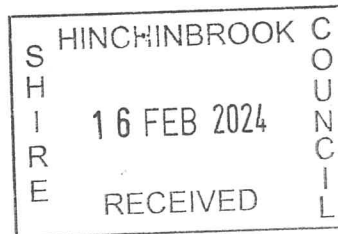


Raymond Toscano
Bullock Paddock Road
Macknade Q 4850



R. Toscano
14/2/24

Date: February 14, 2024

Hinchinbrook Shire Council
Attention: Planning Department
25 Lannercost Street
Ingham Queensland 4850

FILE No	_____
Doc No	_____
Pr / Ref	_____
Action	_____

Subject: Objection to the Proposed Mount Fox BESS Pty Ltd Development (Planning Application Reference: J001546) DA MCU23\0005, DA OPW23\007

Dear Council Members,

I am writing to you to formally object to the proposed development of the Battery Energy Storage System (BESS) at Ewan Road, Mount Fox. I am very concerned with the detrimental impacts to the Mount Fox environment, animals and people if this development goes ahead. The application reference is J001546, and the proposal includes the construction of a BESS and associated transmission facilities.

While I fully support sustainable energy initiatives and the benefits they can provide to our community, I have specific concerns about this development that I believe warrant serious consideration:

1. **Environmental Impact:** The proposed operational works involve significant vegetation removal of remnant vegetation, which will have a detrimental impact on the local flora and fauna. The area provides habitat for a number of endangered and vulnerable species including Southern Cassowary, Red Goshawk, White-throated Needletail, Eastern Curlew, Southern Black-throated Finch, Sharman's Rock Wallaby, Koala, Bare-rumped Sheath-tail Bat, Northern Greater Glider, and Large-eared Horseshoe Bat. While all these may not have been found on the site in a short-term study, the site does provide habitat for these animals and all these animals have been sighted by residents. Michael Creek is also the home of Platypus, another vulnerable species. The report does not sufficiently address the long-term ecological consequences of this removal.
2. **Fire and Thermal runaway:** Mt Fox has a medium to high bushfire rating in the dry season. A fire in a container would end up as a thermal run away or, if gases vent prior to ignition, a vapour cloud explosion would occur. Tesla advises to let them burn. If wind conditions were favourable and the vegetation were dry it could potentially ignite a bushfire. The rural fire brigade cannot attend they can only prevent a bushfire from encroaching on the BESS. The rural fire brigade is a small voluntary group (in a small community), some members work in Ingham and are not always on hand. It is our understanding the BESS would not be manned most of the time. There could potentially be a delay before a malfunction is noticed remotely. A fire truck from Ingham would take at least 50mins to arrive.

R. Toscano

The batteries release toxic flammable gases and if they are punctured or the outer casing corrodes, these gases will escape. They can ignite if there is an ignition source. Some of the gases BESS emit are heavier than air and once they accumulate result in a vapour cloud explosion (see Reference 1).

3. Contamination from Rain Event Runoff: Poor mapping has been used in the development application. Maps do not adequately depict the topography of the area or the water courses in the Michael Creek catchment. These are not clearly defined and do not show the flow of water during rain. The BESS location is planned in an elevated position meaning surface water runoff from rain events will carry contaminants into the creek systems leading to Michael Creek. Michael Creek is a major water source for the community. Runoff will also find its way into the groundwater, springs and bores which are other major water supplies for Mt Fox. Contamination of creeks will also negatively impact flora and fauna dependent on them, including platypus.
4. Contamination from Fire: The points above also hold true if a fire were to occur. Although water is not to be used on a BESS in thermal run away, whatever chemicals are released or added to quell the fire will ultimately end up in waterways. It is questionable whether the bunding would be adequate to contain this, considering the heavy rainfall Mt Fox can experience during severe weather events. The toxic gases released from a BESS (Hydrogen, Carbon monoxide, carbon dioxide, hydrogen fluoride, hydrogen chloride, hydrogen cyanide, organic solvents, ethane, methane, Sulphur and nitrogen oxide) from a fire would settle on the ground and vegetation and then again end up in water courses and Michael Creek and ground water after rain. Many form dangerous acids when mixed with water, for example exposure to hydrofluoric acid and hydrogen cyanide cause death (reference 1).
5. Noise and Visual Amenity: The construction and operation of a BESS facility will introduce noise pollution. The BESS requires constant cooling. There are to be 164 or 167 of them. This will create a constant hum, which in a quiet area will be heard over long distances. The inverters in the BESS also emit a noise as they convert AC to DC power and vice versa. The transformers may also contribute to noise. The report does not address the impact of noise on the environment and the residents, visual disturbances or the adverse effect on the rural character of Mount Fox and potentially impacting the quality of life of nearby residents. (See reference 2). No visual impact assessment of the BESS has been provided by the developer. However the visual impact from the switching station is obvious and it is understood the BESS is located close to the switching station. With the clearing involved it will create further visual impact. This is not in keeping with the vista of Mt Fox.
6. Traffic and Infrastructure: Increased traffic from construction and operational maintenance vehicles may lead to congestion and wear on our local roads. Moreover, the report does not adequately address how the infrastructure will cope with the additional traffic.
7. Community Consultation: I am concerned about the level of community consultation conducted. Developers held a meeting on the 6th of January which



