

**From:** John Marks

**Sent:** Tuesday, 8 February 2022 2:00 PM

**To:** Elisha Dunn

**Cc:** Doris Yau

**Subject:** 3744 HAZARs Comments EIS, Maryvale Solar Farm, Modification No.1 (SSD-8777-Mod-1).

Dear Elisha,

Thanks for forwarding the Modification Report for the Maryvale Solar Farm, Modification No.1 (SSD-8777-Mod-1). The proposed modification is for a Battery Energy Storage System (BESS) having peak discharge capacity 125MW and a total storage capacity of 375MWh. The BESS technology being proposed is utility scale lithium batteries. Two alternative strategies for the BESS installation have been proposed. The first is for a centralised BESS and the second is for a distribution of the BESS sub-units throughout the site. The approved development did not include a BESS.

#### Document Reviewed

The following documents were reviewed to form this advice.

1. Maryvale Solar Farm, Modification Application, Development Consent SD 8777, Energy Forms, Version 3, 19 January 2021;
2. Preliminary Hazard Analysis for Maryvale Solar Farm Battery Energy Storage System, Planager, Revision 2, 19 January 2021.

#### SEPP 33

The Department agrees with the Applicant that the Maryvale Solar Farm, Modification No.1 (SSD-8777-Mod-1) did not trigger dangerous goods threshold limits in "Applying SEPP 33". Consistent with previous BESSs a Preliminary Hazard Analysis (PHA) was undertaken to review the hazards associated with a BESSs having a discharge capacity greater than 30 MW.

#### Preliminary Hazard Analysis

The PHA was prepared generally in accordance with the Department's *Hazardous Industry Planning Advisory Paper No. 6 'Hazard Analysis'* (HIPAP 6), and *Multi-Level Risk Assessment*. The PHA adopted a Level 1 qualitative risk analysis, and the Department considers this approach to be appropriate, given that the location of the proposed SSD.

We agree that the layout that the proposed centralised BESS will be contained within the footprint allocated, with adequate separation between battery enclosures and separation from adjacent land users. As such the layout of the centralised BESS is satisfactory to meet the qualitative risk criteria in HIPAP No.4 with the implementation of codes and standards applicable to BESSs.

The implementation of a dispersed BESS will provide adequate separation between battery enclosures and separation from adjacent land users and is satisfactory to meet the qualitative risk criteria in HIPAP No.4.

#### Conclusion and Recommended Conditions

Based on the above, and given the proposed location, both a centralised or dispersed BESS are recommend approval with the following conditions:

#### **BATTERIES**

#### **Battery Energy Storage System Restriction**

- XX** Unless the Planning Secretary agrees otherwise, the battery energy storage system associated with the development must not exceed a total delivery capacity of 125 MW.

## **HAZARDS**

### **Fire Safety Study**

- XX** One month prior to commencing construction of the battery energy storage system, the Applicant must prepare a Fire Safety Study for the development, to the satisfaction of FRNSW and the Planning Secretary. The study must:

(a) be consistent with the:

- Department's Hazardous Industry Planning Advisory Paper No. 2 'Fire Safety Study' guideline;
- NSW Government's Best Practice Guidelines for Contaminated Water Retention and Treatment Systems; and

(b) describe the final design of the battery energy storage system.

Following completion of the Study, the Applicant must implement the measures described in the Fire Safety Study.

### **Storage and Handling of Dangerous Goods**

- XX** The Applicant must store and handle all chemicals, fuels and oils used on-site in accordance with:

(a) the requirements of all relevant Australian Standards; and

(b) the NSW EPA's Storing and Handling of Liquids: Environmental Protection – Participants Handbook if the chemicals are liquids.

In the event of an inconsistency between the requirements (a) and (b) above, the most stringent requirement must prevail to the extent of the inconsistency

### **Emergency Plan**

- XX** Prior to commencing construction, the Applicant must develop and implement a comprehensive Emergency Plan and detailed emergency procedures for the development and provide a copy of the plan to the local Fire Control Centre. The Applicant must keep two copies of the plan on-site in a prominent position adjacent to the site entry point at all times. The plan must:

(a) be consistent with the Department's Hazardous Industry Planning Advisory Paper No. 1, 'Emergency Planning' and RFS's Planning for Bushfire Protection 2019 (or equivalent);

(b) identify the fire risks and hazards and detailed measures for the development to prevent or mitigate fires igniting;

(c) include procedures that would be implemented if there is a fire on-site or in the vicinity of the site;

(d) list works that should not be carried out during a total fireban

(e) include availability of fire suppression equipment, access, and water;

(f) include procedures for the storage and maintenance of any flammable materials;

(g) notification of the local RFS Fire Control Centre for any works that have the potential to ignite surrounding vegetation proposed to be carried out during a bushfire danger period to ensure whether conditions are appropriate

(h) detail access provisions for emergency vehicles and contact details for both a primary and alternative site contact who may be reached 24/7 in the event of an emergency;

(i) include a figure showing site infrastructure, Asset Protection Zone and the on-site water supply tank;

(j) include location of hazards (physical, chemical and electrical) that may impact on firefighting operations and procedures to manage identified hazards during firefighting operations;

(k) include details of the location, management and maintenance of the Asset Protection Zone and who is responsible for the maintenance and management of the Asset Protection Zone;

(l) include bushfire emergency management planning; and

(m) include details of the how RFS would be notified, and procedures that would be implemented, in the event that:

- there is a fire on-site or in the vicinity of the site;
- there are any activities on site that would have the potential to ignite surrounding vegetation; or
- there are any proposed activities to be carried out during a bushfire danger period; and

(n) include details on how the battery storage facility and sub-systems can be safely isolated in an emergency.

Following approval, the Applicant must implement the Emergency Plan

If you have any further queries do not hesitate to contact me

Regards

**John Marks**  
**Planning Officer**

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