New Warrnambool depot construction

PAL BUS 8.03 - Warrnambool - Jan2020 - Public

Regulatory proposal 2021–2026

Powercor

January 2020

Contents

1 OVERVIEW 3
2 BACKGROUND 4
3 IDENTIFIED NEED 5
4 OPTIONS ANALYSIS 6
4.1 Option one 6
4.2 Option two 7
4.3 Option three 7
5 RECOMMENDATION 9
A EVIDENCE OF SALT CORROSION EXPOSURE 10

1 Overview

Business	Powercor
Title	New Warrnambool depot construction
Project ID	PAL BUS 8.03 - Warrnambool - Jan2020 - Public
Category	Non-network capital expenditure
Identified need	The existing Warrnambool depot layout is not fit for purpose with poor traffic flow and ineffective material storage. In addition, the proximity to the sea poses issues relating to accelerated deterioration of materials, fleet and buildings due to salt corrosion.
Recommended option	Option 2: development of a new depot on a "Greenfield" site
Proposed start date	2022/23
Proposed commission date	2023/24
Supporting documents	1. PAL MOD 8.02 - Property - Jan2020 - Public

In-line with the company wide review of the operational performance of all depots, the existing Warrnambool depot has been identified as requiring significant upgrades to minimise the impacts of salt corrosion on buildings, vehicles and materials, cater for workforce growth, and provide additional material storage.

2 Background

The current Warrnambool depot is located at 7 Strong St, Warrnambool, housing 60 operational employees on a land size of approximately 20,000sqm/5 acres. Minor capital improvements were last completed at the depot in 2017. This minor upgrade project consisted in the construction of fleet and storage sheds and minor layout changes to the main for a total project cost of $1.3m.

3 Identified need

The proximity to the sea poses issues relating to accelerated deterioration of materials, fleet and buildings due to salt corrosion, thus a more suitable location needs to be sought out that is further inland and thus not impacted by these conditions to the same degree. This accelerated deterioration brings forward capital spend with items having to be replaced in advance of their normal operating life. As shown in appendix A, Warrnambool is located in the highest salt corrosion exposure area in Victoria. Analysis undertaken on the impacts of salt corrosion on asset failures demonstrates a doubling of asset failures in high corrosion areas compared with low corrosion areas. See also Appendix B for some site photos capturing the salt corrosion of network assets.

In addition, the current depot layout is not fit for purpose with poor traffic flow and ineffective material storage. The limited onsite storage space means that materials are scattered throughout the site making loading materials prior to commencing works cumbersome and time consuming. These issues were unable to be addressed via the prior upgrade due to the limited land size and location of existing buildings. Issues will be compounded in future due to strong population growth in the region, which will increase the operational requirements of the depot. Between 2016 and 2026, the number of residential dwelling is forecast to grow by 25%.[1]

The car park is easily accessible to the public, located in the front of the property without proper security fencing. This creates security and safety concerns from potential break-ins.

The company approach to diverse and inclusive employment has seen the introduction of female field workers which will necessitate the construction of separate female change rooms and the current depot layout does not have sufficient space to accommodate this.

[1] PAL MOD 9.03 - CIE customer number forecast - Jan2020 - Public.

4 Options analysis

The three options that have been explored are:

- Option 1 - redevelopment of the existing depot site
- Option 2 - development of a new depot on a "Greenfield" site
- Option 3 - development of a new depot on a "Brownfield" site

Table 1 Cost analysis, $m June 2021

	Option	Cost
1	Redevelopment of the existing depot site	12.7
2	Development of a new depot on a "Greenfield" site	17.0
3	Development of a new depot on a "Brownfield" site	14.3

Source: Powercor

To determine efficient spend, the proposed options were costed using the following information:

- material and construction costs are based on prior depot builds of a similar size and scale. Our depot builds are outsourced to independent third parties through market tender processes
- lease costs for any temporary facilities are based on reviewing the average rate for suitable properties currently available for lease in the area
- land costs are derived by reviewing recent land sales and market valuations in the area to determine an average per square metre rate and applying that to the land size required for the depot.

4.1 Option one

Refurbish current depot site which would include the demolition of existing buildings, construction of new buildings, change room facilities, stores and truck parking facilities and realignment of vehicle entry and exit points.

Table 2 Options analysis - existing site

Advantages	Disadvantages
Lowest cost option, with no need to purchase new land.	Retaining the current site does not address the issue of salt corrosion due to the proximity of the site to the sea. While materials storage could be improved, there would still be limited space to ensure storage capacity could accommodate future growth.
Improved materials storage, but may not be adequate to meet future requirements.	Would require significant disruption with staff having to be relocated twice (i.e. pre and post construction). A temporary facility would need to be secured on a short term basis, with the probability of locating a suitable location within the Warrnambool region considered to be very low. Any temporary location is likely to require a compromised service model due to layout and facilities, leading to inefficient work practices and potential delays in customer response times.
Able to develop additional change room facilities to support a diverse and inclusive work place.	

