Tamworth BESS Submission

Project name: Tamworth Battery Energy Storage System
Application number: SSD-23830229
Address of the land in respect of which the development application is: 696 Burgmanns Lane, Tamworth, New South Wales, 2340

20/6/2024

As a local resident concerned by the rapid and potentially damaging changes to our idyllic rural environment, I have conducted a review of the 377 page Environmental Impact Statement and associated documents available on the NSW State Government Planning Portal in regard to the proposed Tamworth Battery Energy Storage System.

I am surprised and worried by the lack of due diligence in the published EIS document which has contradictory figures around the very real bushfire risks and the excess traffic on local roads.

The developer and the experts engaged by them have documented that the noise issues will exceed acceptable limits for some to all of the 38 homes within a 1km radius 24 hours a day. The mitigation issues are “predicted” to ease this issue – but there are no guarantees.

With an additional BESS planned on the same block, 400m from this project (Kingswood BESS), the cumulative effect of both installations especially on fire risk, noise and traffic do not appear to have been thoroughly investigated.

Also relative in the cumulative effect is the 3,500 acre Lambruk Solar Project, 7km to the south, also including a BESS. The Lambruk project has not been included in some of the reports on cumulative effects, while other projects much further afield have been listed. This project will utilise some of the same road network, and require the same services especially for imported workers.

I have followed the sections as listed in the EIS in this submission, and then combined sections relative to the same headings.

Legend:
- *Italics* indicate direct text from the EIS or associated documents provided by the developer or the contractors engaged by them.

- Text in brackets ( ) has been added for clarification or underlined for emphasis.

- **Comment**: in **bold** is added narrative.

Ownership

From the EIS: Initial project applicant, Maoneng, (was) an Australian company. In October 2022, a real estate private equity firm Gaw Capital Partners entered Australia's fast growing renewable energy sector with a majority investment in the (ex) Australian business, forming a new joint-entity called Gaw Maoneng Renewables Pty Ltd (GMR Energy). In January 2024, GMR Energy changed its name to Valent Energy Developments Pty Ltd (Valent Energy, a joint venture with a global energy investor: BW ESS.).

Comment: The EIS does not clearly explain that the ownership of Valent Energy is now completely overseas based with the profit from this project going 100% offshore to Hong Kong (Gaw Capital Partners) and Lichenstein/Europe (BW ESS). The repeated use of the term "Australian" is past tense.

Access

From the EIS: A new site access point site was selected, located just off Burgmanns Lane, south of Burgess Lane. The new access point helps avoid the flooding risk on Burgmanns lane, as proposed by the Tamworth Regional Council. Existing property access will remain for emergency access only.

Comment: The southern end of Burgess Lane is unsealed and suffers severe washout and pothole issues with the current light traffic load.

As noted the Burgmanns Lane access to Goonoo-Goonoo Rd is part unsealed, and in recent years has often been cut by flooding across the low level causeway that is unsuitable for heavy traffic.

Biodiversity

From the EIS: Three planted Red Box gums are located on the project site and will require removal, together with a Blakely's Red Gum located along the proposed underground transmission line route (Figure S4). The project will result in the disturbance of a farm dam of poor habitat value and 4.2 ha of Low Quality-Modified treeless PCT589 White Box - White Cypress Pine - Silver-leaved Ironbark grassy woodland.

Comment: The NSW Threatened Species Scientific Committee lists White Box – Yellow Box – Blakely's Red Gum Grassy Woodland and Derived Native Grassland in the New England Tableland, as a CRITICALLY ENDANGERED ECOLOGICAL COMMUNITY in Part 1 of Schedule 2 of the Act.

From the EIS: It is expected that offset payments will be required for the removal of native vegetation.

Comment: The payment of funds to destroy "critically endangered ecological communities" does not bring them back.

Water

Table 1.1 Tamworth BESS project overview: The project site slopes gently to the northwest and generally drains towards Goonoo Goonoo Creek.

