land sale	Land sale benefit is the expected market value of the land if it were to be sold.	N	Y	Y
Terminal value of improved buildings	The value of the built structures that remains at the end of the period of analysis.	Y	Y	N
Terminal value of land	The value of land that remains in use at the end of the period of analysis.	Y	Y	N
Avoided storage cost	The expected monetary benefit gained from not having to invest in additional storage facilities, equipment, or services to accommodate inventory or assets.	N	Y	Y
Land cost	The cost of purchasing land to build the depot.	N	Y	N
Lease land and buildings	Lease land and buildings refers to the cost per annum for renting a space that would be used as the new site for the Port Augusta Depot. This also refers to temporary lease during construction.	Y	N	Y
Relocation cost	Relocation costs refers to the cost in moving staff and equipment to another site	Y	Y	Y
Project construction cost	Project capital cost refers to the construction cost of building the depot.	Y	Y	N
Site improvements and security	Site improvements and security are required to address identified vulnerabilities, such as break-ins and theft of copper.	N	N	Y
Demolition cost	The cost of removing structures and hardstand in order to re-construct.	Y	N	N

The risk assessment adopts our Corporate Risk Management Framework. Key risks are identified for the BAU base case and each alternative options. Consequences and likelihood of each identified risks are evaluated based on the impact to us and our customers in line with the consequence and likelihood framework. Unquantifiable costs and benefits are evaluated via an MCA.

The MCA uses ratings to evaluate the options. Several cost impacts were removed from the CBA and included in the MCA instead, due to a lack of information to support robust cost estimates. These cost impacts relate to improvements in reliability and occupational health and safety (**OH&S**), as well as electricity efficiency savings. MCA relies on qualitative judgment to assess the options against the criteria. A consistent rating scale applied to all MCA criteria. There is no double counting between MCA and CBA because the criteria included in the MCA and the CBA are mutually exclusive.

There are six MCA criteria and each criterion is rated on a scale from 1 (little to no attainment of the criterion) to 5 (very high attainment of the criterion). The scores against each of the six criteria are then summed up to give the total MCA score. Therefore, the higher the MCA score the better the option is according to the MCA assessment, with the highest possible score being 30/30.

The details of the MCA criteria and rating scale are provided in Appendix B.

5.4 Analysis summary and recommended option

To evaluate the credible option listed in the Table 9, an assessment is used to consider both quantitative and unquantifiable factors to provide a complete understanding of the potential outcomes of each option.

5.4.1 Options assessment results

A summary of the scores from the CBA, MCA and risk approaches combined in Table 12 below.

Table 12: Summary of Assessment ($m, June 2022 real)

Option	RCP 2025-2030 Costs		30-year costs		30-year benefits	30-year NPV[9]	MCA Score	Risk Level	Rank
	Capex	Opex	Capex	Opex					
Business as Usual (BAU) Base Case	-	-	-	-	-	-	-	High	Not Credible
Option 1: Rebuild at the same site	$7.8	$0.9	$7.8	$0.9	$4.8	-$5.2	13/30	Medium	2
Option 2: Build at a new site	$8.7	$0.0	$8.7	$0.0	$18.6	$3.1	23/30	**Medium**	**1**
Option 3: Lease at a new site	$1.6	$6.1	$1.6	$36.9	$16.3	-$12.2	21/30	Medium	3

Costs and benefits are undiscounted. NPV is discounted at 4.05%

The advantages and disadvantages of each option are summarised in the table below.

Table 13: Options Summary

Option	Summary of advantages and disadvantages
Option 1: Rebuild at the same site	✓ Reduced future maintenance and refurbishment costs of new facilities ✓ Improvements to operational efficiency and WHS × Capex construction cost of new depot facilities × Costs for temporary depot functions during construction
Option 2: Build at a new site	✓ Reduced future maintenance and refurbishment costs of new facilities ✓ Improvements to operational efficiency and WHS ✓ Receipt from CBD land sale × Capex construction cost of new depot facilities × Outer suburban land purchase (but less than receipt for CBD site)
Option 3 - Lease at a new site	× Likely to be located outside Port Augusta due to lack of sites for lease, increasing travel times for crews.

[9] Discounted at 4.05% discount rate over 30 years

5.4.2 Recommended option

The option with the most favourable result is **Option 2**: **Build at the new site**, because it represents the highest value with an incremental NPV score of $3.1 million. This is noting that:

- under the CBA Option 2 has the highest incremental NPV of $3.1 million. The next best option is Option 1 with NPV of $-5.2 million.
- under the MCA Option 2 has the highest value of 23. The next best option is Option 3 which is 2 points lower.

The BAU base case is not an option for investment because it does not address the identified need.

Under the CBA approach, Option 2 remains preferred to other options across sensitivity and scenarios tested as reported in Section 5.8. This option provides the greatest long-term benefits by addressing the identified need in the most efficient and prudent way. Customers broadly support investment to build Port Augusta Depot at a new site as described below. The incremental undiscounted costs and benefits of Option 2 are presented below in Section 5.8 both an MCA and CBA perspective, Option 2 is the preferred option and delivers the best outcome for the business and customers. Additionally, it effectively addresses the Fit-for-purpose, efficiency, safety issues and future growth requirements for the Port Augusta Depot.

5.5 Sensitivity and scenario testing in CBA

This section presents the sensitivity and scenario analysis results in testing the robustness of the CBA under different key projection inputs and assumptions. A number of key cost and benefit parameters can be varied in the model, allowing various tests to be conducted for changed assumptions. The worst case and best case scenarios were also tested for a combination of key variables to show the possible low and high range of the option performance. Table 14 below shows the key variables tested and values adopted under each test. The default setting used in this report are the core case scenario.

Table 14: Sensitivity testing parameters

	Core case	Parameter value tested
Annual increase in reactive costs	3.25%	+/-25%
Project construction cost (FY23)	$8,000,000	+25%, +50%
Off-site lease cost (FY23)	$150	+/-25%
Discount rate	4.05%	3%, 3.5%, 4.5% and 5%
Worst case	As above	• -25% on annual increase in reactive costs • +50% construction costs • -25% on off-site lease cost • 5% discount rate
Best case scenario	As above	• +25% on annual increase in reactive costs • Core case construction costs • +25% on off-site lease cost • 3% discount rate

The sensitivity testing results are presented in Table 15. The outcome suggests Option 2 is preferred over other options even under most of the sensitivity tests conducted.

The sensitivity results suggest that the option's performance is most impacted by an increase in the discount rate. Nevertheless, a 5% discount rate would reduce the NPV by approximately 6.5% for Option 1 and 25% for Option 2 compared to the central discount rate of 4.05%, Option 1 and Option 2 still return least negative NPVs.