Source: Powercor

4.2 Option two

Purchase vacant land and construct a new depot to the specification that meets operational needs. The existing site would be sold in 2025/26 following completion of the depot build.

Table 3 Options analysis - Greenfield site

Advantages	Disadvantages
Ability to target optimal location to service the region and avoid the current salt corrosion issues currently being experienced.	Highest cost option as it requires the acquisition of land and a ground up build.
Not constrained by current site configuration, allowing the construction of a purpose built operational depot and the allocation of sufficient space to house adequate materials to meet current and future requirements.	
Able to develop additional change room facilities to support a diverse and inclusive work place.	
Minimal disruption to staff and customers with the current site to be retained until construction is completed.	

Source: Powercor

4.3 Option three

Purchase a site with existing commercial/industrial buildings and redevelop it into a productive operational depot. The existing site would be sold in 2025/26 following completion of the depot build.

Table 4 Options analysis - Brownfield site

Advantages	Disadvantages
Lower construction costs due to the ability to utilise existing structures.	Development will be somewhat constrained by the existing buildings and site configuration. Improvements to materials storage may not be sufficient to accommodate future growth.
Quickest build time (subject to the ability to purchase a suitable site).	Limited supply of suitable sites will make acquisition difficult and may require paying a premium above market.
Improved materials storage, but may not be adequate to meet future requirements.	Limited sites may also lead to some compromises in optimal layout and facilities. This in turn may reduce the operational performance and efficient delivery of network support services and lead to inefficient work practices and potential delays in customer response times.
Able to develop additional change room facilities to support a diverse and inclusive work place.	

Source: Powercor

5 Recommendation

It is recommended that option 2, the acquisition of a vacant site and subsequent construction of a new depot, be undertaken in order to service Warrnambool and the surrounding region. This strategy will allow for a purpose built depot that can be constructed in a manner which caters for current and future operational requirements, and extend the life of buildings, vehicles and materials by reducing exposure to salt air whilst also maintaining current operational support at the existing depot during the construction phase.

While it is acknowledged that refurbishing the current site represents the lowest cost option (option 1), the constraints on the development due to the configuration of the site and limited options to expand beyond the current footprint would prevent the efficient delivery of network support services. Moreover, this option would not address the problems associated with exposure to salt air due to location.

Similarly the scarcity of supply of established sites and the potential requirement to compromise the optimal layout to allow for existing structures on the site means that option 3 is not considered efficient in the long term.

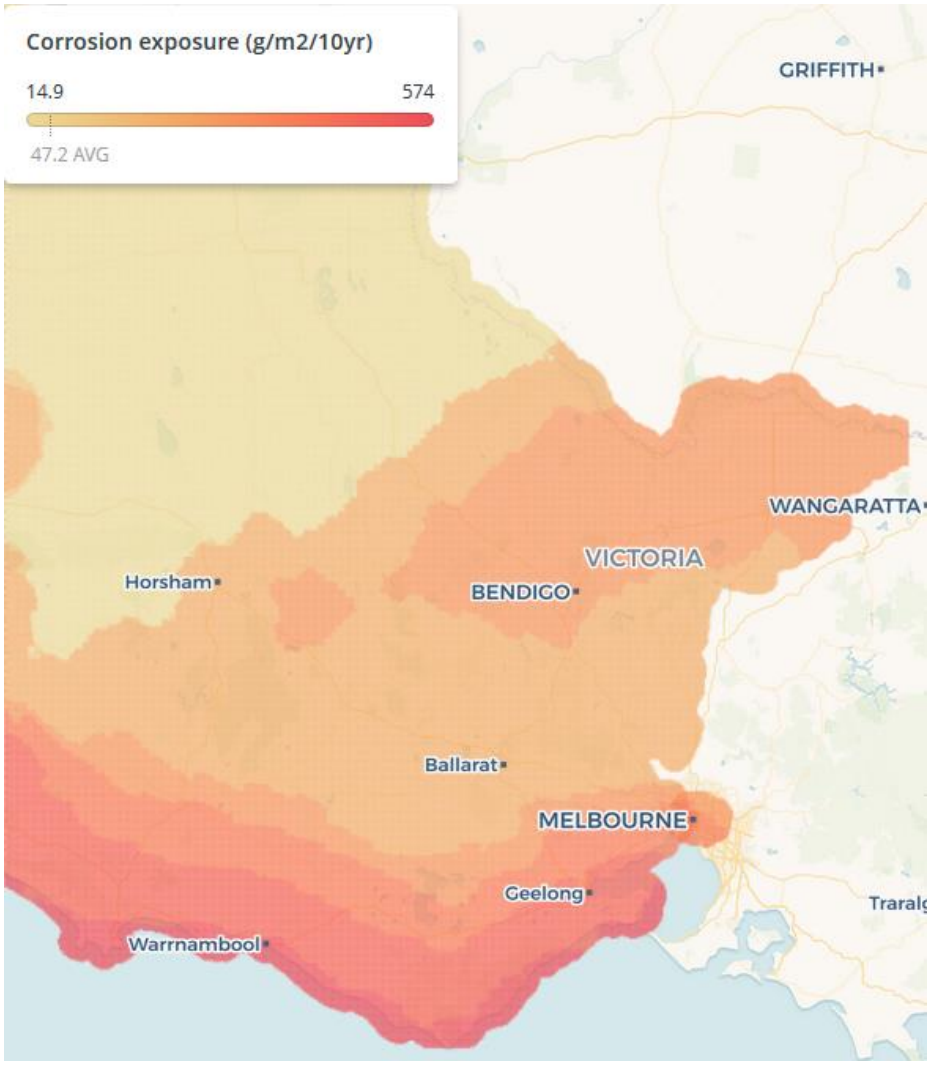
Table 5 Recommended option 2: expenditure profile, $m June 2021