3.9 Drainage management: Erosion and sediment controls in accordance with Managing Urban Stormwater: Soils & Construction (Landcom 2004) will be implemented, particularly during construction, to minimise the loss of soil and off-site release of turbid and/or sediment-laden water (see Section 6.6). Standard engineering controls, such as the installation of a culvert under the site access point, will also be implemented to manage drainage and site runoff during operation.

6.2.5 Management and mitigation: Measures for mitigating indirect impacts on biodiversity during construction include:
• implementing a soil and water management plan for the project, as outlined in Section 6.5.6, to protect downgradient aquatic habitat
• implementing appropriate procedures for safely storing, using and disposing fuel and chemicals, as outlined in Section 6.6.5, to protect downstream aquatic habitat

6.6 Water: From the EIS: The hydrology of a site and downgradient waterways can be modified due to earthworks or the construction of facilities or infrastructure, potentially increasing flood risk. Groundwater can also be affected by dewatering of excavations or by water extraction to meet project supply needs. Surface water and groundwater quality can be affected by issues such as erosion from soil disturbance or the release of chemicals and hydrocarbons.

Changes to hydrology, hydrogeology or water quality can cause impacts on surface water and groundwater resources affecting beneficial uses of these resources.

From the EIS: Water NSW records for groundwater bores (Water NSW 2021) show 81 bores located within 2 km of the project site. Of these, four are located within the lot boundary but none are within the project site boundary.

No approval for aquifer interference under Section 91 of the Water Management Act 2000 is expected be required.

The nearest current functioning use of local groundwater resources is the extraction bore approximately 220 m southeast of the project site (see Figure 6.6). As groundwater is not expected to be intersected as a result of the project, and the risk of groundwater contamination is low, no impacts on the availability or quality of local groundwater resources are anticipated.

6.6.6 Conclusion: From the EIS: The assessment of water and water resource impacts has identified only minor project impacts. No impacts on groundwater are anticipated.

Comment: The most important commodity is water. After surviving the long years of drought in this district, because of our bore, we understand how critical these resources are to the community. The issue of either toxic run off via drainage into Goonoo-Goonoo creek then to the Peel River, or aquifer interference of any kind must be shown to be eliminated.

There is no explanation of how the conclusion that the groundwater resources will not be affected was reached. The people that rely on the 81 bores within 2km of the project site, and those further afield, must be sure that their most critical resource will not be affected by this project.

Traffic and transport

From the EIS: Burgess Lane and Burgmanns Lane may experience increase in traffic volumes by 25% and 34%, (46 & 62% in the IMPACT study quoted) *respectively, during the peak construction*

*period. The increase in traffic is well below the design capacity of the roads**.** Anticipated construction traffic can be comfortably accommodated with no material impact on the operation or safety of the road**s**, although some maintenance and repair work may be required.*

No lane widening or turn treatments will be required for the new site access point at Burgmanns Lane to accommodate construction traffic as the majority of site traffic will be accessing the site from Burgess Lane to the north. No traffic delays are anticipated at local intersections as peak movements to site will use Burgess Lane, where possible. Traffic impacts during operation will be negligible.

From the EIS (P149): Traffic volume: The development is projected to generate up to 170 additional movements of vehicles (excluding the OSOM movements) during peak construction (Stage 2 and stage 3) activities. A total of 140 OSOM vehicle movements are expected to occur during Stage 3 of construction.

Based on historical traffic volume information discussed in Section 6.7.3, construction traffic is not expected to have any material impact on the operation of Burgess Lane, Burgmanns Lane and Calala Lane (east of Burgess Lane):
• Burgess Lane can be expected to carry up to 540 daily vehicle movements (an increase of 46%). IMPACT concludes that this additional traffic can be comfortably accommodated by Burgess Lane, with no material impact on the operation or safety of this road.
• Burgmanns Lane can be expected to carry up to 450 vehicles per day, an increase of 62%. IMPACT considers that this level of traffic can be accommodated by Burgmanns Lane with no material impact on operation or safety of this road.

