Document 22

# Outline Emergency Response Plan

## Ballyross BESS

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| Ref | 05646-12772252 |

### Revision History

| Issue | Date | Author | Checker | Latest changes |
|---|---|---|---|---|
| 01 | 29 May 2026 | Antonis Poulakis | Daniel Cole | First Created |

# Contents

# 1 Introduction

The purpose of this document, is to ensure that in the event of an emergency:

- Any injury or damage to personnel, facilities or the environment is minimised, as far as is reasonably practicable.
- Areas affected are evacuated as quickly as possible.
- All necessary information, instructions and communications are passed promptly and efficiently to relevant parties particularly the Emergency Services.
- The Emergency Services, if required, are mobilised as soon as possible to enact any necessary rescue and minimise injury or damage.
- Any emergencies that may arise can be assessed and managed effectively, considering the nature and location of the site.
- In case of a fire or fire-fighting event appropriate mitigation measures will be incorporated to adequately protect the natural environment, in line with planning requirements.

This document will be further developed and refined during detailed design of site, following supplier selection prior to construction.

# 2 Policy, Guidance and Legal Requirements

All construction works will be required to be compliant with the Construction (Design and Management) Regulations NI 2016 (CDM), The Control of Substances Hazardous to Health Regulations 2002 (COSHH) and Control of Pollution (Oil Storage) Regulations (Northern Ireland) 2010.

The most up to date Department of Agriculture, Environment and Rural Affairs (DAERA) standing advice documentation will be adhered to by the appointed Principal Contractor and Principal Designer when refining the Construction Environmental Management Plan (CEMP) prior to, and throughout construction. Where applicable, the Guidance for Pollution Prevention (GPPs) will be adhered to. The Guidance for Pollution Prevention that relates to the works is outlined below:

- GPP1: Understanding your environmental responsibilities - good environmental practices
- GPP2: Above ground oil storage tanks
- GPP3: Use and design of oil separators in surface water drainage systems
- GPP4: Treatment and disposal of sewage where no foul sewer is available
- GPP5: Works and maintenance in or near water
- GPP6: Working at construction and demolition sites
- GPP7: Safe storage - The safe operation of refuelling facilities
- GPP8: Safe Storage and disposal of used oils
- GPP13: Vehicle washing and cleaning
- GPP 18: Containing major spillages and firewater at industrial sites
- GPP 20: Dewatering underground ducts and chambers
- GPP21: Pollution Incident Response Planning
- GPP22: Dealing with spills
- GPP26: Safe Storage - drums and intermediate bulk containers
- GPP 27: Installation, decommissioning and removal of underground storage tanks
- CIRIA guidance documentation C532 ‘Control of water pollution from construction sites: guidance for consultants and contractors

Prior to construction when this outline document becomes the Emergency Response Plan, the above list will be reviewed to ensure it is still appropriate. The Principal Contractor will always display the relevant guidance documents above as well as a copy of their environmental policy on site.

# 3 Project Description

Ballyross BESS is a Battery Energy Storage System development project located on a parcel of land approximately 150m south-west of no 34 Ballyvallagh Road, outside the small settlement of Gleno. The site is agricultural in nature and measures approximately 6.6ha in size.

| SITE LOCATION DETAILS | | |
|---|---|---|
| **BALLYROSS BESS** | 150m south-west of no 34 Ballyvallagh Road | |
| **GRID REFRENCE FOR PROPOSED ENTRANCE LOCATION (IRENET95)** | X (easting): | 738359 |
| | Y (northing): | 895052 |
| | Latitude: | 54.784334° |
| | Longitude: | -5.848902° |

# 4 Roles & Responsibilities

The following roles and responsibilities shall be fulfilled by the relevant personnel assigned to the site as detailed in the site organisation chart.

