Fire and Hazard Assessment

Quirindi 1B Solar Farm and BESS

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ENGINEER | INVEST | BUILD

DOCUMENT CONTROL

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ABOUT ITP DEVELOPMENT

ITP Development Pty Ltd (ITPD) is a developer of town-scale solar farms in regional Australia designed to match current and future electricity demand. We undertake solar farm landholder engagement, system design, planning approvals, financing, electrical connection approvals and commissioning. ITPD maintains relationships with multiple stakeholders to ensure projects are successfully delivered in accordance with their expectations.

We are part of the international ITPEnergised Group, one of the world's largest, most experienced and respected specialist engineering consultancies focussing on renewable energy, energy efficiency, and carbon markets. The Group has undertaken over 2,000 contracts in energy projects encompassing over 150 countries since it was formed in 1981.

ABBREVIATIONS

AC	Alternating current
BESS	Battery energy storage system
Ha	Hectare
ITPD	ITP Development
MW	Megawatt, unit of power (1 million Watts)
MWp	Megawatt-peak, unit of power at standard test conditions used to indicate PV system capacity
NSW	New South Wales
PV	Photovoltaic

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1 INTRODUCTION

The proposed Quirindi 5MW Solar Farm and BESS (referred to as the Project) is located on Borah Creek Road about 4 km to the north-east of the Quirindi township, within the Liverpool Plains Shire Council area, NSW (Figure 1). ITP Development (ITPD) is proposing to construct a 7.5 MW DC solar facility within the 141.75 ha site.

Table 1 – Site information

Parameter	Description
Solar farm name	Quirindi 5MW Solar Farm
Site reference	Quirindi 1B
Lot/DP(s)	Lot 130 & Lot 134 / DP751009
Street address	Borah Creek Road, Quirindi NSW 2343
Council	Liverpool Plains Shire Council
AC capacity	5.0 MW
DC capacity	7.5 MW
Site area	141.75 ha
Project area	11.09 ha
Current land use	Cropping

This report provides an assessment to support the Development Application for the project in relation to the safety in design in terms of fire and hazard. It provides a:

- Desktop review of the hazards and material handling risks of installing utility grade lithium-ion batteries.
- Desktop review of the design requirements to ensure appropriate setbacks and clearances between assets to act as a defendable area.
- Desktop review of the fire safety requirements of the automated fire protection and suppression systems built into the battery.

Figure 1– Proposed 36.20 ha solar farm site and surrounding farm area and location of local fire services (note the project will comprise 11.09 ha within the 141.75 ha project site.

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2 PROJECT DESCRIPTION

ITPD is proposing to construct a solar farm in Quirindi, NSW with an AC output of 5.0 MW on an approximate 141.75 ha site that is currently used minimally for cropping.

There are to be approximately 10,750 solar modules installed in rows (each row being approximately 92 m long) running east to west. There is approximately 6.0 m spacing between each row. The height of each module is approximately 2.0 to 2.75 m and the mounting system is constructed on piles that are driven into the ground, typically within the depths of 1.5 m to 3 m. Each row of solar photovoltaic (PV) modules will rotate to track the sun across the sky from east to west each day.

The solar farm will also consist of an inverter station and a containerised battery energy storage system (BESS). The inverter station incorporates the high/medium voltage switchgear and transformers and two x 3.4 MW inverters. The inverter station is ground mounted and incorporated on a 12.19 m skid. Allowance is made for a 2.9 m high BESS, on a 12.1m skid, alongside the inverter stations.

The proposed battery is a prefabricated, off the shelf lithium-ion battery stored within two shipping containers installed adjacent to the inverter station.

During construction, there is expected to be up to 50 workers with only approximately 30 on site at any one time working from 7 am – 4 pm Monday to Friday; and up to 40 light vehicles with only approximately 24 accessing site at any one time. The construction is expected to take approximately 3 months. Once operational the site will be unmanned. Maintenance is expected to be carried out quarterly by a crew of 2 – 3 people.

Solar panels and related infrastructure will be decommissioned and removed upon cessation of operations. This is likely to occur within two years of the end of the project. The site will be returned to the pre-development land use of agriculture.