EIS Summary: Traffic and transport: Burgess Lane and Burgmanns Lane may experience increase in traffic volums (sic) *by 25% and 34%, respectively, during the peak construction period. The increase in traffic is well below the design capacity of the roads.*

6.7.6 Conclusion: From the EIS: Burgess Lane and Burgmanns Lane may experience increases in traffic volumes of up to 25% and 34%, respectively, during the peak construction period.

7.5 Scale and nature of impacts: From the EIS Burgess Lane and Burgmanns Lane may experience increases in traffic volumes of up to 25% and 34%, respectively, during the peak construction period. In both cases, however, the increased traffic is well below the design capacity of the roads.

Comment: Assumption is that multiple sections of the EIS and the EIS Summary quoted incorrect reduced figures of 25% and 34% for the volumes of traffic increase and that the correct figures given in the IMPACT study (page 149 of the EIS) of 46% and 62% are correct.

The current "*design capacity of the roads*" of especially the unsealed roads is notoriously inadequate and unsafe for what is required for the current traffic levels.

Any cut and paste statement, where the figures quoted can change by 20% but the assumption of no impact remains the same is disingenuous. The statements that an increase of traffic of 46-62% on the IMPACT study quoted will have "*no material impac*t" and "*no traffic delays are anticipated at local intersections as peak movements to site will use* (the flood prone) *Burgess Lane"* are impossible to justify.

Calala Lane is already a well known traffic bottleneck in the local area at peak periods. An increase of traffic as suggested is likely to result in gridlock. There is only one single lane

access road to and through Calala. Gridlock, where there is one access road, is also a safety issue.

6.7 Traffic: From the EIS: Calala Lane: A posted speed limit of 60 km/h applies to this section of road.

Comment: This is incorrect. Calala Lane speed limit has been restricted to 50km/h.

From the EIS: The traffic survey data collected in December 2023 indicates that, on average, Calala Lane carries approximately 3,150 vehicles per day and up to 280 vehicles during the peak hour (inclusive of both directions).

Comment: Any data taken late in December during private school holidays (Carinya Christian School) and last days of school (Farrer MAHS/ODAS) would not be indicative of full traffic flow in normal periods.

From the EIS: Burgess Lane: In the vicinity of the project site, Burgess Lane has been constructed with a 7.4 m wide pavement. The road is sealed for approximately 1 m (mile?) *from Calala Lane, while the remaining section of road is constructed with unsealed gravel. (*The sealed section has a default speed limit of 50km/h.)

A default speed limit of 100 km/h applies to this (unsealed) section of road.

Comment/Local knowledge: **Anyone attempting to accelerate to 100km on the unsealed section of Burgess Lane with the rough surface and restricted vision due to vegetation overgrowth, expecting to then turn onto Burgmanns Lane at the usually potholed and rutted T intersection is unlikely to survive the experience.**

From the EIS: Burgmanns Lane The project site is bounded to the north by Burgmanns Lane, which will be used for site access during construction and operation. Burgmanns Lane is a rural living access road….. In the vicinity of the project site, Burgmanns Lane has been constructed with unsealed gravel. A posted speed limit of 100 km/h applies to this section of road. The road may be prone to flooding due to its proximity to Goonoo Goonoo Creek and its downward sloping topography when crossing the creek.

Comment: Burgmanns Lane has often been closed often due to flooding in recent years and it is not suitable for heavy or oversized vehicles.

From the EIS: Whitehouse Lane: *A default speed limit of 100 km/h applies to this section of road.*

Comment: This is incorrect. Whitehouse Lane (sealed section) speed limit has been restricted to 80km/h.

