

# NEOEN

### **COLLIE BATTERY**

**Development Application Report** 

**FINAL** 

September 2022

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Prepared by Umwelt (Australia) Pty Limited on behalf of Neoen Australia Pty Limited

Project Director: Rob Karelse Project Manager: Rob Karelse Report No.22376/R03Date:September 2022





This report was prepared using Umwelt's ISO 9001 certified Quality Management System.



#### Acknowledgement of Country

Umwelt would like to acknowledge the traditional custodians of the country on which we work and pay respect to their cultural heritage, beliefs, and continuing relationship with the land. We pay our respect to the Elders – past, present, and future.

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Rev No.	Revi	ewer	Approved for Issue		
	Name	Date	Name	Date	
V2	Emma Molloy	31 August 2022	Rob Karelse	5 September 2022	



# **Abbreviations**

Abbreviation	Definition
APZ	Asset Protection Zone
BAL	Bushfire Attack Level
BC Act	Biodiversity Conservation Act 2016
BESS	Battery Energy Storage Facility
BMP	Bushfire Management Plan
CEMP / OEMP	Construction / Operational Environmental Management Plan
Cth	Commonwealth
DAP/JDAP	Development Assessment Panel/Joint Development Assessment Panel
DAWE	Department of Agriculture, Water and Environment (now DCCEW)
DCCEEW	Department for Climate Change, Energy, the Environment and Water
DFES	Department of Fire and Emergency Safety
DG	Dangerous Goods
DPLH	Department of Planning, Lands and Heritage
DWER	Department of Water and Environmental Regulation
EP Act	Environmental Protection Act 1986
EPA	Environmental Protection Authority
EPBC Act	Environmental Protection and Biodiversity Act 1999
GKB	Gnaala Karla Booja (Native Title Group)
ILUA	Indigenous Land Use Agreement
JTSI	Department of Jobs, Tourism, Science, and Innovation
kV	Kilovolt
kW	Kilowatt
kWh	Kilowatt Hours
LPP	Local Planning Policy
LPS	Local Planning Scheme
MNES	Matters of National Environmental Significance
MW	Megawatt
MWh	Megawatt Hours
NNTT	National Native Title Tribunal
P&D	Planning and Development Act 2005
PMST	Protected Matters Search Tool
REF	Renewable Energy Facility
SPP	State Planning Policy
SWALSC	South West Aboriginal Land and Sea Council
SWIS	South West Interconnected System
WEM	Wholesale Energy Market
WA	Western Australia



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- Appendix B Certificates of Title
- Appendix C Conceptual site plans and elevations
- Appendix D Concept design report
- Appendix E Community Stakeholder Engagement Outcomes Report
- Appendix F Hydrological Modelling Report
- Appendix G Reconnaissance Flora and Basic Fauna Survey Report
- Appendix H Bushfire Management Plan and Risk Management Plan
- Appendix I Traffic Impact Statement
- Appendix J Noise Impact Assessment
- Appendix K Aboriginal Cultural Heritage Briefing Note
- Appendix L Photographs of the Project Site



# 1.0 Introduction

# 1.1 Purpose of Application

This Planning Report supports an application for Development Approval under the Shire of Collie's *Local Planning Scheme No. 6* to develop a Battery, interchangeably called as Battery Energy Storage System (BESS), (the Project) on Myaree Farm near the Shotts Terminal approximately 12 km northeast of Collie. The Project will be a staged development up to 1000 MW /4000 MWh, with an initial stage of 200 MW/800 MWh.

In summary, this report addresses all relevant requirements outlined within the Shire of Collie *Local Planning Scheme No. 6* (LPS No. 6) and other components of the State Planning Framework relating to the Project.

Critical outcomes of developing a battery facility at a utility scale in this locality are to support greater energy security, environmental sustainability and the transition of Collie's economy to more diversified and innovative industries. There is significant potential for the Project to address intermittencies in energy supply due to the ability of utility-scale battery facilities to respond quickly to fluctuations in the grid. The Project will also support the State's objectives to achieve net zero emissions by 2050 and does so by utilising disturbed and cleared land adjacent to existing energy infrastructure.

The Project forms part of the broader vision of the Myaree Farm landholder to participate in the Collie "Just Transition" process, diversify their farm revenue streams, and improve the land, water and ecological condition across their properties. A letter of support from the owner and operator of Myaree Farm and a presentation of their vision for their landholdings is provided in **Appendix A**.

This application and supporting documents are submitted on behalf of Neoen Australia Pty Limited (Neoen).

# 1.2 Outline of the Proposal

Development approval is sought from the Shire of Collie and the Regional Joint Development Assessment Panel (JDAP) to establish a battery facility near the town of Collie. The BESS is proposed to be located within a mostly cleared area near the Shotts Terminal. The BESS compound is to be located across Lots 775 and 784, an access road across Lot 785, and a switchyard and connection to the Western Power transmission network on Lot 782, each on Deposited Plan 232871. The indicative project size will be up to 1000 MW/4000 MWh, constructed in 200 MW/800 MWh stages as needed to meet energy storage demand.

The battery facility will be comprised of an orderly arrangement of battery cabinets, inverters and control systems including electrical and data cabling. The battery packs are enclosed in custom designed, dust and water-proof steel cabinetry with industry standard safety and security features. The batteries will connect to a step-up transformer and switchgear, which in turn will connect the BESS to the Western Power transmission network via a switchyard and overhead transmission lines. The Project will also include an operations and maintenance facility which will be co-located alongside the storage system.



## 1.3 The Proponent

Founded in 2008 in France, Neoen is one of the most dynamic independent producers of renewable energy in the world. As of August 2022, Neoen has over 2.5 GW of renewable assets in operation or under construction in Australia, representing over \$3 billion Australian dollars in investment. The company intends to reach 5 GW in Australia by 2025.

Neoen is active in France, Australia, El Salvador, Zambia, Jamaica, Portugal, Mexico, Mozambique, Finland, and Argentina and has assets in more than 15 countries. It operates Europe's most powerful solar photovoltaic (PV) farm (300 MW in Cestas, France) and the world's first 150MW lithium-ion power reserve in Hornsdale, Australia (150 MW/194 MWh storage capacity). Neoen has also recently submitted a development application for a new battery facility in the Shire of Chittering with a capacity of 200 MW/400 MWh.

Neoen has been listed since October 2018 on the Compartment A of the regulated market of Euronext Paris. Combined with a committed and stable shareholding, Neoen has secured access to the capital it needs to support its growth: Neoen is targeting 10 GW capacity in operation and under construction worldwide by 2025.

From its inception, Neoen's core business model has been to develop, build, own and operate all its projects for the entirety of their lifespans. This strategy means that Neoen takes a long-term approach to its assets, to the local communities in which they are situated, and to electricity markets overall.

Neoen Australia began in Sydney in 2012. Since then, the Australian branch has grown rapidly and represents Neoen's largest portfolio outside Europe and a major strategic priority. Neoen's local team has grown to more than 60 employees across Sydney, Canberra, Brisbane, Adelaide, and Perth working in development, energy management, finance, construction, and operations.

### 1.4 Pre-application Process

The following activities have been completed to enable a Project that meets legislative requirements, Western Australian State government policies and strategies, and the needs of the local community:

- An initial environmental and planning constraints analysis was completed (Umwelt, 2022), which:
  - Reviewed the environmental setting, potential impacts, and determined required baseline studies so that potential impacts would be identified and appropriately managed.
  - $\circ$   $\;$  Identified stakeholders who might have an interest in the Project.
  - Considered relevant legislation, policy, guidelines, and strategies and how they relate to the Project.
  - Provided a pathway for further studies and required approvals.
- The required baseline studies have been completed to understand and mitigate Project risks and impacts, relating to hydrology, bushfire, ecology, Aboriginal heritage, noise and traffic.



- Local stakeholder and community consultation has been undertaken, including with the Shire of Collie, nearby landholders, special interest groups, the local community, and representative of the Beelagu of the Wilman People.
- An Option Deed to lease and for easement has been signed with the landholder for the use of Lots 775, 784 and 785.
- The process to connect to Western Power's electricity network is well progressed. Western Power has provided a letter supporting this development on their Lot 782 with agreements on connection to be finalised.
- The Project design has advanced to a conceptual design stage as presented in this Development Application, with a number of design iterations to reduce impacts of the Project.
- Pre-referral discussions have been held with relevant Local and State government agencies, including the Shire of Collie, Department of Planning, Lands, and Heritage (DPLH), Department of Water and Environmental Regulation (DWER), Department of Biodiversity, Conservation and Attractions (DBCA), Department of Fire and Emergency Services (DFES), and Main Roads WA (MRWA).

### 1.5 Project Benefits

#### 1.5.1 Local community benefits

As the long-term owner and operator of all their renewable energy assets, Neoen is committed to maximising the long term economic and employment opportunities and benefits for the local community associated with the Project.

Neoen's 'develop to own' business model is rare in the renewables industry, affording a clear advantage over competitors with respect to local communities and businesses. Neoen's starting point is the clear understanding that they will be neighbours and participants in the community for the lifetime of the Project.

As such Neoen seeks to develop and nurture local procurement initiatives, partnerships and innovation with the confidence that they will be there to see projects through from early development to the final stages of operations in many years to come.

This Project is a significant investment in energy infrastructure in the Shire of Collie. It will contribute to the economy of the region at a time when the Muja and Collie power stations are announced to retire by 2027 and 2029 respectively.

Construction for the Project will provide direct economic benefits to the local community. It is expected that each 200 MW/800 MWh stage will generate up to approximately 150 direct jobs over an approximately 12 to 24-month construction period as well as up to four ongoing roles for the first 200 MW/800 MWh and up to eight on-going roles for the final 1000 MW/4000 MWh operational phase of the Project. In consideration of providing economic benefits to the local community, Neoen will seek to, where possible:

• maximise local industry participation by providing local jobseekers and industry with full, fair and reasonable opportunity to participate



- prioritise employees from the local community, or accommodate employees in the nearby area where practicable
- undertake a local economic and supply market analysis and maintain a register to identify potential local suppliers
- provide early notice to the market of upcoming major procurement activity
- use the services of local content specialists and support their use by contractors and sub-contractors
- hold public briefings which will provide timely information to regional business and industry on the jobs, services, supplies and support requirements of the Project
- hold a Local Employment & Networking session in pre-construction period (and advertise this in local media) to provide timely and equitable access to supply opportunities
- encourage sub-contractors to maximise the use of local business when contracts are awarded outside the region
- identify opportunities for local industry support and innovation
- identify opportunities to support training, upskilling and apprenticeships
- identify training opportunities and support for subcontractors on the preparation of bids.

Additionally, a Community Benefit Fund will be established, the value of which will be determined based on the final size of the battery. The fund will consist of annual community grants, which will commence at the start of the Project's operations and will run annually for the project's lifetime. This fund will be administered as a non-profit foundation and the decision-making will be undertaken by an Advisory Committee consisting of representatives from the Shire of Collie, the local community and Neoen. Local community organisations will be able to apply for this fund for local community-building, environmental, and education projects. The fund is not intended for individuals, businesses or local government projects. Neoen has already started engaging with the community to understand the priorities of local residents with regards to a Community Benefit Fund. Further details are provided in **Section 5.0**.

As described in **Section 1.1** and **Appendix A**, the Project also forms part of a broader vision to provide energy transition, revenue diversification, and ecological restoration benefits for Myaree Farm.

#### 1.5.2 Strategic and electricity network level benefits

This Project contributes to achieving key goals and objectives outlined by the State government in their Energy Transformation Strategy, by helping to maintain a secure and reliable energy supply, ensure affordable energy, and reduce emissions through increasing renewable energy supply at a local and regional level (Energy Policy WA, 2021). The proposed BESS will be connected to the South-West Interconnected System (SWIS) which has seen significant investment towards increasing renewable energy systems (RES). Despite RES providing an increasing proportion of energy supply within the SWIS, a major gap has been raised regarding the potential intermittency and reliability of RES (Energy Policy WA, 2021).

With the retirement of the Muja and Collie power stations by 2030, this Project will provide vital system security.



In 2019 the Australian Energy Market Operator (AEMO) identified that:

- Without changes to the Wholesale Electricity Market (WEM) to accommodate new technologies, voltage in the SWIS cannot be controlled within technical limits as the level of minimum power system operational demand approaches the present critical level of 700 MW. AEMO's current forecasts of rooftop photovoltaic (PV) distributed energy resources (DER) growth indicate that minimum operational demand will reach 700 MW between 2022 and 2024, depending on the PV DER installation rate and load growth and taking into account day-to-day variability in weather and load conditions.
- System security risks are emerging now as the increase in large-scale renewable generation and DER displaces the dispatchable thermal generators that presently provide all system security services such as inertia, frequency control, system strength, and voltage control.
- Technical standards and regulatory and market constructs require carefully designed but urgent change, to implement or incentivise new technologies in the SWIS such as synchronous compensation, energy storage, and increased inverter capabilities. These changes will support the management of power system security and effectively integrate renewable generation and DER in a way that facilitates efficient utilisation of existing and future electricity sources.

The proposed Project will address these issues by providing:

- Firming services grid-scale batteries can store wind and solar energy, then discharge it upon demand. The Project aims to be an essential component in the stable transition to clean electricity.
- Frequency support to maintain the stability of the system, the grid requires frequency control services. The Project will discharge electrical power into the network in response to frequency changes. The Project can lower the cost of these service markets.
- Inertia as with vehicle suspension on an uneven road, inertia services are essential for stabilising the grid. The advanced power inverters associated with the Project can emulate the inertia services that are currently provided by an ageing fleet of fossil fuel power plants.
- Transmission network support grid-scale batteries can provide dynamic millisecond responses so
  existing transmission lines can operate at full capacity. Like adding another lane to a freeway, the
  Project can unlock additional capacity on existing transmission networks saving millions of dollars in
  expensive transmission line upgrades.
- Reserve capacity the 200MW / 400MWh first stage of the Collie Battery will have the theoretical capacity to service the average energy needs of 260,000 households for an hour, but will also stand ready to pump power into the grid in the event of a shortfall from other electricity generators in the SWIS.



# 1.6 Report Structure and Information

Heading	Information/Description
Section 1.0	An introductory section describing the report's purpose, scope, and benefits
Section 2.0	Details and features of the Project site and surrounding locality
Section 3.0	An overview and description of the Project proposal
Section 4.0	An assessment of State and Local planning, and key legislation relevant to the Project
Section 5.0	A summary of stakeholder and community engagement
Section 6.0	A review of any potential impacts related to the Project and proposed mitigation measures
Appendix A	Letter of support and vision for Myaree Farm
Appendix B	Certificates of Title for all Lots
Appendix C	Concept site plans and elevations
Appendix D	Concept design report
Appendix E	Community engagement plan and stakeholder engagement outcomes report
Appendix F	Hydrological modelling report
Appendix G	Reconnaissance flora and basic fauna survey report
Appendix H	Bushfire Management Plan and Risk Management Plan
Appendix I	Traffic Impact Statement
Appendix J	Noise Impact Assessment
Appendix K	Aboriginal cultural heritage briefing note
Appendix L	Views of the Project site from Collie-Williams Road

#### Table 1.1 Report Structure



# 1.7 Contact Details

The key point of contact for all discussions relating to this application for Development Approval is:

#### **Rob Karelse**

Manager Environment WA – Umwelt (Australia) Pty Ltd

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# 2.0 Site Context

### 2.1 Location History and Context

The Shire of Collie is in the South-West region of WA approximately 215 km southeast of Perth and is a subregional centre.

This area was traditionally occupied by the Willman people of the Noongar nation. The Shire still contains large tracts of dense Jarrah Forest. The area was explored by Europeans in the late 1820s before coal was discovered by a shepherd in the early 1880s. The townsite of Collie was gazetted in 1897 with the first coal mine opening in 1927. Collie's economic and population growth have since been significantly driven by coal production and energy production. The three major coal fired power stations – Collie, Muja and Bluewater – that produce energy for the SWIS are located in Collie, and the area is the centre of the electricity transmission system.