3 LEGISLATIVE CONTEXT

3.1 Liverpool Plains Shire Local Environmental Plan 2011

The Liverpool Plains Shire Council Local Environmental Plan 2011 aims to make local environmental planning provisions for land in Liverpool Plains Shire Council in accordance with the relevant standard environmental planning instrument. The Plan provides the prohibited and permitted types of development within the local area. Some types of development are also regulated by specific state environmental planning policies.

3.2 State Environmental Planning Policy (Transport and Infrastructure) 2021

Division 4 of the State Environmental Planning Policy (SEPP) (Transport and Infrastructure) 2021 relates to 'Electricity generating works or solar energy systems'. The policy states electricity storage falls into the same category as of electricity generating works. The policy within Division 4 does not specifically state the fire design requirements of a BESS system. However, within Division 5 of the SEPP 'Electricity transmission or distribution', some of the fire safety risks are mentioned. Other safety issues such as electrocution, fire risks, risks relating to voltage rises or risks to the integrity of an electricity transmission or distribution network are also considered.

3.3 State Environmental Planning Policy (Resilience and Hazards) 2021

Chapter 4 Hazardous and offensive development of SEPP (Resilience and Hazards) 2021 and the Hazardous Industry Planning Advisory Paper No. 6 – Guidelines for Hazard Analysis require that a preliminary hazard assessment be prepared for potentially hazardous or offensive development. This assessment includes a hazard analysis and risk screening of the facility and processes.

4 HAZARD ANALYSIS

The purpose of this analysis is to outline a hazard assessment of the proposed BESS and hazardous goods associated with the Quirindi Solar Farm project undertaken by ITPD. Although the project is not a State Significant Development, ITP Development has voluntarily undertaken a Hazard Analysis using ***State Environmental Planning Policy (Resilience and Hazards) 2021 (Chapter 3 – Hazardous and Offensive Development***[1] (known heron in as "SEPP (R&H) Ch3") and ***Hazardous Industry Planning Advisory Paper No. 6 – Guidelines for Hazard Analysis***[2] as a framework, drawing on the expertise of relevant members of ITP's Engineering Division. Background information about the division is available on the ITP Renewables website[3].

This hazard assessment is intended to provide further context to the Development Application for the project to Liverpool Plains Shire Council and the Northern Regional Planning Panel.

4.1 Methodology

SEPP (R&H) Ch3 requires a Preliminary Hazard Assessment (PHA) to be prepared for potentially hazardous or offensive development. *SEPP (R&H) Ch3 (Part 2; Section 3.7)* requires that consideration must be given to guidelines published by the Department of Planning relating to hazardous or offensive development. Appendix 3 of ***Hazardous and Offensive Development Application Guidelines – Applying SEPP 33***[4] (known hereon in as "the Guidelines") lists industries that may fall within SEPP 33. However, the list in Appendix 3 does not include solar farms and energy storage facilities. In instances where the applicability of SEPP (Resilience and Hazards) is not immediately apparent, projects can be assessed through the risk screening procedure outlined in Appendix 2 of the Guidelines.

4.2 Existing Environment

4.2.1 Risk Screening

SEPP (Resilience and Hazards) outlines the screening and risk assessment process for a potentially hazardous development. The document suggests that the potential risk of a proposed development typically depends on five main factors:

- the properties of the substance(s) being handled or stored;
- the conditions of storage or use;

[1] State Environmental Planning Policy (Resilience and Hazards) 2021 (Chapter 3 – Hazardous and Offensive Development)
[2] Hazardous Industry Planning Advisory Paper No. 6 – Guidelines for Hazard Analysis
[3] ITP Renewables
[4] Hazardous and Offensive Development Application Guidelines – Applying SEPP 33

- the quantity involved;
- the location with respect to the site boundary; and
- the surrounding land use.

Incorporating these factors, and following the procedure outlined and detailed in the Guidelines, a risk screening analysis was completed for the Quirindi Solar project.