Road network limits
From the EIS: Marsden Park Road, Burgmanns Lane and Calala Lane which provide direct access to the site are not approved for access for these vehicles (GML, CML and HML) *and will require an application to the satisfaction of Council and/or TfNSW.*

Comment: These roads show constant unsafe wear and tear under current traffic flows. They would require upgrades and maintenance work to ensure access and safety under the projected increase of over 60% additional traffic flow, especially if application for GML, CML and HML vehicles is granted.

Vehicle access routes: From the EIS: It is anticipated that deliveries of BESS components to the subject site will arrive by road from either Newcastle Port or from Sydney along pre-approved 26 m B-double routes.

Constraints identified included:
• the presence of built-up areas along the northern end of Armidale Road (Route A), and the southern end of Calala Road (sic Lane)*(Route B), including a primary school on Calala Road* (sic Lane)
• a risk of flooding along the northern section of O'Briens Lane (Route A), and along Burgmanns Lane where it crosses Goonoo Goonoo Creek (Route C)
• the need to turn right into the site off Burgmanns Lane if approached from the west (Route C), and to turn left into the site off Burgmanns Lane if approached from the east via Ascott-Calala (sic) *Road (Route D).*

Comment: the Primary and Secondary routes identified have serious restraints.

Route E via Whitehouse Lane includes an unsealed section after crossing Ascot Calala Rd which turns into the unsealed Marsden Park Rd. These gravel roads are not maintained regularly enough to prevent large potholes and uneven, unsafe surfaces with current traffic levels, especially after any rainfall.

Traffic volume: From the EIS:
- Burgess Lane can be expected to carry up to 540 daily vehicle movements ***(an increase of 46%)****.*
- Burgmanns Lane can be expected to carry up to 450 vehicles per day, ***an increase of 62%****.*
IMPACT considers that this level of traffic can be accommodated by Burgmanns Lane with no material impact on operation or safety of this road.

Noise and vibration

From the EIS: In the absence of mitigation, noise during operation is predicted to exceed noise criteria for about 90% of the residences within 1 km of the project site. Noise mitigation measures such as PCS unit enclosures and HV transformer noise barriers will therefore be implemented.

Operational noise – post-mitigation: From the EIS: Due to the predicted noise exceedances (sic) *during operation* (24hrs/day*) the following noise mitigation measures will be implemented to ensure that the BESS operation achieves compliance with the NPI noise criteria:*
- Acoustic enclosures will be installed for each PCS unit
- Noise barriers, 4 m in height, will be installed around the HV transformers

With the mitigation measures in place, compliance with NPI noise criteria is predicted to be achieved.

Comment: Non-associated receivers is the industry dehumanisation term for affected people and families. That the noise is "*predicted to exceed noise criteria for about 90% of the homes within 1km*", 24 hours a day is potentially devastating.

What guarantees are there that the "predicted" compliance will be achieved 24 hours a day? Disturbance to these rural homes is unacceptable and if the mitigation measures do not work, the noise impact will have a severe effect on mental and physical health while trapping the affected residents, as they will be compounded by the financial inability to sell their

properties. The predicted noise impact on the 665 homes within a 2km radius is not mentioned in the EIS.

Reference: https://www.energy-storage.news/bess-noise-has-exploded-as-a-concern-recently/
- The noise of battery energy storage system (BESS) technology has "exploded" as a concern in the last six months…."Sound is bound to be more of a concern for population-dense Europe compared with places like the US, but Furlong said that he first noticed it for projects in Australia."

Visual amenity

From the EIS: Use of vegetation screening is expected to reduce visual impacts for the affected residences and road users to a moderate-low, low or negligible impact rating.

Comment: As the visual screening in the photomontage is provided primarily by mature gum trees, this would suggest that the screening provided in the images would be after 10 years – or halfway through the project life.

