

# Bush Fire Assessment Report

Burroway Solar Farm - 1955 Eumungerie Rd, Burroway 2821

24001591

8 April 2025



Suite 3, 240-244 Pacific Highway,  
Charlestown, NSW 2290  
Phone: +61 2 4949 5200



# Bush Fire Assessment Report

## Burroway Solar Farm - 1955 Eumungerie Rd, Burroway 2821

### Kleinfelder Project: 24001591

Kleinfelder Document: NCA23R160359

Copyright 2025 Kleinfelder  
All Rights Reserved

**Prepared for:**

Edify Energy Pty Ltd

Level 3, 201 Charlotte Street  
Brisbane QLD 4000

Turrbal Country

**Prepared by:**

**Kleinfelder Australia Pty Ltd**

Suite 3, 240-244 Pacific Highway, Charlestown, NSW 2290

Phone: +61 2 4949 5200

ABN: 23 146 082 500

**Document Control:**

Version	Description	Date	Author	Technical Review
1.0	Draft	6 December 2023	Jess Bowditch	Darren Holloway
2.0	Draft	12 December 2023	Jess Bowditch	Darren Holloway
3.0	Draft	3 January 2024	Jess Bowditch	Rob Townsend
4.0	Updated to address RFS comments from EIS	8 April 2025	Brad Deane	Mark Trudgett

Only Edify Energy Pty Ltd, its designated representatives or relevant statutory authorities may use this document and only for the specific purpose for which this submission was prepared. It should not be otherwise referenced without permission.



# TABLE OF CONTENTS

1	INTRODUCTION.....	5
1.1	PROJECT OVERVIEW .....	5
1.2	AIMS & OBJECTIVES OF BFAR .....	7
1.3	SCOPE OF ASSESSMENT .....	7
1.4	BUSH FIRE PRONE LAND.....	8
1.5	NSW RFS PLANNING FOR BUSHFIRE PROTECTION 2019.....	10
2	SITE ASSESSMENT.....	11
2.1	PROJECT ENVIRONMENT .....	11
2.2	LAND ZONING .....	11
2.3	FIRE SEASON AND WEATHER .....	11
2.3.1	Fire Danger Rating and Climate Change .....	12
2.3.2	Bushfire Frequency & Ignition Sources.....	12
2.4	VEGETATION.....	12
2.5	TOPOGRAPHY AND SLOPES.....	14
3	RECOMMENDED BUSHFIRE MITIGATION STRATEGIES.....	15
3.1	ASSET PROTECTION ZONES .....	15
3.2	LANDSCAPE MAINTENANCE .....	16
3.3	BUILDING DESIGN.....	16
3.4	WATER SUPPLY .....	16
3.5	ELECTRICITY AND GAS.....	17
3.6	ACCESS MANAGEMENT .....	17
3.7	EMERGENCY MANAGEMENT PLANNING .....	18
3.7.1	Construction Environmental Management Plan / Operational Environmental Management Plan ..	18
3.7.2	Monitoring.....	19
3.7.3	Consultation .....	19
4	BESS LOCATION REVIEW .....	20
5	CONCLUSION.....	23

## TABLES

Table 1:	Bush fire related SEARs requirements and RFS response to the SSD-55968733 EIS .....	7
Table 2:	Specific requirements for wind and solar farms under PBP 2019 .....	10
Table 3:	Fire Thresholds in Orana BFMC area (Orana BFMC, 2021).....	14
Table 4:	IPA and OPA Management Parameters under PBP 2019 (RFS 2019a) .....	15
Table 5:	Assessment of the project against property access requirements listed under PBP 2019 .....	18
Table 6:	Key Stakeholder Contact Information.....	19
Table 7:	Summary of recommendations for SSD-55968733.....	23

## FIGURES

Figure 1:	Locality .....	6
Figure 2:	Bush Fire Prone Land .....	9
Figure 3:	PCT Mapping for the subject site (OzArk, 2025) .....	13
Figure 4:	Proposed APZ.....	22



# ACRONYMS AND ABBREVIATIONS

Acronym / Abbreviation	Definition
APZ	Asset Protection Zone
AS 3959:2018	Australian Standard AS3959:2018 <i>Construction of buildings in bushfire-prone areas</i>
BAL	Bushfire Attack Level
BC Act	<i>Biodiversity Conservation Act 2016</i> (NSW)
BDAR	Biodiversity Development Assessment Report
BESS	Battery Energy Storage System
BFAR	Bush Fire Assessment Report
BFPL	Bush Fire Prone Land
BFPLM Guide 2015	<i>Guide for Bush Fire Prone Land Mapping</i> (2015)
CFA	Victorian Country Fire Authority
DP	Deposited Plan
DPHI	NSW Department of Planning, Housing and Infrastructure
Edify	Edify Energy Pty Ltd
EIS	Environmental Impact Statement
EP&A Act	<i>Environmental Planning and Assessment Act 1979</i> (NSW)
EP&A Regulation	<i>Environmental Planning and Assessment Regulation 2021</i> (NSW)
FCC	Fire Control Centre
FFDI	Forest Fire Danger Index
GFDR	Grass Fire Danger Ratings
ha	Hectare
IPA	Inner Protection Area
kV	Kilovolt
LEP	Local Environmental Plan
LGA	Local Government Area
LMZ	Landscape Management Zones
NLEP	<i>Narromine Local Environmental Plan 2011</i>
NSW	New South Wales
Orana BFRMP	<i>Orana Bush Fire Risk Management Plan 2020</i>
OPA	Outer Protection Area
OzArk	<i>OzArk Environment and Heritage</i>
PBP 2019	<i>Planning for Bush Fire Protection 2019</i>



Acronym / Abbreviation	Definition
PBP Addendum 2022	<i>November 2022 Addendum to Planning for Bush Fire Protection</i>
PHA	Preliminary Hazard Analysis
Planning SEPP	<i>State Environmental Planning Policy (Planning Systems) 2021</i>
Project	Construction and operation of a solar farm and battery energy storage system
PV	Photovoltaic
RTS	Response to Submissions
RF Act	<i>Rural Fires Act 1997 (NSW)</i>
RF Regulation	<i>Rural Fires Regulation 2022 (NSW)</i>
RFS	NSW Rural Fire Service
SEARs	Secretary's Environmental Assessment Requirements
SFAZ	Strategic Fire Advantage Zones
SSD	State Significant Development
Subject Site	Lot 70 DP 1251856, 1955 Eumungerie Road (Rd), Burroway NSW 2821



# 1 INTRODUCTION

Edify Energy Pty Ltd (Edify) engaged Kleinfelder Australia Pty Ltd to prepare a Bush Fire Assessment Report (BFAR) to support the proposed State Significant Development (SSD) application for construction and operation of a solar farm and battery energy storage system (BESS) (the 'project'), located at Lot 70 Deposited Plan (DP) 1251856, 1955 Eumungerie Road (Rd), Burroway NSW 2821 (the 'subject site').

Application for the project under SSD-55968733 included preparation and submission of an Environmental Impact Statement (EIS), which was submitted to the NSW Department of Planning, Housing and Infrastructure (DPHI) under Part 4 of the NSW *Environmental Planning and Assessment Act 1979* (EP&A Act). The BFAR was appended to the EIS. The EIS for the project was publicly exhibited from 11 October 2024 to 7 November 2024.

During the public exhibition of the EIS, a total of 82 public submissions objecting to the project were received as well as 13 submissions from agencies, including the NSW Rural Fire Service (RFS). This amended BFAR has been prepared to address comments raised by the RFS under the letter titled *State Significant Development – Electricity Generating Works Request for comments – exhibited Environmental Impact Statement (EIS) BURROWAY SOLAR FARM 1955 EUMUNGERIE RD BURROWAY NSW 2821, 70//DP1251856* and dated 7 November 2024.

## 1.1 PROJECT OVERVIEW

The subject site is located approximately 18 kilometres (km) north of Narromine and 2 km east of Burroway, NSW (**Figure 1**). The subject site is approximately 495 hectares (ha) in size, with vegetation onsite primarily cleared owing to past agricultural land use. The subject site is zoned RU1 - Primary Production under the *Narromine Local Environmental Plan 2011* (NLEP) and is within the Pilliga IBRA Subregion (Brigalow Belt South IBRA region).

