LOGAN PM
Energy Project Management

Screening Request,
Dyce Energy Storage

A report to

Aberdeen City Council

Issue	Reason
1	Draft to client, July 2021
2	
3	

Document prepared for

Andrew Hughes
Intelligent Land Investments Group plc
The Shires, 33 Bothwell Road, Hamilton, Lanarkshire ML3 0AS

Authorised by

Simon Munro
Director

Table of Contents

1 INTRODUCTION

1.1 The application

This document supports a request to Aberdeen City Council by Intelligent Land Investments Group plc for Screening under the Town and Country Planning (Environmental Impact Assessment) (Scotland) Regulations 2017, for a battery energy storage system at Kirkton Drive, Dyce, the land being off Pitmeddon Road AB21 0BG. The proposal is described as Dyce Energy Storage.

The project area is over 0.5 hectares and so is Schedule 2 development where consideration of the need for Environmental Impact Assessment is indicated.

The facility would be for the installation of an energy storage system with a generating capacity of up to 50 megawatts. The development would consist of containers containing batteries, associated equipment, an access track, electricity meter building, fencing and new planting. The associated Figure shows the site location. Final design is yet to take place but would comprise a compound with an array of equipment.

The potential for significant impacts appears limited, however we would welcome the Council's opinion on this matter and on the proposed approach and scope of assessments necessary.

1.2 Site description

The proposed development site is part of Raiths Industrial Estate, adjacent to Aberdeen Airport. The site is vacant land, formerly cleared to rubble.

A planning application for industrial units on the site was made in 2012 but did not proceed due to construction height limitations in the vicinity of the airport.

Access is from Kirkton Drive off Pitmedden Road.

The site is adjacent to industrial units to the east and south, to the airport to the west, and to arable farmland to the north.

The site is around 430 metres from the nearest houses, at Kirkton Villa and Parkview to the north. The Pinehurst Lodge Hotel & Restaurant lies around 350 metres to the east.

2 DEVELOPMENT DESCRIPTION

2.1 Introduction

This section describes the proposed development in terms of its physical elements and in terms of the construction process, to inform consideration of its potential environmental impacts

2.2 Site selection

The site was selected in a nationwide site search process for land with suitable characteristics. The site has been chosen due to being close to Dyce National Grid substation, being industrial land with limited prominence and visibility, being well away from settlements and homes, not being subject to flooding nor designations or ecological sensitivities, and not host to cultural heritage remains. Suitable existing road access exists.

2.3 Design

The project will be designed to give efficient and effective operation, and acceptable and minimised local impacts.

The site layout will be developed to give a compact footprint assisting efficiency and minimising the land take. Standard container units allows efficiency and effectiveness by allowing final selection of internal equipment at late stage in an area where battery technology is progressing rapidly.

2.4 The development

The proposed development is a grid battery energy storage facility with the purpose of taking electricity from the electricity grid at certain times, and providing energy back to the grid at other times.

The main physical elements of the development would be a series of steel containers housing batteries, external energy conversion equipment, with some ancillary equipment and structures including for electricity metering. The generation capacity will be up to 50 megawatts.

The containers are expected to be 12.2 metres by 2.5 metres by up to 3 metres high, placed just above ground level with cooling units situated at low level on their sides. Two small switchgear buildings are proposed.

A security fence and pole mounted security cameras are proposed.

Given proximity to Aberdeen Airport, consultation has already occurred with the airport safeguarding team and final designs will respect the necessary height clearances.

The project would be connected to the existing substation by buried cables. No staff will be based at the site.

2.5 Battery technology

Lithium ion batteries are expected to be used, giving no risk of ground or water pollution. In use, the project will give no emissions to air or water.

With no staff based at site, little waste is expected to be generated. Waste arising from maintenance operations will be removed from site for recycling or disposal by maintenance staff.

2.6 Site area

The red line shown on the Location Plan shows the whole of the field in which the development would be sited and encloses an area of 0.8 hectares.

2.7 The construction process

The on-site construction period is estimated to be 9 months covering three phases:

Ground works

- construct access
- construct sustainable drainage scheme
- trench and lay cables
- prepare foundation pads
- prepare prefabricated buildings
- construct fencing

Installation

- deliver & install components including battery containers & building

Commissioning

- electrical connections
- commissioning (checking and setting in operation)
- site reinstatement

Excavated material would be reused on the site. Concrete for the foundations will be imported ready mixed.

3 VISUAL IMPACT

The project site was selected for being industrial land and relatively low land and so having limited prominence and visibility. Within the site, the facility would be composed of generally low elements.

The site nestles between existing industrial units and the airport.

The tallest elements of the development are expected to be under 5 metres above ground level, lower than surrounding developments. As such it is considered that the visual impact of the development would be modest, and not of a level where Landscape and Visual Impact Assessment / Environmental Impact Assessment is needed.

4 HISTORIC ENVIRONMENT & ARCHAEOLOGY

Existing cultural heritage records were reviewed including Pastmap, Canmore, Historic Environment Record, scheduled monuments, and listed buildings.

Whilst there are some records in the surrounding area, the site itself had no records. The site is understood to have been put to rubble at the time of neighbouring developments.

5 ECOLOGY & ORNITHOLOGY AND GEOLOGY

The site is industrial land that is understood to have been previously cleared.

It is considered that the facility has minimal potential for impacts on ecological, ornithological or geological interests.

6 NOISE

The energy storage units and equipment will generate some noise on account of the cooling units they hold and electrical equipment.

Noise mapping for the Scottish Government for the Environmental Noise (Scotland) Regulations 2006 predicts noise levels in the area and levels for the closest dwelling, understood to be The Mews on Pitmedden Road, are around 57 dB LAeq for the night time period, suggesting significant existing adverse noise impacts. Noise predictions for the project will be made and are expected to be very significantly lower. Given the location and existing noise environment, it is not considered that there is potential for disturbance or significant impact due to this site.

We would nevertheless request feedback on the methods or approaches to be followed in the assessment.

7 TRANSPORT, ROAD SAFETY AND ACCESS

The site has an existing industrial access road. This would be taken into the site with provision for HGV vehicle to turn within the site.

Within the site, the new track will be formed with a running surface of aggregate on permeable geotextile.

In use, the development will be associated with very low traffic flows.

Construction will involve taking construction machinery to site, delivery of aggregate for the site track, delivery of site components including the battery containers and other equipment and materials, a mixture of light commercial and HGV loads.

Parking will be provided within the site for visiting maintenance personnel.

There is no current public access on the land which is industrial land. So no change to existing public access is proposed.

8 DRAINAGE ASSESSMENT AND DESIGN

The site is not situated in an area of flooding as identified by the SEPA flood maps.

A sustainable drainage system would be provided in accordance with local and national policies. The site will not increase the risk of flooding elsewhere.

9 CONCLUSIONS

The developer plans an energy storage facility on industrial land by Aberdeen Airport. The development is considered non-EIA development. A Screening determination is requested from the Council to inform whether a full Environmental Impact Assessment is necessary.