Expenditure forecast	2021/22	2022/23	2023/24	2024/25	2025/26	Total
Capital expenditure		1.6	15.4			17.0

Source: Powercor

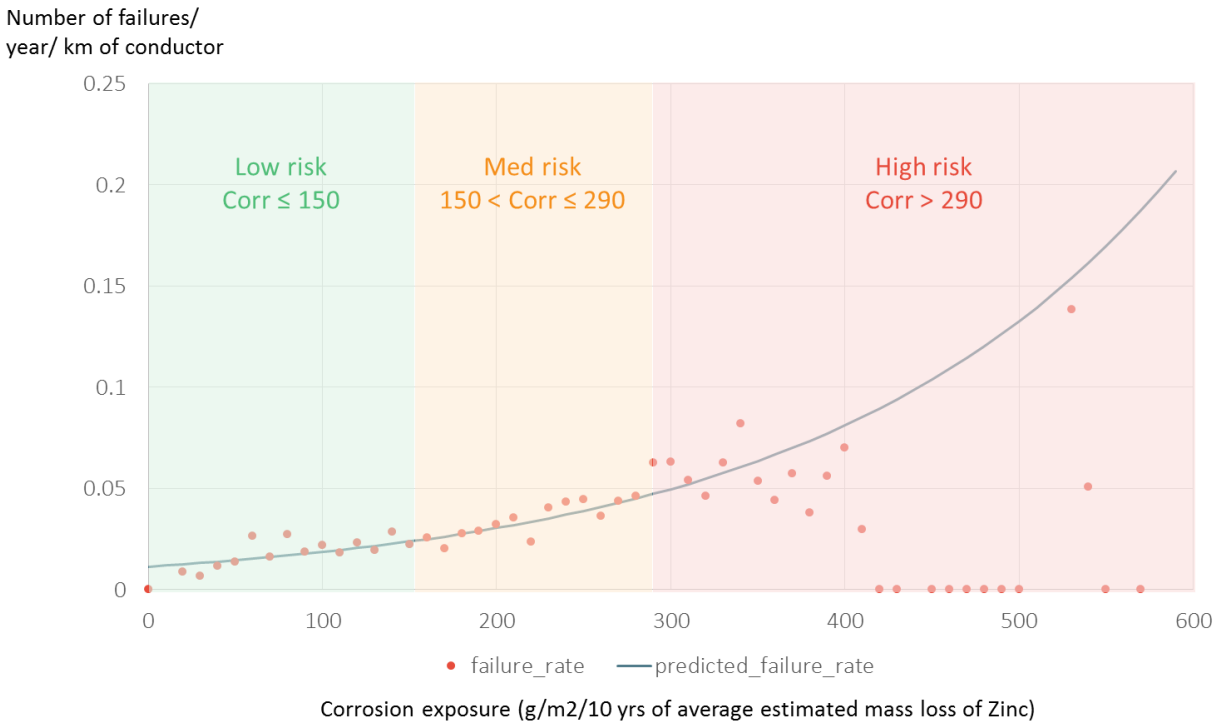
A Evidence of salt corrosion exposure

Figure 1 **Salt corrosion exposure**



Source: Powercor

Figure 2 **Asset failures by corrosion exposure**



Source: Powercor

B Site photographs

The entrance door to the Generator shed; water ingress.

Water flowing across the shed floor.

The East external eve of the truck shed.

The swipe pole for the back gate.

The bollard at the back gate

The frame footing of the trailer shed.

The roof frame of trailer shed.

The recently refurbished insulator washer, 12 months old.

The West side of the stores shed, eve corrosion.

Inside West wall of the store.

Inside West wall of the store.

The internal exhaust fan to the left of the store as you enter through the front roller door