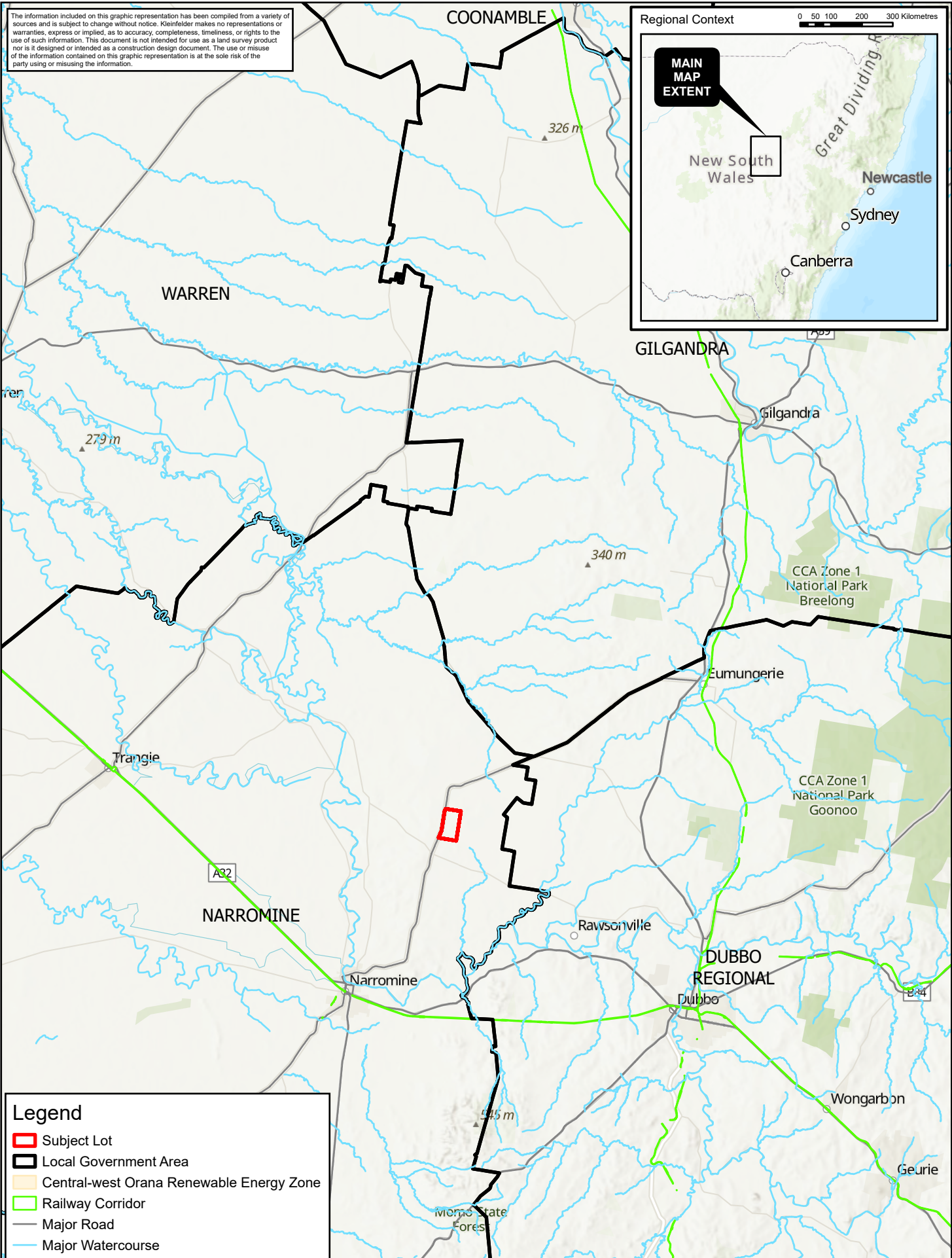
The project involves the construction of an up to 100-megawatt (MW) solar photovoltaic (PV) generator with an estimated 100 MW / 400 MW per hour energy storage capacity. Solar panels will be mounted on frames which are able to track and absorb sunlight to generate energy which is increased to 33 kilovolt (kV) power by integrated transformers. An adjacent substation is proposed to then increase the 33kV electrical current to 132kV. The project will connect to an existing 132kV transmission line located in the southern part of the subject site. The project features an option to incorporate batteries into the facility to allow storage of power on site at a future date. Subject to necessary approvals, Edify Energy (Edify), anticipates construction to commence in the financial year of 2026/27.

The following infrastructure will be required as part of the works (**Figure 1**):

- Photovoltaic solar panels/arrays;
- Solar substation;
- Tracking system;
- Piles foundations;
- Internal access tracks;
- Underground medium voltage network;
- Ancillary infrastructure and buildings such as security fencing, parking;
- Substation; and
- Battery energy storage system.

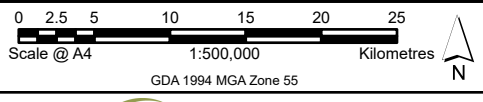
The project will have a capital investment of greater than \$30 million and therefore is considered a State Significant Development (SSD) under the NSW *State Environmental Planning Policy (Planning Systems) 2021* (Planning SEPP).

The information included on this graphic representation has been compiled from a variety of sources and is subject to change without notice. Kleinfelder makes no representations or warranties, express or implied, as to accuracy, completeness, timeliness, or rights to the use of such information. This document is not intended for use as a land survey product nor is it designed or intended as a construction design document. The use or misuse of the information contained on this graphic representation is at the sole risk of the party using or missing the information.



**Legend**

- ▭ Subject Lot
- Local Government Area
- Central-west Orana Renewable Energy Zone
- Railway Corridor
- Major Road
- Major Watercourse



PROJECT REFERENCE: 25003672  
 DATE DRAWN: 3/24/2025 Version 1  
 DRAWN BY: BDeane

**LOCALITY**

**FIGURE:**  
  
**1**

DATA SOURCE:  
 Esri - 2025  
 NSW Spatial Services - 2024

EDIFY ENERGY PTY LTD  
 BURROWAY SOLAR FARM,  
 BSH FIRE ASSESSMENT REPORT  
 BURROWAY, NSW 2821





## 1.2 AIMS & OBJECTIVES OF BFAR

The aim of this amended BFAR is threefold; to provide the for the protection of life and property during design, construction and operation of the project (with regards to bush fire), to address mandatory assessment requirements issued under the Planning Secretary’s Environmental Assessment Requirements (SEARs) for SSD-55968733 and to address the RFS response to the EIS submitted under SSD-55968733.

For context, SEARs requirements and the response from the RFS to the EIS for SSD-55968733 are provided in **Table 1**.

**Table 1: Bush fire related SEARs requirements and RFS response to the SSD-55968733 EIS**

Matter	Assessment Requirement / Matters to be Addressed
SEARs	<i>Bushfire - identify potential hazards and risks associated with bushfires / use of bushfire prone land including the risks that a solar farm would cause bush fire and demonstrate compliance with Planning for Bush Fire Protection 2019.</i>
RFS Response to EIS	<p><i>The subject land is located in grassland fire hazard. Grass fires are known to have a fast rate of spread with minimal residual heat.</i></p> <p><i>The NSW RFS role is to prevent fire impacting the asset and/or spread from a structural fire into the surrounding landscape.</i></p> <p><i>The EIS and Bushfire report does not adequately address the location of the BESS from a firefighting access and suppression operation. The BESS is located greater than 1 km from the Eumungerie Road property access gate. The proposed internal access road traverses a the 132kV power line easement. Further the bushfire report states:</i></p> <p><i>"A dedicated static water supply of 20,000L for bush firefighting purposes is recommended at strategic locations within the solar farm, having consideration for essential equipment and accessibility e.g., near the main entrance."</i></p> <p><i>The NSW RFS requires the proponent to adequately justify the location of the BESS from a fire prevention, protection and suppression perspective.</i></p>

The objectives of this BFAR are to:

- Identify, and manage, bush fire related threats to the project that are located within the subject site.
- Identify, and mitigate potential impacts resulting from, external bush fire threats to the project,
- Provide for adequate supply and management of services for the project, including electricity, gas (if required) and water.
- Provide for adequate access and / or egress from the subject site for onsite personnel and emergency services.
- Identify and recommend additional measures to provide for the protection of life and property, within the bush fire context throughout the duration of construction, operation and decommissioning of the project.

