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Sent: Fri, 16 Feb 2024 15:15:20 +1000
To: "Hinchinbrook Shire Council" <council@hinchinbrook.qld.gov.au>
Subject: Attention: Planning and Development Team (MCU23\0005 Submission for L & B Schneider)
Attachments: MCU23-0005_Submission (L&B Schneider)_signed.pdf

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Attention: Planning and Development Team
Hinchinbrook Shire Council
PO Box 366
INGHAM QLD 4850

Dear Sir/Madam,

Please find attached two digital copies of our submission for the development application MCU24\0005 – Material Change of Use (Battery Storage Facility).

Note: the pdf file contains our signed submission, the word document is the working document allowing access to inserted documents and links.

Please contact us if you need any further information or context.

Kind Regards,
Britt and Len Schneider

Planning and Development Team
Hinchinbrook Shire Council
PO Box 366
INGHAM QLD 4850

Application Reference Number: MCU23\0005
Proposal: Material Change of Use (Battery Storage Facility)

Dear Sir,

We wish to express 2 objections to this proposal, both dependant on conditions.

Objection to the extents of the “Change of material use”, dependant on council advice on appropriate “use” for ancillary road works

Objection to the approval of the “Material Change of Use (Battery Storage Facility)”, dependant on provision of supportive documents mitigating impacts to rural land uses, water resources and devaluing

The above objections are based on the grounds listed in the below table. The table aims to mimick the current development application style. Matching concerns to the Hinchinbrook Strategic Framework and Local Government Infrastructure Plan.

We, the submitters, understand that the public consultation only applies to the “material change of use (Battery Storage Facility) development application. We also are of the understanding that all vegetation clearing and biodiversity assessments are the responsibility of SARA, and do not enable public comment.

To provide context to the concerns/grounds raised, links to documents referenced at the end of this letter have been provided. These are denoted by [].

THEME: Economy	
Strategic Outcome	<i>1d) Support new enterprise/investment where they contribute to desirable local jobs</i> <i>Although the MFEP intends to create 300 local jobs and encourage local patronage, southern shires such as Townsville are likely to experience most of the economic benefit. MFEP has clearly stated during recent community consultation that the Mt Fox Road will not be utilised due to the inherent risk associated with it, and all traffic will travel via Harvey's Range to the MFEP site. This implies the workforce will be sourced from this access point and not the Hinchinbrook unless other agreements have/are made.</i>
Element: Diversity	N/A
Element: Tourism	N/A
Element: Infrastructure	N/A
Element: Rural Areas	<i>1) Rural uses are the priority in rural areas</i> <i>The submitters request council advise the relevance of the “battery storage facility” use as a rural code.</i> <i>• Given rural uses are the Hinchinbrook Shires priority in Rural Areas, the question arises as to whether the “Battery Storage Facility” is an acceptable Rural Use code. It unquestionably is a</i>

	value-adding industry to individual rural properties. But in relation to the Rural Region, the current congregation of the switching station and MTEP BESS imitates an internal industrial area developing within this rural zone. Road improvements, the need for supporting services, and strong state & federal support to develop further renewable infrastructure will likely lead to further renewable industrialisation to this area. • Industrialisation introduces many issues to existing rural businesses, including increased biosecurity risks, reduced availability of limited resources (water), reduced water quality, increased run-off associated with vegetation clearing for development, waste and contamination issues, ect. In addition, it changes the lifestyle quality and values of a rural zone. • The footprint of the BESS site and associated permanent access road (6.07ha) is considerably smaller in comparison to the current grazing operation (3186ha). However, the "material change of use" will be applied to the entire grazing operation. Although the intent for 2 lots (2773ha) is provisional in nature, and enabling the inclusion of lots where vegetation clearing is required for BESS site temporary access routes. This extensive material use change enables lawful opportunity for additional BESS devices, strengthening the "industrialisation" concern of the Rural Zone. As "Battery Storage Devices" are technically plant which either converts electricity to stored energy or releases stored energy as electricity, OR any equipment necessary for the operation of that plant. It seems reasonable to question if road works for the installation of the BESS devices may not be an acceptable ancillary activity for a "Battery Storage Device" given they are not permanent access points.
Element: Resources & Mining	N/A

THEME: Thriving Places	
Strategic Outcome	N/A
Element: Hinchinbrook Style	N/A
Element: Urban Settlements	N/A
Element: Natural Environments	9) Development in water resource catchments maintains or improves water quality The BESS site is located in the headwaters of the Michael Creek catchment area. In the event of a Transformer fire or high rainfall event, inherent risks associated with the proposed infrastructure could contaminate waterways, increase sedimentation, and reduce water quality. Details are provided in the sections "THEME: Savvy Infrastructure/ ELEMENT: Renewable Energy" and "THEME: Savvy Infrastructure/ ELEMENT: Location & Constraints"
Element: Resources & Mining	N/A

