

The Greenspan Agency ◀◻▶

Design and Access Statement

Battery Point Energy Storage Park

Site Address Land north of HM Coastguard Station, Battery Point, Stornoway, HS1 2RT

Document Issue Date 18 April 2024

Version Number v19

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Battery Point, Stornoway

A Note on the Site Name

The vicinity of the site was used as an artillery emplacement from the 18th to the 20th century, hence the name Battery Point. Now, in the 21st century, it is a fitting location for the island's first grid-scale battery energy storage system.

1. Introduction

- 1.1. The proposed battery project at Battery Point will help stabilise the electricity supply for Lewis and Harris, increase the production of renewable electricity on the island, and increase the extent to which island produced renewable electricity can be consumed locally. All profit from the operation of the battery will be reinvested in the islands by the Point and Sandwick Trust.

Purpose of This Report

- 1.2. This Design and Access Statement has been prepared by The Greenspan Agency in respect of Regulation 13 of The Town and Country Planning (Development Management Procedure) (Scotland) Regulations 2013 to accompany a planning application for a battery storage facility west of Stornoway Power Station, Battery Point, hereby referred to as “Battery Point Energy Storage Park”. The proposed development is formally classed as a ‘major development’ under the relevant planning legislation. This classification is based purely on its MW generation size of over 20 MW. Battery projects are subject to the legislation but were arguably not the intended focus of the legislation. Other major developments which produce over 20 MW are far larger, such as wind turbine projects of 10 x 100 m tip wind turbines. This battery project is therefore a ‘major development’ in terms of classification, but not necessarily in terms of planning impacts.
- 1.3. The Town and Country Planning (Development Management Procedure) (Scotland) Regulations 2013 state the following:

“An application for planning permission for development belonging to the categories of national developments or major developments must be accompanied by a design and access statement.”
- 1.4. The legislation defines design and access statements separately. Thus, this report is organised into two chapters: firstly a ‘Design Statement’ and secondly an ‘Access Statement’.
- 1.5. Regulation 13, Paragraph 4 (a), (b), (c) specifies the contents of a Design Statement:

“(4) A design statement is a written statement about the design principles and concepts that have been applied to the development and which—

 - (a) explains the policy or approach adopted as to design and how any policies relating to design in the development plan have been taken into account;*
 - (b) describes the steps taken to appraise the context of the development and demonstrates how the design of the development takes that context into account in relation to its proposed use;*
 - and*
 - (c) states what, if any, consultation has been undertaken on issues relating to the design principles and concepts that have been applied to the development and what account has been taken of the outcome of any such consultation.”*

1.6. Regulation 13, Paragraph 5 (a), (b), (c) specifies a Design and Access Statement and its contents as follows:

“(5) A design and access statement is a document containing both a design statement and written statement about how issues relating to access to the development for disabled people have been dealt with and which—

(a) explains the policy or approach adopted as to such access and, in particular, how—

(i) policies relating to such access in the development plan have been taken into account; and

(ii) any specific issues which might affect access to the development for disabled people have been addressed;

(b) describes how features which ensure access to the development for disabled people will be maintained; and

(c) states what, if any, consultation has been undertaken on issues relating to access to the development for disabled people and what account has been taken of the outcome of any such consultation.”

1.7. The Design Statement in this report will describe the relevant policies considered and the steps taken to appraise the context of the development and how these have influenced the final design. This includes identification and evaluation of designated sites of interest, flood risk areas and the visual amenity of the proposal.

1.8. The Access Statement describes the proposed transport and access to the proposal. It further considers the effect, if any, that the proposal will have on public access in the area, and access for disabled people.

The Applicant

1.9. The applicant is the Point and Sandwick Trust, a community development trust based near Stornoway. Their registered name on Companies House is “Point and Sandwick Development Trust”. It is a charitable community organisation based in the Outer Hebrides. The trust owns and operates the UK’s biggest community wind farm¹ and has been recognised as leading the way in community renewable energy.

