

Technical Bulletin

TB 0342 - Fault and emergency response to a network battery fire/vehicle impact

Date: 25/10/2023

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Approved By: Peter Langdon – Head of Asset Planning & Performance

Purpose

The purpose of this bulletin is to outline the procedures for identifying and responding to a network battery fire / vehicle collision. It serves as a guide to workers to respond safely and protect the workers, customers and the environment in the case of the battery fire or impact.

Background

Endeavour Energy has commenced installing both Pole top and ground mounted batteries within the network.

There will be in future over 100 plus individual battery installations.

There will be several hazards that field staff may be exposed to when responding to a fault and emergency event.

Hazard	Control action
Fire / Heat	Arc Rated Clothing Glasses Network Design – multiple isolation points Risk assessed locations of assets
Explosion	Arc Rated Clothing Glasses Network Design – multiple isolation points Risk assessed locations of assets
Ejected Material	Glass Network Design – multiple isolation points Risk assessed locations of assets
Stored Electrical Energy	Network Design – multiple isolation points Battery Design Do Not contact any exposed cabling or battery units behind the inverter – energy within the battery unit may still be present.
Gases/fumes	Do not work within the areas of fumes or gases. Place yourself outside any fumes or gas areas to perform the isolation. Network Design – multiple isolation points Position yourself upwind of battery at a safe distance (depending on size of battery, size of event, conditions at the time of event)

Fault and Emergency situations include.

- Car or mechanical impact
- Fire or Explosion
- Flooding
- Activation of Smoke detection or other alarms

Actions

1. Isolation of the low voltage network supply at closest point upstream without compromising your health and safety

a. Pole Top Units

- i. Open LV links at Tee Off pole
- ii. If unsafe to do so, next accessible upstream network isolation point.

b. Ground Mounted units

- i. Marked Battery Isolation network switch Pillar
- ii. If unsafe to do so, next accessible upstream network isolation point.

Note – Low Voltage Protective Bonds are to be applied as per Electrical Safety Rules.

2. Contact local Emergency Services
3. Secure the area and make safe until Emergency Services arrive.
4. Support Emergency as required to address Electrical Hazards, limit damage where possible to nearby assets.
5. In the event of a fault or Emergency, isolate and make the area safe, notifying the relevant Operations Manager, who will then liaise with a Future Grid representative (see contact below) next business day.

Contact points for current maintenance providers for existing fleet of batteries are.

Ground Mounted

- Xolta Batteries - Ultegra,
- Rolls Royce barriers - Penske

Pole Top

- Ecojoule

Note – this is not for Ecojoule “EcoVAR” Low Voltage STATCOM – see

[TB 0331 – Ecojoule “EcoVAR” Low Voltage STATCOM](#) Issue date: 07/07/2023

SINGLE LINE DRAWINGS FROM THE PREVIOUS ALERT

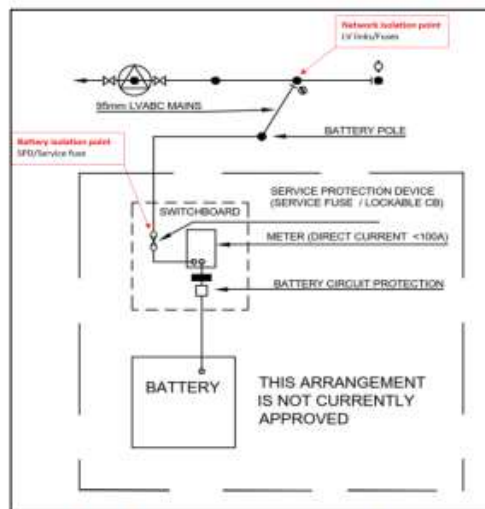


Figure 1 – Typical Overhead community battery installation

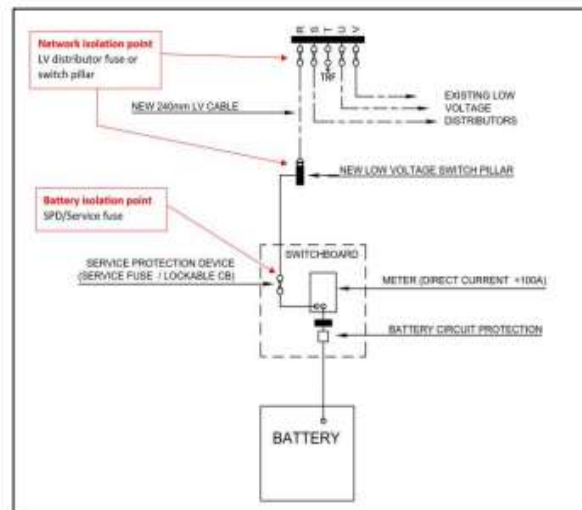


Figure 2 – typical Underground community battery isolation

Implementation

Impacted Standards / Technical Bulletins

The standards impacted by this change are :-

- TB 0336 Ecojoule EcoStore Low Voltage Pole Batteries
- PND 0017 Defects Management Process
- GSY 1032 Fatal Risk – Hazardous Materials / Chemicals

Contacts

For further information contact:

Matt Pellow (0450 459 591) – Future Grid Energy Storage Lead

Xavier Viljoen (0419 967 419) – Electrical Safety Manager