Table 15: Sensitivity testing results ($m, June 2022 real, 30-year period, 4.05 % discount rate where discount rate is not stated)

	Option 1 NPV	Option 2 NPV	Option 3 NPV
Core case	**-$5.2**	**$3.1**	**-$12.2**
Annual increase in reactive costs +25%	-$5.1	$3.2	-$12.1
Annual increase in reactive costs -25%	-$5.2	$3.0	-$12.2
Construction cost +25%	-$6.6	$1.7	-$12.2
Construction cost +50%	-$7.9	$0.3	-$12.2
Off-site lease cost +25%	-$5.4	$4.5	-$16.0
Off-site lease cost -25%	-$5.0	$1.7	-$8.3
Discount rate at 3%	-$5.1	$4.3	-$14.0
Discount rate at 3.5%	-$5.1	$3.7	-$13.1
Discount rate at 4.5%	-$5.1	$3.7	-$13.1
Discount rate at 5%	-$5.2	$2.2	-$10.8
Best case scenario	-$5.2	$6.0	-$18.3
Worst case scenario	-$7.8	-$1.8	-$7.4

5.6 The Base Case: BAU

The base case is represented as a BAU option, reflecting the continued operation of the current Port Augusta Depot under existing management practices of break-fix repairs and replacements and statutory maintenance supplemented with the minimum work required to continue operations. The options in the next sections are compared to the BAU base case. The BAU base case is not an option for investment because it does not address the identified need.

Costs and risks associated with the BAU base case remain. The costs are depot asset replacement, maintenance, works, reactive costs, leased storage and land opportunity costs. The WHS risks associated with the commercial location of the depot would persist. The main benefit is the terminal value of land at the end of the 30-year modelling period.

5.6.1 Costs and benefits for the BAU Base Case

The most significant costs associated with continuing BAU operations at the Port Augusta Depot at its current site are leasing costs for storage to meet service needs. We currently have an informal agreement to use our Davenport training site for external storage. This site is not suitable for a long-term solution, as it is not zoned for industrial storage, and cannot be improved to meet our storage standards. Continuing to operate at our current depot site will require us to source storage at commercial rates. Alternatively, storage at other depots would require regular trips to other depots in Port Pirie or Whyalla, both 50 minute drive from Port Augusta. This has the potential to significantly deteriorate service levels in the region well below customer expectations. With particular risk exposure for unplanned outages and extreme weather events.

We have modelled the 2914m^2 of improved leased land beginning in the 2029-30 regulatory year. This aligns with our modelled requirements to fulfill service demand throughout the lifespan of a new depot, and it would be most efficiently acquired in a single instance. The cost per annum is calculated in Table 16 below.

Table 16: Leasing cost calculation (Per Annum $2022)

Item	Value
Per annum cost of improved leased land in Port Augusta	$141/m^2
Land Required to meet service needs	2914m^2
Total cost pa.	$409,461

We quantified the risk cost posed by heavy vehicle movements through the Port Augusta residential zone. Historical data indicates the Port Augusta region has an average of approximately one pedestrian fatality on local roads a year for the past 10 years[10]. We model our share of this risk to be 2%. While we don't represent this amount of vehicle traffic, our vehicles are disproportionately heavy vehicles which carry significantly higher risks than standard passenger vehicles. This risk cost is calculated in Table 17 below.

Table 17: Risk cost of operating depot in residential zone (Per Annum $2022)

Item	Value
Disability weighted value of life	$5.3m
Average deaths per year	1
SAPN Exposure to risk	2%
Total risk cost pa.	$106,000

Our current site doesn't have security systems, such as electrified fences that our new sites are built with, we have historically found non-network sites with these improvements experience no or negligible theft. On

[10] Australian Road Deaths Database, Bureau of Infrastructure and Transport Research Economics, Nov 2023

average, our non-network sites lose approximately $250k pa through theft, leaving an individual sites risk exposure at $8k pa, we have included this in our modelling.

The remaining the costs arise from repairs to the existing Port Augusta Depot in its current location in order to continue its operation throughout the modelling period. Including $230,000 for the removal of asbestos, to enable significant works to take place.[11]

The BAU base case is shown to have a negative NPV at $-8.9 million. The costs and benefits for the BAU base case are presented in Table 18.

Table 18 Cost and benefits for BAU Base Case ($m, June 2022 real, 30-year period)

Costs/benefits	Capex/Opex	Present Value (PV)	Undiscounted
Benefits			
Terminal value of land	Capex	$1.1	$3.5
Total Capex	Capex	$1.1	$3.5
Total Opex	Opex	$0.0	$0.0
Sum of Benefits		**$1.1**	**$3.5**
Cost			
Depot asset replacement cost	Capex	$0.6	$1.0
Maintenance cost	Capex	$0.6	$1.0
Works	Capex	$0.4	$0.4
Asbestos Removal	Capex	$0.2	$0.2
Reactive cost	Capex	$0.6	$1.1
Theft Risk	Capex	$0.1	$0.2
Pedestrian Risk	Customer Risk	$1.9	$3.2
Storage cost	Opex	$5.7	$10.6
Total Capex	Capex	$2.4	$4.0
Total Opex	Opex	$5.7	$10.6
Risk Costs	Customer Risk	$1.9	$3.2
Sum of cost		**$10.0**	**$17.8**
Differences in costs and benefits		**-$8.9**	**-$14.3**

Table 19 presents the base case costs and benefits by cost type and review cycles.

Table 19 BAU Case cost and benefits by cost type by Regulatory Control Period ($m, June 2022 real, undiscounted)

	2025-26	2026-27	2027-28	2028-29	2029-30	Total 2025 - 30	2030-31	2031-32	2032-33	2033-34	2034-35	Total 2030-35	Total 2025 to 2055
Benefits (Capex)	$0.0	$0.0	$0.0	$0.0	$0.0	**$0.0**	$0.0	$0.0	$0.0	$0.0	$0.0	**$0.0**	**$3.5**
Benefits (Opex)	$0.0	$0.0	$0.0	$0.0	$0.0	**$0.0**	$0.0	$0.0	$0.0	$0.0	$0.0	**$0.0**	**$0.0**
Costs (Customer Risk)	$0.1	$0.1	$0.1	$0.1	$0.1	**$0.5**	$0.1	$0.1	$0.1	$0.1	$0.1	**$0.5**	**$3.2**
Costs (Capex)	$0.4	$0.1	$0.1	$0.1	$0.2	**$0.9**	$0.3	$0.1	$0.2	$0.1	$0.1	**$0.8**	**$4.0**
Costs (Opex)	$0.0	$0.0	$0.0	$0.0	$0.4	**$0.4**	$0.4	$0.4	$0.4	$0.4	$0.4	**$2.0**	**$10.6**
Net benefits	**-$0.5**	**-$0.2**	**-$0.2**	**-$0.2**	**-$0.7**	**-$1.8**	**-$0.8**	**-$0.6**	**-$0.7**	**-$0.6**	**-$0.6**	**-$3.3**	**-$14.3**

[11] Based on historical costs of asbestos remediation.