## 1.3 SCOPE OF ASSESSMENT

Assessment of SSD occurring on Bush Fire Prone Land (see **Section 1.4**) is captured under Part 4, Division 4.7, Section 4.39 of the EP&A Act and Part 8, Division 2 of the NSW *Environmental Planning and Assessment Regulation 2021* (EP&A Regulation), whereby assessment requirements are drawn from the SEARs released for the SSD Application.

In accordance with the SSD-55968733 SEARs (**Table 1**), this BFAR contains an assessment of the project as per the provisions listed under the NSW RFS document *Planning for Bush Fire Protection 2019* (PBP 2019). Where relevant, modifications to PBP 2019 referenced under the *November 2022 Addendum to Planning for Bush Fire Protection* (PBP Addendum 2022) have been included in this BFAR.



## 1.4 BUSH FIRE PRONE LAND

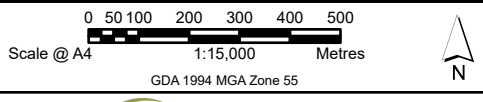
Section 10.3(1) of the EP&A Act requires the Commissioner of the RFS to identify land that a local Council would map as 'bush fire prone' within their local government area. The NSW RFS have published the guideline *Guide for Bush Fire Prone Land Mapping (2015)* (BFPLM Guide 2015) for use in the mapping of BFPL by a local Council as per Section 10.3(1)(b) of the EP&A Act. In summary, the BFPLM Guide 2015 outlines the steps to prepare a BFPL map, methods to modify a standing BFPL map and data retention and format requirements to enable consolidation and sharing of various BFPL maps. Vegetation on a BFPL map is to be separated into one of three categories based upon the level of potential threat the vegetation poses, with a nominated 100 m buffer surrounding *Category 1 vegetation* (highest threat) and 30 m buffer for *Category 2* (lowest threat) and *Category 3* (medium threat) vegetation.

The subject site contains Vegetation Category 1, Vegetation Category 2 and Vegetation Buffer BFPL as shown in **Figure 2**.

The information included on this graphic representation has been compiled from a variety of sources and is subject to change without notice. Kleinfelder makes no representations or warranties, express or implied, as to accuracy, completeness, timeliness, or rights to the use of such information. This document is not intended for use as a land survey product nor is it designed or intended as a construction design document. The use or misuse of the information contained on this graphic representation is at the sole risk of the party using or misusing the information.



- Legend**
- Subject Lot
  - Major Road
  - Major Watercourse
  - Bushfire Prone Land**
  - Vegetation Buffer
  - Vegetation Category 1: High-risk areas (i.e. forest, woodlands)
  - Vegetation Category 2: Low-risk areas (i.e., small parcels, modified landscape, rainforests)
  - Vegetation Category 3: Medium-risk areas (e.g. grasslands, semi-arid woodlands)



PROJECT REFERENCE: 25003672  
 DATE DRAWN: 3/24/2025 Version 1  
 DRAWN BY: BDeane

**LOCAL CONTEXT**

**FIGURE:**  
  
**2**



DATA SOURCE:  
 Esri - 2025  
 NSW Spatial Services - 2024

EDIFY ENERGY PTY LTD  
 BURROWAY SOLAR FARM,  
 SUBMISSIONS REPORT  
 BURROWAY, NSW 2821



## 1.5 NSW RFS PLANNING FOR BUSHFIRE PROTECTION 2019

The NSW RFS PBP 2019 has legislative authority for development occurring on BFPL under clause 271 of the EP&A Regulation and clause 3 of the RF Regulation. All development occurring on BFPL must satisfy the aims and objectives of PBP 2019, while Chapters 5 to 8 of PBP 2019 provide specific performance criteria and acceptable solutions for development occurring in NSW.

Of note to this BFAR, performance criteria listed under Section 8.3.5 (Wind and Solar Farms) are pertinent to the project, with specific requirements applicable to these forms of development provided in **Table 2**.

**Table 2: Specific requirements for wind and solar farms under PBP 2019**

Category	Requirement	Note
Asset Protection Zone (APZ)	A minimum 10m wide APZ is required for wind and / or solar structures and associated buildings / infrastructure.	Infrastructure for the purposes of requiring APZ excludes: <ul style="list-style-type: none"><li>• Road access to the site.</li><li>• Power or other services to the site and associated fencing.</li></ul>
	The APZ must be maintained to the standard of an Inner Protection Area (IPA) for the life of the development.	
Equipment	Essential equipment should be designed and housed in such a way as to minimise the impact of bush fires on the capabilities of the infrastructure during bush fire emergencies. It should also be designed and maintained so that it will not serve as a bush fire risk to surrounding bush.	-
Emergency Management	A Bush Fire Emergency Management and Operations Plan should identify all relevant risks and mitigation measures associated with the construction and operation of the wind or solar farm. This should include <ul style="list-style-type: none"><li>• Detailed measures to prevent or mitigate fires igniting.</li><li>• Work that should not be carried out during total fire bans.</li><li>• Availability of fire-suppression equipment, access and water.</li><li>• Storage and maintenance of fuels and other flammable materials.</li><li>• Notification of the local NSW RFS Fire Control Centre for any works that have the potential to ignite surrounding vegetation, proposed to be carried out during a bush-fire fire danger period to ensure weather conditions are appropriate.</li><li>• Appropriate bush fire emergency management planning.</li></ul>	-



## 2 SITE ASSESSMENT

### 2.1 PROJECT ENVIRONMENT

The subject site occurs within the Narromine LGA, surrounded by rural landholdings. Access to the subject site occurs via Eumungerie Rd, a sealed road of approximate 8.5m width (including sealed shoulders).

Primary past land use at the subject site consisted of cropping with evidence of agricultural improvements for grazing, including occurrence of three dams, perimeter fencing and gates, and unsealed access tracks. Remnant vegetation occurs as an isolated parcel within the central portion of the subject site and along the border of previously cleared and managed paddocks.

The landscape of the subject site is characterised by open plains with a very gently undulating rise towards the middle of the subject site. The lowest elevation at the subject site, approximately 260m, occurs in the northeast and rises to 285m on a broad crest in the centre of the subject site. The subject site is a free draining landform with 20 - 70% surface cover that has been highly disturbed in the past by land clearing for agriculture.

In addition to local power transmission lines to residences, the subject site and broader area is also host to the Essential Energy 132 kV, Dubbo to Nevertire distribution line that runs east-west through the southern portion of the land parcel.

The local road network is primarily for access to rural properties and includes:

- Eumungerie Road, which is a sealed regional road running south to north adjacent the western portion of the subject site.
- Edmonstones Road which is an unpaved local road running west-east and located to the north of the subject site.
- Greenvale Road which is an unpaved local road running west- east before turning south located adjacent the northwestern corner of the subject site
- Dubbo Burroway Road which is a paved local road running east-west located approximately 2km south of the subject site.
- Emogandry Rd is an unpaved local road running east-west approximately 2.3km north of the subject site.
- Merrits Lane which is an unsealed local road east-west located approximately 4.3km south of the subject site.

### 2.2 LAND ZONING

The entire site is zoned RU1 – Primary Production under the NLEP and is currently and has historically been used for farming (cropping and grazing). The site sits within lands managed by the Narromine Local Aboriginal Land Council.

The surrounding land is used for agricultural land purposes, such as cropping and grazing.

### 2.3 FIRE SEASON AND WEATHER

The closest weather station to the subject site is Dubbo Airport Automatic Weather Station, located approximately 24km south of the subject site. The subject site experiences warm to hot summers, with the highest mean maximum temperature of 33.6 degrees experienced in January. Winters are mild, with temperatures in the coldest month (July) ranging from a mean minimum of 3.0 degrees to a mean maximum of 15.7 degrees (*Edify, 2023*).