1.10. The income the wind farm generates is spent on local social, cultural, educational, and environmental projects. Some key projects and groups supported by the trust are:

- Trees for Primary Schools
- Covid Grocery Delivery Service
- Bethesda Hospice
- Fuel Poverty Unit
- Croft woodlands in the Western Isles, in partnership with Woodland Trust

¹ <https://www.pointandsandwick.co.uk/about-us/our-wind-farm/>

Technical Description of the Development

- 1.11. The proposed development is a lithium-ion battery electricity storage facility. The export and import power capacities of the project will be 25 MW. The current design uses a 2-hour duration (0.5C) battery.
- 1.12. The candidate technology for the proposed development utilises 144 battery containers², 3 transformers and 6 inverter converter stations. This compact battery installation will be able to deliver, for periods of up to two hours, as much electricity as the neighbouring, far larger, diesel power station.
- 1.13. The project also requires some secondary supporting installations, in addition to the core battery technology. These include an electricity substation, site welfare units and site access. Please refer to the 'Proposed Site Layout' drawing provided with this planning application.
- 1.14. The proposed development will have a direct connection to the local electricity grid and will be able to store energy produced on the island, as well as electricity imported from the mainland. Similarly, it will be able to discharge to the local grid, providing energy for homes and businesses on the island of Lewis and export to the mainland.
- 1.15. The battery project is close to the power station owned and operated by Scottish and Southern Electricity Networks but is entirely independent of it.
- 1.16. The proposed development will be a high value infrastructure investment for Lewis and Harris, providing valuable energy storage capacity and improving the reliability and sustainability of electricity supply to the island.
- 1.17. The Applicant has been carrying out detailed technical studies for the project since 2019. The need for the project was felt acutely in 2020 when the subsea cable to Skye faulted causing total disconnection of the island from the National Grid. During this outage the renewable energy generators on the island had to be almost completely shut down, a period which lasted 11 months. Instead, electricity supply to the island was provided almost exclusively by the diesel power stations at Stornoway and Arnish. Unfortunately, not only did this result in less renewable energy being produced, but it also substantially increased the volumes of polluting gases being emitted to the atmosphere.
- 1.18. In the future the proposed battery project will help stabilise the local electricity network to allow a much greater proportion of demand to be supplied by renewable generators and reduce the island's reliance on the diesel power station during cable outages by up to 45%. The battery can do this by storing and releasing energy in sub-second timescales to quickly balance supply and demand, maintaining power supplies within the required regulatory standards.
- 1.19. The battery system can also carry out "load shifting" and "peak lopping". This is the process by which energy is stored in the battery during high renewables production / low demand periods and later discharged during peak demand / low renewables production periods. This will make better use of the renewable energy produced, resulting in a long-term environmental improvement. The battery system can further support the local grid in a variety of ways including frequency response and reactive power compensation.

² MJ, Design at 25 March 2024

- 1.20. Batteries produce no air particulates or odour, and do not require the burning of fossil fuels during their operation. Battery systems can last more than 25 years and require comparatively little maintenance during this time. Lithium-ion batteries can be recycled at end of life and the containers can be re-stocked.
- 1.21. Due to the range of benefits provided by battery systems, the European Commission predict that *“batteries as electricity storage devices will become one of the key enablers of a low-carbon economy”*³.
- 1.22. National Grid support this expectation and state that:

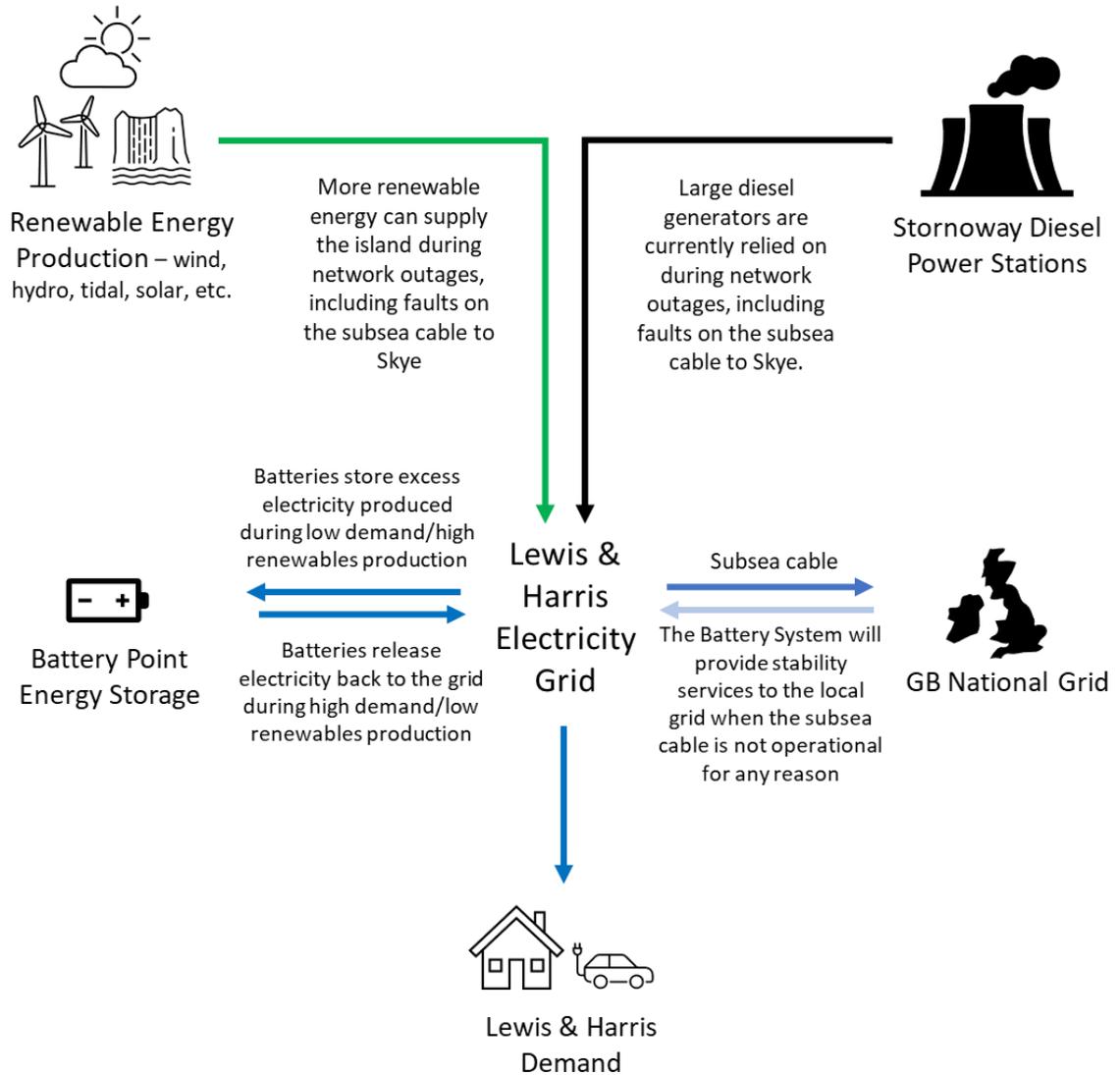
*“Battery storage technologies are essential to speeding up the replacement of fossil fuels with renewable energy. Battery storage systems will play an increasingly pivotal role between green energy supplies and responding to electricity demands.”*⁴

³ European Commission, Energy, Energy Storage. Accessed 18 July 2022. Accessible [here](#).

⁴ National Grid, ‘What is battery storage’. Accessed 27 September 2022. Accessible [here](#).

1.23. The illustration below shows how the battery could function within the Lewis and Harris electricity grid to reduce the reliance on the subsea cable to the mainland and the existing diesel power station, as well as increasing renewable energy production and capacity.

Figure 1: Schematic. Role of The Proposed Battery in the Lewis and Harris Electricity Grid



Key Attributes

1.24. The applicant and The Greenspan Agency, in consultation with the planning authority and local community, have sought to select the right site for this project, and to create a design which makes the best use of that site. The proposed development now put forward in this planning application has the following key attributes:

- The project will provide energy storage capacity for the grid. This will be particularly useful in storing electricity from intermittent renewable energy generation to use during high demand and will therefore help reduce carbon emissions and address the causes of climate change and global warming.
- The planning and environmental impact of the development is limited due to the small total area and a passive design which requires few visits during operation.
- The project complies with relevant planning policies, as detailed in the accompanying Planning Statement.

Battery Modules

1.25. Up to 144 battery modules will be installed on the site. The dimensions of each unit will likely be up to 1.3m in length, 1.3m in width and 2.28m in height⁵. However, the exact make and model of the battery module will be selected via a competitive procurement process after planning consent is granted.