More recently, the Shire has developed strategies to diversify and sustain the economy. These strategies aim to encourage diversification of local industry, adopt innovative technology, and maintain the area as an energy hub (DPLH, 2022; Shire of Collie, 2017). These objectives also align with broader State direction around decarbonisation and mitigating impacts of climate change.

## 2.2 Description of Site

The Project is to be located primarily on cleared and disturbed land which has historically been used for sheep grazing. Surrounding land uses include energy infrastructure, state forests, plantation forests, mining activities, agriculture, and rural residential. The current location of the Project has been selected to provide proximity to the existing Western Power Shotts Terminal, to connect the Project to the SWIS.

The Project site is approximately 12 km north-east of the town of Collie on Myaree Farm (**Figure 2.1**). Access to the Project will be off Collie-Williams Road utilising the landowners existing access road.



Image Source: Landgate (2021) Data source: Neoen (2022), Landgate (2022), Umwelt (2022)



# 2.3 Cadastre

The main Project infrastructure, including the battery compounds with associated switchyard/control rooms, transformers, office, maintenance shed, and ancillary infrastructure is located across Lot 775 and Lot 784 on Deposited Plan 232871 held in Certificate of Title Volume 2684, Folio 117. The Project's access road will be extended from the existing access road on Lot 785 through to Lot 775. Neoen has an agreement in place with the landholder of Lots 775, 784, and 775 for the use of these Lots for the proposed Project.

A switchyard and transmission lines are proposed to be located on Lot 782 held by Electricity Networks Corporation trading as Western Power.

The access track also crosses a road reserve (P Road Reserve Land ID 3539123).

Table 2.1	Description	of Lots			
Lot No	Volume	Folio	Plan/Diagram	Area	Landowner
775	2684	117	232871	40.65	Semlot Nominees Pty Ltd
784	2684	117	232871	40.49	Semlot Nominees Pty Ltd
785	2684	117	232871	65.47	Semlot Nominees Pty Ltd
782	2684	116	232871	40.51	Electricity Networks Corporation

Certificates of Title are provided in Appendix B.

### 2.4 Land Use

The Project site has previously been used for agriculture (grazing) and is directly adjacent to the Shotts Terminal to the west. Other nearby agricultural land is located to the north of the site and the remaining surrounding land use types are primarily utilities (Western Power infrastructure), plantation forests, production native forests, conservation reserves or rural residential. There is some remnant vegetation within the Project site consisting of mid-open Jarrah Forest as well as stands of riparian vegetation in the western-most and northern-most areas adjacent to Bingham River and Pollard Brook.

A summary of surrounding Lots and land uses is provided in Table 2.2.

Property	Direction	Zoning	Observed use and development
Lot 74 P070698	West	Rural	Plantation forest
Lot 2 D024636	West	Rural	Residential
Lot 1 D024636	West	Rural	Residential
Lot 613 P251358	North	Rural	Agricultural/Pastoral Use
Lot 786 P232871	North	Rural	Residential
Lot 1164 P232886	East	Rural	Agricultural/Pastoral Use
Lot 1117 P232886	East	State Forest	Conservation Area
F 24 (Muja State Forest)	East	State Forest	Conservation Area
Lot 781 P232871	South	Rural	Agricultural/Pastoral Use

Table 2.2Surrounding properties and land uses



### 2.5 Site selection

The proposed site for the Project was selected for the following key reasons:

- It is near strong existing energy infrastructure, including Shotts Terminal and the connecting 330 kV transmission line. As such, there are minimal requirements or impacts from transmission infrastructure.
- The site is predominantly cleared, so there is minimal impact to native vegetation and biodiversity.
- The site is large enough to accommodate up to a 1000 MW/4000 MWh battery project, without significant constraints or impacts.
- The landowner has a broader vision for energy infrastructure co-located with high-value agriculture and restoration of degraded ecosystems, both on this Project site and for other locations.
- There is good access to the road network.

Within the site, the infrastructure layout has been optimised through an iterative design process to be located:

- As far to the south-east as possible while minimising vegetation clearing, to be located further from adjoining Lots with rural residential land-use.
- Above the modelled 1% AEP flood risk area.
- So that minimal clearing is required, both for the asset and for a bushfire Asset Protection Zone.



# 3.0 The Proposal

The Project is currently at the 'Concept Design' stage. General requirements, locations, and designs of Project infrastructure are sufficiently known to enable assessment of potential impacts and to determine a footprint. The Project will then progress to 'Detailed Design', during which Project infrastructure will be refined and finalised to enable construction.

The total Project size will consist of five individual 200 MW/800 MWh battery compounds with a total combined output of 1000 MW/4000 MWh. The Project will be constructed in 200 MW/800 MWh stages, to meet the progressive increase in demand for energy storage.

The total Project size will occupy a footprint of approximately 31.4 ha, excluding temporary areas used during construction.

### 3.1 Overview

The Project is proposed to be within a mostly cleared area in proximity to the Shotts Terminal and existing Western Power transmission infrastructure and will include:

- Battery Banks, Power Conversion Systems (PCS), Power and Auxiliary Transformers and Ring Main Units (RMU)
- internal access roads and car parking spaces
- a combined 33 kV switchgear and control building, housing protections, metering, and control panels for each 200 MW/800 MWh stage
- a 330/33 kV substation with step-up power transformers and Auxiliary transformers
- connection to the existing Western Power transmission infrastructure, including 330 kV overhead cables and a switchyard
- a 33 kV cable reticulation and earthing networks
- low voltage AC cabling for auxiliary supplies, between the PCS and Power Transformers
- low voltage DC cabling between the battery banks and the PCS
- a communication cable network
- an operations and maintenance (O&M) office and storage warehouse
- connection to the Water Corporation network for water supply
- a firefighting water hydrant connected to scheme water supply, and contingency 50,000kL fire water tank
- lightning rods up to 21 metres
- CCTV cameras and lighting



- site perimeter fences and gates
- site laydown area and facilities for Project construction.

The final configuration of the BESS will be determined as part of the detailed design, after a supplier is selected through a competitive tendering process. While the layout of the Project might change as part of the detailed design process, the overall capacity and main components will remain the same, and the site footprint will be generally as shown in this Development Application.

The footprint of the proposed switchyard between the BESS and the 330 kV Western Power transmission line has been sized conservatively to accommodate at least two incoming and three outgoing transmission lines. Western Power has provided an indicative layout for the switchyard; however, the exact dimensions, number of components and infrastructure required will be determined as part of the detailed design.

An indicative layout of the Project is shown in **Figure 3.1**. Conceptual site plans and elevations for the major proposed infrastructure as part of the Development Application are included in **Appendix C** and a more detailed description of the conceptual design is provided in **Appendix D**.

The BESS is likely to resemble other Neoen big batteries around Australia, as shown in **Plate 3.1**, and more examples of battery cabinets are provided in **Plate 3.2**.



6315000

6314500

6314000

6313500

Image Source: Landgate (2021) Data source: Neoen (2022), Landgate (2022), Umwelt (2022)

Transmission Line Transmission Line Easement Internal Structures Control Rooms





Plate 3.1 Other Neoen Batteries around Australia







#### Plate 3.2 Battery Storage System Examples



### 3.2 Site Access

Currently, site access from Collie-Williams Rd to Lots 775 and 784 is via a private gravel road on Lot 785 with a creek crossing over Pollard Brook (**Figure 3.1**). The existing creek crossing (**Plate 3.3** and **Plate 3.4**) would be upgraded to support the size and weight of vehicles expected to be used during the construction phase. This upgraded creek crossing will service the existing Myaree Farm access road and the new proposed access road as shown in **Figure 3.1**. Neoen has undertaken consultation with DWER regarding requirements for a Bed and Banks Permit under the RIWI Act and has also engaged local Traditional Owners in relation to any potential impacts to the Pollard Brook which is a registered Aboriginal site.



Plate 3.3 Existing Creek Crossing over Pollard Brook in Lot 785 on Deposited Plan 232871





Plate 3.4 Pollard Brook beneath the existing Creek Crossing

The bridge design is currently at conceptual stage. The existing bridge will be removed, and pre-cast concrete box-culverts will be installed, following which a layer of crushed stone will be layed. This is expected to require minimal excavation to prepare the ground for a base slab for the culverts to be attached. The culvert will be designed and fabricated to meet the required bridge length, depth and maximum vehicle loads. This type of solution assures no change in watercourse after installation.

Hydrological modelling at the existing Pollard Brook Bridge has identified:

- The road level at the Bridge is currently ~209.7 mAHD, based on LiDAR data.
- An adopted 5% AEP (annual exceedance principal) flow, representing a 1:20 year ARI (average recurrence interval) event has a peak flood level of 209.5 mAHD.
- An adopted 1% AEP flow, representing a 1:100 year ARI event has a peak flood level of 209.9 mAHD.

The above calculations are not based on detailed bridge configuration information and assume clear span with waterway area as defined by LiDAR. Bridge sizing and performance would be refined at detailed design, and the Shire of Collie and DWER will be consulted further on the detailed design and construction of the bridge.

#### 3.3 Procurement and Construction

Neoen is aiming to commence Project construction by Q3 of 2023, following which it is expected to be operational within two years, by or before Q3 2025. The analysis of connections to Western Power network and detailed design of the project will run in parallel to the Development Application assessment. Granting



of the Development Application is the first step before the procurement process for the Engineering Procurement and Construction (EPC) contractor can commence. An indicative timeline for the Project is shown in **Figure 3.2**, and the complete project lifecycle for the BESS is provided in **Figure 3.3**. Submission of this Development Application is part of the "Government Submission" step in **Figure 3.3**.

Construction will commence once all approvals have been secured and following completion of any preconstruction conditions. It is anticipated that construction of each 200 MW/800 MWh stage will take between 12 and 24 months. During this time:

- Up to approximately 150 personnel are expected to be employed.
- there are expected to be an average of 50 two-way light vehicle and 6 two-way heavy vehicle movements per day, and a peak of approximately 100 two-way light vehicle and 20 two-way heavy vehicle movements per day.
- the Project will be constructed generally in accordance with the conceptual construction methodology as described in **Appendix D**, noting that a more detailed design will be completed for the Project as it progresses.



Figure 3.2 Indicative Project Development Schedule





Figure 3.3 Indicative Battery Project Lifecyle



# 3.4 Operations

The Collie Battery will be predominantly monitored and controlled remotely from Neoen's Operation Control Centre (OCC) in Canberra – which currently operates 14 existing projects across Australia. The OCC will oversee the Collie Battery's day-to-day operations and interactions with the wholesale electricity market (WEM). The OCC also coordinates with local maintenance contractors for safe, effective and compliant operations.

Local operational staff for the first 200 MW/800 MWh battery is expected to be two to four personnel on site during standard business hours Monday to Friday. This number may increase to a maximum of eight personnel for the full 1000 MW/4000 MWh battery.

Operational staff would undertake monitoring, cleaning, and general maintenance of the Project. Major maintenance that might be required would include replacement of equipment which may include battery modules, inverters, switchgear, transformers, or other infrastructure as needed. This would involve larger numbers of personnel for limited periods as required.

The BESS will operate around the clock – typically charging during the day while there is excess renewable generation and discharging during peak periods. After 20 years, the Project will be reviewed to determine whether it will be renewed or decommissioned.



# 4.0 Planning Considerations

This section describes relevant planning and environmental legislation, policy and strategy, and how the Project meets the requirements or intent of each.

### 4.1 State Planning

#### 4.1.1 State Planning Strategy 2050 (WAPC, 2021b)

The Western Australian *State Planning Strategy for 2050* and how it has been considered by the Project is outlined in **Table 4.1**.

Table 4.1	Project alignment with the WA State Planning Strategy 2050
	Froject alignment with the WA State Flamming Strategy 2050

What is it?	Alignment of the Project
This strategy provides the overarching context, principles, goals, and strategic direction for land use	The <i>State Planning Strategy 2050</i> makes specific reference for a need to improve the State's electricity
planning in WA. The uptake of renewable energy	network infrastructure to manage the increased
generation and technology is a critical component of the	generation and use of renewable energy. The Project is
strategy and is specifically discussed under strategic	consistent with and supports the implementation of the
goals for global competitiveness, and strategic	goals and strategic directions of the State Planning
directions for physical infrastructure and environment.	Strategy 2050.

#### 4.1.2 Western Australian Climate Policy (DWER, 2020)

The *Western Australian Climate Policy* and how it has been considered by the Project is outlined in **Table 4.2**.

#### Table 4.2Project alignment with the WA Climate Policy

What is it?	Alignment of the Project
<ul> <li>The Western Australian Climate Policy was released in 2020 (DWER, 2020), and sets out the vision for a climate resilient state with net-zero greenhouse gas emissions by 2050. The policy lays out the following areas of focus for climate action in the State:</li> <li>Clean manufacturing and future industries.</li> <li>Clean manufacturing energy generation and use.</li> <li>Storing carbon and caring for our landscapes.</li> <li>Lower-carbon transport.</li> <li>Resilient cities and regions.</li> <li>Government leadership.</li> <li>The policy also describes the actions already underway, and the qualitative outcomes that the State seeks to achieve in these key focal areas.</li> </ul>	As a Project that supports renewable energy development, the Project is directly aligned with a number of these focal areas while supporting progress in others. A utility-scale Battery established within the SWIS will allow industry growth and development in a way that is consistent with a low-emissions economy by providing vital infrastructure to support the integration of more renewable energy. This will further reinforce the resilience of the SWIS, the reliability of energy supply, and support transitions in other industries (such as transport) to lower-carbon pathways.



### 4.1.3 Energy Transformation Strategy (Energy Policy WA, 2021)

The Western Australian Energy Transformation Strategy and how it has been considered by the Project is outlined in **Table 4.3**.

#### Table 4.3 Project alignment with the WA Energy Transformation Strategy

# 4.1.4 Distributed Energy Resources Roadmap (Energy Transformation Taskforce, 2019)

The WA Distributed Energy Resources Roadmap and how it has been considered by the Project is outlined in **Table 4.4**.



#### Table 4.4Project alignment with the WA Distributed Energy Resources Roadmap

What is it?	Alignment of the Project
This document sets out the actions, responsible authorities, and timeframes to realise the vision for Distributed Energy Resources (DER) in WA by 2025. This roadmap is a key part of the Energy Transformation Strategy, and refers to:	The Project directly advances the aims and specific actions of the roadmap, as distribution battery storage is a key element in progressing the roadmap initiatives. The roadmap makes specific reference to the importance of utility-scale batteries:
• A safe and reliable electricity system where customers can continue to connect to DER and where DER supports the system in an efficient way.	'Deployment of storage within the SWIS will be needed as part of measures to ensure power system stability and security. Large scale front-of-the-meter storage can
• DER capability offering value throughout the electricity supply chain.	unlock the full capability of storage to provide power system and network benefits and storage products that can be offered to customers or retailers.'
• DER benefits flowing to all customers, both with and without DER.	(Energy Transformation Taskforce, 2019, p. 56)

#### 4.1.5 Future Battery Industry Strategy (JTSI, 2019)

The Western Australian Future Battery Industry Strategy and how it has been considered by the Project is outlined in **Table 4.5**.

#### Table 4.5 Project Alignment with the Western Australian Future Battery Industry Strategy

What is it?	Alignment of the Project
WA's Future Battery Industry Strategy is intended to provide a framework for WA to become a globally recognised producer and exporter of battery materials, technology, and expertise. In particular, the strategy is supported by several key objectives which aim to increase and accelerate the domestic uptake of battery technology.	The Project is directly aligned with these objectives by establishing a utility-scale BESS within the South West which allows greater integration of renewable technology into the SWIS. This is particularly relevant in the Shire of Collie where coal production and processing has historically provided a significant energy source for the State. The Project will take advantage of the latest technology in BESS facilities and illustrate the potential for more to be embedded across the SWIS.