The project is located within the Orana Bushfire Management Committee region (BFMC) and is covered by the *Orana Bush Fire Risk Management Plan 2020* (Orana BFRMP). The typical / average climate in the Orana BFMC area is:

- Warm to hot summers, ranging from 17°C to 34°C with some extremes exceeding 38°C for many days; and
- Winter temperatures ranging from -4°C to 16°C with the regular early morning frosts in the southern area of the Dubbo Regional LGA.



Mean average rainfall for the area is between 500-600mm per annum. Rainfall is usually evenly distributed throughout the year with a slightly greater average in the summer months. January is on average, the wettest month with 60mm. The bush fire season generally commences on the 1st of October and concludes 31st March.

Prevailing weather conditions associated with the bush fire season in the Orana BFMC area are north to westerly winds created by consecutive high-pressure systems causing the high daytime temperatures. Such hot winds are usually very dry with low relative humidity often going below 20% (*Orana Bushfire Management Committee, 2020*).

### 2.3.1 Fire Danger Rating and Climate Change

The Narromine LGA occurs within the Lower Central West Plains Fire District and has a Forest Fire Danger Index (FFDI) of 80 (NSW RFS, 2017).

Over the next 30-40 years (expected lifespan of the project), the climate is projected to change, potentially resulting in more days of higher fire danger than previously experienced, and projected FFDR and Grass Fire Danger Ratings (GFDR) exceeding current levels (Douglas, G. 2017). Planning for long term infrastructure should include consideration of the potential for increased fire danger and potentially higher fire frequencies.

### 2.3.2 Bushfire Frequency & Ignition Sources

The Orana BFMC area has on average 200-250 fires per year, of which 10-15 can be considered major fires. Prior to the 1990s, bush fire history records were not kept in any formal way. However, local knowledge has been available to provide necessary information.

Records and local knowledge indicate that seventeen major fire seasons occurred in the Orana Area.

- Dubbo - 1926/27, 1951/52, 1957, 1975/76, 1983/84 (Christmas Day s17 Fire), 1990/91, 1994, 2004 (s44 Fire) and 2007 (Goonoo s44);
- Narromine - 1957, 1964, 1979, 1987 and 2001, (Goobang s44 Fire). Wellington - 1975 (Euchareena s17 Fire), 1990, 1998/99, 2005/06 (Popes s44), 2009 (Hidden Valley Fire) and 2017 (Ungula s44).

These years have generally reflected periods of healthy vegetation growth after good winter and spring rainfall followed by a very hot summer. However severe fires were also experienced during the drought.

The main sources of ignition in the Orana BFMC area are typically from:

- Careless acts by individuals which can include people using welders, angle grinders, dragging implements behind machinery or people playing with matches or fire on days of high to extreme weather conditions;
- Farm machinery;
- Campfire escapes;
- Lightning strikes;
- Electrical Power Supply Lines;
- Burning of stolen vehicles;
- Motor vehicle exhaust systems;
- Escaped controlled permit burns; and
- Arson activity.

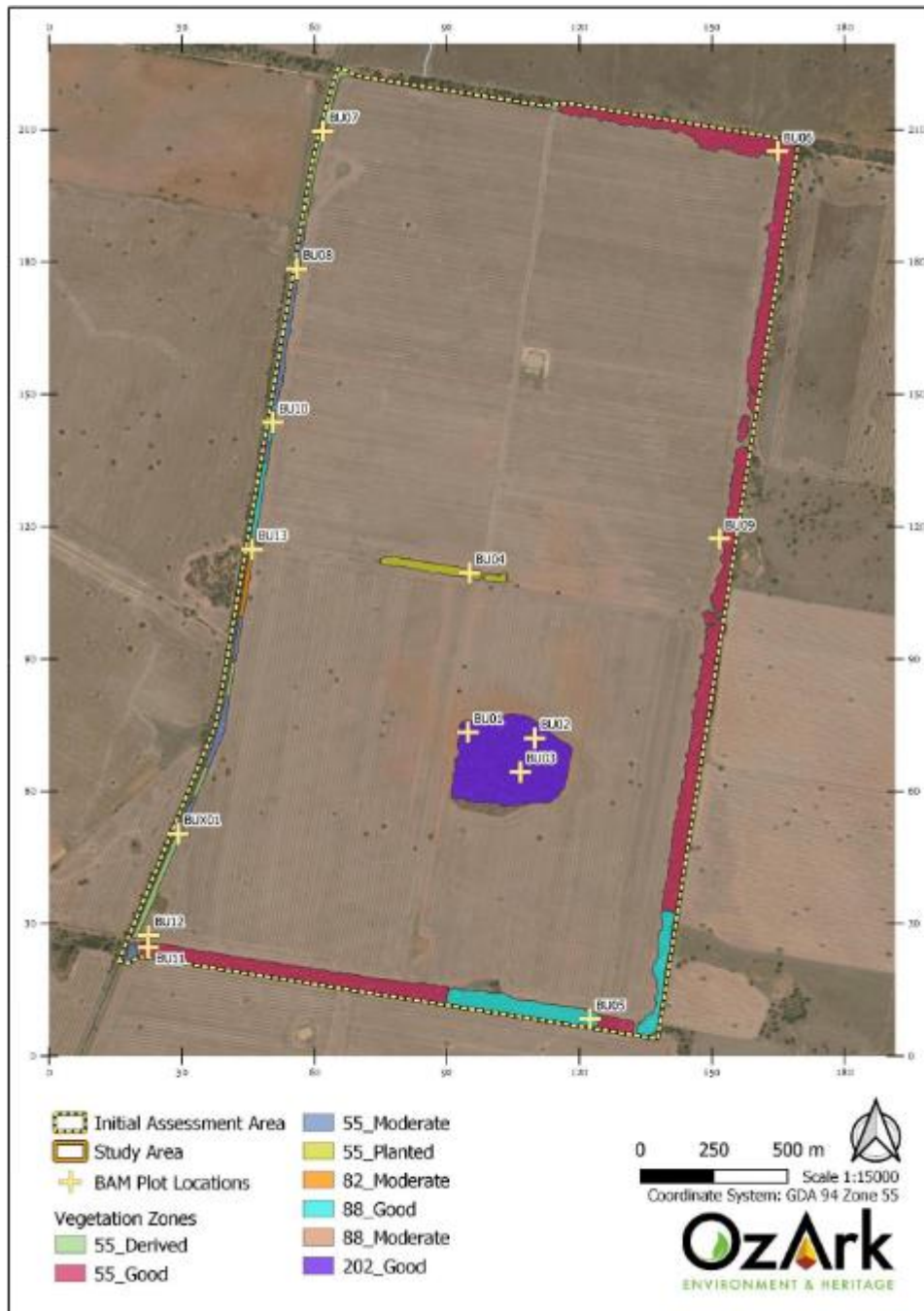
## 2.4 VEGETATION

OzArk Environment and Heritage (OzArk) prepared a Biodiversity Development Assessment Report (BDAR) for the project, submitted under SSD-55968733. This BDAR has subsequently been updated in March 2025 as part of Response to Submissions (RTS) documentation for SSD-55968733. Review of OzArk Plant Community Type (PCT) mapping (replicated in **Figure 3**) indicates that the following PCTs occur at the subject site:

- PCT 55 *Belah woodland on alluvial plains and low rises in the central NSW wheatbelt to Pilliga and Liverpool Plains regions*. PCT 55 is part of the *Semi-arid Woodlands (Grassy sub-formation)* vegetation formation.
- PCT 82 *Western Grey Box - Poplar Box - White Cypress Pine tall woodland on red loams mainly of the eastern Cobar Penepain Bioregion*. PCT 82 is part of the *Grassy Woodlands* vegetation formation.