left the Mt Fox community under the impression the development had approval. A member of council was in attendance. Both failed to inform the community of the development proposal and the timeframe allowed for objections to be submitted to council. Signs were later found erected in obscure locations which would not be easily seen or in some cases not seen at all. Photos have been taken of the signs in these locations. They have now been placed in more appropriate positions. Having access to the reports at council it appears this development and wind farm have been planned for some 6 years. Why is the Mt Fox community only informed now at this late stage? Our opposition should have been known by developers early. Their lack of transparency translates to dollars lost. And dollars lost to the developers cannot be considered by council when decision making. (See reference 3)

8. Property Values: A Senior certified practicing Valuer, Jonathan Fenn, located at Mt Fox gave the following statement to Mt Fox residents.

The medium to long term (negative) effects on values, marketability & demand for rural properties at the locality of Mt Fox and more specifically adjoining owners and or impacted properties has yet to be tested. However, historically, these types of non-rural developments, wind turbine "farms", large scale battery (Tesla type) storage banks, high kva steel towers and alike have caused not only a decrease in values, marketability & demand but also significantly changed the lending criteria by the financial institutions and this is further supported by the following response from the Australian Property Institute: "I would suggest the local market would be treating these type of non-residential uses as a detriment to adjoining or impacted properties and so I would be raising risk in the report and highlighting the facilities proximity to the property." This effectively means the banks/financial institutions require a higher risk given to the location and environment as part of a mortgage security valuation for lending purposes. Therefore, changing the lending criteria (higher risk of decrease in value) than rural properties not affected.

9. Compliance with Local Planning Scheme: *Italics are used to refute developers claims.*

Mt Fox is zoned Rural. Purpose 6.2.1.3 1) b. The purpose of the Rural zone is to provide for other uses and activities that are compatible with i. existing and future uses and activities and ii. The character and environmental features of the zone. *This development with the associated planned wind farm is not constant with that purpose or the current land use. The BESS will require some 1385Ha to be cleared which will leave a huge scar on the landscape and alter the use of the area permanently (see photos below of construction of Kaban wind farm and an example of a BESS made up of approx 40 mega packs).*

The development is also inconsistent with 6.2.1.3 2) a. the productive capacity of rural land is protected for rural uses and associated value add industries. *Over 1300Ha is to be cleared for the BESS and access roads and therefore cannot be used for the current purpose. There Bess and infrastructure present a safety hazard and require fencing, therefore the current use of grazing cannot occur in these areas.*

PO1 The height of buildings and structures is:



(a) in keeping with the amenity of adjoining premises – *this is grazing land so any building is not in keeping with that which is there now*; (b) complimentary to the character of the area – *land clearing and fencing of the area are not complimentary to the character of the area* and (c) sufficient to achieve resilience to flood and storm tide hazard. *While storm tide hazard cannot be considered an issue at Mt Fox, flooding and runoff from rain events will result in turbidity increases in Yellori Creek and from there Michael Creek (see photos of recent rain the turbidity in Yellori Creek from run off from the switching station.) Any pollutants from the area will also flow into the creeks. While developers claim the BESS and its infrastructure has been appropriately located to avoid an impact from flooding, they do not take into account the impact of water runoff. No assessment of impact due to flooding has been considered.*