Acoustic Barrier

1.26. An acoustic barrier will be incorporated to reduce noise levels and ensure the amenity of nearby residences is protected. Please refer to 'Proposed Fence Plan and Elevations' for details of the acoustic barrier and the accompanying 'Noise Impact Assessment' report. The barrier will be installed as close as possible to the battery containers to reduce noise and there will be no gaps between the barrier and the ground through which noise can pass. The height of the acoustic barrier will be 4m. The barrier will be made of appropriate dense materials to control noise. The inclusion of an acoustic barrier in the design should not be seen as evidence that the project will be noisy. Instead, it shows that the developer will do what is required to ensure that the amenity of neighbours is protected⁶.

Inverter – Transformer Containers

1.27. The electricity released by the battery units will be transmitted to approximately three inverter-transformer containers. Please refer to Drawings 'Proposed Inverter Module Elevations' and 'Proposed Transformer & Ring Main Unit' for more details on dimensions. However, the exact make and model of the inverter-transformer stations will also be selected via a competitive procurement process. These inverters ensure the battery system, which stores direct current, can operate with the grid, which uses alternating current.

⁵ Based on drawing "Proposed Battery Module Elevations" as of 25 March 2024.

⁶ A separate Noise Impact Assessment report has been provided with this planning application.

Substation

- 1.28. Electricity from the transformers will be transmitted to the proposed substation located in the northeast of the site. From here the electricity will be exported to Scottish and Southern Electricity's Network's (SSEN) distribution grid. The final design for the substation will need to adhere to SSEN requirements and is not certain at the time of writing. However, it is expected to be up to 12 metres long, 2.5 metres high, and 4 metres wide⁷, these are commonly coloured dark green, but may have a grey or brick finish.

Auxiliary Transformer

- 1.29. An auxiliary transformer is needed to supply low voltage electricity to parts of the site. Drawings of the proposed transformer have been provided with this planning application.

Site Office and Store

- 1.30. A small, prefabricated, cabin will be provided as a site office. Please refer to Drawing 'Proposed Site Office Elevations'. During the initial construction phase the office will provide a hub and welfare role for the construction management team. Later, it will house IT equipment for the remote operation of the site and provide a base for occasional site visits. The office will not be routinely occupied during operation.

Security

- 1.31. For public safety and security, it will be necessary to erect a security fence around the perimeter of the site. The proposed fence is a palisade design 3m in height⁸. There will also be CCTV cameras on site, please refer to Drawing "Proposed Lighting and CCTV Plan" for further detail.

Site Access

- 1.32. All vehicles and pedestrians will travel to the site via the existing unnamed and unadopted road to the immediate north and west of the site. This unnamed road joins Newton Street with the marina at Goat Island.
- 1.33. There will be two entrance gates through the site security fence (both large enough for vehicles), one at the north of the site and one at the south. The northern access will be the focus of construction vehicle movements during the build phase.

⁷ Based on drawing 'Proposed Substation Foundations' as of 25 March 2024.

⁸ Based on drawing 'Proposed Fence Plan and Elevations' as of 25 March 2024.

Climate Change and Battery Storage

- 1.34. Energy storage can play a crucial role in reducing greenhouse gas (GHG) emissions. It is essential for implementing the Scottish Government's approach to combatting climate change and achieving its 2045 net zero emissions target.

Pre-Application Consultation

- 1.35. In their request for pre-application advice, The Greenspan Agency stated that information on climate change and the energy transition would be provided with this application. This section seeks to fulfil that commitment.
- 1.36. In a pre-application response from Comhairle nan Eilean Siar, they requested further consideration on the climate change benefits of the proposal⁹. This information is provided here.

Legislation, Policy and Guidance

Scotland - The Climate Change (Emissions Reduction Targets) (Scotland) Act 2019

- 1.37. The Scottish Government declared a climate emergency in 2019; in response, the target date for net-zero emissions of all greenhouse gases by 2045 was set in The Climate Change (Emissions Reduction Targets) (Scotland) Act 2019¹⁰ which is an amendment of the Climate Change (Scotland) Act (2009).
- 1.38. The June 2023 report released by the Scottish Government charting GHG emissions for 2021 shows that emissions are 49.2% down from the 1990 baseline but did not achieve the annual target of 51.1%¹¹. Continued delays to the updated climate change plan and further slippage in promised climate policies mean that the Climate Change Committee no longer believes the Scottish Government will meet its statutory 2030 goal to reduce emissions by 75%¹².