- PCT 88 *Pilliga Box - White Cypress Pine - Buloke shrubby woodland* in the Brigalow Belt South Bioregion. PCT 88 is part of the *Dry Sclerophyll Forests (shrub/grass sub-formation)* vegetation formation.
- PCT 202 *Fuzzy Box woodland on colluvium and alluvial flats* in the Brigalow Belt South Bioregion (including *Pilliga*) and *Nandewar Bioregion*. PCT 202 is part of the *Grassy Woodlands* vegetation formation.



**Figure 3: PCT Mapping for the subject site (OzArk, 2025)**

Former cropped land / grasslands at the subject site will be managed as part of the proposed solar farm and thus have been classified as ‘low threat vegetation’ pursuant to Appendix A, Section A1.10 of PBP 2019.

Vegetation assemblages at the subject site, and their corresponding threshold for management of Strategic Fire Advantage Zones (SFAZ) and Landscape Management Zones (LMZ) (defined below), are listed in **Table 3**.

A SFAZ is a fuel reduced area, installed and managed by prescribed burning, pile burning and / or windrow burning, created to assist management and effectiveness of APZs and to assist suppression of a bush fire. A LMZ utilises prescribed burning to provide optimum fire frequencies for biodiversity maintenance and to assist fuel management through management of ages classes in vegetation.



**Table 3: Fire Thresholds in Orana BFMC area (Orana BFMC, 2021)**

Vegetation formation	Minimum SFAZ Threshold	Minimum LMZ Threshold	Maximum Threshold	Notes
Grassy woodland	5	8	40	Minimum interval of 10 years should apply in the southern Tablelands area. Occasional intervals greater than 15 years may be desirable.
Grassland	2	3	10	Occasional intervals greater than 7 years should be included in coastal areas. There was insufficient data to give a maximum interval; available evidence indicates maximum intervals should be approximately 10 years.
Dry sclerophyll forest (shrub/grass sub formation)	5	8	50	Occasional intervals greater than 25 years may be desirable
Semi-arid woodlands (grassy sub formation)	6	9	No max	Not enough data for a maximum fire interval

## 2.5 TOPOGRAPHY AND SLOPES

The slope relief class of the subject site is categorized as gently inclined plains (National Map, 2023). The subject site is located between the elevations of 276m and 266m, rising from the south and north to a central crest. Whilst portions of vegetation surrounding the subject site may be classified as 'flat' (presenting a lessened bush fire threat), a conservative approach has been applied and slopes applicable to classified vegetation has been deemed as '0 to 5 degrees' downslope for the purposes of this BFAR.

The geological characteristics for the Pilliga subregion of the Brigalow Belt South Bioregion comprises of stepped sandstone ridges with low cliff faces and high proportion of rock outcrop, however these geological features are not present on site.



# 3 RECOMMENDED BUSHFIRE MITIGATION STRATEGIES

The subject site landowner, solar farm construction contractor and operator are all responsible for the actions associated with fire management and risk mitigation associated with solar farm construction, operations and decommissioning across the landholdings. The following risk mitigation actions for the project have been developed to achieve compliance with the specifications and requirements of Section 8.3.5 of PBP 2019 for solar farms.

## 3.1 ASSET PROTECTION ZONES

**Table 4** outlines acceptable standards for installation and maintenance of Asset Protection Zones (APZs), sourced from Appendix 4 of PBP 2019. APZs should generally be installed and maintained in accordance with Inner Protection Area (IPA) standards, while APZs for Forest vegetation may have an Outer Protection Area (OPA) installed as per distances listed under Table A1.12.4 of PBP 2019.

An APZ provides a buffer zone between a bushfire hazard and an asset that allows suppression of a fire and aims to avoid possible flame contact and/or excessive radiant heat. An APZ allows emergency services access and provides a relatively safe area for firefighters to defend assets.

An APZ should be maintained in perpetuity to ensure ongoing protection from the impact of bush fires.

**Table 4: IPA and OPA Management Parameters under PBP 2019 (RFS 2019a)**

Management Component	Inner Protection Area (Section A4.1.1 PBP 2019)	Outer Protection Area (Section A4.1.2 PBP 2019)
<b>Trees</b>	<ul style="list-style-type: none"> <li>Tree canopy less than 15% at maturity with 2-5m separation between branches of adjoining trees and no branches touching or overhanging the building.</li> <li>Tree limbs should be removed up to a height of 2m above ground to prevent spread from ground fires to the crown.</li> <li>Trees with smooth bark should be planted / retained in favour of rough-barked trees.</li> <li>Preference should be given to smooth barked and evergreen trees.</li> </ul>	<ul style="list-style-type: none"> <li>Tree canopy should be less than 30% at maturity with 2-5m separation between branches of adjoining trees</li> </ul>
<b>Shrubs</b>	<ul style="list-style-type: none"> <li>Retained shrubs should form less than 10% of total groundcover within the IPA and should be retained in parcels, separated from trees to prevent ground fires spreading towards the crown of trees</li> <li>Clumps of shrubs should be separated from exposed windows and doors by a distance of at least twice the height of the vegetation.</li> </ul>	<ul style="list-style-type: none"> <li>Shrubs should form no more than 20 % of ground cover within the extents of the OPA and should not form a continuous line from the hazard towards the asset.</li> </ul>
<b>Grass</b>	<ul style="list-style-type: none"> <li>Grass should be managed to approximately 100 mm height to limit their ability to ignite and propagate a fire.</li> <li>Loose fuels such as twigs and leaf litter should be removed or managed to a standard whereby fuel level is low, but soil erosion does not occur.</li> </ul>	<ul style="list-style-type: none"> <li>As per IPA requirements.</li> </ul>



In accordance with Section 8.3.5 of PBP 2019, the proposed solar farm will require a minimum 10m wide APZ between external panels (and associated infrastructure) and retained vegetation, including vegetation located along the border of the subject site and the parcels of PCT 55 and PCT 202 located within central portions of the subject site (see **Figure 3**).

The 10m APZ will need to be managed to the standard of an IPA (see **Table 4**), noting that internal roads / tracks may be located within the APZ to provide a fuel free zone.

A *Preliminary Hazard Analysis* (PHA) was conducted by Arup in August 2023 to support the SSD-55968733 application. The PHA recommended a 20m setback distance from the outermost battery unit to the site boundary irrespective the results of the fire tests. The models assume a conservative worst-case scenario and it is expected that the ultimate technology selection will provide further detail that can be used as the basis to reduce the recommended spacing requirements. (Arup, 2023). The proposed BESS system may either form a centralized (single location) or decentralized (placed throughout solar array system). APZs for a decentralized system will be captured as part of solar array APZ / landscape management (to IPA standards), with a 20m APZ to be provided between the site boundary and outermost battery enclosures at minimum.

## 3.2 LANDSCAPE MAINTENANCE

The *Landscape Character and Visual Impact Assessment*, and the *Glint and Glare Impact Assessment* conducted for SSD-55968733 found private and public receivers located in the vicinity of the subject site will not experience visual impacts from the project infrastructure and as such no landscaping or screening is currently proposed.

All vegetation within the approved clearing footprint, inclusive of the solar array footprint, the BESS footprint(s), the substation footprint and the APZ for onsite infrastructure will need to be maintained to IPA standards (see **Table 4**).

## 3.3 BUILDING DESIGN

The PHA conducted by Arup (2023) included a Battery Fire Consequence analysis. The investigation deducted that in order to meet acceptance criteria for reduced fire propagation risk, separation distances required for both types of modular and cabinet unit. In addition to the separation distances required, the following is recommended:

- Provision of adequate standoff distances for batteries from other BESS units and PV units (as shown in Section 6 or as outlined in UL 9540A test report).
- Provision of adequate ventilation to relieve the off gassing of combustible gases from thermal runaway in line with NFPA 69.
- Inclusion of a battery monitoring system in BESS units and an off-gas detection system.

Arup also recommended the following explosion prevention measures:

- Deflagration vents in accordance with NFPA 68; and/or
- Exhaust system in accordance with NFPA 69.