According to the ***Australian Code for the Transport of Dangerous Goods by Road and Rail***[5] ("ADG Code"), all dangerous goods are to be carried in a secure, safe and environmentally controlled manner. The ADG Code lists the following classes of dangerous goods:

- Class 1 – Explosives
- Class 2 – Gases
- Class 3 – Flammable liquids
- Class 4 – Flammable solids
- Class 5 – Oxidising substances and organic peroxides
- Class 6 – Toxic and infectious substances
- Class 7 – Radioactive material
- Class 8 – Corrosive substances
- Class 9 – Miscellaneous dangerous substances and articles, including environmentally hazardous substances

A development which exceeds the screening thresholds identified in Appendix 4 of the Guideline would be considered potentially hazardous, and a PHA would need to be submitted with a Development Application. Where quantities of dangerous goods are below the Appendix 4 thresholds, SEPP (Resilience and Hazards) indicates that there is unlikely to be a significant off-site risk, in the absence of other risk factors.

4.3 Potential Impacts

4.3.1 Dangerous Goods On-Site

The dangerous goods that would require transportation and storage during construction or operation of the Quirindi Solar Farm site are identified in Table 2 below, detailing the ADG Code classification, the quantities, and applicable thresholds. The planned storage of the dangerous goods is within the proposed Laydown Area as shown on the General Arrangement Plan[6] submitted in the DA Drawing Pack. All dangerous goods on site will be stored at quantities that are lower than the *SEPP (R&H)* thresholds.

[5] Australian Code for the Transport of Dangerous Goods by Road and Rail

The proposed Quirindi Solar BESS facility configuration will be of Lithium-ion technology, sourced from a tier-one international equipment manufacturer which possesses certification and compliance with applicable Australian standards, licences, and codes.

The system will comprise multiple containerised systems of approximately 3 MWh capacity per container, mounted on an engineered foundation and electrically connected together on-site. Each container has a fire detection and suppression system (usually inert gas or water deluge) to contain and help prevent the spread of fire.

Irrespective of the technology deployed, the BESS facility will include a series of foundations, suitably spaced for optimum operations and maintenance and separated by gravel/road-base to assist in fire management. The final decision on the preferred technology provider and detailed technology specification would be confirmed during the detailed design phase of the project, and as stated will comply with applicable Australian standards, licences and codes.

Table 2 – List of hazardous materials on site, quantities and screening thresholds

Hazardous Material	Storage Threshold	Transport Threshold		Storage	Project Compliance
		Movements	Quantities		
Class 3 – Flammable liquids: **Fuel (petrol)**	5 tonnes	Approx. 50/week	3-5 tonnes	Stored in tanks on the site service vehicles and would not be stored at quantities greater than the storage or transport thresholds.	Yes, final quantity to be determined during detailed design but will not exceed storage or transport thresholds.
Class 6.1 – Toxic Substances **Pesticides (herbicides)**	2.5 tonnes	All	1-3 tonnes	Stored at the laydown area (refer General Arrangement Plan) in appropriately bunded area designed in accordance with AS1940-2004.	Yes, final quantity to be determined during detailed design but will not exceed thresholds.
Class 9 – Miscellaneous dangerous substances and articles **Li-ion batteries certified to UN 34.80**	No storage threshold listed (UN Code 3480)	No limit (for Quirindi solar and BESS project, an estimated 5 deliveries are anticipated)	No limit (for Quirindi solar and BESS project, an estimated 3.5MW batteries per delivery, in addition to other equipment)	Batteries will be stored within the BESS Station compound.	Yes, no threshold applies.

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4.3.2 Summary of Screening Method

The *SEPP (R&H)* screening process does not specify a screening threshold for ADG Code Class 9 materials (Miscellaneous Hazardous material). As Lithium-Ion batteries are categorised as Class 9 goods, a PHA is not triggered based solely on the screening threshold.

The *SEPP (R&H)* documentation states that the hazardous materials screening method applied in Table 3 will not be considered in isolation when determining whether an industry is considered potentially hazardous and would therefore require a PHA to be carried out. The *SEPP (R&H)* documentation refers to 'other factors', however, what is included as 'other factors' is not specifically defined.