### 4.1.6 Position Statement – Renewable Energy Facilities (DPLH, 2020)

The Western Australia Planning Position Statement for Renewable Energy Facilities and how it has been considered by the Project is outlined in **Table 4.6**.

What is it?	Alignment of the Project
<ul> <li>What is it?</li> <li>This position statement aims to support appropriate development of renewable energy facilities by encouraging consideration and assessment of renewable energy developments using a standardised framework. In particular, it:</li> <li>Describes the provisions that should be made in state and local planning instruments (local planning schemes, policies, and strategies etc.) to guide decision making regarding renewable energy facilities.</li> <li>Lists the factors that should be considered during assessments of proposed facilities, including community consultation, environmental impact, visual and landscape impact, public and aviation safety, heritage, and construction impacts.</li> </ul>	<ul> <li>Alignment of the Project</li> <li>This position statement has been considered in the design, location, and management of the Project as follows: <ul> <li>Relevant State Government agencies have been contacted to discuss the Project and ensure it is aligned with overall planning and development strategies in the region around industry and renewable energy developments.</li> <li>Relevant legislation, policies, guidelines, and strategies have been reviewed to ensure the Project's design and operational strategy comply with State objectives. In particular, those relating to energy production and mitigating impacts to both the built and natural environment have been assessed and reviewed.</li> </ul> </li> </ul>
<ul> <li>Seeks to maximise energy production and operational efficiency, and minimise potential impacts to the environment, natural landscape, and urban areas.</li> </ul>	<ul> <li>Baseline studies have been completed relating to bushfire risk, traffic and transport, noise, ecology, hydrology and Aboriginal heritage to ensure all potential impacts have been considered and addressed.</li> </ul>
	• The Project has been designed within the site to be located where there will be minimal visual impact to members of the public, due to the topography of the site and screening by existing native vegetation.
	<ul> <li>The site has been selected to be near to existing electricity infrastructure (i.e. Shotts Terminal) to maximise operational efficiency and reduce impacts that would be caused by any additional transmission lines.</li> </ul>
	• Local stakeholder and community consultation has been completed, including with the Shire of Collie, nearby landholders, special interest groups and the local community to maintain strong relationships with local stakeholders and address any concerns or priorities raised.
	<ul> <li>The position statement has been reviewed in conjunction with the Shire's land use objectives for renewable energy facilities as per the <i>Local Planning Scheme No. 6</i> (discussed further in Section 4.2.3).</li> </ul>

#### Table 4.6 Consideration of the WA Planning Position Statement – Renewable Energy Facilities



# 4.1.7 State Planning Policy No. 2 – Environment and Natural Resources Policy (WAPC, 2003)

State Planning Policy No. 2 (SPP2) and how it has been considered by the Project is described in Table 4.7.

What is it?	Alignment of the Project
What is it? State Planning Policy No. 2 (SPP2) defines the principles and considerations that represent good and responsible planning in terms of environment and natural resource issues within the framework of the State Planning Strategy. SPP2 refers to reducing greenhouse gas emissions by decreasing reliance on non-renewable fuels, stating that 'planning strategies, schemes and decision making should support the use of alternative energy generation, including renewable energy, where appropriate.' SPP2 also includes measures related to the protection of the environment (biophysical and social), mitigation of impacts, and management of water resources, soil and land quality, biodiversity, and landscape values.	<ul> <li>Alignment of the Project</li> <li>The Project is well aligned to the objectives of SPP2 relating to energy and renewable energy capacity. Further, it has considered the objectives and measures in SPP2 by:</li> <li>Selecting predominantly cleared land for the purposes of constructing and operating the facility and ancillary infrastructure to minimise any proposed clearing as much as possible.</li> <li>Seeking to improve environmental outcomes in the long-term through future ecological restoration activities on Myaree Farm (separate to this Development Application).</li> <li>Undertaking reconnaissance flora and fauna habitat surveys in accordance with relevant EPA guidelines to inform our understanding of potential impacts and suitable controls (outlined in Section 6.2).</li> </ul>
	<ul> <li>and suitable controls (outlined in Section 6.2).</li> <li>Completing noise modelling to characterise potential noise impacts to nearby receptors and identify suitable controls.</li> </ul>
	• Undertaking analysis of the area's hydrology to understand potential flooding risk and ensure suitable controls have been implemented (as outlined in <b>Section 6.1</b> ).
	• Consulting with the EPA and DCCEEW on the clearing that is to be undertaken to understand any associated regulatory or referral requirements. The Project will be referred for assessment where necessary following final design reviews.

#### Table 4.7Consideration of State Planning Policy No. 2



### 4.1.8 State Planning Policy No. 2.5 – Rural Planning (WAPC, 2016a)

*State Planning Policy No. 2.5* (SPP2.5) and how it has been considered by the Project is described in **Table 4.8.** 

What is it?	Alignment of the Project
State Planning Policy 2.5 (SPP 2.5) provides the	The proposed Project site is not identified as priority
overarching planning objectives relating to rural zones	agricultural land (Shire of Collie, 2020) and the intended
defined in local planning schemes. SPP 2.5 aims to	land use could be considered as incidental or
protect rural land, rural land uses, avoid land use	complimentary to rural land uses.
conflicts, and support sustainable economic growth. The	The Project retains and protects the biodiversity value
policy seeks to promote economic development	and natural landscape of the site as far as possible by
opportunities, with the Western Australian Planning	utilising cleared land while preserving pockets of
Commission (WAPC) to balance the need for economic	remnant vegetation that are in proximity or contiguous
opportunity with the protection of the State's primary	with existing State Forest. It is located where there will
production and natural resource assets.	be minimal visual impact to members of the public, due
Relevant policy measures of SPP 2.5 include retaining	to the topography of the site and screening by existing
land identified as priority agricultural land for that	native vegetation.
purpose and retaining and protecting rural land for	It is also not expected that these Project will impact the
biodiversity protection, natural resource management,	use of surrounding land for rural purposes now or into
and protection of valued landscapes and views.	the future.

#### Table 4.8Project alignment with State Planning Policy 2.5

#### 4.1.9 State Planning Policy No. 2.9 – Water Resources

*State Planning Policy No. 2.9* (SPP2.9) and how it has been considered by the Project is described in **Table 4.8.** 

What is it?	Alignment of the Project
<ul> <li>The objectives of SPP2.9 are to:</li> <li>protect, conserve and enhance water resources that are identified as having significant economic, social, cultural and/or environmental values</li> <li>assist in ensuring the availability of suitable water resources to maintain essential requirements for human and all other biological life with attention to maintaining or improving the quality and quantity of water resources</li> <li>promote and assist in the management and sustainable use of water resources.</li> <li>A draft revision of SPP2.9 was released in August 2021 and contains an updated set of policy provisions. The intent of the updated policy provisions is to ensure that planning/development considers water resource management at the appropriate time.</li> </ul>	In the case of this proposed Project, there are limited surface water and groundwater resources on the site. The Project is not within a proclaimed groundwater area, there are no licensed groundwater bores in the nearby vicinity, and the Project does not propose to access surface water from the adjacent Bingham River or Pollard Brook. As such, there is not expected to be impact to other water users. Design and management measures to mitigate potential impacts to surface and groundwater will be considered as part of the detailed design stage. Further information is provided in <b>Section 6.0</b> .

#### Table 4.9Project Alignment with State Planning Policy 2.9


# 4.1.10 State Planning Policy No. 3.7 – Planning in Bushfire Prone Areas (WAPC, 2015)

*State Planning Policy No. 3.7* (SPP3.7) and how it has been considered by the Project is outlined in **Table 4.10.** 

What is it?	Alignment of the Project
SPP3.7 applies to all land which has been designated as bushfire prone and all development applications on those lands. Proposed developments in Bushfire Prone Areas must have a Bushfire Risk Assessment undertaken by an accredited professional which includes a Bushfire Attack Level (BAL) assessment, identification of any bushfire hazard issues, and compliance with criteria outlined in policy guidelines.	As the proposed project site is located in a designated Bushfire Prone Area, the Project has been designed to be compliant with this policy, and to make considerations for the requirements under Section 6.5 (Information to accompany development applications). The proposed Project is also considered a "high-risk" land use. A Bushfire Management Plan and Risk Management Plan have been completed for the Project by a Bushfire Planning and Design (BPAD) Level 3 accredited consultant. Further details relating to the Projects controls and risk management strategies for bushfire hazard are outlined in <b>Section 6.3</b> .

#### Table 4.10Project Alignment with State Planning Policy 3.7

# 4.1.11 Guidance Statement 33 – Environmental Guidance for Planning and Development (EPA, 2008)

EPA *Guidance Statement 33* and how it has been considered by the Project is outlined in **Table 4.11**.

#### Table 4.11 Consideration of EPA Guidance Statement 33

What is it? A	Alignment of the Project
Guidance Statement 33 provides an overview of the relevant environmental protection frameworks implemented in WA to assist in land use planning and development. It combines the relevant State environmental and planning frameworks to provide for appropriate consideration and assessment of potential environment impacts at both a broad and local planning scale.PIn particular, the guidance statement describes procedures and requirements relating to referrals and environmental impact assessments required under Part IV of the EP Act. These procedures may include, but are not limited to, the undertaking of baseline studies and impact assessments, consultation with relevant government agencies, and identification of environmental objectives, priorities, and targets relevant to the Project location.In	In considering <i>Guidance Statement 33</i> , Neoen has undertaken a range of technical studies to understand potential impacts and outcomes relating to environmental factors and their objectives listed under Part IV of the EP Act. Through this process consultation with the EPA it has been determined that there is unlikely to be a significant impact for the environment and the Project does not need to be referred to the EPA for further assessment (as outlined in <b>Section 4.3.1</b> ). It is expected that any potential impacts that may arise can be sufficiently minimised and mitigated through the controls incorporated into the Project design and as part of ongoing management.



# 4.2 Regional and Local Planning

# 4.2.1 Bunbury-Geographe Sub-regional Strategy (DPLH, 2022)

The Bunbury-Geographe Sub-regional Strategy and how it has been considered by the Project is outlined in **Table 4.12**.

Tuble 4.12 Troject augment with the building deographic sub regional strategy		
What is it?	Alignment of the Project	
The Bunbury-Geographe Sub-Regional Planning Strategy	Key economic issues highlighted by the planning	
aims to plan and manage growth in the Bunbury-	strategy are fluctuating demand, innovation, and	
Geographe subregion to the year 2050. This planning	reduction of carbon emissions which impacts traditional	
strategy has an overarching vision, strategic directions,	industries like coal mining, energy generation and	
and actions, identifies land requirements and provides	agriculture. Collie is 'renowned for coal mining and	
strategic context for local government planning. Key	power generation' and electricity is considered one of	
guiding principles outlined in the strategy are to:	the main industry sectors driving the sub-regional	
Promote alternative and innovative solutions.	economy.	
	The Project directly addresses the economic issues and	
• Strengthen and diversify the economy.	aims of this strategy and assists Collie to continue to	
	support the SWIS as an energy hub by bringing	
• Respond to the implications of climate change.	significant reserve capacity online and supporting the	
	development of renewable energy supplies. This will	
Ensure sustainable regional outcomes.	assist Collie in the transition away from coal-powered	
	electricity generation and achieve the strategy's	
	objective of promoting Collie as a sub-regional centre in	

a sustainable manner.

## Table 4.12 Project alignment with the Bunbury-Geographe Sub-regional Strategy



# 4.2.2 Shire of Collie Local Planning Strategy (Shire of Collie, 2020)

The Shire of Collie's Local Planning Strategy and how it has been considered by the Project is outlined in **Table 4.13**.

What is it?	Alignment of the Project
The Shire's Local Planning Strategy is informed by a range of strategic planning documents from the state and regional level and sets the planning direction and objectives for the Shire. It provides general land use planning directions, undertakes a planning analysis to inform the broad land use planning direction, recognises unresolved planning issues and identifies the planning actions required to address these. The planning strategy highlights critical planning considerations including bushfire management, developments within floodplains, industry and infrastructure buffers from sensitive land uses, and the protection of public drinking water source areas and catchments.	The Shire's Local Planning Strategy recognises their main economic output as coal mining and power generation and identifies the Collie Power Station locale as suitable for future general and strategic industrial development. The Project site has been identified as highly suitable mostly cleared land near existing power generation and Western Power network. The strategy does outline the importance for retaining agricultural land in the face of industry diversification. The landowner has identified their intent to co-locate low- impact energy storage infrastructure alongside high value rural land uses and ecological restoration activities. Although utility-scale BESS facilities are a relatively new development in WA, examples of facilities in other states have illustrated the minimal environmental and social impacts to the immediate surroundings of these facilities. BESS technology provides energy infrastructure that has no atmospheric emissions or water discharges, negligible close-proximity sound and minimal visual impact (Energy Victoria, 2019).

## Table 4.13 Project alignment with the Shire of Collie's Local Planning Strategy



# 4.2.3 Shire of Collie Local Planning Scheme No. 6 (Shire of Collie, 2021)

The Shire of Collie's *Local Planning Scheme No. 6* and how it has been considered by the Project is described in **Table 4.14**.

What is it?	Relevance to the Project
The purpose of the <i>Local Planning Scheme No.6</i> (LPS No. 6) is to prescribe the land use classifications and zoning allocations for land throughout the Shire. The LPS No. 6 also includes specific provisions for development applications depending on the intended land use type and existing zoning allocation of the development land. The LPS No. 6 also includes special control areas which are designated for particular land uses and outline the requirements of any proposed developments within these areas.	The Project is not clearly defined by any existing land use classification in the LPS No. 6. Preliminary discussions with the Shire have indicated the Project may be assessed as a 'land use not listed' in accordance with Clause 4.4.2 (b) of the LPS No. 6. The other most closely fitting classification is "renewable energy facility", however as the project does not generate electricity it does not meet this classification and the Shire advised that "land use not listed" is likely most appropriate. In both cases, the local government will need to be satisfied that the proposed land use activities are compatible with "rural" zone objectives to grant Development Approval.
	The Project is to be located on land currently zoned as rural and a number of general development standards apply. Compliance of the Project with relevant planning controls of LPS No. 6 that are applicable to the Project are addressed in <b>Subsections 4.2.3.1</b> and <b>4.2.3.2</b> .

#### Table 4.14 Consideration of the Shire of Collie's Local Planning Scheme No. 6

#### 4.2.3.1 Rural Zone Land

The proposed Project site is zoned as "rural". As a "land use not listed" the Project activities must meet rural zoning objectives. Rural zoning objectives and the consistency of the Project with these are described in **Table 4.15**.

Objective	Project Alignment
To provide for the maintenance and enhancement of specific local character	<b>Consistent</b> Impacts to local rural character are considered minimal given the extensive energy infrastructure present in the area and Neoen's intent to preserve remnant vegetation. The Project mostly will not be visible to the public from Collie-Williams Rd due to the topography of the site and screening vegetation.