Design of the substation and BESS to be undertaken in-line with recommendations under the project FSS (recommended condition issued by Fire and Rescue NSW), the Arup (2023) PHA (unless superceded), and in accordance with conditions of consent issued for the project. Where applicable and not superceded by more rigorous controls listed under an associated study, general construction requirements listed under Section 3 and Section 6 (BAL 19) of Australian Standard AS 3959:2018 *Construction of buildings in bush fire prone areas* should apply to buildings associated with the proposed BESS and / or substation. Site offices should be constructed more than 35m from the external perimeter of onsite vegetation management and meet BAL 19 requirements.

## 3.4 WATER SUPPLY

Table 5.3d of PBP 2019 outlines static water supply requirements based upon lot size, noting that 20,000 L per lot of water is required for lots exceeding an area of 10,000m<sup>2</sup> (1 ha).



Reference is made to Chapter 4.2 of the Victorian Country Fire Authority (CFA) document *Design Guidelines and Model Requirements Renewable Energy Facilities v4 (2023)* for provision of static water supply at the subject site, noting the RFS requirement for addressing “fire suppression” in relation to the project. Under static water supply provisions issued by the CFA (2023), the proposed solar farm would require one 45,000 L water tank at the main entrance to the subject site and four additional 45,000 L water tanks interspersed evenly throughout the subject site. Edify propose to install and manage a static water supply system referencing CFA (2023) requirements as a guide, with the final water allocation to be determined during detailed design and in consultation with the RFS. The location of the 45,000 L tanks, or as otherwise sized following consultation with the RFS, will be subject to detailed design, however it is recommended that tanks are generally situated as follows:

- One located at the site entrance.
- One within the eastern portion of the solar array.
- One within the northern portion of the solar array.
- One placed adjacent to the substation and BESS (if centralized).
- One placed centrally in the site, suitably placed to assist combating potential ignition and spread of fire within the retained portion of PCT 2022 (**Figure 3**).

In response to distribution of the SSD-55968733 EIS, Fire and Rescue NSW issued recommended conditions of consent that included a condition for preparation of a Fire Safety Study (FSS) in accordance with the requirements of the *Hazardous Industry Planning Advisory Paper (HIPAP) No.2*. Preparation of this FSS will include calculation of water supply requirements for fire fighting in accordance with HIPAP No.2, with this water to be an addition to the static water supplied for the solar farm provided in preceding paragraphs.

Detailed design should include consultation with the local RFS Fire Control Centre (FCC) and / or brigade regarding suitable connections for static water supply, noting that the RFS usually prefers installation of 65mm Storz outlet with ball valve to static water supply.

The FCC for the Narromine LGA is based at 109 Manildra Street (Narromine 2821), with the phone contact number (02) 6881 3900.

Furthermore, from the PHA, Arup (2023) recommended that the fire water containment system is designed in one of two ways:

- Permanent containment system: the civil design of the site can be scoped such that it is possible to contain all runoff in a designated catchment area (e.g., a bund or some form of holding basin);
- Temporary containment: the site can be designed such that, in the event of a fire brigade response that may lead to contaminated runoff, drainage can be thoroughly sealed, and firewater contained on-site. In essence, this is a temporary bund (Arup, 2023).

### 3.5 ELECTRICITY AND GAS

The proposed BESS, and associated access road, will be constructed outside the easement of overhead transmission lines. Proposed electrical transmissions are likely to be installed underground, with the following criteria applying to gas installations, if included onsite:

- Reticulated or bottled gas is installed and maintained in accordance with AS/NZS 1596:2014 - *The storage and handling of LP Gas*, the requirements of relevant authorities, and metal piping is used.
- All fixed gas cylinders are kept clear of all flammable materials to a distance of 10m and shielded on the hazard side.
- Connections to and from gas cylinders are metal.
- Polymer-sheathed flexible gas supply lines are not used.
- Above-ground gas service pipes are metal, including and up to any outlets.

### 3.6 ACCESS MANAGEMENT

Access is critical for bushfire emergency response, safe firefighting, and evacuation. Primary accesses to the subject site will occur from Eumungerie Road via construction of an Basic Right Turn treatment for the proposed



solar farm. Two site access options have been provisioned for the subject site as detailed in the SSD-55968733 EIS.

Internal vehicle access tracks will be constructed to each inverter enclosure and to the substation to allow for site maintenance. On-site tracks will be constructed of compacted gravel and, where required, geotextile fabric will be laid between the soil and the gravel to provide all-weather thoroughfare. Internal access tracks will be approximately 4 m wide to allow for the safe delivery, unloading and installation of key components such as the solar panels, inverters, transformers and BESS units.

In the absence of specific bush fire access provisions under Section 8.3.5 of PBP, provisions listed for access on rural properties (Table 7.4a) under PBP 2019 have been utilised for assessment of access (see **Table 5**).

**Table 5: Assessment of the project against property access requirements listed under PBP 2019**

Table 7.4a – Access – Property Access	
Acceptable Solution	Comment in relation to the project
Minimum 4m carriageway width.	Internal roads will be constructed as ‘all weather’ internal roads.
In forest, woodland and heath situations, rural property roads have passing bays every 200m that are 20m long by 2m wide, making a minimum trafficable width of 6m, at the passing bay	Not relevant to the subject site due to past clearing of the landscape (see <b>Figure 3</b> ).
A minimum vertical clearance of 4m to any overhanging obstructions, including tree branches.	May be included in Conditions of Consent for inclusion in detailed design.
Property access must provide a suitable turning area in accordance with Appendix 3.	As above.
Curves have a minimum inner radius of 6m and are minimal in number to allow for rapid access and egress.	As above.
The minimum distance between inner and outer curves is 6m.	As above.
The crossfall is not more than 10 degrees.	As above.
Maximum grades for sealed roads do not exceed 15 degrees and not more than 10 degrees for unsealed roads	As above.

The position of internal roads will be determined during the detailed design phase when the layout of the solar arrays and the BESS units are finalised. The internal roads are private roads designed and constructed only for construction, operation and maintenance purposes. As noted in **Table 5**, internal access can comply with acceptable solutions listed under PBP 2019, to be addressed under detailed design.

## 3.7 EMERGENCY MANAGEMENT PLANNING

### 3.7.1 Construction Environmental Management Plan / Operational Environmental Management Plan

In accordance with Section 8.3.5 of PBP 2019, the Construction Environmental Management Plan (and ongoing Operational Plan) should include the following:

- Detailed measures of to prevent or mitigate fires igniting (e.g. hot works permits for works which may result in the ignition of fire).
- Work that should not be carried out during total fire bans (e.g. hot works not to be carried out on total fire ban days, or any prohibited activities or exemptions that are declared and notified by the Commissioner of NSW RFS under RF Act s.99).



- Outline of locations of fire suppression equipment, emergency assembly points and emergency evacuation procedures.
- Procedures for the appropriate storage and maintenance of fuels and other flammable materials.
- Procedures for identification of works being undertaken during the Bush Fire Danger Period (generally 1 October to 31 March) that have potential to result in ignition resulting in a bush fire. The relevant contractor will be required to notify the lead construction contractor who will, in turn, notify the local NSW RFS Fire Control Centre of the proposed works. Management measures outlined by the RFS FCC will be applied during the relevant works.
- Additional matters as required under Conditions of Consent issued for the project.

The location of water tanks should be delineated via onsite signposting to guide use by emergency authorities, with a copy of final detailed design map of the project provided to the local Fire Control Centre (109 Manildra Street, Narromine 2821, ph. 02 6881 3900) for reference prior to, and during, an emergency event. The location of the emergency assembly point(s), BESS, substation, retained vegetation parcels, subject site access, internal roads and static (or reticulated) water supplies will be clearly identified on the plans provided to the RFS.

### 3.7.2 Monitoring

Annual monitoring of the recommended fire mitigation actions will ensure the actions are maintained to the specified performance criteria (if relevant). The Operational Environmental Management Plan (or similar) for the project should include annual monitoring of the fire mitigation works, to be undertaken prior to commencement of the Bush Fire Danger Period (generally 1 October to 31 March), and will involve the following:

- Assessment of site access and internal road compliance against Conditions of Consent, any applicable management plans and acceptable solutions for property access as listed under Table 5.3b of PBP 2019.
- Review of internal ground fuel management and management of the site APZ in-line with IPA requirements provided under PBP 2019 (see **Table 4**) and the RFS document *Standards for Asset Protection Zones* (n.d.).
- Review of water supply management, ensuring that onsite static water supplies remain accessible and in good repair for RFS use.
- Additional matters as required under Conditions of Consent issued for the project.