PO11 Development is consistent with the purpose and overall outcomes sought for the code. *The Developers claim the development proposed is consistent with the purpose of the zone and is not likely to impact on existing and/or future rural land uses and activities. Developers state: -*

*'will not detract nor result in any impacts on the existing rural land uses (pastoral and/or cattle grazing activities) currently being undertaken **within the defined project site**. The defined site will need fencing to secure it and to ensure safety, it will also be cleared for buffering for fire protection therefore no grazing – the current land use, will occur 'within the defined project site' (refer photos of 40 megapack BESS in Queensland for comparison – the Mt Fox BESS will be 164 mega packs)*

*'Is compatible with and has been **appropriately designed to respond to/protect existing natural and environmental features**.' The mapping does not adequately depict the topography of the land. It does not show waterways and water flow into Yellori Creek and Michael Creek. Recent rain events clearly show extensive runoff from Lot 592 and 591 into these creeks, see photos below. **Extensive environmental assessments were undertaken to inform the location, layout and design of the proposed MFEP BESS.**' Furthermore, the environment assessments were not undertaken for this location of the BESS and are not included in the information provided to council in order to make informed decisions.*

'In summary, the current proposed BESS alignment will involve the clearing of Category B, remnant vegetation and the clearing of 'Of Concern' vegetation as described under the Vegetation Management Act 1999. Whilst acceptable outcomes have been identified for some areas of clearing (namely the clearing of non-remnant category R vegetation), other areas of vegetation will not fall under the acceptable outcomes listed in State Code 16 and thus environmental offset will be required for this vegetation clearing.

Notwithstanding this, the impacts likely to result from the necessary vegetation clearing were considered as part of an application for a relevant purpose determination, pursuant to Section 22A of the Vegetation Management Act 1999. The application sought approval for all proposed clearing extents associated with the proposed Mount Fox Energy Park Project. Relevant Purpose determination was issued on 04 February 2021 (Attachment 2 – MFEP BESS Relevant Purpose Determination).' A Relevant



Purpose Determination is not a permit to clear. The clearing of Category B vegetation and its associated fauna in this area will result in loss of biodiversity in the area and this will not be altered by an offset.

'Will be suitably fenced to ensure further protection from/separation of existing rural land uses, in order to minimise conflict.' This contradicts the developers' statement 'will not detract nor result in any impacts on the existing rural land uses (pastoral and/or cattle grazing activities) currently being undertaken within the defined project site.'

'Maintain the capacity of land for rural uses and activities through implementing operational procedures that reduce/mitigate the potential for impacts on the environment (i.e. introduction of pest species).' It is not clear in the report or other documentation how this will be achieved. No wash down facility is mentioned.

'the MFEP BESS and any future associated infrastructure to be constructed as part of the broader Mount Fox Energy Park project, may likely provide greater opportunities for solar energy projects throughout the area, through the possible provision of supporting infrastructure and/or the driver for enhancements/upgrades to existing major electricity networks.' It is clear the developer intends expanding on this initial development which will further detract from the current land use, conflicting with the overall purpose the rural zoning.

PO12

The site coverage of buildings, structures and associated services does not have an intrusive effect on the rural or scenic values of the site.

'The project site incorporates four (4) separate allotments – with a combined total area of approximately 2,794.93 Hectares. The MFEP BESS proposes a total site coverage of approximately 6.069 Hectares, within which the proposed lease area is to be established (not including land required to established access and/or the transmission line). The total area of land required to establish the northern access is expected to be approximately 5 Hectares. In considering this, it is submitted to Council that the proposed MFEP BESS is not likely to have an intrusive effect the rural and/or scenic values of the site. The MFEP BESS will be considerably setback from all property boundaries.' The developer in asking for a material change of use over the entire Lot 592, the project site incorporates 4 separate lots. This raises concerns for future use of this land. Changing the material use of Lot 592 sets a precedent for further changes of use. This will result in a change of purpose for the Mt Fox area which conflicts with overall purpose of the rural zoning, 6.2.1.3.