#### Table 4.15 Rural Zone Planning Objectives



Objective	Project Alignment
To protect broad acre agricultural activities such as cropping and grazing and intensive uses such as horticulture as primary uses, with other rural pursuits and rural industries as secondary uses in circumstances where they demonstrate compatibility with the primary use.	Consistent The Project utilises primarily cleared land that has historically been used for grazing activities. The land capability within the proposed project footprint for grazing is mostly categorised under DPIRD's land capability mapping (DPIRD, 2018) as "50-70% of the land has moderate to very high capability" (29.5 ha) with a small amount categorised as ">70% of the land has moderate to very high capability"(1.81 ha). While the land is of moderate to high quality, the Project area represents less than 0.045% and 0.0019%, respectively, of these land capability groups within the Collie Local Government Area (LGA). Implementation of the Project on Myaree Farm is part of the landowner vision to have energy infrastructure co-located with high value grazing activities (Appendix A). The nature of the facility as neither an industrial land use nor a sensitive land use also ensures that it remains compatible with agricultural land uses in surrounding areas such as intensive feed lots, cropping and grazing.
To maintain and enhance the environmental qualities of the landscape, vegetation, soils, and water bodies, to protect sensitive areas especially the natural valley and watercourse systems from damage.	ConsistentStudies have been completed to understand the environmental qualities of the Project area and surrounding landscape. This includes hydrology and ecology studies.The hydrology study has informed the project design such that the facility is located well above 1% AEP flood risk areas, and any potential concentrated overland flow during storm events will be managed through site drainage controls.The Project has been designed to avoid the need to clear native vegetation as much as possible, while managing other potential impacts such as bushfire risk.Implementation of the Project on Myaree Farm will allow partial de-stocking of the Lots which will enable ecological restoration of parts of the farm (Appendix A).Further information on potential environmental impacts and proposed mitigation measures is provided in Section 6.0.
To provide for the operation and development of existing, future, and potential rural land uses by limiting the introduction of sensitive land uses in the Rural zone.	<b>Not applicable</b> The Project activities are not considered a sensitive land use.
To provide for a range of non- rural land uses where they have demonstrated benefit and are compatible with surrounding rural uses.	Consistent The Project is a non-rural land use that will provide demonstrated benefit to the local community as outlined in Section 1.5.1. The Project's activities are considered compatible with rural land uses in adjacent areas as it does not inhibit their use for agricultural purposes now or into the future. Appendix A describes the vision of the Myaree Farm landholder to have co- located energy infrastructure, high value rural land uses and ecological restoration activities through such methodologies as "natural sequence farming"

## 4.2.3.2 General Development Standards

The LPS No. 6 provides general development standards for developments in all planning zones of the Shire in accordance with the intended land use activities and existing zone classification. Considerations in the



Project design have been made to ensure the Project meets all development requirements provided in the LPS No. 6 and are listed in **Table 4.16**.

Table 4.16	LPS No. 6	General	Develo	pment	Standards
					•••••••••

Requirement	Project Design Considerations
<i>cl 32.1 Building Heights</i> This clause defines the maximum building height above natural ground level in accordance with Schedule 1 of the LPS No. 6. Building height variations may be considered where the development meets certain criteria.	No maximum building height is specified for developments in Rural zoned land as per Schedule 1 of the LPS No. 6.
<i>cl 32.3 Car Parking</i> This clause lists the provisions to be included for car parking facilities in accordance with the intended land use activities and the specifications provided in Schedule 2 of the LPS No. 6.	Car Parking requirements are not specified for land uses not readily defined by the LPS No.6. The most similar land use classification to the Project is likely a 'Renewable Energy Facility' in which case the parking facilities required would be 1 bay per employee plus 2 visitors bays. The Project is expected to have a maximum of 2-4 employees on-site for Stage 1 operations and up to eight employees for the full 1000 MW/4000 MWh project. Car parking will be provided to accommodate this number of employees plus two visitors. Vehicle parking during construction will be via informal parking within the Project Lots, and will not impact Collie-Williams Road.
Cl 32.7 Storage or dismantling of goods, equipment, plant, or materials Where the intended land use activities are not consistent with the normal use of permitted land use activities, development application must be made to the local government for the storage and/or dismantling of vehicles, goods, equipment, plant, or materials.	As the Project activities are not clearly defined by existing classifications of the LPS No. 6, consideration has been made for the storage and/or dismantling of any goods, equipment, or materials on-site. The Project will provide a dedicated informal space in one of the proposed laydown areas ( <b>Figure 3.1</b> ) for the delivery and storage of goods, equipment, plant, or materials during construction. Parking during operations will comply with the requirements of the Shire of Collie's LPS No. 6. Parking can be managed on-site and have no impacts on the adjoining Collie-Williams Road.
<i>Cl</i> 32.10 Development abutting unconstructed roads or with no gazetted road access Developments in lots abutting unconstructed road reserves or where direct frontage to a gazetted road reserve is not available, development approval is required from the local government. Where approval is granted, conditions may be imposed requiring the application to contribute to the construction of the road or part thereof.	The Project has direct access to the gazetted Collie- Williams Road. Access into the site is via an existing gravel road which travels southwest across Lot 785 from Collie-Williams Road and provides access to Lot 775. A new road will be constructed as part of this development to connect the existing access road on Lot 785 to the development site on Lots 775 and 784. This will include an upgrade of the existing bridge over Pollard Brook on Lot 785. The new road and upgraded existing access road will provide access from Collie-Williams Road.



Requirement	Project Design Considerations
<i>Cl 32.11 Landscaping</i> Landscaping requirements are applicable to all land use activities as outlined in Schedule 1 of the LPS No. 6. Specific requirements relating to landscaping are provided in Clause 32.11 of the LPS No. 6 and primarily relate to endemicity of plant species and design considerations for landscaping.	Landscaping requirements are not applicable for land zoned as Rural. However, as the Project is classified as a "land use not listed" the Shire might implement landscaping requirements as a condition of Development Approval to ensure consistency with the surrounding landscape. The Project will be located where there is minimal visual impact to members of the public, including from Collie- Williams Road, due to the topography of the site and screening by existing native vegetation. Further discussion on visual impact is provided in <b>Section 6.8</b> . The final stage 1000 MW/4000 MWh BESS will be slightly visible from Collie-Williams Road and might include some landscaping to provide visual screening.
<i>Cl</i> 32.14 <i>Water supply and resource protection</i> Requirements relating to water supply arrangements and protection of water resources apply to all developments in the Shire. These requirements primarily relate to establishing water supply, minimum supply requirements, access requirements and protection of water resources.	The Project will be connected directly to the existing reticulated potable water supply network with a firefighting water hydrant within 100 m of the site office building. The Project has also accounted for potential risks to surface water and groundwater which are outlined in <b>Section 6.1</b> . The controls identified in these sections ensure that potential impacts to water resources are sufficiently addressed.
Minimum Setback Minimum setback requirements are defined in schedule 1 of the LPS No. 6 according to zoning classification. On rural zoned land, a minimum set back of 30 m is required at the front and rear and a setback of 15 m at the sides of the development.	The setbacks defined by the proposed project site layout satisfy the minimum required setback distances for front, rear and sides ( <b>Figure 3.1</b> , <b>Section 3.0</b> ).



# 4.2.4 Shire of Collie Strategic Community Plan (Shire of Collie, 2017)

The relevance of the Shire of Collie's Strategic Community Plan and how it has been considered by the proposed Project is described in **Table 4.16.** 

What is it?	Alignment of the Project
The Shire's Strategic Community Plan is the long-term strategic direction document setting out vision, aspirations, and key strategies for the future of Collie. The five key goals for strategic priorities in the Shire are the community, economy, natural environment, built environment and businesses. In particular, the strategic plan supports a focus on economic diversification in tourism, agriculture, and alternative energy production.	Diversification of the local economy is identified as an important challenge in the strategic community plan and there are aims to leverage the Shire's state-significant energy generation and transmission infrastructure for future diversification. Identifying alternative generation options (renewables) to drive creation of new jobs to replace those lost is recognised by the community plan as critical.
	As a result, long term strategic priorities for the shire include economic diversification and positioning Collie as ideal centre for creating sustainable alternatives for the power industry. By providing additional reserve capacity directly within the Shire, the Project will support the development of new renewable energy facility developments. It will also help to achieve 'Goal 4: Our Built Environment' of the plan which is a sustainable asset and infrastructure base.
	More broadly, the Project addresses the Shire's strategy for adaptation to climate through increased energy security and emissions reductions resulting from a greater capacity for renewable energy sources.

#### Table 4.17Project alignment with the Strategic Community Plan



# 4.3 Other Legislation and Regulations

# 4.3.1 Environmental Protection Act 1986 (WA) (EP Act)

The *Environmental Protection Act 1986* (WA) and how it has been considered by the Project is described in **Table 4.18**.

Table 4.18	Consideration of the Environmental Protection Act 1986

What is it?	Relevance to the Project
The EP Act allows the State Government to assess and apply controls for projects that might have an impact on the environment. Part IV of the EP Act requires that projects likely to have a significant effect on the environment are referred to the EPA to assess whether an environmental impact assessment is required. Part V of the EP Act regulates emissions and discharges to the environment through a works approval and licensing process and regulates the clearing of native vegetation through clearing permit applications. Premises with the potential to cause emissions and discharges to air, land, or water are known as 'prescribed premises' and require works approvals for construction, and a licence or registration for ongoing emissions and discharges.	<ul> <li>How the EP Act requirements have been considered:</li> <li>The Project will require limited clearing of native vegetation that is Black Cockatoo foraging habitat and potentially breeding trees, and may also contain a P4 listed flora species (see Section 6.2 and Appendix G for further information). Neoen have consulted with the EPA on their view as to the significance of this impact under Part IV of the EP Act. Based on this consultation, the Project will not need to be referred to the EPA. Further surveys will be completed to further quantify impacts and mitigations related to vegetation clearing.</li> <li>Neoen will apply for a Native Vegetation Clearing Permit under Division 2, Part V of the EP Act for any native vegetation clearing that is required and that is not exempt from requiring a permit.</li> <li>The Project has been designed and will be managed such that all reasonable and practicable measures to prevent pollution will be implemented. This includes complying with relevant regulations under the EP Act (e.g., noise – see following section).</li> <li>The Project is not classified as a prescribed premise, so does not require assessment and approval under Division 3, Part V of the EP Act.</li> </ul>



# 4.3.2 Environmental Protection (Noise) Regulations 1997 (EP (Noise) Regulations)

The *Environmental Protection (Noise) Regulations 1997* (WA) and how it has been considered by the Project is described in **Table 4.19**.

What is it?	Relevance to the Project?
The EP (Noise) Regulations provide a prescribed standard under the EP Act that sets limits for noise emissions. The EP (Noise) Regulations are used to assess and set conditions for new developments regarding domestic, commercial, and general industry noise emissions and outline provisions for noise sensitive premises to mitigate potential impacts.	The Project will generate noise from the battery modules, inverters, and transformers. Detailed noise modelling has been completed to understand potential impacts to nearby receptors, in particular local residences. Further information on the noise modelling completed for the Project is provided in <b>Section 6.6</b> and <b>Appendix J</b> .

#### Table 4.19 Consideration of the Environmental Protection (Noise) Regulations 1997

# 4.3.3 Environmental Protection and Biodiversity Conservation Act 1999 (Cth) (EPBC Act)

The *Environmental Protection and Biodiversity Conservation Act 1999* (Cth) and how it has been considered by the Project is described in **Table 4.20**.

Table 4.20	Consideration of the Environmental Protection and Biodiversity	y Conservation Act 1999

What is it?	Relevance to the Project
Protection under the EPBC Act is afforded to nine Matters of National Environmental Significance (MNES). Proposed developments that may adversely impact MNES must be referred for assessment by the federal Department of Climate Change, Energy, the Environment, and Water (DCCEEW) who are the agency responsible for administering the EPBC Act.	The Project has aimed to avoid clearing of native vegetation as much as possible; however, there is still a need to clear some native vegetation that is directly within the Project footprint and to establish the Asset Protection Zone. A basic ecology survey of the site was completed in July 2022. This survey determined that there are no EPBC listed flora or vegetation communities that will be impacted by the Project. However, the survey identified that Black Cockatoo foraging habitat and potential breeding trees will be directly impacted by the Project. Neoen will consult with DCCEEWW on the requirement to refer the project for assessment under the EPBC Act.



# 4.3.4 Aboriginal Heritage Act 1972 (WA)

The *Aboriginal Heritage Act 1972* (WA) and how it has been considered by the Project is described in **Table 4.23.** Although the *Aboriginal Cultural Heritage Act 2021* has been gazetted, the regulations have not been finalised. It is expected that any application to disturb Aboriginal heritage sites would be submitted while the *Aboriginal Heritage Act 1972* provisions remain in force.

What is it?	Relevance to the Project
In WA, the Aboriginal Heritage Regulations 1974 (the Regulations) under the Aboriginal Heritage Act 1972 apply to any registered Aboriginal site or protected area.	As part of the Project Area overlaps with a registered Aboriginal site (Collie River Waugal (Site ID 16713)), and activities are proposed that have the potential to affect this site, the Regulations apply.
	Within the Regulations, Regulation 10 outlines certain activities that require written consent to proceed. The Regulation 10 process is intended to cover minor works proposed within Aboriginal heritage sites.
	Consultation with the local Traditional Owners and DPLH indicates that an approval under Regulation 10 of the <i>Aboriginal Heritage Regulations 1974</i> will be required prior to the upgrade of Pollard Brook.
	A Regulation 10 authorisation will be sought from either the Registrar or the Minister before any work on the Pollard Brook bridge upgrade commences.

#### Table 4.21Consideration of the Aboriginal Heritage Act 1972

# 4.3.5 Rights in Water and Irrigation Act 1914 (WA) (RIWI Act)

The *Rights in Water and Irrigation Act 1914* and how it has been considered by the Project is described in **Table 4.22.** 

What is it?	Relevance to the Project
The RIWI Act establishes a licensing system for taking water from a watercourse or underground source, constructing or altering wells, and interfering with the bed or banks of a watercourse. The Department of Water and Environmental Regulation (DWER) is responsible for administering the RIWI Act.	The Project is located within the Collie River Irrigation District which is a Proclaimed Surface Water Area under the RIWI Act 1914. There are also two watercourses running north-south and east-west of the site, known as Bingham River and the Pollard Brook, respectively. No surface water or groundwater abstraction will be required for the Project.
	DWER has been consulted regarding the need for a bed and banks permit for the upgrade of the bridge. However, DWER has not been able to provide advice prior to the Development Application submission regarding the need for a Bed and Banks Permit. DWER will be consulted further prior to the planned bridge upgrade.

Table 4.22	Consideration of the Rights in Wa	ter and Irriaation Act 1914
	consideration of the highlight ha	cer ana migation / ce 1514



# 4.3.6 Water Services Act 2012 (WA) (WS Act)

The Water Services Act 2012 (WA) and how it has been considered by the Project is described in Table 4.23.

What is it?	Relevance to the Project
This Act enables water service providers to deliver water supply, irrigation, sewerage and drainage services.	A water supply pipeline runs east-west along the southern side of Collie-Williams Road, passing underneath the existing site access to the Project. Under Section 90 of the <i>Water Services Act 2012</i> , Neoen is required to request approval from Water Corporation for proposed work within the prescribed proximity of Water Corporation assets. According to Table 2 of the <i>Technical Guidelines for safely working near Water</i> <i>Corporation assets</i> , ground disturbing works within 6 m of a water supply pipeline of >300 mm requires approval. Upgrade of the access track and movement of heavy vehicles meets this criteria so approval will be required. Neoen will consult with Water Corporation during the detailed design stage and prior to construction on appropriate management of any risk to the pipeline and will request approval as required.

Table 4.23Consideration of the Water Services Act 2012



# 5.0 Stakeholder and Community Engagement

Engagement and consultation activities have been undertaken with a range of relevant stakeholders in preparing this development application to ensure stakeholder concerns and priorities are considered in the design and implementation of the Project. The stakeholder engagement process undertaken was aligned with Neoen's stakeholder engagement framework and further informed by best-practice stakeholder engagement approaches.

This section provides a summary of the engagement process and outcomes, and a more detailed description is provided in **Appendix E**.

# 5.1 Engagement and Consultation Process

## 5.1.1 Aim

The key objectives addressed through this stakeholder engagement process were, and continue to be:

- 1. Foster a transparent and open approach to project development and ensure 'no surprises' for the local community.
- 2. Keep the community and stakeholders informed about the Project through the provision of accurate, timely and factual project information.
- 3. Identify and address community and stakeholder concerns and maintain transparency in the Project's design, implementation, and ongoing operations.
- 4. Involve stakeholders and community regarding key decisions.
- 5. Identify opportunities for local business involvement and local employment in the construction and operation of the Project.
- 6. Co-design, develop and deliver a benefit sharing program in collaboration with the community, and in partnership with local stakeholders where possible.
- 7. Develop long-term relationships and partnerships with community and stakeholders.