Monitoring should be conducted by an appropriately qualified staff member or contractor, with results of the monitoring to be documented and provided to the project Environmental Manager (or equivalent role) for recording and application of recommended actions.

### 3.7.3 Consultation

Ongoing management of bush fire is an iterative process, with modification of bush fire management infrastructure (e.g. roads, water supply) and practices (e.g. APZ management) undertaken both due to external influences (e.g. RFS collaboration) or internal influences (e.g. detailed design, modification applications). As such, Edify propose that detailed design of the project is undertaken in collaboration with the RFS and Narromine Shire Council to best ensure final designs best comply with PBP 2019 and align with local preferences for onsite management (see **Table 6**).

Stakeholders provided in **Table 6** shall be kept up to date with onsite management through provision of the most up to date copy of the OEMP, which is proposed to include onsite bush fire management provisions (see **Section 3.7**).

**Table 6: Key Stakeholder Contact Information**

Stakeholder	Email	Phone
NSW RFS Orana Bushfire Management Committee		1800 679 737
Narromine Shire Council	mail@narromine.nsw.gov.au	6889 9999
NSW Fire and Rescue Narromine		6889 1203



## 4 BESS LOCATION REVIEW

The RFS, as part of their response to the EIS for SSD-55968733, requested the following:

*“The NSW RFS requires the proponent to adequately justify the location of the BESS from a fire prevention, protection and suppression perspective.”*

Objectives of PBP 2019 relevant to the location of the proposed BESS, includes:

1. Provide for a defensible space to be located around buildings.
2. Provide appropriate separation between a hazard and buildings which, in combination with other measures, prevent the likely fire spread to buildings.
3. Ensure that appropriate operational access and egress for emergency service personnel and occupants is available.
4. Ensure that utility services are adequate to meet the needs of firefighters.

Installation and management of either a de-centralised or centralised BESS configuration design will include a minimum 20 m setback between the outermost battery enclosures and site boundary, consistent with recommendations listed under Section 6 of the Arup Australia Pty Ltd (Arup) *Burroway Solar Farm – Preliminary Hazard Analysis* (PHA) (2023) prepared to support the SSD-55968733 EIS. The 20 m BESS APZ will be integrated with the 10m wide APZ required for the proposed solar farm required under Section 8.3.5 of PBP 2019, which includes a perimeter road around the solar farm to assist in ongoing management of the subject site. Parcels of vegetation retained within the solar array footprint (see **Figure 4**) will include a 10m wide APZ, with the solar array, whilst the entirety of the solar array footprint will be managed to an IPA standard (see **Table 4**). Grasslands across the subject site surrounding access roads / tracks to either a de-centralised or centralised BESS configuration design option, will be managed in a low fuel state, thus not contributing to bush fire hazard for emergency access and egress in the event of a bush fire.

The access road leading to the substation will be designed in accordance with Essential Energy's requirements to enable access by their inspection and maintenance vehicles. However, this road will be of a minimum 4m width consistent with the remainder of internal roads included in the project footprint. Detailed design of the proposed solar farm will be undertaken post consent. As such, design of the spine road between Eumungerie Road and the proposed centralized BESS may be determined in consultation with the RFS, mandated via issue of relevant conditions of consent. It is noted that installation of roads does not include construction of a formal kerb and gutter, thereby increasing road width with inclusion of mown grassed verges.

The provision of an adequate water supply has been addressed in this BFAR (see **Section 3.4**), with the recommended water supply of >225,000 L exceeding the requirement for a static water supply of 20,000 L required for a lot exceeding 1 ha in size as per Table 5.3d of PBP 2019. One water supply tank (or multiple tanks) measuring a minimum 45,000 L (or as otherwise sized following consultation with the RFS) is to be located in the vicinity of either BESS design configuration options and substation, providing emergency water supplies to combat vegetation fueled fires.

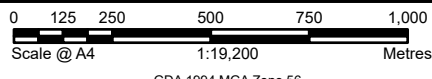
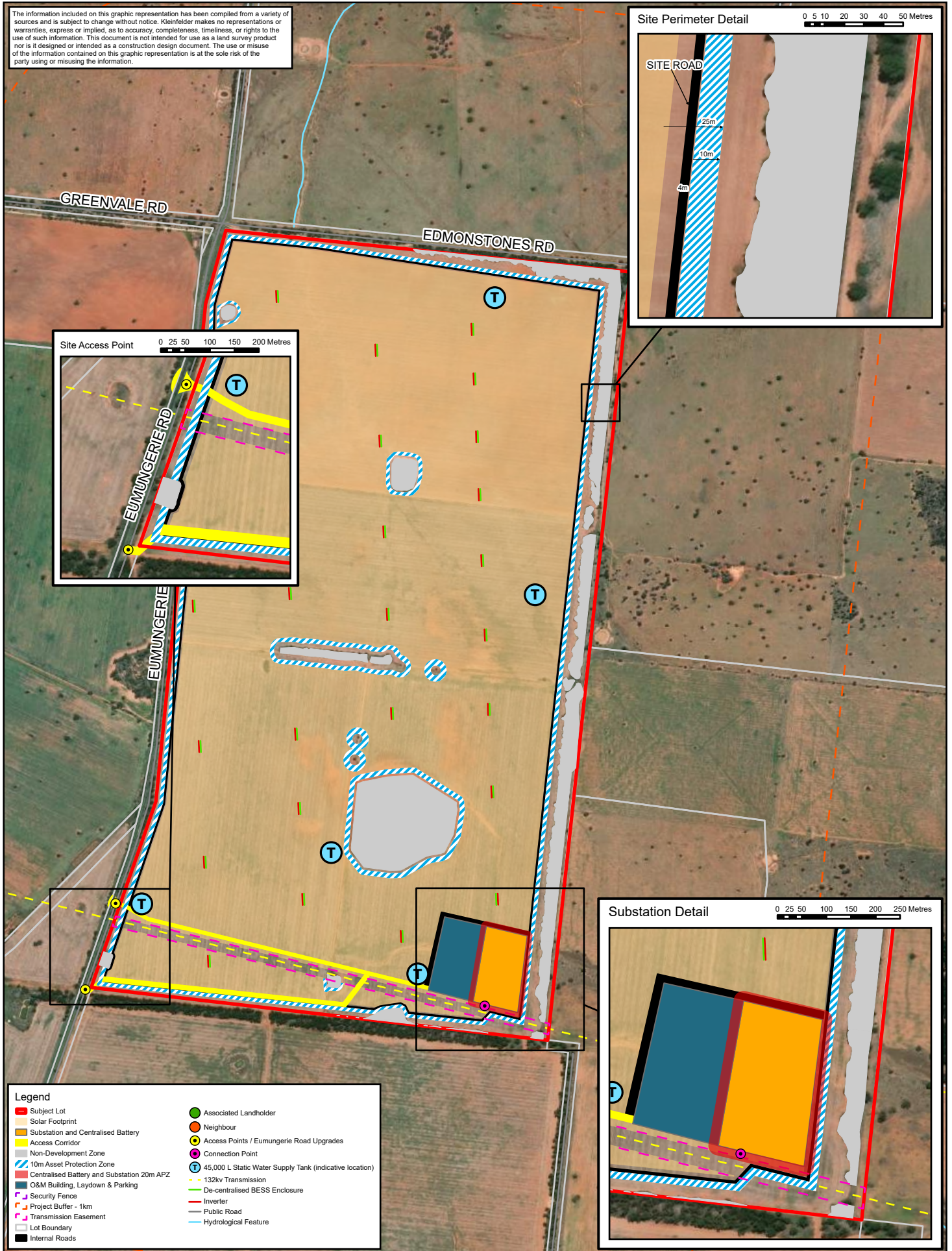
Minimum annual inspections of bush fire management compliance with conditions of consent, this BFAR and the OEMP will be undertaken to ensure management measures such as water supply remain operational and that site personnel are aware of emergency evacuation procedures.