THEME: Natural Hazards	
Strategic Outcome	N/A
Element: Development	N/A
Element: Infrastructure	N/A

THEME: Savvy Infrastructure	
Strategic Outcome	N/A
Element: Renewable Energy	1) Renewable energy facilities are established in locations where impacts on surrounding land uses and ecological values can be mitigated <i>This development approval results in an increase in infrastructure with inherent health, contamination, sedimentation and resource competition risks to surrounding land uses and ecological values.</i> • <i>Although the proposed BESS will utilise Tesla Megapack 2XL batteries which have several improvements reducing the potential of a BESS fire or fluid leakage, these events can not be fully mitigated [1a]. The project also results in 3 additional transformers added to the area. Smoke from BESS fires contain irritants and asphyxiants [2a]. Smoke and soot from transformer fires contain polychlorinated dibenzofuran & polychlorinated dibenzodioxin isomers, known to be carcinogenic [3a]. Leakage from the refrigerants, coolants, transformer oils and BESS firewater result in contamination of surface and ground water systems [2a]. These known risks highlight the potential health and contamination impacts this infrastructure could have on land uses and humans/animals if controls fail.</i> • <i>The general wind direction (NE to NNE) implies most community members and businesses would not be impacted by smoke in the situation of a BESS or Transformer fire. However personal observations of grass fires on properties nearby to the proposed BESS site, result in smoke at our property. In these cases, smoke moved WNW along the Michael Creek and associated valley. Fog also shows this tendency. This reference is used purely as observational evidence proving that there is the potential for smoke from the BESS site to travel downstream towards nearby properties and the Mt Fox Service Centre. Immediate primary concerns associated with BESS and Transformer fires are hazardous air inhalation, soil contamination from soot to surrounding community and land users, and health risks to humans and animals [2a,3a]. Thermal simulation models of the proposed facility based on site selection, orientation/configuration data and sight specific environmental data could aid in defining the likely direction of smoke flow under different conditions [4a]. Aiding in risk management and control implementation.</i> • <i>Precautionary controls restricting community members to remain inside (as occurred in the recent Bouldercombe BESS fire) could have a secondary impact to Medical Emergency Response timeframes if emergency helicopters can not land. The Emergency Response Helicopter Pad & Emergency Assembly Area are located on the cricket grounds of the Campground. This is interconnected to the</i>

	BESS site by the Michael Creek Vally enabling a plausible smoke travel route. - Of the total 25 BESS facilities in Australia, 3 have had BESS fires. This highlights the "likelihood" of a BESS fire is not improbable. It is noted, cause of these fires and the battery types were variable. Table listing Australian BESS related fires [2b] <table><tr><th>Date</th><th>Event</th><th>Facility Size</th><th>Location</th><th>Comments</th></tr><tr><td>April 2021</td><td>Battery Fire</td><td>4MW/8MWh</td><td>Yurika Bohle Plains, Townsville, QLD BESS Facility</td><td>Fire occurred during commissioning</td></tr><tr><td>July 2021</td><td>Battery Fire</td><td>300W/450MWh</td><td>Moorabool, Victoria Big Battery BESS Facility, VIC</td><td>Probable cause of thermal escalation was a leak in internal coolant system of Tesla Megapack 1.0</td></tr><tr><td>Sep 2023</td><td>Battery Fire</td><td>50MW/100MWh</td><td>Bouldercombe BESS Facility, QLD</td><td>Grid-side fault failure to megapack electronicsc</td></tr></table> - Water is a limited resource at Mt Fox and all existing residents and rural businesses depend on the existing accessibility and quantity available. Currently our personal rural business holds a water licence to extract 240Mlt, providing stability during the dry portions of the year. The impact of significant increased volumes extracted from underground sources, regarding surrounding water levels is unknown and may result in deficiencies or competition for the water resource. - It is noted none of the above risks or impacts were mentioned in the development application. It is assumed either the risks/impacts have been assessed and deemed insignificant, OR they were unidentified. An overarching Risk Assessment would determine the potential risk and standard of controls. - The Australian Energy Council Limited: Battery Energy Storage Systems Guidance Report also recognises there are "unknown unknowns associated with large-scale electrochemical storage" systems [2c] which will only be defined with time.	Date	Event	Facility Size	Location	Comments	April 2021	Battery Fire	4MW/8MWh	Yurika Bohle Plains, Townsville, QLD BESS Facility	Fire occurred during commissioning	July 2021	Battery Fire	300W/450MWh	Moorabool, Victoria Big Battery BESS Facility, VIC	Probable cause of thermal escalation was a leak in internal coolant system of Tesla Megapack 1.0	Sep 2023	Battery Fire	50MW/100MWh	Bouldercombe BESS Facility, QLD	Grid-side fault failure to megapack electronicsc
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Element: Location & Constraints	4) Development is located to ensure protection of the Shire's potable water supply and aquifers The Community is not connected to reticulated water supply and sources water primarily from underground aquifers (bores & springs) and/or watershed (rainwater tanks, dams & creeks). Bores and Springs are common features of Mt Fox properties; however the connectivity of the underground aquifers is unknown. MFEP Reports have advised water will be sourced from multiple bores on the property. The extent of water required for construction and ongoing operation is unknown. The associated increase in water requirements for the BESS project, could impact surrounding land users water availability if aquifers are																				