Examples are however provided indicating that it must include issues such as the risk to people, property or environment if two hazardous goods were to combine, even if the quantities of both were below the threshold. This is something that is not captured in the ADG code.

Taking a precautionary approach, other factors that may warrant consideration in the screening process to determine whether the proposed lithium-ion batteries could be considered potentially hazardous are described in Table 3 and an assessment of the risk of the Quirindi Solar and BESS project is provided.

Table 3 – Other factors assessment for the Project

Other factors	Assessment of risk for Project
The inherent risk of fire when storing large volumes of electro-chemical energy on site. These risks can and would be mitigated, but without control systems in place the risk could be significant.	The cubicle or container type of BESS facility as described above limits the potential risk of this factor, given the system will have fire mitigation controls.
The possibility of a cascading failure involving the battery system. This could be in the form of an externally initiated bushfire or electrical surge.	It is envisaged that the nature of the battery design with sufficient separation distance and fire mitigations would manage any potential risk should a bushfire or electrical surge occur. The batteries are designed to contain or suppress fire within each individual cubicle or container as appropriate and are not anticipated to spread to other parts of the system.

4.3.3 Results of Screening Method

As a result of numerous factors, including the preliminary screening, it is considered that a PHA is not required for dangerous goods to be stored on the Quirindi Solar and BESS site. However, in the interests of adopting a conservative approach, a number of management measures have been recommended to be implemented at the Quirindi Solar and BESS site, as described in Section 4.4 below.

4.4 Management and Mitigation

The risk of potentially hazardous materials will be addressed through the management and mitigation measures presented in Table 4. These high-level measures will form the basis for a construction environmental management plan, which will be developed and implemented

by the contractors engaged for the Engineering, Procurement and Construction (EPC) phase of the project.

A decommissioning plan will also be developed prior to the construction phase, in order to ensure that any hazardous material is removed from the site and disposed of appropriately at the end of the operational life of the project.

Table 4 – Recommended mitigation measures for potential hazardous materials risks

No.	Safeguard and mitigation measures
HM1	The Quirindi Solar and BESS site would manage the fire risks associated with the BESS by: • Installing reliable, automated monitoring and control systems, with an alarm and shutdown response capability. • Taking reasonable and safe measures to prevent the risks of external heat effects in the event of a bushfire. • Designing appropriate separation and isolation between battery cubicles, and between the BESS and other infrastructure, in accordance with the manufacturers' recommendations, and including gravel set-off areas around the facility. • Compliance with all applicable Australian codes and standards. • Preparation of a BESS-specific fire response plan, in conjunction with the NSW Rural Fire Service. • Installing an adequate automatic fire suppression system integrated into the detection and control system. • Disposal (and where possible, recycling) of any potentially hazardous material in accordance with the best international practices available at that time.
HM2	Fuels and pesticides/herbicides in use at the site will be stored at the laydown area in appropriately bunded areas designed in accordance with AS1940-2004.

5 PROJECT DESIGN

The proposed solar farm at Quirindi incorporates a number of fire safety in design principles embedded into a number of aspects such as the:

- Project layout and location
- Site access
- Inverter and battery station arrangement
- Material/equipment selected and onboard technology
- Installation
- Operation and maintenance of hazardous material

Each of the above criteria will be detailed within this report considering strategy, implementation and compliance in terms of fire safety effectiveness.

5.1 Project Layout and Location

As illustrated in Figure 2, NSW Rural Fire Service data declares the proposed solar farm to be in a bushfire prone area. Precautions are built into the design of the project to ensure the risk is accounted for.

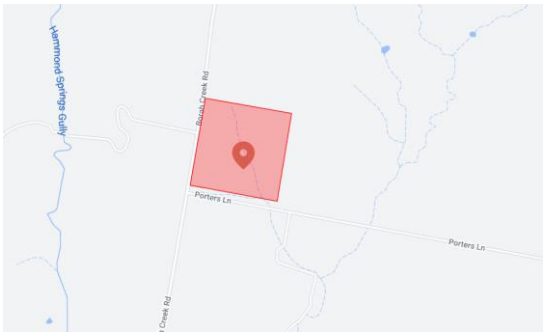

Figure 2 - NSW RFS Search

The layout of the solar array is proposed to include an Asset Protection Zone (APZ) surrounding the entire site with a 10m setback from a non-combustible chain-link fence. The APZ will not be located on land exceeding a slope of 18 degrees. This 10m APZ is also intended to act as a defendable space and a buffer against radiant heat effects for emergency services.