## 5.1.2 Stakeholders

The stakeholder groups engaged as part of this process included:

- Nearby landowners.
- Local community members from the Shire of Collie.
- Aboriginal stakeholders.
- Community organisations and service providers.
- Special interest community groups.
- Relevant local and state government agencies.



# 5.1.3 Timeline

The timeline of stakeholder engagement to date on the Project is described in **Table 5.1**.

Table 5.1	Timeline of Stakeholder Engagement Activities
	Informed of Statemonaer Engagement Activities

Date	Relevant Group	Activity	Summary
April 2022 – August 2022	Government Agencies	Stakeholder meetings	Relevant agencies contacted to discuss the Project and any concerns or opportunities from the perspective of each agency.
July 2022	Landowners	Initial contact via phone and / or letter	Relevant landowners contacted to provide project information and arrange meetings for further clarification if necessary.
May - July 2022	Local Community	Consultation Invitations via newspaper, Shire of Collie website and Facebook page, and a flyer	Invitations sent to the local community via multiple mediums to attend consultation sessions held in February.
July 2022	Local Community	Stakeholder Meetings (Public Consultation Sessions)	Consultation sessions held in Collie to provide project information and understand local concerns and priorities from the wider community.
August 2022	All	Community Engagement Outcomes Report	Results and outcomes of the community engagement activities undertaken are provided in report format and summarised in the final Development Application.



# 5.2 Outcomes

## 5.2.1 Community Stakeholders

Quantitative and qualitative information collected through engagement activities was collated and analysed to inform the identification of potential or perceived social impacts associated with the Project, from the perspective of stakeholders.

On the whole, stakeholders felt positively towards the Collie Battery and renewable projects more generally. Key concerns and opportunities identified by stakeholders during engagement activities included:

- Impacts to current land use and land management.
- Disruption to local traffic and subsequent impacts to road safety.
- Increased energy reliability.
- Increased economic benefit to the region.
- Enhanced local employment opportunities.

A number of specific social investment opportunities have been suggested by local community members. These include targeted strategies to mitigate negative social impacts and enhance positive social impacts associated with the Project.

Further details and analysis on the community stakeholder engagement for the Project, including a description of all concerns and opportunities raised, is provided in **Appendix E**.

## 5.2.2 Government Agencies

Relevant government authorities or stakeholders with an interest in the Project or potential to be involved in the approval pathway were engaged to discuss the Project and address any concerns. During discussions, Umwelt provided information on the Project and obtained feedback from representatives of these agencies on potential approval requirements, areas of concern and general considerations relating to their field of interest. The government agencies engaged through this process and the details of engagement are provided in **Table 5.2**.

Stakeholder	Timeline	Items discussed and outcomes
Shire of Collie	April - August 2022	The Shire has been consulted via several meetings, phone calls, a site visit, and representatives attended the community engagement sessions in Collie.
		The Shire of Collie has provided general direction in aspects relating to the Project's development application (this Report) and other relevant referring agencies that may be involved in the approval's pathway.The Shire has stated a general support for the Project.
		Specific concerns raised by the Shire of Collie related to bushfire risk and risk of a fire been initiated by the Project, upgrade of the Pollard Brook bridge, site access from Collie-Williams Road, retaining

#### Table 5.2 Government Agency Stakeholders



Stakeholder	Timeline	Items discussed and outcomes
		stormwater on site to avoid contaminated flowing into adjacent watercourses, and ensuring Traditional Owners are consulted. The Shire suggested that noise, visual and ecological impacts are unlikely to be significant considering the site context.
		This Development Application aims to address the concerns of the Shire.
Department of Planning, Lands and Heritage (DPLH) (Aboriginal Heritage)	May 2022 (Aboriginal Heritage)	Aboriginal Cultural Heritage aspects of the Project were discussed with a DPLH officer via phone. DPLH confirmed the local representative for the Collie River Waugal registered Aboriginal site, and provided guidance on approval requirements under the <i>Aboriginal Heritage Act 1972</i> .
		A Regulation 10 approval under the <i>Aboriginal Heritage Regulations 1974</i> will be sought prior to upgrade of the Pollard Brook Bridge.
		Further information on Aboriginal Heritage is provided in <b>Section</b> 6.7.
Department of Water and Environmental Regulation (DWER)	June 2022 – August 2022	DWER was consulted specifically with regards potential clearing of native vegetation, flood modelling and mitigations, crossing Pollard Brook, water quality, and noise.
		Items discussed with DWER have either been addressed as part of this Development Application (see <b>Sections 6.1, 6.2 and 6.6</b> ), are expected to be addressed through approval conditions, or are considered under other legislation.
Department of Fire and Emergency Services	July – August 2022	Video calls and phone conversations were held with a DFES officer, by Neoen, Umwelt and Bushfire Prone Planning.
		A Bushfire Management Plan and Risk Management Plan have been completed to identify appropriate measures to achieve acceptable levels of bushfire risk. Further information is provided in <b>Section 6.3</b> .
		It has been determined the application will be referred to DFES for assessment due to being a high-risk land use (battery facility).
Department of Biodiversity, Conservation and	June - July 2022	A phone conversation was held with a DBCA officer and further information provide by email.
Attractions (DBCA)		DBCA supported the Project being designed to avoid clearing of native vegetation where possible, and recommended seeking advice from DWER in the case that clearing is required.
		DBCA also raised considerations for managing bushfire risk on the adjoining DBCA managed Muja State Forest, and ensuring the development is designed to ensure there are no direct or indirect impacts into the adjoining State Forest, including surface water run- off, drainage, erosion, pollution, or dieback spread.
Main Roads WA (MRWA)	July 2022	MRWA were contacted by Flyt Consultants as part of the Traffic Impact Statement. They recommended that a traffic management plan is prepared and implemented to the satisfaction of MRWA for the construction stage. MRWA also indicated the requirements for a



Stakeholder	Timeline	Items discussed and outcomes	
		bond, detailed designs, and minor works approval for the access crossover upgrades and modification.	
		MRWA will be consulted further as the Project nears construction. Further information on traffic and access is provided in <b>Section 6.5</b>	
Environmental Protection Authority WA (EPA)	August 2022	An officer of the EPA was contacted by phone to discuss potential referral requirements under Part IV of the <i>Environmental Protection Act 1986</i> , as related to native vegetation clearing. The EPA officer advised that referral under Part IV would not be required, based on the information provided and the only potentially significant impact being from native vegetation clearing. Impacts to native vegetation and associated values can be managed under other instruments. This conclusion was confirmed via email.	

# 5.3 Future Consultations

Neoen aims to maintain community and stakeholder engagement throughout the project lifecycle, i.e., during development, construction, operation, and decommissioning. A dynamic community engagement plan has been prepared (**Appendix E**) and will be updated on a regular basis.

Continued consultation and engagement, through the means of social and traditional media, will encourage community involvement in the Project. Neoen will take particular care with key stakeholders, including neighbouring landowners, ensuring they are kept informed.

A specific email address, dedicated phone number, and a website has been set up to receive and address any expressions of concern from the community throughout the project lifecycle.



# 6.0 **Project Impacts and Mitigations**

Potential impacts and appropriate mitigations during construction and operations have been identified through a range of studies. Additionally, a high-level risk assessment has been completed to identify environmental or social risks during construction and operation, and to identify suitable controls. This provides an initial assessment of risks and potential impacts from the Project and will form the basis for a Construction Environmental Management Plan (CEMP) and Operational Environmental Management Plan (OEMP) which will be developed and implemented for the Project.

The following sections provide a summary of the studies completed, potential impacts, and proposed mitigations during construction and operations. Further details are provided in **Appendix F** to **Appendix K**.

# 6.1 Surface Water and Groundwater

## 6.1.1 Summary of Studies

Hydrological modelling was undertaken to characterise the mainstream and overland flow flooding within the Project area, to assess potential hydrological impacts and risks, and to inform the siting and design of the Project.

The Project site is located adjacent to the Bingham River, a major tributary which meets the Collie River approximately 2 km downstream of the Project. A local tributary of Bingham River, Pollard Creek, also lies to the North of the Project site. With no existing flood mapping available for the Project area and no relevant hydrological studies of the relevant main river catchments, hydrological and hydraulic modelling was used to simulate flood inundation extents for the principal flood planning event (1% Annual Exceedance Probability) as well as 5% and 0.2% AEP events. The output of this modelling included design event flood mapping comprising simulated peak flood depths, flood velocity and hazard classifications for the 5% AEP, 1% AEP and 0.2% AEP events. Flood hazard categories for the 1% AEP event are shown in **Figure 6.1**, and the full hydrological report is provided in **Appendix F**.

Overland flow is derived from the local catchment areas east of the Project area. Given the limited local catchment area, local runoff only generates shallow overland flow around the Project area along the main flowpath alignments defined by the topography. There are two principal overland flow paths through the Project area, one in the north-east of the site flowing north towards Pollard Brook, and one in the southern lot flowing west to Bingham River (**Figure 6.1**).

A desktop assessment of groundwater resources in the Project area was completed based on publicly available information. The Project is not located within a Proclaimed Groundwater Area (DWER, 2018) and there are no shallow licensed production bores in the nearby vicinity of the proposed Project. The nearest public drinking water source is the Harris River Dam Catchment Area 12 km to the north (DWER, 2022).

There are nine groundwater monitoring bores within 3 km of the Project, of which seven have groundwater level data in the last decade (DPIRD, 2021). These bores indicate that the groundwater level is generally between 2 and 10 metres below ground level (mbgl), noting that these bores are not located in the Project site and are at varying elevations in the landscape. Groundwater would be expected to be at approximately this range of depths at the Project site, with groundwater levels nearer to the surface in lower parts of the landscape and deeper in areas of higher topography.



For flood hazard levels refer to Appendix F

Image Source: Landgate (2021) Data source: Neoen (2022), Landgate (2022), Umwelt (2022), DWER (2022)

6313500

6314000

6315000

6314500

FIGURE 6.1

Proposed Site Layout and 1% AEP Flood Hazard



# 6.1.2 Potential Impacts

Potential impacts as related to surface and groundwater that have been identified include:

- Flooding impacting on major Project infrastructure (batteries, inverters, transformers, switchyard, office and maintenance areas).
- Flooding impacts to the access track, in particular the bridge across Pollard Brook.
- Changes to the Pollard Brook bridge causing changes to the hydrological regime of the brook, leading to increased flood risk or erosion upstream.
- Impacts to groundwater or surface water quality during construction or operations.
- Waterlogging due to high rainfall and shallow groundwater table, impacting on construction activities.

There is unlikely to be widespread flooding within the Project Area with active flowpaths confined within the watercourses and local depressions. The Battery Energy Storage System and associated electrical infrastructure has been sited to be significantly above Bingham River and Pollard Brook flood levels for all flood events modelled up to 0.2% AEP. **Figure 6.1** shows that the highest Flood Hazard Category in the Proposed Development Footprint (excluding the access track) is "H1", which is "generally safe for people, vehicles and buildings". As such, the risk of major flooding impacting the BESS is expected to be low, and minor concentrations of overland flow will be managed through the site drainage design.

Flood risk is greater at Pollard Brook, where the bridge needs to be upgraded to facilitate construction of the Project. Based on an assessment of the hydrological modelling outputs, the existing Pollard Brook Bridge likely accommodates a 5% AEP (1:20 ARI) flood event. The replacement bridge will be designed to also accommodate a 5% AEP flood event, with detailed design to be completed prior to construction. As the bridge upgrade will be sized similarly to the existing bridge, there is not expected to be a significant impact to the hydraulics of Pollard Brook, increased damming of flow, or erosion. The Shire of Collie and DWER will be consulted further on the detailed design and construction of the bridge.

Groundwater or surface water quality during construction or operations could potentially be impacted due to contaminated or sediment laden runoff or infiltration. This could be due to spillage of hydrocarbons from construction machinery, leakage from batteries or transformers, a fire at the facility, or exposure of earthworks to rain events. Mitigation measures as described below aim to manage these potential impacts.

# 6.1.3 Proposed Mitigations

Proposed measures to mitigate potential impacts to the Project from flooding, or to surface or groundwater resources from the Project include:

- Hydrological modelling has been completed to inform Project design and siting, with major project infrastructure to be located outside of flood risk areas around Bingham River and Pollard Brook.
- The detailed design of the Pollard Brook bridge upgrade will consider the hydrological modelling that has been completed for the Project, as well as the requirements of the Shire of Collie and DWER.
- A sediment basin will be installed during construction activities, with its size based on the volume and area of earthworks. Typical erosion and sediment control measures such as silt fences, diversion bunds,



rock check dams and construction entry/exit pads will divert rainfall runoff into the temporary sediment basin to enable the settlement of suspended solids.

- Soak wells will be provided to retain all rainfall from a 1-year average recurrency interval (ARI) on-site in accordance with the Shire of Collie *Local Planning Policy 1* and the Department of Water and Environmental Regulation's *Decision Process for Stormwater Management in WA* (DWER, 2017). Larger stormwater retention basins will be designed to retain stormwater on site and mitigate risk of contaminants flowing to adjacent watercourses. Indicative locations for stormwater retention basins are shown on Figure 3.1 (Section 3.0), and drainage design will be completed as part of the detailed design stage for the Project.
- The removal of vegetation will be limited to only those areas where it is required to facilitate construction or operations, to maintain surface stability from existing vegetation.
- The CEMP will include controls as necessary to mitigate erosion and sedimentation potentially impacting downgradient areas.
- Batteries will be self-contained within encapsulated modules.
- Modules encasing the batteries can contain small leaks in the event of failure.
- The need for secondary containment of spills or further mitigations will be considered as part of detailed design.
- All hazardous materials stored and used on-site will be done so in accordance with the relevant Australian and International Standards.
- Mitigations in the case of a fire at the Project are described in Section 6.3.

# 6.2 Flora and Fauna

# 6.2.1 Summary of Studies

An ecological assessment was completed for the Project to understand flora and fauna values that might be impacted. The aims of the ecological assessment were to:

- Identify and map Vegetation Types (VTs) and fauna habitats occurring within the Study Area in accordance with EPA Technical Guidance and Factor Guidelines (EPA, 2016a, 2016b, 2016c, 2020).
- Assess the likelihood of significant flora, vegetation or fauna occurring within the Study Area.
- Assess potential ecological impacts from the Project.
- Recommend mitigation strategies or additional surveys as required.

The flora and vegetation survey of the Study Area comprised a Reconnaissance Survey as defined in Section 4.1 of the *Technical Guidance for Flora and Vegetation Surveys for Environmental Impact Assessment* (EPA, 2016c). The fauna survey comprised a Basic Survey as defined in Section 4.1 of the *Technical Guidance for Vertebrate Fauna Surveys for Environmental Impact Assessment* (EPA, 2016c). As part of the basic fauna survey, a black cockatoo habitat assessment was conducted in line with the *Referral guideline for three threatened black cockatoo species* (Department of Agriculture, Water and the Environment (DAWE, 2022)).



Potential breeding, night roosting and foraging habitat was assessed by walking meanders across the Study Area and taking habitat assessment at locations within different habitat types and when valuable habitat features were observed. The habitat assessment methodology was undertaken at 28 locations within the Study Area. The Study Area for the ecological assessment is shown on in **Figure 6.2**.