	interconnected across properties. Although the existing MFEP Water Statement Report states there will be "negligible impact to the timing, volume and quality of surface water flows", this impact assessment is focused on watershed at a regional scale, not at a local scale or inclusive of ground water. A local scale hydrological report would provide insight towards the water availability concern. This concern was raised with MFEP at a recent meeting, subsequent information has indicated the construction manager will deal with water concern, unfortunately the impact to existing users cannot be prevented at this stage. • Michael Creek flows through or along the boundaries of at least 12 local downstream properties. At least 50% of these utilise water from the creek. As stated by MFEP "there are no mapped waterways/waterway corridors within the subject site". However, boundaries of the BESS subject site are a minimum approximate distance of: • 150m N from a watercourse (stream order 1) • 100m E from a watercourse (stream order 1) • 180m W from a watercourse (stream order 1) • 130m S of the water shedding ridge These watercourses form a series of interconnecting watercourses that enter Michael Creek. Personal observations on our property indicate watercourses (stream order 1) tend to flow during high rainfall events over short periods. We have experienced up to 4 events in the past 8 years where this has occurred. The flow is characteristically fast and of large volumes causing risk to bunding, water/contaminate traps/sediment control mechanisms. Without detailed watershed analysis, it is unknown the impact these high rainfall events will have on the site pad location. Failure of controls would result in increased sedimentation, potential contamination of waterways and soil where contaminated watershed has run over. • Topography contours (sourced from Queensland Globe) indicate the ground level falls +10m across the SSE-NNW cross-section of the proposed site pad. This is roughly 1m vertical drop every 10m horizontally for the entire SSE-NNW section. If development requires a level status across the entire site, significant fill or excavation is required. In high rainfall events, watershed direction will need to be redirected to safeguard the infrastructure and reduce soil erosion. Without a detailed watershed analysis, the extent of controls will be uncertain. • In addition, the potential for contamination of the water supply as mentioned earlier.
Element: Delivery & Sequencing	N/A
Element: Level of Service	N/A
Element: Tourism & Recreational	N/A

It is highlighted, that it is not the intention of the submitters to stop the BESS battery storage application but instead to provide

- confidence that our (and others) land, business, livestock, and lifestyle are not jeopardised because of water and/or soil contamination introduced by the BESS project,
- or other renewable industrialisation that may occur in this area.

The impact of water contamination or reduced water availability to rural communities and associated businesses due to adjacent non-rural industry has and is occurring. Per- and polyfluorinated alkyl compounds (PFAS) is a recent example of this scenario and is having major impacts on affected individuals and their businesses. Compensation may cover potable water for residences, but livestock and environment are often not included resulting in definite impacts on rural uses and agriculture [6a].

The intention to object where conditions are not met, is solely to assign a priority to these information requests. Some communications, or lack of, have given rise to concerns of minimalistic standards from MFEP, OR reflect a team under production pressures which can support unidentified risks.

Submitter's:

Date: 16/02/2024	Date: 16/02/24
Name: LEN SCHNEIDER	Name: BRITT SCHNEIDER
Address: 2937, MT FOX RD MT FOX 4850	Address: 2937 MT FOX Rd MOUNT FOX QLD 4850
Signature: 	Signature: 

APPENDIX 1a



Megapack_2_XL_Safety_Overview.pdf

APPENDIX 2a



12591546-rep-0_bess-guidance-report.pdf

Appendix 2b



20230927_final_report_mfep_bess_reduced.pdf

Appendix 2c



20230927_final_report_mfep_bess_reduced.pdf

Appendix 3a



PCB-containing transformer fires_ decontamination guidelines based on health considerations - PubMed.pdf

Appendix 4a

Appendix 5a



2021-8910 Att F Surface Water Statement.pdf

Appendix 6a

<https://qcl.page.link/eAKJbpnhvSBnGYKB9>