Lastly in relation to the RFS query, the final location of the BESS will be subject to detailed design. Edify seeks to include consultation with the RFS during the detailed design process (see **Section 3.7.3**). Under current plans, the proposed BESS system may either form a centralized (single location) or decentralized (placed throughout solar array) system. APZs for a decentralized system will be captured as part of solar array APZ / landscape management (to IPA standards), with a 20m APZ to be provided between the site boundary and the outermost batteries at minimum. Initial placement of the potential centralized BESS design within the south-eastern portion of the subject site provides direct access to the centralized BESS from the proposed site intersection with Eumungerie Road (located in the south-west of the subject site), while also distancing the centralized BESS from the intersection itself (noting the hazardous potential of batteries). Maintenance tracks will be installed and accessible from the primary subject site access road, within the solar array allowing all-weather access to a potential de-centralised BESS design configuration in the event of an emergency. Contractors and staff leaving



the subject site during an emergency will not be required to bypass the either BESS design configurations. The proposed final BESS design configuration, and associated access road, will be constructed outside the easement of overhead transmission lines.

The information included on this graphic representation has been compiled from a variety of sources and is subject to change without notice. Kleinfelder makes no representations or warranties, express or implied, as to accuracy, completeness, timeliness, or rights to the use of such information. This document is not intended for use as a land survey product nor is it designed or intended as a construction design document. The use or misuse of the information contained on this graphic representation is at the sole risk of the party using or misusing the information.



PROJECT REFERENCE: 24001591  
 DATE DRAWN: 3/24/2025 Version 1  
 DRAWN BY: BDeane

## PROJECT INFRASTRUCTURE & BUSH FIRE MANAGEMENT

FIGURE:

**4**

EDIFY ENERGY PTY LTD  
 BURROWAY SOLAR FARM.  
 BUSH FIRE ASSESSMENT REPORT  
 BURROWAY, NSW 2821



## 5 CONCLUSION

A BFAR was prepared to assess the proposed installation and management of a solar array, BESS and substation at 1955 Eumungerie Rd, Burroway NSW 2821 and was included in the EIS as part of the projects development application. This amended BFAR produced as part of RTS documentation has been updated in response to queries raised under the EIS submitted for SSD-55968733. Specifically, this amended BFAR assesses SSD-55968733 in-line with legislative requirements listed under the EP&A Act, EP&A Regulation and PBP 2019.

SSD-55968733 currently proposes alternative designs, including both a centralised and decentralised BESS. Noting that designs are not final, Edify proposes that development of final designs is undertaken in consultation with the RFS, utilising this amended BFAR as the base for design and management guidance. With the inclusion of consultation, and following the implementation of recommendations contained in this BFAR (see **Table 7**), it is anticipated that SSD-55968733 can comply with PBP 2019 and be supported by the RFS.

**Table 7: Summary of recommendations for SSD-55968733**

Bushfire Protection Measures	Section in BFAR	Summary of Recommendations*1
Asset Protection Zone (APZ)	Section 3.1 Section 3.2 Section 4	APZ's are to be installed, and managed for the lifetime of the project, as follows: <ul style="list-style-type: none"> <li>Entirety of the development footprint to IPA standards.</li> <li>Minimum 10m APZ surrounding any solar array infrastructure.</li> <li>Minimum 20m APZ for proposed outermost battery enclosures of a de-centralised or centralized BESS design configuration, and substation infrastructure.</li> </ul>
Landscaping	Section 3.2 Section 4	APZ management to fuel loads by potential grazing/slashing as required.  Operational management plan to guide landscape management, monitor and reduce potential fuel loads surrounding the solar farm and APZ areas via ongoing rural activities (e.g. slashing, grazing).
Building Design	Section 3.3 Section 4	Design of the substation and BESS to be undertaken in-line with recommendations under the project FSS (recommended condition issued by Fire and Rescue NSW), the Arup (2023) PHA (unless superceded), and in accordance with conditions of consent issued for the project. Where applicable and not superceded by more rigorous controls listed under an associated study, general construction requirements listed under Section 3 and Section 6 (BAL 19) of Australian Standard AS 3959:2018 <i>Construction of buildings in bush fire prone areas</i> should apply to buildings associated with the proposed BESS and / or substation. Site offices should be constructed more than 35m from the external perimeter of onsite vegetation management and meet BAL 19 requirements.
Water Supplies	Section 3.4 Section 4	At current, the proposed solar farm will require one 45,000 L water tank at the main entrance to the subject site and four additional 45,000 L water tanks interspersed evenly throughout the subject site. Final static water supply provisions will be determined in consultation with the RFS during detailed design of the proposed solar farm.



Bushfire Protection Measures	Section in BFAR	Summary of Recommendations* <sup>1</sup>
Electrical and Gas services	<b>Section 3.5</b>  <b>Section 4</b>	<p>The proposed BESS, and associated access road, will be constructed outside the easement of overhead transmission lines. Proposed electrical transmissions are likely to be installed underground, with the following criteria applying to gas installations, if included onsite:</p> <ul style="list-style-type: none"> <li>• Reticulated or bottled gas is installed and maintained in accordance with AS/NZS 1596:2014 - <i>The storage and handling of LP Gas</i>, the requirements of relevant authorities, and metal piping is used.</li> <li>• All fixed gas cylinders are kept clear of all flammable materials to a distance of 10m and shielded on the hazard side.</li> <li>• Connections to and from gas cylinders are metal.</li> <li>• Polymer-sheathed flexible gas supply lines are not used.</li> <li>• Above-ground gas service pipes are metal, including and up to any outlets.</li> </ul>
Access	<b>Section 3.6</b>  <b>Section 4</b>	<p>Internal access roads are to be all weather and designed in accordance with property access requirements listed under Table 7.4a PBP 2019 and this BFAR.</p>
Emergency and Ongoing Management	<b>Section 3.7</b>  <b>Section 4</b>	<p>Preparation of management plans, monitoring and consultation as detailed in <b>Section 3.7</b> of this BFAR.</p>

\*<sup>1</sup> Refer to applicable Sections in this BFAR for detailed recommendations



## REFERENCES

- Arup, (2023). *Burroway Solar Farm: Preliminary Hazard Analysis*, Ref. BSF\_PHA001, dated 17 August 2023.
- Australian Standard 3959–2018: *Construction of Buildings in Bushfire-Prone Areas*. SAI Global
- Douglas, Grahame B. (March 2017). *Property Protection from Extreme Bushfire Events under the Influence of Climate Change*.
- Edify Energy (2023). *Burroway Solar Farm Scoping Report*.
- [NSW Department of Climate Change, Energy, the Environment and Water](#) (2024). *NSW State Vegetation Type Map*, State Government of NSW and NSW Department of Climate Change, Energy, the Environment and Water 2020 < <https://datasets.seed.nsw.gov.au/dataset/nsw-state-vegetation-type-map> >
- NSW Rural Fire Service (2017) *NSW Local Government Areas FDI* < [https://www.rfs.nsw.gov.au/data/assets/pdf\\_file/0007/55285/Local-government-areas-and-FDI.pdf](https://www.rfs.nsw.gov.au/data/assets/pdf_file/0007/55285/Local-government-areas-and-FDI.pdf) >
- NSW Rural Fire Service (2019). *Planning for Bushfire Protection 2019*. Prepared in cooperation with Planning NSW.
- NSW Rural Fire Service. *Standards for Asset Protection Zones*. Retrieved from; [https://www.rfs.nsw.gov.au/data/assets/pdf\\_file/0010/13321/Standards-for-Asset-Protection-Zones.pdf](https://www.rfs.nsw.gov.au/data/assets/pdf_file/0010/13321/Standards-for-Asset-Protection-Zones.pdf)
- NSW Rural Fire Service (2025). *NSW Bush Fire Prone Land, NSW Government* < <https://datasets.seed.nsw.gov.au/dataset/bush-fire-prone-land> >
- Orana Bush Fire Management Committee (2020). *Bush Fire Risk Management Plan*