The Study Area consists of predominantly cleared land with a history of grazing activities. As a result, native vegetation is primarily confined to remnant patches separated by large areas of cleared land. A total of four Vegetation Types (VTs) were mapped across the Study Area and comprise a relatively small proportion the Study Area (36.3%). The remaining areas were classified as cleared land. The majority of the native vegetation was considered to be in 'Completely Degraded' condition, with some patches of "Degraded" and "Good" condition. None of the vegetation mapped is considered to represent significant VTs. Of the 23 significant flora taxa (3 Threatened and 20 Priority) that were identified in the region from database searches, the significant flora likelihood of occurrence assessment identified that 18 significant flora taxa were possible to occur in the Proposed Project Footprint.

The purpose of the reconnaissance survey was to identify the likelihood that species could occur in the area to understand potential impacts. As such, the survey did not aim to identify presence of absence of flora species. Targeted surveys during the appropriate seasons will be required to determine if these species are present in any proposed clearing areas.

The Study Area comprised four habitat types with two of these occurring within the Proposed Project Footprint. The majority of the Study Area (63.7%) comprised cleared land which generally offers limited habitat opportunities for native fauna species. The identified habitat types covered 36.3% of the Study Area with disturbance evident predominantly from grazing and logging with the low layer providing little refuge opportunity. The shrub layer was sparse; however, where it was present it consisted of flora species that have been identified as foraging resources for black cockatoos.

The full ecological reconnaissance assessment methodology and results is provided in **Appendix G**. Note that the Project layout was amended slightly following completion of the ecological assessment.





FIGURE 6.2

Vegetation of the Study Area

CDAIC



#### Legend Vegetation Type

- CL Cleared land, occasionally with isolated trees of Eucalyptus rudis, Eucalyptus marginata and Corymbia calophylla over low forbland/tussock grassland of introduced herbs and grasses on flats, slopes and crests
- EmCc Open forest to woodland of Eucalyptus marginata and Corymbia calophylla over occasional low isolated trees of Banksia grandis and Persoonia longifolia over tall sparse grass-tree shrubland of Xanthorthoea preissii over occasional low sparse shrubland of mixed species including Acacia pulchella, Hakea lissocarpha and Hibbertia commutata over low sparse forbland of mixed species including Acaena echinata and Lagenophora huegelii over low sparse sedgeland of Netrostylis sp. Jarrah Forest (R. Davis 7391) over low forbland/tussock grassland of introduced herbs and grasses on brown sandy loam or loamy sand with laterite surface stones, occasionally with laterite outropping, on mid to upper slopes and crests
- Er Open woodland to isolated trees of *Eucalyptus rudis* over occasional tall sparse shrubland of *Melaleuca viminea*, occasionally over mid forbland and rushland of *Typha orientalis* and *Machaerina juncea* over low forbland/tussock grassland of introduced herbs and grasses on brown or grey-brown clay or sandy-clay on lower slopes and drainage lines
- PL Planted trees of Eucalyptus marginata, Corymbia calophylla and Eucalyptus wandoo over low forbland/tussock grassland of introduced herbs and grasses on brown loamy sand on mid to upper slopes and crests
- ToMj Mid forbland and rushland of Typha orientalis and Machaerina juncea over introduced herbs and grasses on brown clay on flats and drainage lines

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2.50

FRNSLEGEND.MXD

FIGURE 6.2

LEGEND: Vegetation of the Study Area



# 6.2.2 Potential Impacts

Potential impacts to flora and fauna values associated with the Project might include:

- Loss of vegetation and fauna habitat (including, breeding, foraging and roosting resources).
- Introduction and/or exacerbation of weeds, pest fauna or dieback.
- Indirect impacts associated with construction noise, dust, vibration and lighting.
- Degradation of adjacent vegetation/habitat values from erosion and/or dust.
- Fauna injury or death.

Of the total Project footprint of approximately 31.4 ha, 28.75 ha (91.6% of the footprint) is cleared agricultural land and 2.65 ha (8.4%) is native vegetation. The preliminary impact assessment identified that the potential direct impact to habitat for all significant flora taxa is low, with relatively small percentages of mapped extent of habitat proposed to be impacted (8.0% or less of flora habitat in the Study Area). The impacts to significant flora habitat are not considered to represent significant impacts to these taxa, based on the large amount of suitable habitat remaining in the Study Area, and the vegetation representing such habitat occurring widely within the region.

The scale of direct impact to the three VTs mapped in the Proposed Project Footprint is very low (maximum of 8.0% for VT EmCc, see **Figure 6.2** for VT description). These VTs are not considered to represent significant vegetation and occur widely in the region. Therefore, the significance of direct impact to these VTs is considered to be low.

Three listed fauna species were ranked as having a 'High' likelihood of occurrence (Carnaby's Black Cockatoo, Baudin's Black Cockatoo, and the Forest Red-Tailed Black Cockatoo), all of which are listed under both the BC and EPBC Acts. A flock of up to 10 black cockatoos (unable to be identified to species level due to distance from observer) was observed during the field survey indicating the presence of the one of the threatened species and potential use of suitable habitat within the Study Area. The field survey determined the presence of potentially suitable breeding, foraging and night roosting habitat for black cockatoo within the Proposed Project Footprint and the Study Area. A total of seven potential breeding trees were identified within the Proposed Project Footprint based on the tree species present and these individuals exceeding the required diameter at breast height (DBH) threshold (one of these trees bore a large hollow (>200mm)).

Six significant species of fauna were identified as having a 'Moderate' likelihood of occurring in the Study Area but potential impacts to these are considered minor, considering the remaining habitat values in the Study Area.

The scale of direct impacts to fauna habitat based on the Proposed Project Footprint is low representing 3.7% of valuable fauna habitat within the Study Area. Regardless of the small area being impacted, potentially important habitat features for black cockatoos (nesting, foraging and night roosting habitat) occur within the Proposed Project Footprint. Based on the findings in this report, habitat associated with the Proposed Project Footprint constitutes black cockatoo habitat and disturbance to these values has the potential to trigger the requirement to refer the project for assessment under the EPBC Act.



The EPA has been consulted on the need to refer the Project to the EPA for assessment under Part IV of the EP Act on the basis of potential impacts to black cockatoo species. Based on this consultation, the Project does not need to be referred to the EPA, and clearing under State legislation can be assessed and managed under a Part V Native Vegetation Clearing Permit. The federal Department of Climate Change, Energy, the Environment and Water will be consulted on requirements for referral under the EPBC Act.

# 6.2.3 Proposed Mitigations

Proposed measures to mitigate potential impacts to flora and fauna from the Project include:

- The site has been selected and the Project designed to avoid clearing of native vegetation as far as possible, and the detailed design will aim to minimise clearing further where possible.
- Reconnaissance flora and basic fauna surveys have been completed to identify flora and fauna values, to inform appropriate avoidance, mitigations, and other approval requirements.
- Targeted survey for significant flora taxa identified as having the potential to occur within the Proposed Project Footprint should be undertaken by suitably qualified Ecologists/Botanists within the appropriate season to identify such taxa. This survey should be undertaken prior to clearing for the Project, in order to adequately assess potential impacts to significant flora taxa.
- The Commonwealth Department of Climate Change, Energy, the Environment and Water will be consulted on the need to refer the Project for assessment under the EPBC Act, as related to the presence of Black Cockatoo breeding and foraging habitat. Management of impacts to Black Cockatoos will be considered as part of this process, which may include further avoidance or clearing or offsets for residual impact.
- Potential black cockatoo habitat trees within the bushfire APZ will be under-pruned instead of cleared, while still ensuring APZ requirements are met as per the Bushfire Management Plan.
- DWER will be consulted on requirements for a native vegetation clearing permit.
- The CEMP and OEMP for the Project will be prepared prior to commencement of the Project, and will include:
  - Actions and procedures for weed and dieback hygiene management to be employed from Project commencement to completion.
  - Appropriate measures to minimise indirect impacts to native vegetation adjacent to the Project, including control of runoff and erosion.
  - Appropriate measures to minimise downstream impacts to Pollard Brook during bridge upgrades.

# 6.3 Soils

# 6.3.1 Summary of Studies

A desktop assessment was undertaken to characterise the soil landscape within the proposed Project Footprint and to understand potential risks arising from Project activities to land capability values and soil quality.



Soil landscape mapping of WA has been compiled from the results of various surveys across the State by the Department of Agriculture (now the Department of Primary Industries and Regional Development (DPIRD)) (DPIRD, 2022). Data from the Wellington Blackwood Land Resources Survey has been used to map soil-landscape units in the region within which the Project is located (Schoknecht et al., 2004).

The proposed Project Footprint occurs across three soil-landscape units, as summarised in in **Table 6.1**. A figure showing the soil types in the Lots in which the Project is proposed is provided in **Appendix G**.

The Project utilises primarily cleared land that has historically been used for grazing activities and implementation of the Project is part of the landowner vision to have energy infrastructure co-located with high value grazing activities (**Appendix A**).

## 6.3.2 Potential Impacts

Potential impacts to soil associated with the Project might include:

- Direct loss of productive soil within the proposed Project Footprint.
- Indirect impacts to soil quality during construction or operation, due to contaminated runoff, dust, or erosion and sedimentation.

The primary land use currently within the Project Footprint is grazing. The land capability class in the Project Footprint for grazing is mapped by DPIRD (DPIRD, 2018) as:

- "50-70% of the land has moderate to very high capability" (29.5 ha).
- ">70% of the land has moderate to very high capability" (1.81 ha).

While the land is of moderate to high quality, the proposed Project Footprint represents less than 0.045% and 0.0019%, respectively, of these land capability classifications within the Collie Local Government Area (LGA). Impacts to these soil landscape units are expected to be negligible in comparison their remaining areas mapped within both Collie LGA and the region. The soil landscape units encompassing the Project Footprint and their extent of disturbance are provided in **Table 6.1**.

Soil Landscape Unit	Description	Land capability class (grazing)	Extent of Development Envelope (ha)
255DpDWi: Dwellingup ironstone gravel divides Phase	The soil parent material is laterite, soils are gravels with some sands.	50-70% of the land has moderate to very high capability	21.15
255DpPNd: Pindalup downstream valleys Phase	Shallow minor valleys (5-10 m) dominated by broad (75-250 m) swampy floors. Soils are loamy gravels, deep sands, with saline and non-saline wet soils on the valley floors.		8.357
255DpWG: Wilga Subsystem	Broad gently undulating (1-5 %) plains and low rises (2-15 m) with swampy depressions. Lateritic terrain over Eocene sediments. Soils are sandy and loamy gravels, with some deep sands, semi- wet soils and wet soils.	>70% of the land has moderate to very high capability	1.81

#### Table 6.1Soil types in the proposed project footprint



# 6.3.3 Proposed Mitigations

It is expected that potential indirect impacts to soils as a result of both construction and operations of the BESS can be adequately managed through controls included in the CEMP and OEMP. Controls may include but are not limited to:

- Reducing risk of contaminated or sediment laden runoff from site during construction and operations through appropriate drainage control and retention basins (as described in **Section 6.1.3**).
- Storage and handling procedures for any potentially hazardous goods such as hydrocarbons.
- Designated storage and handling areas with bunding.
- Spill-kits and site procedures in the event of a spill.
- Dust management procedures during construction.

## 6.4 Fire

### 6.4.1 Summary of Studies

The proposed Project is considered a "high-risk" land use under *State Planning Policy 3.7*, and the Shire of Collie and community have expressed concerns about the risk of fire from the Project. As such, a high degree of rigour has been applied to ensure that bushfire and fire risks are appropriately addressed. This includes preparation of a Bushfire Management Plan (BMP) and Risk Assessment and Management Plan (RAMP) by an accredited Level 3 Bushfire Planning and Design (BPAD) practitioner in accordance *with State Planning Policy 3.7* and associated Guidelines v1.4 (WAPC, 2015; 2021a).

The BMP includes a Bushfire Attack Level (BAL) Assessment, evaluation against Bushfire Protection Criteria, and identifies appropriate bushfire protection measures for the Project. The Method 2 procedure was used for the BAL Assessment, for two purposes:

- To calculate the required APZ to ensure electrical infrastructure is exposed to no greater than 12kW/m2 radiant heat flux (calculated at 1200K).
- To calculate the required setback to ensure the designated onsite shelter building is exposed to no greater than 10kW/m2 radiant heat flux (calculated at 1090K).

The RMP prepared alongside the BMP identified the appropriate measures to reduce the risk of onsite and/or offsite ignition, asset damage, and harm to persons, environment, and community. Documents that were reviewed to inform the BMP and RAMP include a *Preliminary Hazard Analysis for the Great Western Battery* (Planager Ltd Pty, 2021), a review of the *Victorian Big Battery Fire* (Fisher Engineering Inc. & Energy Safety Response Group, 2022), and test reports and research articles related to fire risk of electrical infrastructure (Kaczorek-Chrobak et al., 2021; UL Solutions, 2020).

The Department of Fire and Emergency Services (DFES) were consulted during the preparation of the BMP and RAMP.

The BMP and RAMP are provided in **Appendix H**, and a summary of potential impacts and mitigation measures is provided below.



# 6.4.2 Potential Impacts

Potential fire and bushfire hazards and associated impacts related to the Project include:

- A bushfire impacting on the Project, including potential loss of life, injury, or destroyed or damaged assets.
- A fire at the Project spreading to surrounding areas, or leading to impacts to air quality or water.

The BMP has assessed that the Project is fully compliant with the required bushfire protection criteria, including for location, siting and design of development, vehicular access, and water. The RAMP has thoroughly assessed the risks associated with bushfire hazards to identify appropriate bushfire protection measures. The BMP and RAMP, including the risk assessment methodology and outcomes, are described in detail in **Appendix H**, along with the investigation report from the Victorian Big Battery Fire (Fisher Engineering Inc. & Energy Safety Response Group, 2022).

Stakeholders located near to the Project have identified a fire or exploration from the Project as a concern. Specifically, impacts to air quality, contaminated run-off impacting nearby watercourses, and destruction of surrounding residences have been noted as concerns. Following from a battery module catching fire at the Victorian Big Battery in Geelong, a detailed investigation was completed to analyse the fire origin, cause of propagation to a neighbouring battery module, and a review of the emergency response. The investigation was completed by local regulatory entities, Tesla, two independent engineering and energy storage fire safety consulting firms, and subject matter experts (Fisher Engineering Inc. & Energy Safety Response Group, 2022). A summary of the outcome of this investigation, as relevant to this Project, include:

- Limited supervision / monitoring of telemetry data during the first 24 hours of commissioning and the use of the keylock during commissioning prevented the battery from transmitting telemetry data (internal temperatures, fault alarms etc). This reduced the battery operator's ability to actively monitor and interrupt electrical fault conditions prior to them escalating to a fire event. Several measures were since been implemented to mitigate this, including reducing telemetry set up times, additional coolant system alarms to detect leaks, and enhanced active monitoring and control of the battery modules.
- Flames exiting the roof of the initial battery that caught fire were pushed towards the roof of an
  adjacent battery by wind. This caused the adjacent battery to ignite. Newly designed and tested
  thermally insulated steel vent shields within the thermal roof of the battery modules were installed to
  mitigate fire propagation.
- The fire emergency response had effective pre-incident panning and good coordination with subject matter experts (SMEs) for the fire responders to determine water application and cooling strategies. Additionally, the thermal insulation of the batteries was effective in reducing further propagation of the fire.
- Two mobile air quality monitors were deployed by the Environment Protection Authority Victoria (EPA), with location chosen where there was potential to impact the local community. The monitors confirmed "good air quality in the local community" approximately 2 hours after the incident. While there was no air quality monitoring during the fire event, the data demonstrates that no long-lasting air quality concerns arose from the fire event.



• The fire responders directed water run-off from fire hoses into a "catchment". Water samples collected from the catchment indicated that the likelihood of the fire having a material impact on the water was minimal. After the incident, the water was removed via a suction truck and transported to a licenced facility for disposal. An estimated 900 kL of water was disposed from the site.

Additionally, the fire event proceeded in accordance with its fire protection design and pre-incident planning. There were not unusual or unexpected characteristics (i.e. explosions).