Figure 3 illustrates the APZ encompassing the project site. A landscape vegetation screening corridor is adjacent to this fence and is setback a minimum of 10m from the solar array.

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Furthermore, a minimum 10m APZ shall be established around the battery station (Figure 5) (which includes the cubicles, switching station and associated structures of the BESS) and other infrastructure including gravel off-set areas. Road access to the site and fencing are excluded from the APZ. Internal curves of the APZ and inner protection area (IPA) are designed with minimum 6m radius turning circles to assist in vehicle access. Additionally, the vertical clearance above the APZ/IPA exceed 6m in height.

Figure 3 - Quirindi Solar and BESS project General Arrangement with the APZ in Highlight

There will be no infrastructure within the APZ. The ongoing maintenance of APZs are recognised under 100C of the *Rural Fires Act* 1997 and supported by 2.8(1)(d) of the *Biodiversity Conservation Act* 2016. Any clearing of vegetation within the site to allow the development to occur may require assessment under the *Biodiversity Conservation Act* 2016.

At the commencement of building works and for the life of the development, a 10m APZ around the solar panels, BESS station and other infrastructure shall be managed as an IPA, in accordance with Appendix 4 of Planning for Bushfire Protection 2019 and NSW Rural Fire Service 'Standards for Asset Protection Zones'.

The presence and ongoing maintenance of the APZ assists in lowering the impact of direct flame contact and spread, as well as radiant heat effects on the development.

5.2 Site Access

The proposed Quirindi Solar Farm is a Class 10b, non-habitable structure that is remotely monitored and controlled but, in general, physically unmanned on site. For this reason, and being a non-residential development, the Planning for Bush Fire Protection (PBP2019) section 8.3.2 (Class 10 structures) forms part of the assessment criteria along with section 8.3.5 (Wind and solar farms) in relation to site access.

As per section 8.3.2, there are no specific bushfire protection requirements for Class 10a buildings and, by extension, Class 10b structures. However, section 8.3.5 of the PBP2019 does state specific requirements for solar farms.

The assessment criteria within PBP2019 section 8.3.5, in relation to site access for solar farms are:

- Firefighting vehicles are provided with safe access to structures and hazard vegetation.

Access requirements are provided in Appendix 3 of PBP 2019 with Borah Creek Road being a sealed two-way all-weather road.

The access to the surrounding and nearby residential development is constructed on the same natural road base as the access to the proposed solar farm. Access utilising the NSW RFS and NSWF&R appliances is not restricted to these occupied buildings due to the access conditions or road surface capacity.

In the absence of specific requirements in terms of access from section 8.3.2 and 8.3.5, access to the site is proposed through open grasslands where there is excellent vision and ample passing areas that are provided along an existing and proposed access track from Borah Creek Road. This access track will also be the primary access route for construction vehicles and will be retained post construction for operation and maintenance purposes.

The following access provisions incorporating elements of Appendix 3 and A3.9.2 of PBP2019 have been integrated into the design to sufficiently mitigate risk:

- Vehicle access provided within the APZ surrounding the solar panels.
- Minimum 5.5m carriageway between obstructions such as roadside fencing, bollards, and trees.
- Parking is provided outside of the carriageway width.
- Curves of roads have a minimum inner radius of 6m.
- The maximum grade road is 15 degrees and average grade of not more than 10 degrees.
- The road crossfall does not exceed 3 degrees, and
- A minimum vertical clearance of 4m to any overhanging obstructions, including tree branches, is provided.

In the absence of an access path load rating within 8.3.2 and 8.3.5 of PBP2019 in non-residential development, this fire assessment does not consider any specific fire requirements in the design load specification of the internal access track proposed for the operative phase of the project beyond what was built and used during construction.