When operational the site is likely be unstaffed, aside from regular visits for operational and maintenance purposes. It will instead be supported by an Operational Manager and monitored 24/7 from a remote-control centre. In the event of an emergency the key responsibilities are:

- Ensure the Fire & Emergency Plan (to be produced during detailed design, prior to construction) is implemented.
- Ensure the Site Emergency Action Plan (to be produced during detailed design, prior to construction) is implemented where necessary.
- Ensure all necessary Emergency Services have been contacted.
- Maintain access to the integrated Safety Management System if safe to do so.
- Coordinate activities on site and be the first point of contact unless substituted by a member of the Emergency Services.
- Contact the Health & Safety Manager and establish links with the Emergency Services and others as necessary.
- Ensure clear access to the site is maintained where safe to do so.
- Close or evacuate the site or parts of the site and preserve the scene of an accident for further investigation.
- Carry out regular review and testing of the plan (including the Emergency Services where required).

# 5 Emergency Contact Details

In the event of an emergency, the below table details the contact information of the relevant parties to be contacted within 30 mins of an incident, if safe to do so.

| AUTHORITY/EMERGENCY SERVICE | CONTACT DETAILS |
|---|---|
| MID AND EAST ANTRIM BOROUGH COUNCIL (GENERAL ENQUIRIES) | 0300 124 5000 |
| MID AND EAST ANTRIM BOROUGH COUNCIL ENVIRONMENTAL HEALTH | 0300 124 5000 |
| NORTHERN IRELAND ENVIRONMENT AGENCY (NIEA) | 0300 200 7856 |
| HEALTH AND SAFETY EXECUTIVE FOR NORTHERN IRELAND (HSENI) | 0800 0320 121 |
| PSNI | 999 (for emergency) or 101 (for non-emergency) |
| AMBULANCE SERVICE | 999 (for emergency) or 101 (for non-emergency) |
| FIRE SERVICE | 999 (for emergency) or 101 (for non-emergency) |
| NI GAS EMERGENCY SERVICE | 0800 002 001 |
| NORTHERN IRELAND ELECTRICITY | 0345 7643 643 |
| NORTHERN IRELAND WATER | 0345 7440 088 |
| NIEA WATER POLLUTION HOTLINE | 0800 80 70 60 |
| DAERA INLAND FISHERIES | 0300 200 7860 |
| DEPARTMENT FOR INFRASTRUCTURE - RIVERS AGENCY | 028 8676 8342 |
| DEPARTMENT FOR INFRASTRUCTURE – INLAND WATERWAYS | 028 9054 0540 |

## 5.1 Hospital care

**For life-threatening emergencies, always dial 999**

The Antrim Area Hospital **Emergency Department** is a 24-minute drive from site, see below for details.

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|---|---|
| Hospital: | Antrim Area Hospital **Emergency Department** |
| Street address: | Bush Rd, Antrim |
| Post Code: | BT41 2RL |
| Telephone number: | 028 9442 4000 or 999 |

The Moyle Hospital is a 14-minute drive from site, see below for details. Mater Hospital: Emergency Department

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|---|---|
| Hospital: | Moyle Hospital |
| Street address: | Gloucester Ave, Larne |
| Post Code: | BT40 1RP |
| Telephone number: | 028 2827 5431 or 999 |

# 6 Medical Emergency

The Health and Safety (First Aid) Regulations (Northern Ireland) 1982 require adequate and appropriate first-aid equipment, facilities, and trained people present on site in the event of an emergency, to facilitate an effective response in the case that personnel become injured or unwell.

As a minimum the, the site will have the following provisions:

- Appropriately stocked first-aid supplies,
- Appropriately trained first aider(s) on site and an appropriate appointed person to handle first aid arrangements,
- Induction process outlining all information for workers and visitors on first aid arrangements and what to do in the event of an emergency.

Evacuation routes and muster points will be communicated to all who attend site via the site induction process. These routes will also be appropriately signed throughout site.

The Outline Fire Risk Management Layout outlines some of this detail, please see Appendix A - 05646-RES-LAY-DR-PE-002. This plan will be further refined during detailed design prior to construction.