Hazards

From the EIS: Based on the outcomes of the PHA and a commitment by Valent Energy to select appropriately certified BESS units, the project is not expected to pose an unacceptable risk to the community in relation to radiant heat, overpressure, toxic gas release or EMF. In addition, provided that the project adopts fire prevention and control measures in accordance with NSW RFS and FRNSW requirements, the risks of the project initiating a bushfire or being affected by an external bushfire are considered very low.

Appendix K: Preliminary Hazard Assessment

Toxic Release

Where the UL9540A testing indicates that external flaming from the BESS Unit or an overpressure event did not occur and where the installation conditions are the same as the test conditions, then the formation of airborne pollutants is unlikely. As a result, the potential for a toxic release from thermal runaway of the BESS units is unlikely to involve significant toxic Products of Combustion (PoC). If the conditions of the installation of the BESS units (e.g., operating within the ambient temperature) are equivalent to the UL9540A testing conditions, then it is not expected a significant toxic release from BESS units will occur. In this case no off-site effects are expected and so this consequence is not carried over for further analysis.

Comment: There is a large assumption here, especially as the units have not been chosen. "Where the installation conditions are the same"; "If the conditions are equivalent to UL9540A testing conditions" then a significant toxic release is "not expected".

Reference: https://www.pv-magazine.com/2024/04/10/how-safe-are-lithium-iron-phosphate-batteries/

- Researchers in the United Kingdom have analysed lithium-ion battery thermal runaway off-gas and have found that nickel manganese cobalt (NMC) batteries generate larger specific off-gas

volumes, while **lithium iron phosphate (LFP) batteries are a greater flammability hazard and show greater toxicity.**

Reference: https://storagewiki.epri.com/index.php/BESS_Failure_Incident_Database

- BESS Failure Incident Database contains 72 incidents from 2018 – 2023.

Reference: https://www.abc.net.au/news/2023-09-27/tesla-battery-fire-at-queensland-renewable-energy-project/

- 27/9/2023: Tesla battery on fire at Bouldercombe energy storage site, Genex confirms. Officers said the fire caused hazardous smoke to spread across the immediate area.

Bushfire

A search on the NSW RFS Website https://www.rfs.nsw.gov.au/plan-and-prepare/building-in-a-bush-fire-area/planning-for-bush-fire-protection/bush-fire-prone-land/check-bfpl for the address of the proposed project gives this result:

The parcel of land you have selected is within a designated bush fire prone area.

As your property is bush fire prone you should consider reviewing your household insurance to check you are covered for the cost of complying with the necessary bush fire protection measures.

Any proposed development upon the property will be required to comply with Planning for Bush Fire Protection for new works.

3.10 Fire management: From the EIS: The site is located within an existing highly modified and cleared environment, therefore there is no dense bushland and only limited vegetation in or surrounding the site. The project area is not considered to be bushfire-prone land, according to the Rural Fire Service Online Tool.

Comment: This is not correct according to the NSW Rural Fire Service website Online Tool – accessed at 16/6/2024

4.3.3 Additional approvals and permits: From the EIS: If the project were not an SSD, the following approvals may also have been required (see Section 4.41(b) of the EP&A Act):
• Bushfire safety authority - Section 100B, Rural Fires Act 1997.

Comment: that this project, due to its State Significant Development status is not required approval from the Bushfire Safety Authority is of no reassurance to local residents. And its "status" is of no consequence in the event of a bushfire in this designated bushfire prone zone. The size of this project and its locality on the perimeter of a major regional centre is exactly why every precaution must be taken.

6.10.3 Existing conditions: From the EIS: The project area is largely cleared of vegetation and has a generally flat topography. However, it is located within a designated bush fire prone area, according to the Rural Fire Service Online Tool (search undertaken 28 February 2024). The project site has also been mapped as having Category 3 vegetation throughout the project site. The project is accordingly at some risk of being affected by bushfire.

Comment: As identified earlier in this document, sections of the EIS claim that the project is NOT in a bushfire prone area. The EIS must be updated accordingly and it must be noted that the project is within a bushfire prone area – as designated by the NSW RFS.