5.6.2 MCA for the base case

The results of MCA for the BAU base case are presented in Table 20. The base case has the lowest MCA results.

Table 20 MCA for Base Case

MCA criteria		MCA assessment	Rating
Network Reliability	×	Site is not scalable to support an increase in storage. Requires time to travel to another storage site to access materials.	2
Operational Safety	×	Site access by heavy vehicles into main shopping street. Site layout unsuitable for heavy vehicle manoeuvres.	1
Culture and Workforce	×	Condition of main office buildings is poor.	2
Deliverability	✓	Maintenance, reactive costs and works are capable of being delivered using current contractual arrangements.	3
Socio-economic and environmental impacts	×	Depot location in a commercial district is inappropriate creating risks to pedestrians and off-site traffic congestion.	1
Operational Efficiencies	×	Higher electricity costs from older building standards for energy efficiency.	1
	×	Logistical challenges and additional travel time between sites.	
MCA Score			**10**

5.7 Option 1: Rebuild at the same site

This option is to rebuild the new depot at the same location of the existing depot. The construction of the project will be initiated in the first half of the year 2029 and will take 10-12 months across the 2 financial years of 2028/29 and 2029/30.

This option will require the existing Port Augusta Depot to be temporarily relocated to a leased site. Once the new depot is constructed, the site is expected to be less congested which will reduce WHS risks. As the site size is constrained, some un-quantifiable additional off-site storage capacity is likely to be required for lease.

It is assumed that the new depot reconstruction would optimise use of the land within the existing footprint as far as practicable to make space available for storage requirements on the site, but ultimately constrained by the property boundaries. This assumption is limited in practice, as there are limits to the scope for additional storage capacity on the same site. Safety risks associated with the depot remaining in a built-up retail area will not be resolved under this option.

The temporary relocation of the existing Depot poses a risk to the reliability of operations from inferior temporary office and storage arrangements.

5.7.1 CBA for Option 1: Rebuild at the same site

The primary opportunities for benefits in this option are from avoiding current operational costs in relation to the planned and reactive maintenance, asset replacements and avoided works. There are additional capital and operational costs required to maintain the depot operations at another site during construction such as temporary lease of a new site during construction. The site will also be electrified, eliminating the exposure to the risk of theft.

The incremental NPV results of CBA for Option 1 are presented in the following Table 21. The incremental NPV is $-5.2 million at 4.05% discount rate.

Table 21: CBA results for Option 1 ($m, June 2022 real, 30-year period)

Costs/benefits	Capex/Opex	Present Value (PV)	Undiscounted
Incremental Benefits			
Terminal value of improved buildings	Capex	$0.9	$2.8
Avoided maintenance cost	Capex	$0.3	$0.4
Avoided works	Capex	$0.4	$0.4
Avoided reactive cost	Capex	$0.3	$0.6
Avoided depot asset replacement cost	Capex	$0.3	$0.3
Avoided Theft	Capex	$0.1	$0.2
Total Capex	Capex	$2.3	$4.8
Total Opex	Opex	$0.0	$0.0
Sum of Benefits		**$2.3**	**$4.8**
Incremental Cost			
Project construction cost	Capex	$6.4	$7.5
Relocation cost	Capex	$0.2	$0.2
Demolition cost	Capex	$0.1	$0.1
Lease land and buildings	Opex	$0.7	$0.9
Total Capex	Capex	$6.7	$7.8
Total Opex	Opex	$0.7	$0.9
Sum of cost		**$7.4**	**$8.7**
NPV		**-$5.2**	**-$3.9**

Table 22 presents the Option 1 costs and net benefits by cost type and review cycles.

Table 22: Option 1 costs and benefits and Regulatory Control Period ($m, June 2022 real, undiscounted)

	2025-26	2026-27	2027-28	2028-29	2029-30	Total 2025 - 30	2030-31	2031-32	2032-33	2033-34	2034-35	Total 2030-35	Total 2025 to 2055
Benefits (Capex)	$0.4	$0.0	$0.0	$0.0	$0.2	**$0.6**	$0.1	$0.1	$0.2	$0.1	$0.1	**$0.5**	**$4.8**
Benefits (Opex)	$0.0	$0.0	$0.0	$0.0	$0.0	**$0.0**	$0.0	$0.0	$0.0	$0.0	$0.0	**$0.0**	**$0.0**
Costs (Capex)	$0.0	$0.0	$0.0	$4.0	$3.8	**$7.8**	$0.0	$0.0	$0.0	$0.0	$0.0	**$0.0**	**$7.8**
Costs (Opex)	$0.0	$0.0	$0.0	$0.4	$0.4	**$0.9**	$0.0	$0.0	$0.0	$0.0	$0.0	**$0.0**	**$0.9**
Net benefits	**$0.4**	**$0.0**	**$0.0**	**-$4.4**	**-$4.1**	**-$8.1**	**$0.1**	**$0.1**	**$0.2**	**$0.1**	**$0.2**	**$0.5**	**-$3.9**

5.7.2 MCA for Option 1: Rebuild at the same site

The results of MCA for Option 1 are presented in Table 23.

Table 23L Option 1 MCA

MCA criteria	MCA assessment	Rating
Network Reliability	× Site is not scalable to support an increase in storage. Requires time to travel to another storage site to access materials. × Relocation of depot during construction risks reliability from lower quality temporary office and storage arrangements.	1
Operational Safety	✓ Reduced safety risks possible, provided rebuild resolves heavy vehicle traffic flow. ✓ Better site layout will reduce time spent managing heavy vehicle traffic flows.	3
Culture and Workforce	✓ Improved staff workplace conditions	3
Deliverability	✓ Construction approvals within SA Power Networks ownership control. × Challenges in construction sector costs and timing.	2
Socio-economic and environmental impacts	× No resolution to the inappropriate depot location in a commercial district creating risks to pedestrians and off-site traffic congestion. × Additional impact on community during re-construction. ✓ Sustainability improvements and reduced carbon footprint through Environmentally sensitive design.	2
Operational Efficiencies	✓ Electricity cost savings from building improvements.	2
MCA Score		**13**

5.8 Option 2: Build at a new site

This option is to construct a new depot at a new site in Port Augusta, which is a located outside the city centre in the outer suburbs. It would allow for a larger space for storage and heavy vehicle manoeuvres. Relocating the depot to an industrial zone will mitigate the public risks associated with large and heavy vehicle traffic, noise and air pollution. It can also help to reduce the risk of asbestos exposure and improve the security of the site, including the ability to accommodate future expansion needs.