# 7 Fire Risk Overview

## 7.1 Fire Response Strategy

It is the intention that the site would be designed not to require emergency response intervention to prevent fire spread or any other significant risks to people or property.

The overarching fire risk management strategy would adopt the following controls:

1. Implement measures that result in a very low risk of fire ignition and an unsuitable environment for sustaining fire.
2. Implement measures that result in a very low risk of fire propagation and spread within a fire source (e.g. BSE).
3. Ensure fire spread between significant elements of the project is not expected, through application of design standards and use of calculations / modelling as necessary.
4. Include adequate provisions to allow the fire service to monitor a fire event, intervening only if there is a failure of the controls above. Provisions to aid intervention shall include dedicated water storage tanks, which will be filled by tanker deliveries as required.

A fire containment strategy will be incorporated into the site's drainage strategy. Should a fire event occur, the BESS container on fire will be left to burn out. Whilst the layout design helps mitigate the risk of fire spread, the fire service may adopt a defensive approach, reducing risk of spreading by concentrating water on the adjacent equipment to provide boundary cooling. Given the runoff generated will be from undamaged equipment in this case, it is unlikely to pose a contamination risk. For further information please see appendix B – "BESS Outline Fire Risk Management Plan Ballyross".

## 7.2 Fire Water Management

As outlined in the Outline Fire Risk Management Plan, fire water containment will be incorporated into the overall site drainage design. Although the use of water is not anticipated while responding to an incident, boundary cooling may be employed to minimise the risk of propagation between adjacent containers. Since water would then not be applied directly to the battery enclosure it is anticipated that this run-off water would have a low concentration of contaminants. Runoff used to cool the units will be initially intercepted and contained within the gravel bases. This will allow a compartmentalised approach to the containment of water in the event of fire. Penstock valves will be installed to allow further containment of potentially contaminated water for testing prior either tanking offsite to be disposed of at an appropriate licenced facility if contaminated or alternatively discharged in accordance with the approved drainage strategy.

This would ensure that firefighting runoff does not reach the existing local water environment in the unlikely event of such an emergency.

## 7.3 Potential Environmental Impacts

### 7.3.1 Surface Water

In the event of a fire or fire-fighting incident, there is a potential for contaminated run-off to be generated where fire-fighting water comes into contact with combustion by-products and equipment materials. If not appropriately managed, this run-off could pose a risk to surface water features in the vicinity of the site. The principal potential impacts are as follows:

- Contamination of surface watercourses from fire-fighting run-off containing pollutants such as hydrocarbons, suspended particulates, trace metals, and combustion residues.
- Short-term mobilisation of sediments during emergency response activities.

### 7.3.2 Groundwater

Potential impacts on groundwater are associated with the infiltration of contaminated fire-fighting water into underlying soils during an emergency event. This risk is primarily relevant where infiltration-based drainage systems or permeable ground conditions are present. The key potential impacts include:

- Infiltration of contaminated fire-fighting water into underlying soils and groundwater.
- Localised risk of groundwater pollution where infiltration drainage is in operation.

### 7.3.3 Soils

Soils beneath the BESS compound, comprising shallow made ground and underlying natural subsoil, could theoretically be affected in the unlikely event of a fire where fire residues or polluted fire-fighting run-off come into contact with the ground.

However, as set out in Section 6.4.1, the entire BESS compound, including the gravel subbase and all necessary drainage features, will be lined with an impermeable barrier designed to prevent infiltration of pollutants into underlying soils and groundwater. Fire-fighting water is therefore assumed to be contained within the lined compound and drainage system.

On this basis, no direct impact to underlying soils is anticipated under normal operation or emergency response conditions. Any potential soil effects would be limited to a highly localised and temporary impact, and would only occur in the unlikely event of liner failure, drainage system damage or during an extreme incident.