6.10.6 Bushfire risk: From the EIS: The project site is within an area that has been mapped at Vegetation Category 3 in relation to bushfire risk. Vegetation Category 3 is considered to be medium bush fire risk vegetation (NSW RFS 2015).

Prevailing weather conditions associated with the bush fire season in the area are usually north westerly winds accompanied by high daytime temperatures and low relative humidity. There are also frequent dry lightning storms occurring throughout the area during the bushfire season (October to March) (TBFMC 2020). The TBFMC area has on ***average 270 bush fires per year, of which 18 on average can be considered to be major fires****.*

As the project site and surrounding area is largely cleared for agricultural purposes, with scattered trees and isolated patches of vegetation, the main fire risk to the site is likely to be the spread of grass fire.

There is no reticulated water supply on site*. Existing overhead powerlines are located in proximity to and across the project area. This transmission infrastructure will be communicated as a potential risk to attending emergency services.*

Comment: As the project site is within a designated bushfire prone area, that experiences an average 270 fires a year, with 18 of these considered major, how does the EIS come to the conclusion that *"being affected by an external bushfire* is *considered very low"?*

Why is the risk of off site bushfire not mentioned in *Appendix K: Preliminary Hazard Assessment*?

What level of public liability cover does the proponent propose to be in place and sufficient to cover the 38 immediate (less than 1km receivers) and the residential suburb of Calala, 665 potential receivers within 2 km, which features new homes and subdivisions, in the event of a fire originating from the Tamworth BESS?

The PHA has shown that risks to the public associated with the operation of the BESS units, such as the potential for fire, can be effectively managed by ensuring BESS units with UL9540/A certification (with no external flames observed during laboratory testing) is selected, and manufacturer's recommendations around separation distances between the units are followed. It is expected that bushfire risk can be effectively managed by implementing appropriate fire prevention and control measures in consultation with FRNSW and the NSWRFS.

Fire and Rescue NSW	• To ensure that the fire prevention, detection, protection and firefighting measures are appropriate to the specific fire hazards and adequate to meet the extent of potential fires, a comprehensive Fire Safety Study (FSS) is recommended to be undertaken.	Section 6.10: Hazards (FSS will be developed in pre-construction stage)
	• That the FSS is developed in accordance with the requirements of Hazardous Industry Planning Advisory Paper No.2 (HIPAP No.2).	Section 6.10: Hazards

Comment: As FRNSW recommends that the development of a (Fire Safety Study) FSS be a condition of consent, will a FSS be required prior to approval of this project?

Table 4.1 Preliminary Risk Assessment for Tamworth BESS
Bushfire and Electrical fire issues – Development causing an increase in fires – Likelihood = Rare.

Definitions
Rare: May occur only in exceptional circumstances. This risk event is not known to have occurred elsewhere (likelihood <5%)

Comment: As per the information on BESS fires already included in this document the "rare - risk event is not known to have occurred elsewhere" is not correct.

2	Bushfire	Offsite risks as a result of an onsite bushfire source are considered ALARP – No offsite risks	Asset Protection Zoning	On-site vegetation fire	Rare	Insignificant

Cumulative impacts

From the EIS: There are currently nine approved or proposed energy-related SSDs (State Significant Developments) *in the Tamworth Regional local government area (LGA) listed on the Major Projects website, in addition to Tamworth BESS. Two projects which are located close to the Tamworth BESS are the Kingswood BESS (about 400 m) and the Calala BESS (about 1.5 km).*

If these or other projects are developed at the same time as the Tamworth BESS project, then there is the potential for cumulative impacts on aspects such as traffic, noise, visual, land use and the availability of local accommodation and services. Cumulative impacts are difficult to predict and quantify due to the uncertain timeframes of other potential developments.