UK –Climate Change Act 2008

- 1.39. The Climate Change Act 2008 set a target date of 2050 to reduce the UK carbon budget to 80% lower than the 1990 baseline and established the Climate Change Committee to advise on emission targets. The target was amended to 100% by 2050 in 2019 by The Climate Change Act 2009 (2050 Target Amendment) Order 2019.

National Policy

National Planning Framework 4 (2023)

- 1.40. The National Planning Framework 4 (NPF4) was published in February 2023. Key themes include the use of the planning system to ensure Scotland is a sustainable place¹³. It offers a spatial planning framework for future developments within Scotland and emphasises sustainable development and economic growth.

⁹ Email to Calum MacDonald from Morag Ferguson, Planning Manager at Comhairle nan Eilean Siar Council, 10 October 2022.

¹⁰ Scottish Government, 'The Global Climate Emergency - Scotland's Response: Climate Change Secretary Roseanna Cunningham's statement', 2019, paragraph 6, line 2. Accessible [here](#).

¹¹ Scottish Government, 'Scottish Greenhouse Gas Emissions 2021', 2023. Accessible [here](#).

¹² Climate Change Committee, 'Scotland's 2030 climate goals are no longer credible', 2024. Accessible [here](#).

¹³ Scottish Government, 'National Planning Framework 4', 2023, page 4.

Local Policy

Outer Hebrides Local Development Plan 2018

The Local Development Plan highlights the goals of the Comhairle:

“to capitalise on the significant renewable energy generation potential in an around the Outer Hebrides, e.g. wind and wave resources.”¹⁴

- 1.41. In general, the proposed battery project is in line with Policy EI 8: Energy and Heat Resources of the Outer Hebrides Local Development Plan 2018 which states:

“The Comhairle will support proposals that contribute to meeting the targets and objectives of the National Planning Framework 3, the Climate Change Act, and the National Renewables Infrastructure Plan in relation to electricity grid reinforcement, infrastructure and renewable energy generation.”¹⁵

Climate Change Impacts

- 1.42. Over the last century human activities have significantly changed our environment¹⁶. Human induced climate change is widely accepted as one of the biggest threats currently facing humanity, with the main impacts on humanity being to health¹⁷, human rights¹⁸, and global security¹⁹. Michelle Bachelet, the High Commissioner for Human Rights at the United Nations states that *“The human implications of currently projected levels of global heating are catastrophic.”²⁰* It is therefore vital that we take action to tackle climate change.

- 1.43. The Intergovernmental Panel on Climate Change (IPCC) have confirmed that anthropogenic behaviour and activity have directly influenced global warming which drives climate change:

“It is unequivocal that human influence has warmed the atmosphere, ocean and land. Widespread and rapid changes in the atmosphere, ocean, cryosphere and biosphere have occurred.”²¹

- 1.44. The IPCC have identified the energy sector as a key area for combatting climate change:

“Untamed levels of greenhouse gas emissions are already bringing increasingly dangerous consequences. Our climate challenge is a shared global challenge – and it is largely an energy challenge. Energy accounts for over two-thirds of global greenhouse gas emissions. This means energy must be at the heart of any solution.”²²

- 1.45. This was mirrored during the 2021 UN Climate Change Conference (COP26) where 153 countries put forward new or updated emission targets, strengthening the commitment made at COP21 to limit global warming to 1.5°C²³.

¹⁴ Outer Hebrides Local Development Plan, Energy and Heat Resources, page 46

¹⁵ Outer Hebrides Local Development Plan, Policy EI8: Energy and Heat Resources, page 46

¹⁶ NASA, ‘The Causes of Climate Change’. Accessible [here](#).

¹⁷ National Geographic, ‘Why climate change is still the greatest threat to human health’. Accessible [here](#).

¹⁸ United Nations, ‘OHCHR and climate change’. Accessible [here](#).

¹⁹ United Nations, ‘The Greatest Threat to Global Security: Climate Change Is Not Merely An Environmental Problem’. Accessible [here](#).

²⁰ United Nations, ‘OHCHR and climate change’. Accessible [here](#).