Potential residual impacts, should containment be compromised, would include:

- Localised contamination of shallow soils beneath the compound from fire residues or contaminated run-off;
- Temporary disturbance to soils during emergency response and post-incident clean-up works.
- Such effects would be confined to the immediate footprint of the incident and managed through standard incident response and remediation procedures.

## 7.4 Design Measures

All equipment containing hazardous substances will be enclosed within bunded areas to prevent accidental release. Drainage systems will be fully sealed and designed to direct any runoff to controlled discharge points. This approach ensures that, in the event of a fire or spill, there will be no direct discharge of contaminants into nearby watercourses.

In addition, the BESS has been designed in accordance with relevant fire safety standards such that fire service intervention using water is not required in the event of a battery system fire. The fire strategy is based on passive and active safety measures, including system isolation, fire detection, and controlled burn-out within the enclosed units. As a result, the generation of contaminated fire-fighting run-off is not anticipated, further reducing the potential risk to surface water, groundwater, and soils.

During development of the detailed design, and prior to operation of the facility, the Emergency Response Plan (ERP) will be prepared in consultation with the Fire and Rescue Service. The agreed approach will reflect the BESS fire design philosophy, including the non-reliance on water-based firefighting, while ensuring appropriate emergency access, command and control procedures, and contingency measures are in place.

In the unlikely event of a fire or fire-fighting incident within the BESS compound, measures have been designed to minimise the risk of contamination to surface water, groundwater, and soils. The following mitigation measures will be implemented.

### 7.4.1 Impermeable Lining of Compound, Subbase and Drainage Features

The entire BESS compound, including the gravel subbase, and all necessary drainage features are proposed to be lined with an impermeable barrier to prevent potential pollutants from entering the ground locally. This will also allow the gravel subbase and drainage system to be used to collect and contain any potentially contaminated fire-fighting water, ensuring it does not infiltrate into underlying soils.

### 7.4.2 Emergency Isolation via Penstock Valve

A penstock valve will be installed at the outfall, which can be operated in the event of an emergency to capture run-off within the BESS compound and upstream drainage system and prevent potentially contaminated water from entering the downstream watercourses. In the unlikely event that the captured water is found to be contaminated following testing, it will be safely removed from site by licensed specialist contractors.

Any collected firewater will be pumped out using and will be stored in a secure container for analysis. If any contaminants are detected, remediation will be performed using methods such as in-situ gravel washing / flushing, removal and replacement of the gravel / soils, and materials testing as necessary.

### 7.4.3 Pollutant Filtration through Petrol/Silt Interceptor

Surface water will be treated via a petrol/silt interceptor prior to discharge, which is designed to remove hydrocarbons, suspended sediments, and other potential contaminants, thereby protecting surface water quality.

### 7.4.4 Minimisation of Soil Exposure

The lined BESS compound and subbase will prevent direct contact between fire residues or contaminated fire-fighting water and the underlying soils, thereby minimising the risk of localised soil contamination and temporary disturbance during emergency response or post-incident clean-up. In the unlikely event that contaminated soil is identified, it will be removed from site and disposed of safely by a licensed contractor in accordance with current environmental regulations.

### 7.4.5 Sustainable Surface Water Management

The integrated system of lined subbase, petrol/silt interceptor, and attenuation basin ensures that surface water is effectively managed within the site. This approach prevents uncontrolled infiltration, reduces the mobilisation of sediments, and minimises any potential impact on nearby watercourses and groundwater.

Collectively, these measures provide a robust and comprehensive approach to managing firewater, ensuring that environmental risks associated with fire incidents are minimised and that the site can operate safely in accordance with best practice environmental management principles.

For further information on the Design Measures, please refer to the outline Fire Risk Statement with refence number 05646-10275636 and the Drainage Assessment with reference 794-ENV-HYD-21833 that were submitted as part of the original planning application.