The current depot will continue to provide network services in parallel during the construction of the new depot.

The construction of the project will be initiated in the first half of the year 2029. The construction of the project will take 10-12 months across the 2 financial years of 2028/29 and 2029/30.

5.8.1 CBA for Option 2: Build at a new site

The costs are project construction costs, project management, fit-out, relocation, and demolition costs. See the table below for cost details.

The primary opportunities for benefits in this option are the avoided costs in relation to external storage to maintain BAU functionality. We plan to purchase a land parcel to meet the growing needs of the region.

We reduce our exposure to the risk of pedestrian accidents, quantified in Table 17, by 85% by removing most of our vehicle movements through the Port Augusta Town Centre. This generates a benefit of $90,100.

The remaining planned and reactive maintenance, asset replacements, asbestos removal, works and land sale with purchase of a lower cost site. We also avoid our exposure to the risk of theft from building an electrified site. This option involves sale of the existing site, purchase of an outer suburban, suitably zoned industrial site, and construction of new buildings.

The results of Option 2 are the highest incremental NPV of all the options at $3.1 million at 4.05% discount rate over the evaluation period. The CBA results of Option 2 are presented in Table 24 .

Table 24: CBA results for Option 2 ($m, June 2022 real, 30 year period, undiscounted)

Costs/benefits	Capex/opex	Present Value (PV)	Undiscounted
Incremental Benefits			
Terminal value of land	Capex	$0.5	$1.7
Terminal value of improved buildings	Capex	$0.9	$2.8
Avoided depot asset replacement cost	Capex	$0.2	$0.2
Avoided maintenance cost	Capex	$0.2	$0.3
Avoided works	Capex	$0.4	$0.4
Avoided asbestos costs	Capex	$0.2	$0.2
Avoided reactive cost	Capex	$0.3	$0.6
Land sale	Capex	$0.8	-$1.2
Avoided theft risk	Capex	$0.1	$0.2
Avoided pedestrian risk	Customer Benefit	$1.2	$2.3
Avoided storage cost	Opex	$5.7	$10.6
Total Capex	Capex	$3.6	$5.3
Total Opex	Opex	$5.7	$10.6
Total Customer Benefit	Customer Benefit	$1.2	$2.3
Sum of Benefits		**$10.5**	**$18.3**

Costs/benefits	Capex/opex	Present Value (PV)	Undiscounted
Incremental Cost			
Project construction cost	Capex	$6.4	$7.5
Land purchase cost	Capex	$1.0	$1.1
Relocation cost	Capex	$0.1	$0.1
Total Capex	Capex	$7.5	$8.7
Total Opex	Opex	$0.0	$0.0
Sum of cost		**$7.5**	**$8.7**
NPV		**$3.1**	**$9.6**

Table 25 presents the Option 2 costs and benefits by cost type and review cycles.

Table 25: Option 2 costs and benefit by cost type and Regulatory Control Period ($m, $ June 2022 real, undiscounted)

	2025-26	2026-27	2027-28	2028-29	2029-30	Total 2025 - 30	2030-31	2031-32	2032-33	2033-34	2034-35	Total 2030-35	Total 2025 to 2055
Benefits (Capex)	$0.4	$0.0	$0.0	$0.0	$2.3	**$2.7**	$0.3	$0.1	$0.2	$0.1	$0.1	**$0.8**	**$5.3**
Benefits (Opex)	$0.0	$0.0	$0.0	$0.0	$0.4	**$0.4**	$0.4	$0.4	$0.4	$0.4	$0.4	**$2.0**	**$10.6**
Benefits (Customer)	$0.0	$0.0	$0.0	$0.0	$0.1	**$0.1**	$0.1	$0.1	$0.1	$0.1	$0.1	**$0.5**	**$2.3**
Costs (Capex)	$0.0	$0.0	$0.0	$5.0	$3.7	**$8.7**	$0.0	$0.0	$0.0	$0.0	$0.0	**$0.0**	**$8.7**
Costs (Opex)	$0.0	$0.0	$0.0	$0.0	$0.0	**$0.0**	$0.0	$0.0	$0.0	$0.0	$0.0	**$0.0**	**$0.0**
Net benefits	**$0.4**	**$0.0**	**$0.0**	**-$5.0**	**-$1.0**	**-$5.6**	**$0.8**	**$0.6**	**$0.7**	**$0.6**	**$0.6**	**$3.3**	**$9.6**

5.8.2 MCA for Option 2: Build at a new site

The results of MCA for Option 2 are presented in Table 26.

Table 26: Option 2 MCA

MCA criteria		MCA assessment	Rating
Network Reliability	✓	Low risk to maintaining reliability as there is no service disruption during construction works.	4
	✓	Larger site supports current and future storage requirements.	
Operational Safety	✓	Reduced safety risks due to improved heavy vehicle traffic flows.	4
	✓	Better site layout will reduce time spent managing heavy vehicle traffic flows.	
Culture and Workforce	✓	Improved staff workplace conditions	3
Deliverability	×	Challenges in construction sector costs and timing.	4
Socio-economic and environmental impacts	✓	Appropriate depot location reduces risks to pedestrians and off-site traffic congestion.	5
	✓	Sustainability improvements and reduced carbon footprint through Environmentally sensitive and energy efficient building design.	
Operational Efficiencies	✓	Electricity cost savings from building improvements.	3
MCA Score			**23**

5.9 Option 3: Lease site

This option is to permanently vacate and sell the current Port Augusta depot site. Instead, the depot would be relocated to a leased site owned by a third party. We would install facilities, office fit out, fibre connection, fencing, gates and security and make improvements as necessary to ensure site is fit for purpose and secure.

5.9.1 CBA for Option 3: Lease

This option is shown to have the lowest incremental NPV at $-12.2 million. The results of the CBA for Option 3 are presented in following Table 27.