²¹ IPCC AR6, ‘Climate Change 2021: The Physical Science Basis, Summary for Policy Makers’, The Current State of the Climate, Page SMP-5, Paragraph A.1

²² IPCC, Weblink, newsroom post, Published July 2021, Accessed: 06 July 21. Accessible [here](#).

²³ ‘United Nations Climate Change, The Paris Agreement, Weblink, published: date unknown, Accessed: 10 February 2022. Accessible [here](#).

Progress Toward Renewable Electricity

- 1.46. There has been significant progress in the implementation of renewable energy throughout Scotland and the UK in recent decades.
- 1.47. The 2021 Digest of UK Energy Statistics indicates that 43% of total energy generation in the UK in 2021 was from renewable energy sources²⁴.
- 1.48. There was also steady progress on increasing the installed renewable capacity in Scotland from 2009 to 2021 with installed capacity increasing from around 3,800 MW to 12,200 MW.
- 1.49. This capacity increase is reflected in the increase in renewables generation. Scottish Government statistics state: *“61.8% of all electricity generated in 2020 in Scotland was from renewable sources”*²⁵. However, the picture with total energy (inclusive of heat and transport fuels etc.) is less positive and in 2020 *“25.4% of total Scottish energy consumption came from renewable sources”*²⁶. While a broader variety of intermittent sources can provide increased stability of generation, energy storage is also essential to ensure demand can be met more often by an energy system with a high concentration of intermittent renewables generation. This consistency of renewable electricity supply will be more important in coming decades as more of our transport and heating energy requirements are met by electricity rather than fossil fuels to make progress on the 25.4% figure stated above.

The Benefits of Battery Storage

Electricity and Energy Security

- 1.50. The International Energy Agency (IEA) defines electricity security as: *“the electricity system’s capability to ensure uninterrupted availability of electricity by withstanding and recovering from disturbances and contingencies.”*²⁷. Battery systems are designed to improve the security of our electricity supply.
- 1.51. A 2021 report on ‘Battery Use in Scotland Now and in the Future’ produced on behalf of Zero Waste Scotland, Transport Scotland and Scottish Enterprise, highlights the important role utility grid-scale energy storage projects can play in renewable energy integration. In particular, it highlights the suitability of battery projects to *“supply energy to an island power grid integrated with renewables”*. One of the main benefits of using batteries in this way is given as *“their quick response time (within milliseconds) to provide greater energy control to meet surges in demand”*²⁸.
- 1.52. The report further states:

*“Overall, utility grid-scale energy storage provides a particular opportunity for Scotland in helping to meet net-zero ambitions by 2045, due to high levels of renewable penetration (particularly wind energy) and strong progress in grid decarbonisation.”*²⁹

²⁴BEIS Digest of UK Energy Statistics 2021 (DUKES) Chapter 5: Electricity, pages 4-5, Published July 2021: Accessible [here](#).

²⁵ Annual Energy Statement & Quarterly Statistics Bulletin, Scottish Government, December 2021

²⁶ Annual Energy Statement & Quarterly Statistics Bulletin, Scottish Government, December 2021

²⁷International Energy Agency (IEA), ‘Analytical Frameworks for Electricity Security’ 2021. Accessible [here](#).

²⁸ Ricardo Energy and Environment (on behalf of Zero Waste Scotland, Transport Scotland and Scottish Enterprise), Battery Use in Scotland Now and In Future. Phase 2 – The future of batteries in Scotland, 2021. Page 13

²⁹ Ricardo Energy and Environment (on behalf of Zero Waste Scotland, Transport Scotland and Scottish Enterprise), Battery Use in Scotland Now and In Future. Phase 2 – The future of batteries in Scotland, 2021. Page 14

Increasing Electricity Demand and Intermittent Generation

- 1.53. Modelling by BEIS (Department for Business, Energy, and Industrial Strategy) indicates increased electricity demand over the next two decades, potentially doubling by 2050. Generation capacity will therefore have to increase significantly to replace retiring capacity and keep pace with growing demand³⁰. That growth in generation will need to come from renewable sources if carbon emissions are to be reduced. Renewable energy is often intermittent and battery systems can help reduce the challenges intermittent generation presents.