# 8 Environmental Spills

To minimise the impact of environmental spills, a proactive management approach shall be implemented across all project phases. This includes the preparation of a Spill Response Plan, identification of potential spill sources, and provision of appropriate containment and control measures. Spill kits and absorbent materials shall be strategically located on site to enable rapid containment and clean-up of any spills. Information on spill kits will be provided to all entering site via the site induction process and location will be appropriately signed through site.

All incidents must be promptly reported, contained, and remediated in accordance with environmental regulations and company procedures. Regular inspections, audits, and reviews of spill response measures shall be conducted to ensure their effectiveness and continual improvement. These measures aim to prevent environmental contamination, protect personnel and local ecosystems, and ensure compliance with statutory requirements.

Spill response kits will be available onsite and accessible to all to control pollution incidents. These spill kits will contain absorbent pads, absorbent granules and methods of disposal of materials and used kit. These kits will be located at appropriate points around the Site which are considered to be at a higher risk of pollution (e.g. refuelling area and next to fuel tanks).

Further spill kits and supplies will be located in the stores within the Site, where replacements for used kits will be found. The spill kits will need be regularly inspected and immediately replaced if used.

Toolbox talks will be communicated to Site staff and contractors so that they are fully informed of refuelling procedures.

# 9 Hazardous Substances

The Control of Substances Hazardous to Health (COSHH) requirements for Battery Energy Storage System (BESS) projects ensure that all activities involving hazardous materials will be managed safely and in compliance with relevant legislation. Key documentation must be prepared and maintained throughout the project lifecycle, including a COSHH Register, Substance Safety Data Sheets (SDS), COSHH Risk Assessments, and a Method Statement outlining safe working procedures. These documents collectively identify potential hazards, define responsibilities, and provide guidance on the control and monitoring of hazardous substances used or encountered during the project.

A detailed ERP that will supersede this document should be prepared and submitted prior construction commence and will describe in detail the exact procedures to be followed.

In the event of an emergency involving the Battery Energy Storage System (BESS), all personnel must act promptly to ensure safety and minimise environmental impact. The site shall maintain clear procedures for responding to incidents such as fire, chemical spills, gas leaks, and battery thermal runaway.

Only trained and authorised personnel should attempt to control the situation using appropriate firefighting or spill response equipment.

## 9.1 Storage of fuels and hazardous materials

- All storage of fuels will comply with The Control of Pollution (Oil Storage) Regulations (Northern Ireland) 2010 and follow the pollution protection guidance GPP 2 “Above ground oil storage tanks”, GPP5 “Works and maintenance in or near water” and PPG26 “Safe Storage - drums and intermediate bulk containers” (UK GOV, 2023).

- Any temporary storage areas for chemicals or fuels will be contained within impermeable bunds constructed in line with current best practice. Pollution Prevention Plans will be prepared, and site staff trained to implement them. The pollution prevention plan will include pollution incident response planning which follows GPP21 “Pollution Incident Response Planning” and GPP22 ‘Dealing with spills’;

- Consideration will be given to the phasing of construction to reduce the time when temporary facilities for storage of chemicals refuelling and vehicle maintenance are used to a minimum.

- As per The Control of Pollution (Oil Storage) Regulations (Northern Ireland) 2010, all fuel shall be stored in integral bunded fuel bowers, designed to hold 110% of the contents of the tank. If more than one container is stored, the secondary containment system will be capable of storing not less than 110% of the largest container's storage capacity or 25% of their aggregate storage capacity, whichever is the greater. Secondary containment for any drums will have a capacity of not less than 25% of the drum's storage capacity or, if more than one drum, not less than 25% of the aggregate storage capacity of the drums.

- The tank(s) will have a fill point which is a lockable screw fill cap with a chain and be marked clearly with the product type, tank capacity and, where appropriate, tank number. All tanks will be fitted with a suitable sight gauge.