PO13

Non-rural uses:

- (a) are compatible with agriculture, the environmental features, and landscape character of the area; and
- (b) do not compromise the long-term use of the land for rural purposes; and
- (c) value add to rural activities or support nature based rural tourism; and
- (d) are of an appropriate size and scale for the use and locality; and
- (e) include appropriate separation distances or buffers from rural uses.



'The proposed development involves a non-rural land use – that being a Battery Storage Facility – on Rural zoned land. Notwithstanding this, proposed development:

- is considered to be compatible with and will not detract from, nor impact on the existing rural land uses (pastoral and/or cattle grazing activities) currently being undertaken within the defined project site.' *See above re fencing and clearing*

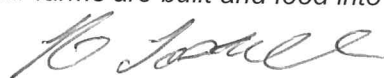
- 'Will be constructed within a small portion of the broader defined project site. The area required for the MFEP BESS involves approximately 6.069 Hectares (not including land required to establish access and/or the transmission line). The total area of land required to establish the northern access is expected to be approximately 5 Hectares.' *While this may be a small portion of land within the project site, BESS are able to be increased in size and this size lot would be capable of a BESS in excess of 22000MW. It is not only this development proposal that needs to be considered. The developers have made it clear in this proposal, future expansion of the BESS is likely as well as the addition of wind turbines. These future expansions make this highly incompatible with the current use under the rural zoning.*

- 'Is compatible with and has been appropriately designed to respond to/protect existing natural and environmental features. Extensive environmental assessments were undertaken to inform the location, layout and design of the proposed MFEP BESS.' *These assessments were made for the wind turbine and BESS combination and not for the BESS as a stand-alone in this location. These assessments do not form part of this report presented in documentation made to council.*

'In summary, the current proposed BESS alignment will involve the clearing of Category B, remnant vegetation and the clearing of 'Of Concern' vegetation as described under the Vegetation Management Act 1999. Whilst acceptable outcomes have been identified for some areas of clearing (namely the clearing of non-remnant category R vegetation), other areas of vegetation will not fall under the acceptable outcomes listed in State Code 16 and thus environmental offset will be required for this vegetation clearing. Notwithstanding this, the impacts likely to result from the necessary vegetation clearing were considered as part of an application for a relevant purpose determination, pursuant to Section 22A of the Vegetation Management Act 1999. The application sought approval for all proposed clearing extents associated with the proposed Mount Fox Energy Park Project. Relevant Purpose determination was issued on 04 February 2021 (Attachment 2 – MFEP BESS Relevant Purpose Determination).' *Again this determination is not permission to clear the land and results further fragmentation of remnant vegetation, this is not mitigated by an offset.*

- 'Maintain the capacity of land for rural uses and activities **through implementing operational procedures** that reduce/mitigate the potential for impacts on the environment and/or the rural capacity of the land (i.e. introduction of pest species).' *What are these procedures and how will they reduce/mitigate the potential for impacts on the environment etc? This statement is totally without supporting documentation or evidence.*

- 'Is of an appropriate size and scale for the use and locality.' *What exactly is an appropriate size and how is this determined? Will this size always be appropriate if new wind farm developments or solar farms are built and feed into the grid?*



'The MFEP BESS is in a remote location, away from existing major urban areas/communities.' *The very fact the BESS is in a remote location is a major problem. Consider the following questions. Why was this area chosen? It is remote, how will it be operated and monitored? Who will operate it? Where will staff come from? Will it be remotely operated and monitored as many BESS are? In the case of malfunction how long will it take get someone on site to address the problem? If the malfunction results in fire how long will it take emergency services to get there and in the meantime what fires might result because of it? More worrying if the malfunction results in off gassing (and a single cell could off gas as much as 6000lt/kwh see reference1) this could result in a vapour cloud explosion and begin a chain reaction of fire and explosions. So, the remoteness of this location does not make sense. All BESS need to be in areas where there is no chance of fire potentially escaping to neighbouring areas, where the effects of toxic vapour emissions are minimised and where emergencies services are more readily available. (See reference 1& 2)*