Conclusions

- 1.54. Human activity, especially the burning of fossil fuels, is driving global warming and climate change. Local, national, and global targets and policies have been introduced to tackle this challenge. A key focus of these targets and policies is the phasing out of fossil fuels and transition to renewable energy generation.
- 1.55. Renewable energy production tends to be intermittent and cannot be controlled to match varying demand. Energy storage solutions are therefore required by the grid to ensure demand can always be met.

³⁰UK Government, 'Capacity of UK electricity generation assets in the 21st century, 2000 to 2019', 2021, page 7. Accessible [here](#).

2. **Design Statement**

Site Selection

Introduction

- 2.1. The site at Battery Point was chosen because it had good access to the electricity grid, it is adjacent to the main SSE power station, the land was available, it required regeneration, and it provided an opportunity to develop the project in a manner which was sympathetic to neighbouring land uses and in accordance with the local development plan. It was the only identifiable site with these attributes.

Pre-Application Consultation

- 2.2. In the pre-application response letter from Comhairle nan Eilean Siar³¹, they have requested further detail on the reason for the location of the proposal. This section of the report seeks to fulfil that request.

Policy, Legislation and Guidance

Outer Hebrides Local Development Plan 2018

- 2.3. Policy DS1: Development Strategy: Stornoway Core is relevant to site selection. This policy is quoted in full in the Planning Statement. It states:

“The principal policy objective is to support and promote the strategic role of Stornoway within the Outer Hebrides by accommodating development which facilitates regeneration, successful placemaking and infrastructure to support growth. There will be a focus on promoting a compact, accessible and vibrant core with a diverse mix of uses.”³²

- 2.4. The site is in accordance with Policy DS1 as it comprises development of a vacant brownfield land adjacent to the existing electricity power station. This proposal brings the needed infrastructure while promoting a vibrant core by adding to its diverse mix of uses. The design incorporates use of appropriate materials which are compatible with the surroundings and character of the area, which includes industrial uses, and the adjacent power station.

Rationale

- 2.5. This specific site is required due to its close proximity to the SSE main power station and to a suitable point of connection to the 33kV distribution network. Locating battery projects beside existing grid supply points minimises transmissions losses and communication delays³³. Neighbouring land was used for electricity generation during the subsea cable outage in 2020-2021 when mobile diesel generator units were stationed here to provide back-up supply to the main power station. The suitability of the site for electricity generation is well established.
- 2.6. Climate XChange’s Good Practice Principles for grid-scale battery storage report identifies that battery storage is likely to be particularly useful in supporting weaker parts of the electricity system such as in

³¹ Email to Calum MacDonald from Morag Ferguson, Planning Manager at Comhairle nan Eilean Siar Council, 10 October 2022.

³² Outer Hebrides Local Development Plan 2018, Policy DS1, page 12.

³³ Internal Discussions

more remote areas with high renewables penetration³⁴. Due to Stornoway's rural location and lack of consented battery storage projects it is therefore an ideal location for grid connected battery storage.

- 2.7. The chosen site is therefore an excellent location for a battery energy storage project.

Early-Stage Planning Appraisal and Design Approach

Introduction

- 2.8. This section provides further detail on how relevant planning policies and procedures have been considered in this proposal and its design and development.

Early-Stage Planning

- 2.9. Relevant planning policies and guidance documents have been considered during design and are discussed further in the planning statement. These include:
- National Planning Framework 4 (2023)
 - Outer Hebrides Local Development Plan (2018)
- 2.10. Specific policies, legislation, and guidance for individual aspects of the development are listed in the relevant sections of this report. Comment is also made on the relevant policies discussed in Outer Hebrides Local Development Plan 2018, and any relevant supplementary guidance.
- 2.11. A key aspect of the design approach was conducting extensive site visits which involved a full site walk over, circumnavigation of adjacent roads, and the taking of photographs. Further desk-based study was also carried out prior to finalising the design.
- 2.12. Another important consideration was the opinion of the Comhairle, and members of the public. These were sourced through early consultation and formed an important part of the overall design approach.
- 2.13. Further details of the community consultation undertaken are given in the accompanying Pre-Application Consultation Report.

Natural Designations and Ecology

Introduction

- 2.14. A desktop study was carried out for natural heritage designations within a 1km radius of the site. No designations were found within this radius and therefore this did not impact the design.