Learnings from the Victorian Big Battery fire investigation have been considered as part of the BMP and RAMP, and have been applied where relevant at the current design stage of the Collie Battery Project. Neoen will aim to further implement these learnings in the selection of the battery suppler for the Collie Battery project.

## 6.4.3 Proposed Mitigations

Mitigation measures to protect against bushfire and to manage fire risk from the Project are provided in the Bushfire Management Plan in **Appendix H**. The measures in the BMP are based on the detailed assessment as detailed in the RAMP. The protection measures that have had the greatest impact on reducing the risk level are those that reduce the exposure of the Collie Battery (batteries, structures, and staff) to the threats of the bushfire hazard. The ability to apply protection measures that reduce the level of threats presented by the hazard or to reduce the vulnerability of the Collie Battery, are significant.

The RMP specifies measures that are "required" and those that are "recommended". Neoen will implement the measures that are "required" and will consider "recommended" measures as part of detailed design and supplier selection.

In summary, the required bushfire protection measures in the BMP that will be implemented by Neoen include:

- The site office building will be designated as an on-site shelter. The building will not be exposed to a radiant heat flux greater than 10kW/m2 by providing the specified separation distance a bushfire hazard as part of the APZ. The building will be built to bushfire construction requirements corresponding to BAL-29 (as per AS 3959 or the NASH Standard) as a minimum.
- All structures must have any subfloor cavities sealed with non-combustible material or fitted with ember screening mesh.
- An APZ is to be established around electrical components and infrastructure. This APZ will ensure exposure to the bushfire hazard threat of radiant heat will be limited to a maximum radiant heat flux of 12 kW/m2 (calculated with an assumed flame temperature of 1090K) for electrical infrastructure and 10 kW/m2 for the site office building by providing the required separation distances from the bushfire hazard.
- All vegetation, flammable and combustible material is to be removed within 10 metres of megapack cabinets. This includes but is not limited to waste, leaf litter, machinery, grasses, vehicles, fuel, furniture, and timber.
- All fine fuels within the APZ (<6mm thickness including leaf litter and dead grass) is to be maintained below 2 ton per hectare. This equates to approximately 2 handfuls per square metre.



- Any hot/hazardous works are not to be undertaken during a Total Fire Ban or on a day with a Fire Danger Rating of Extreme or Catastrophic.
- The Bunbury Career Fire and Rescue Service and the Collie Volunteer Fire and Rescue Service is to be invited to inspect and familiarise with the site prior to operation. Additional future invitations may be annual or ad-hoc. The site manifest is to be provided (as described below).
- A manifest should be prepared for emergency events and be provided/made available to emergency services. This must include:
  - Safe operating temperatures for battery units.
  - Breakdown of the number of battery cabinets and battery racks/modules within each cabinet.
  - Details of the hazards for the battery energy storage system, including thermal events/runaway, electrical safety hazards, explosion hazards, dangerous goods hazards (including off-gassing), and the effects of fire on the battery energy storage system (eg., explosion, release of toxic gases).
  - Details of all provided battery failure/safety and protective systems, including a description, the activation process/automatic trigger, and any hazards associated with these systems.
  - The shut down and/or isolation procedures if the batteries are involved in fire, and appropriate personnel contact details for verifying that the battery enclosure/container system has been isolated/shut-down and de-energised during emergencies.
  - Details of appropriate firefighting responses to battery/infrastructure fires relevant to the specific battery specifications (likely via the manufacturer).
  - Details of potential environmental consequences of firefighting water runoff from a battery fire.
- A firefighting water hydrant within 100m of the Site Office building will be installed, with a hydrant hardstand area of >18m in diameter. An additional dedicated firefighting water tank with a capacity of 50,000L is required to ensure firefighting water supply is always available. Firefighting water tanks must:
  - Be constructed from concrete or steel.
  - Have an external water level indicator.
  - Be positioned >10m from structures.
- The internal trafficable access of the facility is required to meet the minimum specifications for A3.6: Private Driveways. All structures within the facility must be directly accessible via the internal access driveway(s).
- Signage to the location of hydrants or suction points must present and clearly visible on entry to the site.

Recommended measures in the BMP, which Neoen will further consider through detailed design and supplier selection, include:

• Include non-combustible elements in structure design/construction where practical.



- Protect electrical cabling and plumbing (not within a structure profile) from radiant heat and consequential fire by either:
  - Burying underground.
  - Encasing the cables within a non-combustible material.
  - Installing a solid barrier (colourbond fence) between the relevant components and the vegetation (bushfire) hazard. This barrier should be installed within 2m of the exposed components and to a height of 1.5m or greater.
- Construct any security fences or other potential fuel loads using non-combustible material. Landscaping (gardens) which may be included within the APZ must avoid use of constructed heavy fuels (e.g. timber sleepers as garden edges, plastic or timber lattice).
- Remove all trees within the APZ are to be removed, however any habitat trees identified by environmental surveys within the APZ may be retained, meeting APZ requirements outlined in Schedule 1 of the Guidelines (see Appendix B2 of BMP).
- Safe (early) evacuation is the primary procedure for occupants (staff) during bushfire emergencies. Shelter-in-place is to be established as a viable secondary procedure, as a suitable location is available (the Site Office).
- For flammable/combustible material onsite temporarily (construction or maintenance), the object must be positioned >4 times the height of that object, from structures and electrical infrastructure.
- Provide bushfire awareness training for fulltime staff.
- A minimum of one staff member has training in general bushfire emergency procedures, and has specific knowledge of the site procedures in response to bushfire. This staff member should be either onsite or otherwise contactable.
- Install and maintain additional automatic fire suppression systems to address potential self-ignition or spread of fire within the BESS units. The system applied will depend on the BESS specifications and manufacturer recommendations.
- Lot 785 which adjoins the development area to the east is owned by the same landowner as the subject lots. It is recommended the gated access through Lot 785, which links to the private driveway of Lot 785, remains unlocked. This measure is intended to provide a secondary access option in an emergency only.

In addition to the measures specified in the BMP, Neoen will ensure that appropriate fire protection measures are designed into the modules, including:

- Self-containment of battery modules through highly insulated steel encasing used to encapsulate modules.
- Installation of thermally insulated steel vents within the thermal roof protecting the units from flame impingements and hot gas intrusion.



- Active monitoring and electrical fault safety devices which ensure the units only remain operational within their intended operating environment, with an automated shut-down system.
- Design of the facility with appropriate separation distances, as per the industry standards, between battery modules and other Project infrastructure such that fire will not propagate.

# 6.5 Traffic and Access

## 6.5.1 Summary of Studies

A Traffic Impact Statement (TIS) was completed for the construction and operation phases of the Project by a qualified transport planning consultant. The TIS has been prepared in keeping with the WA Planning Commission's (WAPC) *Transport Impact Assessment Guidelines Vol. 4 – Individual Developments* (WAPC, 2016b). Main Roads WA were consulted during development of the TIS.

The traffic attributable to the proposed development has been determined to be less than 100 vehicle trips in a peak hour of combined construction and operations traffic. The TIS has been conducted with a focus on the immediate impact of the proposal to the surrounding network considering a staged construction over the next decade.

Collie-Williams Road is the only public access road to and from the Project site. Access to the development site will be via a new road to be constructed connecting the existing access road on Lot 785 to the development site on Lots 775 and 784 (**Figure 3.1**).

The TIS is provided in **Appendix I**, and a summary of potential impacts and mitigations is provided below.

## 6.5.2 Potential Impacts

Potential traffic impacts related to the Project include:

- An increase in volume of traffic along Collie-Williams Road during construction.
- Safely managing access to the Project site from Collie-Williams Road during construction, with vehicles entering and leaving the site.
- Allowing for sufficient parking during construction and operations.

During construction of each 200 MW/800 MWh stage there are expected to be an average of 50 two-way light vehicle and 6 two-way heavy vehicle movements per day, and a peak of approximately 100 two-way light vehicles and 20 two-way heavy vehicle movements per day. During the construction stage, materials would be delivered using the existing road network, which caters for up to RAV Network 4 vehicles, and a small number of Over Size Over Mass (OSOM) truck movements, for which the relevant permit will be obtained from Main Roads WA. The TIS indicates that construction vehicle movements would increase traffic along Collie-Williams Road by approximately 13% compared to the existing average of 439 trips on a weekday. While this increase during construction is significant relative to the existing traffic volumes, it is insignificant relative to the capacity of Collie-Williams Road of upwards of 8,000 vehicles per day as a Primary Distributor road.



A preliminary swept path analysis was conducted on the intersection with Collie-Williams Road for in and out movements of a 19 m semi-trailer from both directions. This shows that the layout allows for the correct lane movement for RAV 4 vehicles, and the area of the access road is wide enough to accommodate the relevant vehicle movement.

A site and desktop review of the available sight distance using the latest aerial imagery concluded that the sight distance towards the east is approximately 230 m on the westbound approach due to the gradient of Collie-Williams Road and slight curvature in the carriageway. The impact of sightlines on operational traffic associated with the site is not considered to be an issue given the low volume of traffic on the Collie-Williams Road and the minor number of movements. For construction stages of the project, the sight lines are considered to be a safety issue and therefore measures are recommended to address potential impacts.

During operations the number of full-time staff required onsite is limited to approximately two to four staff to manage the facility (for Stage 1) up to a maximum of eight staff for the full 1000 MW/4000 MWh Project. This will generate a maximum total of 16 vehicle trips across the day during operations. Parking arrangements are compliant with the requirements of the Shire of Collie's Local Planning Scheme and will provide eight allocated parking bays for operations and maintenance staff and two parking bays allocated for visitors. Parking will be completely accommodated on-site and will not impact on Collie-Williams Road.

The Shire of Collie have advised that the Collie school bus travels along Collie-Williams Road and that there pick up / drop off point located adjacent to the subject site. The TMP proposed as part of this development would be able to account for the set travel and pick up / drop off times to ensure the safety of children as well as safeguard any potential conflicts between vehicles and the school bus.

## 6.5.3 Proposed Mitigations

The following mitigations for identified traffic and access impacts are proposed:

- A Traffic Management Plan (TMP) will establish safe working parameters at the site access during construction. The TMP would:
  - Be developed by a registered Traffic Manager and be approved by Main Roads WA.
  - Cover all construction periods for the site and any other agreed periods as required by Main Roads WA.
  - Provide recommendations for site-based safety measures, including temporary reduction in speed limits within an area of the Collie-Williams Road either side of the site access, signage on approach to the site access and manual management of specific movements if required (for instance during inbound movements of heavy generator equipment associated with the proposed development).
  - Address other safety related measures as nominated by Main Roads WA or the Shire of Collie, including but not limited to the Collie school bus.
- The Project design includes dedicated space for easy delivery, waste collection, parking, and turnaround facilities associated with the light and heavy vehicles necessary for construction.
- Parking allocation during operation will comply with the requirements of the Shire of Collie's Local Planning Scheme (**Section 4.2.3.2**). These would be managed on-site and have no impacts on the adjoining Collie-Williams Road.



# 6.6 Noise

## 6.6.1 Summary of Studies

A Noise Impact Assessment (NIA) has been prepared to assess the potential noise impacts associated with the Project, in accordance with the *Environmental Protection (Noise) Regulations 1997* and relevant environment legislation for noise. The NIA:

- Included a comprehensive review of land ownership and sensitive receiver locations.
- Collected unattended long-term noise monitoring data at a monitoring location selected to be representative of the nearest potentially affected noise receivers.
- Determined appropriate operational noise criteria for nearby receivers, according to *Environmental Protection (Noise) Regulations 1997*.
- Predicted operational noise levels with the proprietary computer noise modelling software CadnaA (Version 2021 MR 2), using the CONCAWE noise prediction algorithms. Noise predictions were first completed for a preliminary design that was located further to the north-west of the design proposed in this Development Application.

Construction noise was not modelled, as in accordance with the Noise Regulations, compliance with the assigned noise criteria is not applicable for construction noise, so long as:

- Construction work is carried out between 0700 hours and 1900 hours on any day which is not a Sunday or public holiday, if the occupier of the premises or public place shows that:
  - the construction work was carried out in accordance with control of environmental noise practices set out in section 4 of AS 2436-2010 Guide to noise and vibration control on construction, maintenance and demolition sites
  - $\circ$  the equipment used on the premises was the quietest reasonably available
  - if the occupier was required to prepare a noise management plan, it has been approved by the CEO and works will/have been carried out in accordance with the plan.

The NIA in **Appendix J** details the prediction of noise emission from the Project and assessment of potential noise impacts on surrounding noise sensitive receivers.

## 6.6.2 Potential Impacts

Potential noise impacts from the Project include generation of noise:

- During construction of the Project, including earthworks and other construction activities.
- During operation of the Project, including from containerised battery banks, inverters, power skid transformers, high-voltage transformers, and HVAC (heat, ventilation, air-conditioning) from the office.



As discussed above, construction noise was not considered as part of the assessment. Construction activities will be during the hours of 7am to 7pm Monday to Friday and possibly during the same hours on Saturday, so it is unlikely that noise levels will exceed noise criteria during these times.

Of the plant items that have potential to generate noise during operation of the Project, the inverters are the dominant noise source and the cooling fans within the inverters are the controlling noise emission component. Given the cooling fans are dependent on the ambient temperature and the most stringent assigned level is the night period, when temperatures are expected to be lowest, it is unlikely that the inverter fans will be operating at 100%.

To provide greater clarity of the potential Project noise emission, noise predictions were undertaken for three different modes of inverter fan speed operation. In addition, based on inverter at 100% fan speed, noise levels from individual 200 MW/800 MWh stages have been provided. The scenarios that have been modelled are summarised below:

- Inverter fans speed 100% (worst case) 1000 MW total capacity.
- Inverter fans speed 100% (worst case) noise levels for individual 200 MW stages.
- Inverter fans speed 80% 1000 MW total capacity.
- Inverter fans speed 50% 1000 MW total capacity.

Noise modelling indicated that operational noise levels are not predicted to exceed the noise limits at any nearby non-involved receivers for a staged project up to 800 MW (BESS 2, 3, 4 and 5). Noise levels for the full 1000 MW BESS are predicted to exceed the noise limits at one nearby receptor, Receiver R1 by 2 dB(A). However, this is based on an unlikely scenario of the BESS and inverter fans operating at 100% during the night period. When inverter fans are operating at 50% or even 80% fan speed, the full 1000 MW BESS is predicted to comply with noise limits at all non-involved receivers.

Modelling noise output for the BESS with all components at 100%, including inverter fans at 100% fan speed, represents a worst-case scenario that is unlikely to occur during the period when noise criteria is at 35 dB (10.00pm to 7.00am weekdays and to 9.00am on Sunday), as:

- During summer, electricity demand typically peaks during the middle of the day and is lowest at night.
- Data collected recently for another BESS project suggests that fans:
  - Do not operate at all for 90% of the time, and the times that they operate are more likely to be during hotter, daylight hours.
  - Only operated at above 20% fan speed for 0.002% of the time.

Based on the predictions, for the night assigned levels to be exceeded the following would need to occur:

- Battery and inverter fans would need to run at 100% unlikely as night period is cooler so fan cooling is unlikely to be required.
- There would need to be noise enhancing conditions (i.e. a temperature inversion and/or a source to receiver wind blowing (southeast)).

Further details on this assessment are provided in Appendix J.


#### 6.6.3 Proposed Mitigations

Mitigations for potential noise impacts from the Project include:

- Noise modelling has been considered through the Project design process. Based on this, the location of the Project within the Lots has been revised to be further from noise sensitive receivers and to use the natural topography to minimise noise impacts.
- The final design phase of the project will consider the optimisation of cut and fill arrangements to create natural acoustic shielding from the existing hill/slope on site to further reduce noise levels at receptors. The noise modelling completed as part of the NIA is based on all equipment located at the existing ground level which is generally sloping north to south and does not consider any cut and fill work.
- Construction activities will be between the hours of 7am to 7pm Monday to Friday and possibly during the same hours on Saturday.
- Neoen will be able to collect additional site operational data as the Project progresses. This data can be used to enhance and validate further noise modelling and inform any required additional mitigations.