A bushfire assessment study may be required and would be conducted by a BPAD accredited fire assessor once the detailed design of the solar farm is completed to recognise any specific risk and hazards that apply from PBP2019, if required.

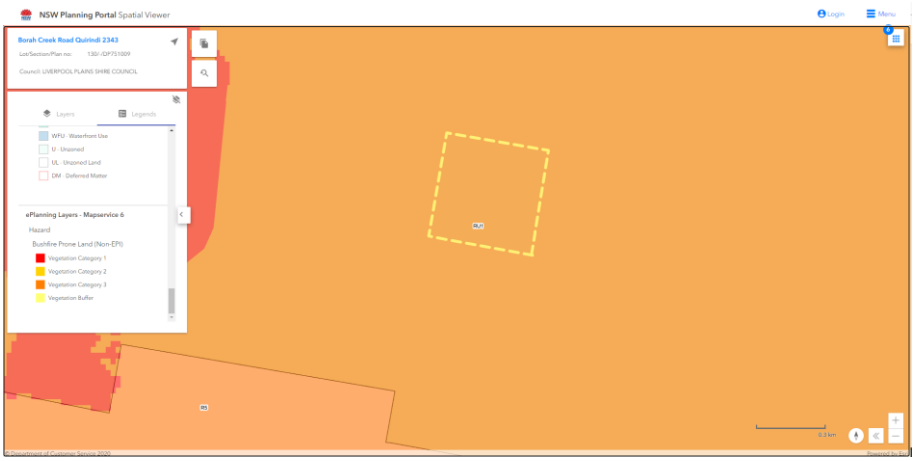

Figure 4 - Bushfire Prone Land Map

As mentioned previously in section 5.1, the site is identified as bushfire prone land. The land is however mapped as Vegetation Category 2, which indicates a **lower bush fire risk** than Category 1 and Category 3, but higher than areas excluded from categorisation. Category 2 has vegetation of lower combustibility and/or limited potential fire size due to the vegetation area shape and size, land geography and management practices.

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Modification of the existing track is not expected to be required for the purposes of the solar farm's construction.

5.3 Inverter and Battery Station Arrangement

Figure 5 illustrates the indicative layout plan for the battery station, which is comprised of three 40-foot containers housing the battery cells, and a switchgear station in the centre.

Similarly, it is intended a 10m APZ will surround the inverter station and battery station/electrical kiosk to act as a defendable area and buffer against heat effects between the equipment and solar array.

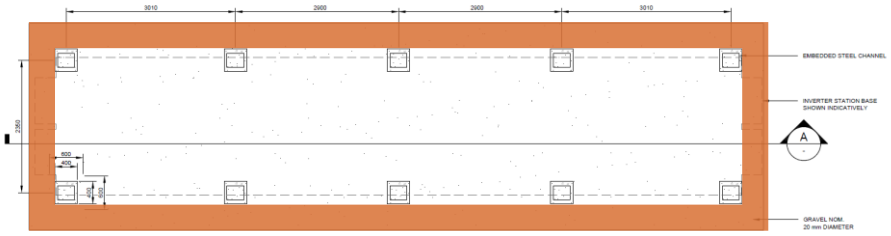

Figure 5 – Quirindi BESS Infrastructure Setout with APZ in Highlight

Wood piles, wooden sheds, combustible material storage areas, large areas/quantities of garden mulch and stacked flammable building materials are not proposed as part of this development.

5.4 Material/Equipment Selected and Onboard Technology

The proposed solar farm is comprised of equipment, plant and material designed to be installed outdoors in the elements to suit a variety of environmental challenges and operate continuously for over 40 years.

The solar arrays are connected to the inverter station which contains comprehensive remote monitoring and automatic protection systems that operate 24x7 with dual redundant back to base alarm systems to advise of any faults and issues. The system is also designed with onboard sensors and fail-safes that are pre-programmed to trip the generating plant, isolating it from the grid should any operating parameters fall outside of the normal range.