Table 27: CBA results for Option 3 ($m, June 2022 real, 30-year period)

Costs/benefits	Capex/opex	Present Value (PV)	Undiscounted
Incremental Benefits			
Avoided depot asset replacement cost	Capex	$0.6	$1.0
Avoided maintenance cost	Capex	$0.6	$1.0
Avoided works	Capex	$0.4	$0.4
Avoided reactive cost	Capex	$0.6	$1.1
Land sale	Capex	$1.0	-$1.4
Avoided asbestos cost	Capex	$0.2	$0.2
Avoided theft risk	Capex	$0.1	$0.2
Avoided pedestrian risk	Customer Benefit	$1.5	$2.6
Avoided storage cost	Opex	$6.0	$11.1
Total Capex	Capex	$3.4	$2.6
Total Opex	Opex	$6.0	$11.1
Customer Benefit	Customer Benefit	$1.5	$2.6
Sum of Benefits		**$10.9**	**$16.3**
Incremental Cost			
Relocation cost	Capex	$0.1	$0.1
Site improvements & security	Capex	$1.5	$1.5
Lease land and buildings	Opex	$21.5	$36.9
Total Capex	Capex	$1.6	$1.6
Total Opex	Opex	$21.5	$36.9
Sum of cost		**$23.1**	**$38.5**
NPV		**-$12.2**	**-$22.2**

Table 28 presents the Option 3 costs and benefits by cost type and review cycles.

Table 28: Option 3 costs and benefits by cost type and Regulatory Control Period ($m, $June 2022 real, undiscounted)

	2025-26	2026-27	2027-28	2028-29	2029-30	Total 2025 - 30	2030-31	2031-32	2032-33	2033-34	2034-35	Total 2030-35	Total 2025 to 2055
Benefits (Capex)	$2.5	$0.1	$0.1	$0.1	$0.2	**$3.0**	$0.3	$0.1	$0.2	$0.1	$0.1	**$0.8**	**$2.6**
Benefits (Opex)	$0.0	$0.0	$0.0	$0.4	$0.4	**$0.8**	$0.4	$0.4	$0.4	$0.4	$0.4	**$2.0**	**$11.1**
Benefits (Customer)	$0.0	$0.1	$0.1	$0.1	$0.1	**$0.4**	$0.1	$0.1	$0.1	$0.1	$0.1	**$0.5**	**$2.6**
Costs (Capex)	$1.6	$0.0	$0.0	$0.0	$0.0	**$1.6**	$0.0	$0.0	$0.0	$0.0	$0.0	**$0.0**	**$1.6**
Costs (Opex)	$1.2	$1.2	$1.2	$1.2	$1.2	**$6.1**	$1.2	$1.2	$1.2	$1.2	$1.2	**$6.1**	**$36.9**
Net benefits	**-$0.3**	**-$1.0**	**-$1.1**	**-$0.7**	**-$0.6**	**-$3.6**	**-$0.4**	**-$0.6**	**-$0.5**	**-$0.7**	**-$0.6**	**-$2.9**	**-$22.2**

5.9.2 MCA for Option 3: Lease

The results of MCA for Option 3 are presented in Table 29.

Table 29: Option 3 MCA

MCA criteria		MCA assessment	Rating
Network Reliability	✓	Low reliability risk.	4
	✓	Larger site supports current and future storage requirements.	
Operational Safety	✓	Reduced safety risks due to improved heavy vehicle traffic flows.	4
Culture and Workforce	✓	Improved staff workplace conditions.	3
Deliverability	×	Challenges in costs and timing	2
	×	Uncertainty of owner's approval required for building and site improvements	
Socio-economic and environmental impacts	✓	Appropriate depot location reduces risks to pedestrians and off-site traffic congestion.	5
	✓	Reduced carbon emission from electricity efficiency gains.	
Operational Efficiencies	✓	Electricity cost savings from building improvements.	3
MCA Score			**21**

6 Deliverability of recommended option

In structuring the identified activities into a sequenced program of work for 2025-30, we considered the level and nature of works related to the recommended option that can be delivered, noting the availability of resources and materials.

Both capital construction and operational maintenance are undertaken by outsourced service providers. Administration and project management functions are undertaken by our internal resources.

We have existing building panel arrangements in place with several construction vendors 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 construction works. The appointment of each supplier to the 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. A high-level conceptual depot design has been prepared, shown in Figure 5 and Figure 6 below and an independent quantity surveyor estimate developed.

We have a proven track record of managing the build of new depots to schedule and within budget, with Angaston Depot in the Barossa Valley region as the most recent example of comparable size and nature of development. Following the recommendation of the Asset Condition and Risk sub-committee and Focussed Conversation workshops, consideration will also be given to bundling of works by region or project type and builder to achieve economies of scale savings on similar projects.

In developing the proposed work program, we assessed the optimal timing and resourcing for Port Augusta and in relation to the overall program of project works. The total expenditure program has been considered in terms of the timing and site location of each item. The register of works in each associated year per site are then assessed against:

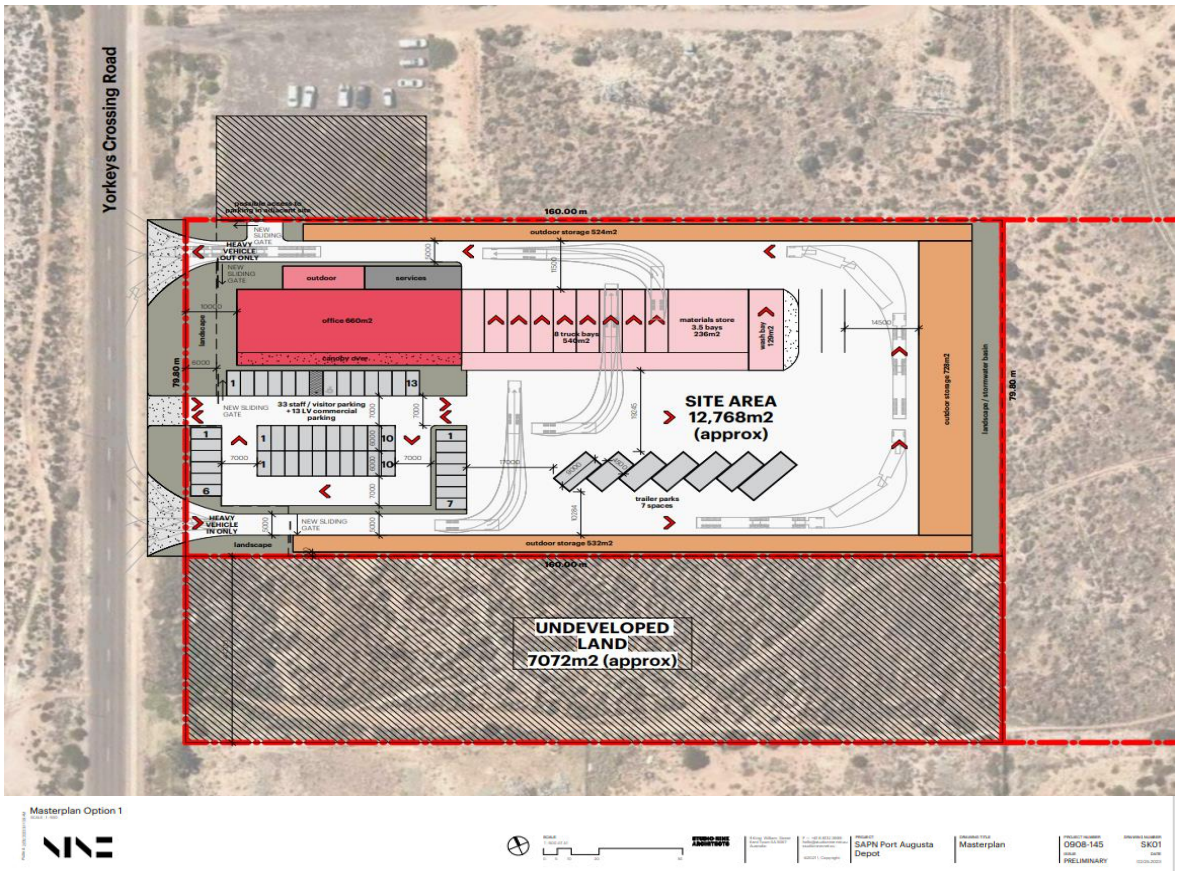
- forecast resource availability; and
- other items of work to be undertaken at similar points in time or at the same site.

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

The construction of the Port Augusta Depot is timed to commence after the construction of the Mt Barker Depot and another proposed, large strategic project (Transformer Workshop construction) is completed so that building construction vendors can competitively tender and have capacity to undertake large construction projects.

Figure 5: Concept image for the new Port Augusta Depot – Recommended Option

Figure 6: Concept Masterplan for the new Port Augusta Depot – Recommended Option



7 How the recommended option aligns with our engagement

A series of stakeholder engagement sessions were held on our property needs and options throughout the course of developing our Regulatory Proposal for 2025-30. Figure 7 below outlines the general approach adopted in our stakeholder and customer engagement process.

Figure 7: Key stages of engagement

Engagement with customers began in 2021 where we sought input on key factors that customers value in the delivery of the network services. We presented an overview of the property portfolio including asset management plans and the proposed systematic and proactive approach to portfolio management to achieve strategic objectives. The options for the Port Augusta Depot were also presented as part of the recurrent stream of expenditure for discussion, including general costs and benefits of the program.

This was followed in early 2022 by broad engagement across South Australia with geographically and socially diverse groups of customers, and then six months of Focused Conversations on critical issues with a selection of stakeholders with deep knowledge.

This process culminated in a People's Panel, where advice was sought from a representative group of 51 South Australian customers as to the most appropriate overall balance between price and service in the 2025-30 RCP, considering all aspects of trade-offs between price and service.

Our total property forecast and the needs it responds to were discussed with customers in our Focused Conversations and ultimately deliberated on and supported by the People's Panel recommendations. Throughout the engagement process, customers recognised the need to respond to the deteriorating condition of our property assets to maintain fit for purpose, safe, suitable, and efficient working environments to support our network distribution service provision.

To date, the conclusion at each engagement stage was that we should invest in addressing the identified needs that are not being met by the current Port Augusta Depot. Customers have told us that they expect us to invest to address the current shortfalls of the Port Augusta Depot in the most cost-effective manner. The recommended Option 2 of rebuilding Port Augusta Depot at the newly acquired site aligns with their views communicated to us because Option 2 will enable:

- the new depot will be adequately sized to meet the current and forecast demand for electricity in the region. The new Port Augusta Depot will be better equipped to handle network repair, which will help ensure that customers can rely on a stable and uninterrupted supply of electricity; and
- effective safety and congestion management on and around the current site, with a larger and more efficient depot that is located outside the city centre.

7.1 Alignment with customers and stakeholders

In the second half of 2022 we held over 40 Focused Conversations with 300 stakeholders. The aim of these conversations was to dive deeper into specific priorities and key issues identified in the earlier engagement and narrow options on service and price outcomes.

The Property Focused Conversation workshop was held with our Community Advisory Board (**CAB**) on 11 November 2022. The CAB has building construction and maintenance industry expertise representation and we consulted on renewal and refurbishment of property assets, change of approach to lifecycle management, strategic construction projects and appropriately responding to asset condition, work volume, and operational efficiencies.

We presented the work undertaken and findings of the strategic direction, condition assessment, criticality risk assessment, building asset register and portfolio asset management plans (**AMP**s).

Three scenarios were presented to the audience to help frame the engagement and facilitate discussions on a preferred recommendation:

- Scenario 1: Basic -asset replacement and routine maintenance;
- Scenario 2: Maintenance plus proactive asset replacement and refurbishment; and
- Scenario 3: New value – new or expanded capability, and strategic projects.

The Focused Conversations recommended to the People's Panel that we should invest in the Port Augusta Depot upgrade as a part of the recurrent depot replacement expenditure (Scenario 2). The recommendation was that the Port Augusta Depot be part of the Building Renewals Program given a desire to ensure:

- a fit for purpose facility to manage expected demand for standard control services. Customer demand is expected to exceed current capacity of field operations to serve;
- support for the repex plans to meet expected demand for standard control services;
- facilities well located in commercial site outside current residential land use; and
- management of long-term strategic and industry aligned program of depot renewals.

7.2 Alignment to customer expectations

In February 2023, the People's Panel deliberated on a portio of the recurrent expenditure. The People's Panel supported that we include in our Regulatory Proposal the recommendations made by the Focused Conversation.

The People's Panel reconised that the property expenditure is critical to SA Power Netowrk's service and maintaining property is essential. The People's Panel recognised the importance of keeping work local to reduce work time and provides employment, and that purpose-built facilities provide safer and more efficient workspaces with a more enagaged workforce.

The benefits and alignment of Option 2 with customers expectations are presented in Table 30 below.