# 6.7 Aboriginal Heritage

#### 6.7.1 Summary of Studies

A desktop Aboriginal cultural heritage assessment, engagement with local Traditional Owners, and discussions with DPLH as related to Aboriginal heritage have been completed.

A search of the Aboriginal Heritage Inquiry System (AHIS) was undertaken on 26 July 2022. One Aboriginal heritage site was identified that overlaps the Project area – the Collie River Waugal (Site ID 16713).

The Collie River Waugal Site (Site ID 16713) has been extensively documented as a sacred mythological site in relation to the Indigenous dreaming creation serpent called the Ngarngungudditj Walgu - the local variant of the Rainbow Serpent. The identified extent of the site on the AHIS encompasses the entire Collie River system from its headwaters near the Glen Mervyn Dam and includes a number of its tributaries including the Pollard Brook and Bingham River.

A summary of the desktop assessment and engagement is provided in Appendix K.

#### 6.7.2 Potential Impacts

The access road to the Project is via the Collie-Williams Road which includes a bridge that crosses the Pollard Brook tributary of the Collie River, which is part of the Collie River Waugal (Site ID 16713). This bridge will need to be upgraded to enable construction of the Project. The upgrade is expected to involve removal of the existing bridge and installation of a single pre-cast concrete box culvert, as described in **Section 3.2**.



#### 6.7.3 Proposed Mitigations

Consultation with the local Traditional Owners and DPLH suggests that an approval under Regulation 10 of the *Aboriginal Heritage Regulations 1974* will be required prior to the upgrade of Pollard Brook.

Authorisation will be sought prior to upgrade works commencing, and Traditional Owners will continue to be consulted throughout the Project.

## 6.8 Visual Amenity

A detailed visual amenity impact assessment has not been completed as part of this application due to the location of the Project. Given the undulating nature of the landscape surrounding the Project, it is not expected to be significantly visible from Collie-Williams Road or any residential properties in the vicinity of the Study Area.

Photographs showing the Project site, including the view of the Project site from Collie-Williams Road, are provided in **Appendix L**.

## 6.9 Dust and Air Emissions

The potential for dust emissions and associated impacts is primarily a result of transport, earthworks and construction activities required for the construction phase of the Project. A CEMP will be prepared for the Project which will address these potential dust emissions as informed by the risk assessment undertaken for the Project. The CEMP will also include standard mitigation strategies to avoid, minimise and mitigate impacts to an acceptable level.

The batteries and other ancillary infrastructure do not cause air emissions while operating. Potential for air emissions in case of a fire are discussed in **Section 6.3**.

### 6.10 Waste Management

The Shire's Waste Transfer Station is located on Coalfields Highway, Collie East. Access is via the Restricted Access Vehicle (RAV) network along Collie-Williams Road, Palmer Road and Paul Road through the Collie townsite, and onto Gibbs Road and the Coalfields Highway.

Throughout the construction phase, the EPC contractor will sort any waste produced by the Project into bins that are determined by defined categories of recyclable materials. Waste management provisions will be specifically addressed in the contractor's CEMP. Furthermore, implementation of the CEMP will be closely monitored by Neoen to ensure compliance with the approved waste management actions and controls.

Controls for ongoing waste management during the operations of the Project will be described in the OEMP.



# 7.0 Conclusion

Founded in 2008, Neoen is one of the world's leading and fastest growing independent producers of exclusively renewable energy. We design and implement the means to produce the most competitive renewable electricity, sustainable and on a large scale. Neoen's total capacity in operation or under construction is over 5.4 GW, with the target of more than 10 GW by the end of 2025. Founded in 2012, Neoen Australia has offices in Sydney, Canberra, Adelaide, Brisbane and Perth and consists of a team of over 65 employees contributing to our renewable energy mission. As of January 2022, Neoen has over 2.5 GW of renewable assets in operation or under construction in Australia, spanning across Wind (1072 MW), Solar (918 MW) and Storage (576 MW / 910MWh). This represents over 3.5 billion Australian dollars in investment. Neoen intends to reach 5GW in Australia by 2025.

Neoen operates under a long term "develop to own strategy". We own above 90% of our projects and manage and operate them to create long lasting value. We have a long-term approach to the projects we develop and the local communities we operate in. Community support and engagement is a defining feature of Neoen's corporate policy. As a long-term owner, Neoen is an active member of the communities we operate in, we understand the needs of the various stakeholders and invest time and resources to meet and exceed their expectations. This has resulted in unparalleled community support, which is a key factor in being able to develop and manage projects on time and within budget.

The Collie Battery is an advanced battery development in Western Australia. Neoen has secured private land, under an option to lease arrangement with agreed lease terms. This contract provides Neoen with exclusivity over the land and the landholder is highly supportive of the project.

Neoen has engaged Umwelt Environmental and Social Consultants to undertake an assessment of the Collie Battery project and support the development application to the Shire of Collie. This has included:

- assessment of planning and land use considerations and constraints
- identification and completion of required technical studies to understand and address potential environmental or social impacts, including ecology, hydrology, heritage, bushfire, noise, traffic and access, and social and heritage
- assistance for community stakeholder engagement
- consultation with relevant Western Australian government agencies that might have an interest in specific aspects of the Project.

This Development Application has outlined how the proposed Project has considered and aligns with the Town of Collie Local Planning Scheme No. 6 (LPS No. 6). The Project is to be located on land currently zoned as rural and a number of general development standards apply. Compliance of the Project with relevant planning controls of LPS No. 6 that are applicable to the Project are addressed in this report. The Project is not clearly defined by any existing land use classification in the LPS No. 6, and preliminary discussions with the Shire have indicated the Project may be assessed as a 'land use not listed' in accordance with Clause 4.4.2 (b) of the LPS No. 6. This Development Application includes an assessment the proposed Project against the "rural" zone objectives, and demonstrates how the objectives are met.



An assessment against other relevant elements of the State Planning Framework and other strategic state planning documents has also been included in this Development Application. This assessment demonstrates that the proposed Project is strongly aligned with State strategic direction, and that the requirements or objective of relevant State Planning Policies can be met.

Neoen has met with the traditional owners of Collie; Joe Northover and James Khan who are Senior Lore men for the Beelagu of the Wilman People, and elders for the Collie region. Mr Northover and Mr Khan have given their consent to the Project and we will continue to work with them as the development continues. Neoen hosted the Shire of Collie Council at the proposed battery site in June 2022, and community information sessions were held in Collie on the 22 and 23 of July 2022 to share to share the information and to get feedback from the community, who on the whole felt positive towards the Collie Battery and renewable projects more generally.

Neoen is proud to be developing this landmark energy project in the Collie region – a region which is at the centre of the energy transition in the South West Interconnected System (SWIS). This Project:

- is aligned to Collie's Just Transition Plan
- is expected to bring significant investment to the region
- will support local jobs and business.



# 8.0 References

#### Dangerous Goods Safety (DGS) Act (2005). (WA)

- Department of Jobs Tourism Science and Innovation (JTSI). (2019). Future Battery Industry Strategy.
- <u>https://www.wa.gov.au/government/publications/western-australias-future-battery-industry-strategy</u> Department of Planning Lands and Heritage (DPLH). (2020). *Position Statement: Renewable energy facilities* Western
  - Australian Planning Commission (WAPC). <a href="https://www.dplh.wa.gov.au/getmedia/8c0b28d3-8de0-4a35-8542-">https://www.dplh.wa.gov.au/getmedia/8c0b28d3-8de0-4a35-8542-</a> d55faff0d405/PS-Renewable-energy-facilities-position-statement
- Department of Planning Lands and Heritage (DPLH). (2022). *Bunbury-Geographe Sub-regional Strategy* Western Australian Planning Commission (WAPC). <u>https://www.wa.gov.au/system/files/2022-01/Bunbury-Geographe-Sub-regional-Strategy.pdf</u>
- Department of Primary Industries and Regional Development (DPIRD). (2018). Land Capability Grazing (DPIRD-032). [Dataset] <u>https://catalogue.data.wa.gov.au/dataset/land-capability-grazing</u>
- Department of Primary Industries and Regional Development (DPIRD). (2021). *Interactive Groundwater and Salinity Map for the South-West Agricultural Region*. <u>https://agric.wa.gov.au/n/6765</u>
- Department of Primary Industries and Regional Development (DPIRD). (2022). *Soil Landscape Mapping Best Available* (DPIRD-027). [Dataset] <u>https://catalogue.data.wa.gov.au/dataset/soil-landscape-mapping-best-available</u>
- Department of Water and Environmental Regulation (DWER). (2017). *Decision process for stormwater management in Western Australia*. Government of Western Australia. <u>https://www.wa.gov.au/system/files/2022-</u>
  - $\underline{05}/\underline{Decision-process-for-stormwater-management-in-Western-Australia.pdf}$
- Department of Water and Environmental Regulation (DWER). (2018). *RIWI Act, Groundwater Areas (DWER-034)*. [Dataset] <u>https://catalogue.data.wa.gov.au/dataset/riwi-act-groundwater-areas</u>
- Department of Water and Environmental Regulation (DWER). (2020). *Western Australian Climate Change Policy*. <u>https://www.wa.gov.au/service/environment/environment-information-services/western-australian-climate-</u> <u>change-policy</u>
- Department of Water and Environmental Regulation (DWER). (2022). *Public Drinking Water Source Areas (DWER-033)*. [Dataset] <u>https://catalogue.data.wa.gov.au/dataset/public-drinking-water-source-areas</u>
- Energy Policy WA. (2021). *Energy Transformation Strategy Stage 2: 2021-2025*. Government of Western Australia. <u>https://www.wa.gov.au/government/publications/leading-western-australias-brighter-energy-future</u>
- Energy Transformation Taskforce. (2019). *Distributed Energy Resources Roadmap* Government of Western Australia. <u>https://www.wa.gov.au/system/files/2020-04/DER\_Roadmap.pdf</u>
- Energy Victoria. (2019). *Battery Storage: Fact sheet*. State of Victoria Department of Environment Land Water and Planning.

https://www.energy.vic.gov.au/ data/assets/pdf file/0028/441568/Battery Storage Factsheet.pdf Environmental Protection (EP) Act (1986). (WA)

Environmental Protection (Noise) Regulations (1997). WA



Environmental Protection and Biodiversity Conservation (EPBC) Act (1999).

(Cth)https://www.legislation.gov.au/Details/C2016C00777

and-vegetation-surveys-environmental-impact-assessment

- Environmental Protection Authority (EPA). (2008). Guidance Statement No. 33: Environmental guidance for planning and development. <u>https://www.epa.wa.gov.au/sites/default/files/Policies\_and\_Guidance/GS33-270508.pdf</u>
- Environmental Protection Authority (EPA). (2016a). Environmental Factor Guideline—Flora and Vegetation.

https://www.epa.wa.gov.au/policies-guidance/environmental-factor-guideline-flora-and-vegetation

Environmental Protection Authority (EPA). (2016b). *Environmental Factor Guideline—Terrestrial Fauna*. <u>https://www.epa.wa.gov.au/policies-guidance/environmental-factor-guideline-terrestrial-fauna</u>

- Environmental Protection Authority (EPA). (2016c). *Technical Guidance—Flora and Vegetation Surveys for* Environmental Impact Assessment. <u>https://www.epa.wa.gov.au/policies-guidance/technical-guidance-flora-</u>
- Environmental Protection Authority (EPA). (2020). *Technical Guidance—Terrestrial Vertebrate Fauna Surveys for Environmental Impact Assessment*. <u>https://www.epa.wa.gov.au/policies-guidance/technical-guidance-</u> terrestrial-vertebrate-fauna-surveys-environmental-impact
- Fisher Engineering Inc., & Energy Safety Response Group. (2022). Victorian Big Battery Fire: Report of technical findings. <u>https://victorianbigbattery.com.au/wp-content/uploads/2022/01/VBB-Fire-Independent-Report-of-Technical-Findings.pdf</u>
- Kaczorek-Chrobak, K., Fangrat, J., & Papis, B. K. (2021). Calorimetric Behaviour of Electric Cables. *Energies, 14*(4), 1007. <u>https://www.mdpi.com/1996-1073/14/4/1007</u>
- Planager Ltd Pty. (2021). Preliminary Hazard Analysis for the Great Western Battery, NSW. Report prepared for AECOM Australia Pty Ltd, December 2021.

https://majorprojects.planningportal.nsw.gov.au/prweb/PRRestService/mp/01/getContent?AttachRef=SSD-12346552%2120220225T015705.098%20GMT

Rights in Water and Irrigation (RIWI) Act (1914). (WA)

- Schoknecht, N. R., Tille, P. J., & Purdie, B. R. (2004). *Soil-landscape mapping in south-Western Australia: An overview of methodology and outputs* (No. 280; Resource Management Technical Report). Department of Agriculture and Food.
- Shire of Collie. (2017). *Strategic Community Plan*. <u>https://www.collie.wa.gov.au/wp-content/uploads/2017/10/Collie-2017-Strategic-Community-Plan-.pdf</u>
- Shire of Collie. (2020). *Shire of Collie Local Planning Strategy*. Western Australian Planning Commission (WAPC). <u>https://www.wa.gov.au/system/files/2021-11/LST-Collie-Shire-Strategy.pdf</u>
- Shire of Collie. (2021). *Local Planning Scheme No. 6*. Department of Planning Lands and Heritage (DPLH). <u>https://www.wa.gov.au/system/files/2022-01/LPSC-Collie-6-scheme-text%20.pdf</u>
- UL Solutions. (2020). UL 9540A Test Method for Evaluating Thermal Runaway Fire Propagation in Cell Energy Storage Systems (Third Edition). Underwriters Laboratories Inc.
- Umwelt. (2022). *Collie Battery Energy Storage System: Fatal flaws, constraints analysis and approvals pathway.* Unpublished report, prepared for Neoen Australia Pty Ltd, May 2022



- Western Australian Planning Commission (WAPC). (2003). *State Planning Policy No. 2: Environmental and natural resources policy*. <u>https://www.wa.gov.au/system/files/2021-06/SPP 2-0 environment natural resources.pdf</u>
- Western Australian Planning Commission (WAPC). (2006). State Planning Policy 2.9: Water resources.

https://www.wa.gov.au/system/files/2021-06/SPP 2-9 water resources.pdf

- Western Australian Planning Commission (WAPC). (2015). *State Planning Policy No. 3.7: Planning in bushfire prone areas*. https://www.wa.gov.au/system/files/2021-12/SPP-3.7-Planning-in-Bushfire-Prone-Areas.pdf
- Western Australian Planning Commission (WAPC). (2016a). *State Planning Policy No. 2.5: Rural planning*. <u>https://www.wa.gov.au/system/files/2021-06/SPP 2-5 Rural Planning.pdf</u>
- Western Australian Planning Commission (WAPC). (2016b). *Transport Impact Assessment Guidelines Vol. 4* (Individual Developments). Department of Planning Lands and Heritage (DPLH).

https://www.dplh.wa.gov.au/getmedia/5b4c1fd4-b150-4f72-8041-

e815edb1b31e/GD\_Transport\_impact\_assessment\_vol4pdf

- Western Australian Planning Commission (WAPC). (2021a). *Guidelines for Planning in Bushfire Prone Areas*. <u>https://www.wa.gov.au/system/files/2021-12/Guidelines-for-planning-in-bushfire-prone-areas-version-</u> <u>1.4.pdf</u>
- Western Australian Planning Commission (WAPC). (2021b). *State Planning Strategy 2050*. Government of Western Australia. <u>https://www.wa.gov.au/system/files/2021-05/FUT-SPS-State Planning Strategy 2050.pdf</u>





























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