2.5 Potential for cumulative impacts: From the EIS: Subdivision potential and rural residential development The risk of subdivisions that give rise to new rural dwelling entitlements on and around the project site is considered low. This is due to the large lot size requirements on the project site and surrounding areas and inconsistency with the objectives for RU4-zoned land, as defined in Section 2.3.3 of this EIS.
The project site and surrounding lands share the same RU4 – Primary Production Small Lots zone under the Tamworth Regional LEP.

Comment: On the perimeter of the 1km zone and within the 2km zone are new and older residential subdivisions - 665 potential receivers within 2 km identified in the EIS.

2.3.1 The objectives of planning in NSW

In addition to the objectives of planning in NSW, the project SEARs and Section 193 of the EP&A Regulations require the Armidale BESS (sic Tamworth BESS)**,** *to be evaluated against the principles of ecologically sustainable development (ESD).*

These principles are:

• the precautionary principle, namely, that if there are threats of serious or irreversible environmental damage, lack of full scientific certainty should not be used as a reason for postponing measures to prevent environmental degradation.

In the application of the precautionary principle, public and private decisions should be guided by: – careful evaluation to avoid, wherever practicable, serious or irreversible damage to the environment.

Comment: Dismissing a catastrophic bushfire as a source of irreversible environmental damage, or not taking all measures to ensure safety is not heeding the precautionary principle.

3.4.1 Construction materials: From the EIS: Most of the construction materials and components are likely to be sourced from overseas due to the specialised nature of the equipment. Materials will be transported by road from port facilities in either Sydney or Newcastle in shipping containers up to 12 m in length.

Comment: In light of the project objective *"Tamworth BESS supports Commonwealth, state and local GHG emissions reduction goals",* what is the GHG footprint of the sourcing and transport of materials and the construction of the project, and how many years of operation will be required to achieve "net zero" or "positive climate benefit" for this project – as this is one of the justifications for its construction.

Section 6.10: From the EIS: The BESS is a potentially hazardous industry.

Comment: as stated above "the BESS is a potentially hazardous industry", and it is to be situated on land zoned agricultural, deemed to be within a designated bushfire area, and 1km from residential subdivisions.

Table 6.40 Summary of socio-economic impacts and proposed mitigation and management measures: From the EIS:

- Reduced social cohesion due to actual or perceived inequitable distribution of project benefit.

Comment: To the developer the probable loss of property value may be of low impact but to those that have worked and saved to own their own rural home this is a major and not unsubstantiated issue. The undoubted and undisputed diminishing of the environment and amenity of the surrounding 38 homes – from the perspectives of mental and physical health and the inability to escape should be an insurmountable obstacle to this development. All the "community consultation" in the world does not change this.

- Increased bushfire risk due to the presence of the BESS

Comment: This is a very real, identified risk, and nobody in the local area is looking forward to a hot Tamworth summer with 136 combustible batteries in a grazing area, within 2km of 665 homes. That commercial scale battery storage fires are happening around the world at a rate of one a month and that the testing on the proposed batteries has not been carried out under local conditions are both reasons to fear the possibility of a catastrophic fire event resulting from this development. But it will be the locals in the "firing line" not the overseas based developers.

- Concern regarding impacts of the project on neighbouring property values and insurance premiums

Comment: again this real world concern is dismissed by the developer. And the "implementation of a complaints and grievances procedure" is not going to enable the surrounding homeowners to obtain affordable or possibly any insurance cover.

6.12 Waste: From the EIS: the rapid growth of renewable energy projects in recent years had led to the generation of wastes such as solar panels, wind turbine blades and lithium-ion batteries for which re-use and recycling options and markets are currently limited.

*As the BESS is expected to be in operation for up to 20 years, it is likely that more mature markets and options for lithium-ion battery recycling **will exist** by the time the majority of battery waste is generated.*

Comment: at least the developers have been honest, mixed with wishful thinking on this issue. Recycling options for lithium-ion batteries are limited. They contain a dangerous substances and are very difficult to dispose of without continuing environmental impact – especially at industrial size and scale.