- Is considered to **value add to the existing rural activities.**' *This is another throwaway statement. There is no evidence of a BESS adding to existing rural activities. The BESS will benefit the owners in that they can sell it and lease the land it is on, or they can keep it and profit from importing energy at low prices when demand is low and resell it to the highest bidder during peak times. The Tesla Megapack XL 2.0 even has automatic bidding software installed for this purpose.*

'Pastoral and grazing activities **can be known to significantly degrade the environment**' *It can be, but has it been? Once again there is no evidence to support this statement.*

'and therefore, it can be assumed that given the project site has been subject to a long history of cattle grazing, any alternative rural land use may not be achievable and/or viable in this instance. ' *This assumption is also unfounded, it assumes an alternative is desirable, which for the Mt Fox community, it is not.*

'In considering this, the proposed Mount Fox Energy Park is considered to be a good alternative to using the subject land in conjunction with existing rural land uses.' *This statement has been refuted previously.*

- Will be suitably fenced to ensure further protection from/separation of existing rural land uses, in order to minimise conflict. *This statement has been refuted previously.*

In light of these concerns, I urge the Hinchinbrook Shire Council to carefully review the potential impacts of the Mount Fox BESS project and seriously consider whether it truly aligns with the values and needs of our community and our extended community of the Herbert River Valley. Sustainable development should not come at the cost of the community's welfare and environmental integrity.

I trust that the Council will consider this objection thoughtfully and look forward to a well informed and factual response.

Kind regards,

Raymond Toscano



14/2/24

References:

1. Professor Paul Christenson speaking at the Green Fire Safety Conference May 2023

https://www.youtube.com/watch?v=AIXTP-TgPEw&t=889s&ab_channel=RussTimpson

2. Battery Energy Storage Systems (BESS): Charged Up for Noise Control MAY 30, 2023

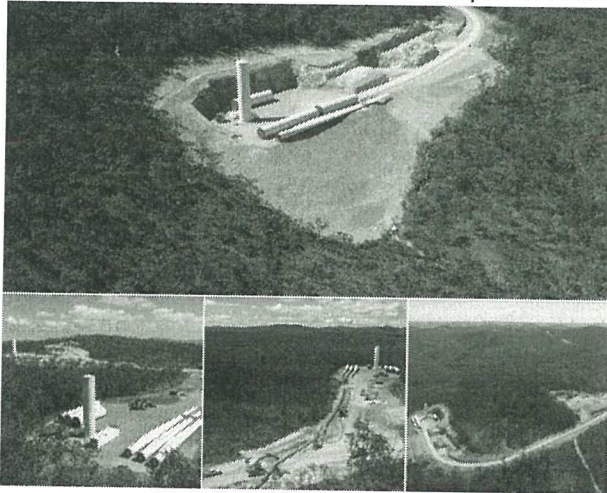
<https://www.acentech.com/resources/battery-energy-storage-systems-charged-up-for-noise-control/>

3. Department of Local Government, Racing and Multicultural Affairs

https://www.dlgrma.qld.gov.au/__data/assets/pdf_file/0028/44947/community-guide-to-local-government.pdf

Photos

Wind farm under construction example of habitat destruction

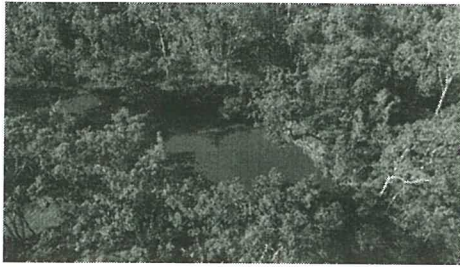


BESS

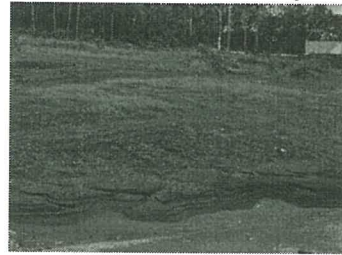
Example of a 40 megapack



Turbidity in Yellori Creek from switching station runoff from rain event January 2024



Erosion cause by same rain



event at switching station