Table 30: Alignment of Option 2 benefit with customer expectations

Customer expectations (Internal and external)	How Option 2 will address customer expectations
Access to safe and of quality work environment to workforce and customers	• Improved quality of workplace environment through proactive identification and remediation of safety issues • Depot will be designed to adhere to relevant safety standards and regulations, ensuring the facility is fit for purpose and minimises the risk of incidents • Reduced safety risks due to improved heavy vehicle traffic flows, and better layout reduces time spent managing heavy vehicle traffic flows • Clean, hygienic, and compliant workplace
Facilities are reliable, fit-for-purpose and efficient	• New facility with a larger space in a more suitable location and with an improved layout will enable more effective delivery of services
Uninterrupted delivery of network services	• The current location will continue to provide support for network support services during the new depot construction to maintain quality and consistency of work.
Portfolio is managed in an optimal and financially prudent manner	• Assessed against all viable options, Option 2 represents the highest incremental NPV and delivers the greatest non-quantified benefits.
Minimal downward pressure on costs	
Minimal impact on environment, leading to no health and safety hazards	• Option incorporates energy-efficient design features and utilising renewable energy sources such as rooftop solar photovoltaic (PV) panels, the facility will reduce its environmental impact and delivers reduced carbon footprint through sustainable building initiatives and environmentally sensitive designs. • Appropriate depot location reduces risks to pedestrians and off-site traffic congestion.

7.3 Submissions on Draft Proposal

Since conducting the People's Panel process, we published a Draft Proposal to play back how we have given effect to customer recommednations and to confirm that those recommendations remain valid given continued cost of living pressuress and to obtain further input to refine our Regulatory Proposal. Submissions received on our Draft Proposal suggest that the recommendations of the People's Panel remain valid with respect to property, this is noting that:

- members of the People's Panel affirmed that their recommendations, including in respect of property expenditure as set out in this business case, remain current;[12]
- some parties such as that from SACOSS[13] and the Department of Energy and Mining[14] urged further consideraiton of the overall magnitude of our forecat capital expenditure across in totality;
- no other submission received has raised concerns in relation to property expenditure; and
- a submission received from a sub-group of our Community Advisory Board which took the lead in engaging on property issues (the Asset Condition and Risk Sub-Committee) endorsed the recommendation on property reflected in this business case, on the basis that it is an appropriate

[12] DemocracyCo, *Submission: SA Power Networks Draft Regulatory Proposal 2025-30*, 30 August 2023.

[13] SACOSS, *South Australian Council of Social Service Submission on SA Power Networks' 2025-30 Draft Regulatory Proposal*, September 2023.

[14] DEM, South Australian Department of Energy and Mining – Submission, October 2023.

level of risk mitigation that will deliver a fit-for-purpose, safe and compliant property portfolio of assets that meets the needs of SA Power Networks' customers and employees.[15]

[15] AC&RSC, *Submission on behalf of the Asset Condition and Risk Sub-Committee: Draft Regulatory Proposal 2025-30*, 17 August 2023.

8 Alignment with our vision and strategy

The preferred option to build a new Port Augusta Depot aligns with our vision and 30-year Property Strategy in a number of ways. Figure 8 below shows where this case for investment resides within the broader framework of relevant plans and strategies that outline the approach by which we will provide and maintain a fit-for-purpose, safe and compliant portfolio of property assets that effectively and efficiently meets the needs of our people and our customers.

By investing in modern and efficient infrastructure, we can ensure that the Network remains reliable and resilient and can meet the evolving needs of customers. A new depot supports this objective by providing fit-for-purpose, contemporary facilities for:

- the network construction and maintenance activities,
- emergency and disaster response,
- fault location, isolation, and supply restoration,
- vehicle maintenance and repair,
- equipment maintenance and repair and
- material handling and storage

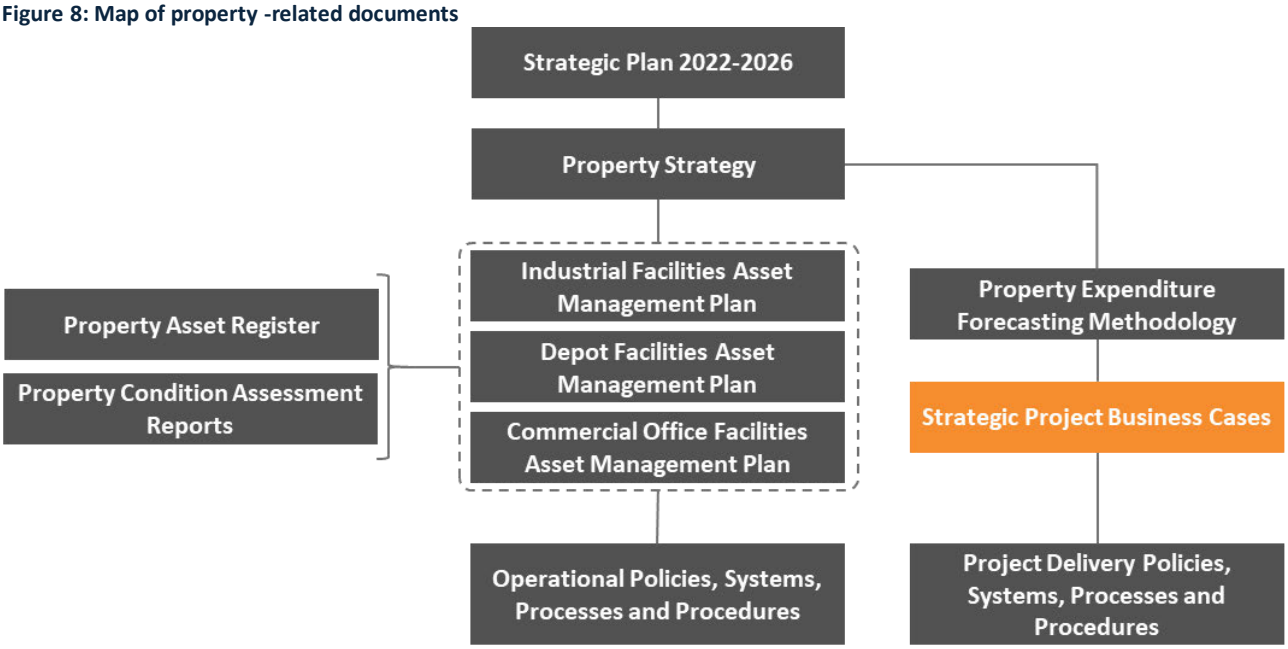
With regards to Safety, the new Port Augusta Depot can provide a safe work environment for the people working within the facility, for its visitors and community. The depot will be designed to adhere to relevant safety standards and regulations, ensuring that the facility is fit for purpose and minimises the risk of incidents.