- All storage tanks/ connections shall be situated within a secondary containment (bund), which will be impermeable to oil and water and have no direct outlet such as a pipe, valve or other opening to drain the system.
- Fuel shall be stored at least 15m away from the drainage channels or drainage manholes. A suitable location will also be selected to minimise the risk of damage to the fuel storage and the secondary containment system by impact or collision.
- If the fuel storage area or the Site is liable to flooding, the fuel storage tank(s) will be raised above predicted flood water levels, as long as this doesn't compromise the tank integrity, safe delivery and handling of the fuel.
- Oils and lubricants used on the Site shall be stored in temporary vessels designed to hold 110% of the containers. No oil or lubricants shall be stored within 15m away from drainage channel or a drainage manhole.
- Refuelling will only take place in designated areas, on hardstanding, by appropriately trained personnel. The funnels/nozzles used will be appropriate to the equipment being used. The fill cap will be replaced on to the fill point after each delivery to protect it from damage and unauthorised use. Drip trays will always be used.
- Refuelling on the Site shall be undertaken at least 15m from the drainage channel. Tanks, pipes, taps and valves will be locked when not in use.
- Only double bunded fuel bowsers shall be used. Vehicles shall not be left unattended during refuelling operations.
- All fuel, chemicals and oils shall be stored within bunded areas.
- All tank discharge pipes, valves and trigger guns shall be contained securely within the bund when not in use.
- Bowsers shall be stored within secure areas when not in use, protected from theft and vandalism.
- All plant shall be checked for leaks of fuel and lubricants before being allowed onto the Site, whilst onsite, they shall be checked on a daily basis.
- Pumps and generators used on the site will have integral drip trays where possible. All items of plant without an integral drip tray shall be stored over a portable drip tray. Drip trays shall be inspected and kept free of accumulated rainwater as necessary. Any oily water shall be disposed of at an appropriate licensed facility.
- Any cleaning/arisings from drip trays etc. will be disposed of as hazardous waste.
- All other chemicals will be stored within a COSHH storage container with accompanying COSHH datasheets, copies of which will also be held in the stie office during construction. During operation COSHH storage is not anticipated, however if required an appropriate COSHH storage container can be placed within the spares container with datasheets storage in BESS Substation Building.

- No material of any description will be stored within a 15-meter buffer of any watercourse during construction, operation of decommissioning of site. Specific areas for COSHH material storage and refuelling will be established to comply with the appropriate legislation and guidance (See section 2. Policy, Guidance and Legal Requirements).
- Wastewater from the temporary staff toilets and washing facilities will be discharged to sealed containment systems and removed from site via licensed contractors. These facilities will be located a minimum of 10m away from any drainage infrastructure or waterway in the temporary compound during construction.
- Toolbox talks on specialised topics shall take place at regular intervals. The toolbox talks shall be used to highlight issues of concerns, new information or responsibilities. They will also be used as a tool to provide basic environmental training to the staff. Site induction will be periodically reviewed and updated appropriately.

# 10 Waste Management

To ensure effective and responsible waste management, all project activities shall follow a structured approach in line with environmental regulations and company policies. This includes the identification, segregation, storage, and safe disposal of all waste streams, including hazardous and non-hazardous materials. Waste handling procedures, documentation, and training shall be in place to ensure personnel understand their responsibilities and compliance requirements.

Where possible, waste minimisation, reuse, and recycling measures shall be implemented to reduce environmental impact. Licensed contractors shall be used for the disposal of hazardous or regulated waste, and records of waste transfer, treatment, and disposal shall be maintained for auditing and regulatory purposes.

A Construction Management Plan shall be submitted to address in detail Waste Management prior to commencement of construction.

# Appendix A : Outline Fire Risk Management Layout

## A.1 Outline Fire Risk Management Layout - 05646-RES-LAY-DR-PE-002.

# Appendix B : BESS Outline Fire Risk Management Plan Ballyross

## B.1 BESS Outline Fire Risk Management Plan Ballyross – 05646-10275636