The generating plant also features 24x7 constant isolation resistance monitoring which electronically checks the integrity of all the cabling within the arrays against the environment, air and moisture, including those underground. This provides an early warning measure for issues such as earth faults which could potentially lead to a fire. In the event of fault alarms, the system's internal fail-safes will activate, isolating the system from the grid and the system will not operate until the fault is acknowledged and cleared. The isolating procedure will ensure any faults that may develop remain local and do not spread.

These fail safe and safety systems provide a very early warning system of issues and automatically puts into process safety systems to prevent uncontrolled outbreaks of hazards such as electricity disturbances on the grid or localised issues such as fire.

The solar array tracking system is based on self-powered motors energised by internal batteries and charged by individual and independent solar panels, not requiring a grid connected power supply. The system operates on 24V DC which is regarded as extra low voltage (ELV), a comparable voltage to small domestic technology products such as laptops.

The ELV component ensures the voltages involved are not hazardous should issues develop. The design of the piling system ensures the entire array is self-grounding.

As a last line of defence, the generation system features its own circuit breakers which can trip in the event of overcurrent. The distribution network service provider (DNSP) at Quirindi Solar Farm and BESS, Essential Energy, also has remote access and trip authorisation via SCADA controls to the plant with inhibit rights, which prevents the plant from re-energising the grid without a physical confirmation from the owner to the Essential Energy control room.

The BESS system contains a self-integrated automated fire detection and suppression system to guard against an unlikely event of a fire. Common systems include Novec 1230 Fire Fighting (Suppression) System (FFS) with IEC, ISO and NFPA 2001 certifications that are located inside the battery container and integrated into the solar system's monitoring systems. The FFS includes smoke detectors, temperature detectors, alarm devices and gas release devices.

The system operates through the use of clean fire suppression gas. Before the gas blowout action, the fire system controller will issue a signal to the HVAC main power switch to stop operating, also powering down the fans and thus achieving a self-containing fire suppression process upon the release of the gas.

Compliance of the off the shelf BESS system is achieved with AS 4214-2002 Gaseous fire extinguishing systems and the appropriate sections in AS1670.1-2018 Fire detection, warning, control, and intercom systems. Certificates and Schedules of conformity for the FSS are also available.

5.5 Installation

The solar farm is comprised of readymade off the shelf components that meet Australian standards and are certified for use in Australia.

The installation and construction process will involve minimal hot works, with the exception of the use of hand-held power tools and a drop saw for cutting excess metal off.

The solar arrays are constructed using prefabricated components and nuts, bolts and screw fixings which are installed with battery powered drivers and wrenches. The solar piling is a dry percussion process in which there are no heat procedures/hot works other than the piling and excavator rigs which are diesel powered.

The inverters, switchgear, BESS and transformer skids are all prefabricated components that arrive from overseas in containers which are craned into position on site and electrically connected.

The main sources of fire ignition during the construction will be localised to a cutting station to be setup in a controlled environment where excess metal cutting/grinding can take place equipped with hand-held fire extinguishers and fire blankets. Works are also subject to any

total fire bans which may be in place and are to be integrated into safety procedures in safe work method statements (SWMS), job hazard analysis (JHA) and construction environmental management plans (CEMPs).

5.6 Bushfire Assessment

Although there are similar design aspects, this fire assessment does not assess the design criteria requirements against the effects of a bushfire. An important fact to note is the Rural Fire Service NSW fire control centre is located at 124 Pryor Street on the western edge of Quirindi (see Figure 1), approximately 6.5 km south-west of the development site (an approximate 8-minute drive). The Fire and Rescue NSW Quirindi Fire Station is located at 3 Dalley Street in the centre of Quirindi town (see Figure 1), near the train station, approximately 6 km south-west of the development site (an approximate 7-minute drive).

6 SUMMARY

The proposed solar project with BESS integration is an emerging form of renewable energy infrastructure in NSW that has an associated set of fire safety requirements.

As detailed within this report, the Quirindi solar farm and BESS can be made safer through the integration of safety in design principles from the bushfire standards including APZ clearances, internal protection areas, comprehensive system fault monitoring, automated fire detection and suppression systems and safety procedures built into WHS policies and procedures to ensure these farm assets and the surrounding area is protected from the risk of fire.

7 REFERENCES

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