In addition, the construction of a new Port Augusta Depot can help us to meet our Sustainability goals. By incorporating water sensitive and energy-efficient design features and utilising renewable energy sources such as rooftop solar photovoltaic (PV) panels, the facility will reduce its environmental impact and support our commitment to reducing our carbon footprint.

Furthermore, the construction of a new depot supports our objective of delivering affordable energy to our customers. By investing in a modern and efficient depot, we can reduce future cost escalations and improve operational efficiency, which contributes towards lower electricity prices for our customers.

Overall, the new Port Augusta Depot plays a key role in supporting several of the focus areas outlined in our Property Strategy, including Safety, Customer, Network, and Sustainability, while also supporting the goal of providing and maintaining a fit-for-purpose, safe, and compliant portfolio of property assets that effectively and efficiently meets the needs of our people and customers.

Figure 8: Map of property -related documents



Appendix A: Property Condition Assessment Report 12 Chapel Street Port Augusta

412808 - Condition Report - 12 Chapel Street, Port Augusta SA - Draft Rev A - 05.09.22

Appendix B: MCA Criteria and Rating Scale

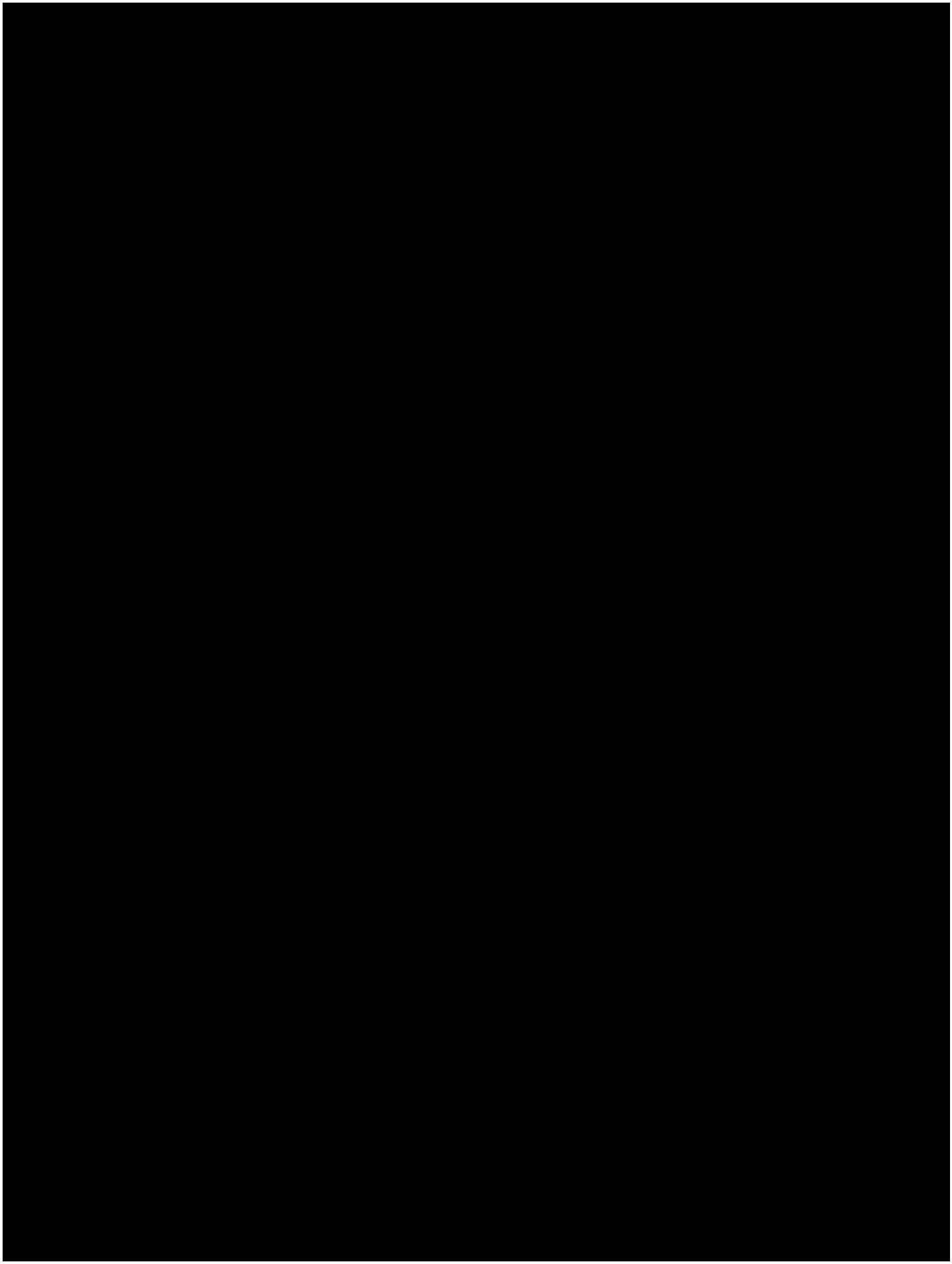
Table 31 outlines the MCA criteria used in the qualitative benefits and costs. These criteria were discussed with stakeholders during the stakeholder engagement process. Rating is presented in Table 32.

Table 31: MCA Criteria

#	MCA criteria	Description
1	Network and Reliability	The option is likely to support strategic focus areas: "Providing the foundation for the new energy future" and "Achieving operational excellence and delivering on our priorities" (Strategic Plan 2022-2026). The option indirectly supports reliability and security of the national electricity system in the NER (6.5.6 (3) and 6.5.7(3) capital and operational expenditure objectives).
2	Operational Safety	The option is likely to support strategic focus areas of Safety "Ensuring the safety of our people and community, every day" (Strategic Plan 2022-2026) and safety of supply of electricity from NER.
3	Culture and Workforce	Support the critical enabler of "An engaged, aligned and high performing workforce" (Strategic Plan 2022-2026).
4	Deliverability	The option is capable of being delivered in practical terms of the market capacity to supply materials and skilled construction workers.
5	Socio-economic and environmental impacts	The option will deliver positive broad socio-economic and environmental benefits including broader employment, local community, land use and environmental benefits.
6	Operational Efficiencies	The option will deliver cost improvements for operational activities at the site.

Table 32: MCA rating scale against each of the criterion

MCA rating scale	MCA rating scale
1	Little to no attainment of the criterion
2	Low attainment of the criterion
3	Moderate attainment of the criterion
4	High attainment of the criterion
5	Very high attainment of the criterion



Appendix D: SA Power Networks Property Criticality Assessment Overview

Property Criticality Assessment_Overview_Sept2023