Table 6.41 Cumulative Impact Assessment Summary

Comment: this table has no mention of the closest large scale renewables installation - Lambruk Solar Project, on 3,500 acres of farmland 7k to the south of the Tamworth BESS, while including projects up to 48km away.

Noise impacts: *As outlined in the noise impact assessment (Appendix I), **cumulative noise impacts at surrounding receivers are expected to be dominated by the project.** This is because the predicted 100% utilisation operational noise levels during neutral weather condition are **predicted to exceed the day, evening and night criterion by up to 14 -19dB(A).** And the predicted 100% utilisation operational noise levels **during noise enhancing weather conditions** are predicted to exceed the day, evening and night criterion by up to 1**8-23dB(A).** This would mean that the cumulative noise impacts at surrounding receivers would exceed the NPI noise criteria**.***

*Therefore, noise mitigation measures recommended in Section 7.4 of Appendix I would need to be implemented to ensure that surrounding receivers are not adversely impacted. In addition to that, the **operational noise of the proposed Tamworth BESS may generate cumulative impact with the Kingswood BESS** (located only about 400m from Tamworth BESS) and with the existing Tamworth 330kV substation on surrounding residential receivers.*

*Traffic impacts: Although the Tamworth BESS project is not expected to generate traffic-related noise at a level requiring mitigation measures (see Section 6.8.4), it is possible that **traffic volume increases** associated with the project **in conjunction with other projects** could exceed the threshold where mitigation is required.*

Appendix H Traffic Impact Assessment
5.2.2 Traffic Generation from Nearby Developments
Table 5 Neighbouring Developments

Comment: Does not mention the large scale Lambruk Solar Project, 7km to the South, but includes projects 60km away. Does this mean that the impact of one of the closest large developments has not been considered?

Appendix K Preliminary Hazard Assessment
1.4 Assessment Against Potentially Applicable Standards
An assessment against potentially applicable standards has been undertaken.

The basis of this PHA is the advice provided by the proponent that the proposed BESS units (i.e. ***currently undefined****) will be compliant to UL9540 and certified against UL9540A laboratory tests and will indicate in the UL9540A certification as per Table 9.1, that external flames were not observed during the 'Unit' testing.* ***It is further assumed that the site installation conditions do not exceed the test conditions of the UL9540A tests.***

4.0 Hazard Identification
4.1 Hazard Identification Table (HAZID)

Ref	Hazard	Risk	Additional Controls Recommended	Initial Risk Level	Residual Risk Level
		storage systems causing plant outage - No offsite impact			
2	Bushfire	Offsite risks as a result of an onsite bushfire source are considered ALARP – No offsite risks	Nil	Low (ALARP)	NA

Comment: That bushfire is not considered a residual risk is very hard to understand.

Conclusion

Based on the repeated factual errors around the traffic-related impacts and the official bushfire classification, the Environmental Impact Statement for the Tamworth BESS is both flawed and confusing. The local community assumes that this document must be corrected before the project is allowed any further consideration.

There is no doubt that this project will impact on surrounding homes and lower the livability and safety of the rural area.

There are issues with operational BESS generated noise, 24 hours a day. The up to 62% increase on local unsealed roads will adversely impact safety and noise during the construction phase and the full cumulative effects of multiple renewable energy projects have not been assessed.

All other issues may well be eclipsed by the bushfire risk, and as per the FRNSW direction the Fire Safety Study must be conducted before this project progresses, not as an afterthought.

As a local resident with a family that works and goes to school in this area I am firmly against this project. The developers are stealing safety, lifestyle and financial security from the local community to improve the bottom line of the multinational businesses.

Yours faithfully,

Mrs Karen Fox.
689 Ascot-Calala Rd. CALALA 2340.