Pre-Application Consultation

- 2.15. In their request for pre-application advice, The Greenspan Agency stated that information on natural designations and ecology would be provided with this application. This report seeks to fulfil that commitment.
- 2.16. Comhairle nan Eilean Siar did not specifically request further information on the topic.

Policy, Legislation and Guidance

- 2.17. The following legislation has been considered:
- Nature Conservation (Scotland) Act 2004

³⁴ ClimateXChange, 'Good Practice Principles for grid-scale battery storage', June 2020

- Wildlife and Countryside Act 1981 (as amended)
- Wildlife and Natural Environment (Scotland) Act 2011
- Wild Mammals (Protection) Act 1996
- The Conservation (Natural Habitats Etc) Regulations 1994

Outer Hebrides Adopted Local Development Plan 2018

2.18. Policy NBH2: Natural Heritage is relevant to this section. It states:

“Development which is likely to have a significant effect on a Natura site and is not directly connected with or necessary to the conservation management of that site will be subject to an Appropriate Assessment by the Comhairle.”³⁵

Environmental Designations

- 2.19. A radius of 1 km was used to identify sites with environmental designations using NatureScot’s SiteLink map³⁶, and Magic Map³⁷, these revealed no designations within this radius.
- 2.20. The closest environmental designation is the Tong Saltings Site of Special Scientific Interest (SSSI) 1.7 km northeast from the red line boundary.
- 2.21. There is also a nearby Marine Protected Area (North-east Lewis) stretching along the northeast coast of Lewis and Harris, and Special Area of Conservation (Inner Hebrides and the Minches) covering the area between the west coast of the Scottish mainland and the east coast of the Outer Hebrides. The proposal will not affect the neighbouring bay or surrounding seas.

Ecology and Habitats

- 2.22. The NLS Land Use Viewer³⁸ provides land use change from 1930 to 2015. It shows the land use has historically been Power Generation. Present day confirmation is provided by NatureScot’s Online Habitat Maps, which state a land use classification of ‘Buildings of cities, towns and villages / Low density buildings’³⁹.
- 2.23. There is an Important Bird and Biodiversity Area (IBA) approximately 620m north of the site⁴⁰. The proposal is not expected to impact the local birds.
- 2.24. No records were found for species sightings within the red line boundary using NBN atlas search⁴¹. The closest sighting was for an Atlantic White-sided Dolphin which was spotted from a few meters southwest of the site. There will be no impact on ocean wildlife.
- 2.25. During the construction phase of the development appropriate mitigation measures will be followed to reduce the impact on the local ecology. This will include management of pollution risks, noise and vibration, and capping exposed pipes outside of work hours.

³⁵ Outer Hebrides Local Development Plan 2018, Policy NBH2, page 54.

³⁶ Nature Scot, SiteLink Map. Accessible [here](#).

³⁷ DEFRA, MAGIC Map. Accessible [here](#).

³⁸ National Library of Scotland and Historic Environment Scotland, Web App, Land Use Viewer. Accessible [here](#).

³⁹ Nature Scot Habitat map, online resource accessible [here](#).

⁴⁰ BirdLife International (2022) Important Bird Areas Factsheet: Stornoway to Back, Lewis. Accessible [here](#).

⁴¹ National Biodiversity Network Trust, NBN atlas search. Accessible [here](#).

- 2.26. Due to the passive nature of the development, there are not expected to be any significant disruptions to local wildlife and ecology during operation.

Conclusions

- 2.27. Nearby environmental designations have been considered during the design process, no changes to the design were required as there are no expected impacts on any site identified.

Historic Environment

Introduction

- 2.28. The chosen site was screened for impact on historical sites during the initial desktop study. No effects were identified and therefore there were no relevant design considerations. This contributed to the suitability of the site for this project.

Pre-Application Consultation

- 2.29. In their request for pre-application advice, The Greenspan Agency stated that information on historic designations would be provided with this application. This report seeks to fulfil that commitment.
- 2.30. Comhairle nan Eilean Siar did not specifically request further information on the topic.

Policy, Legislation and Guidance

- 2.31. The following documents and legislation have been used to inform this section of the report:

- Historic Environment Policy Scotland 2019 (HEPS) ⁴²
- The Historic Environment Scotland Act 2014
- Historic Environment (Amendment) (Scotland) Act 2011
- Ancient Monuments and Archaeological Areas Act 1979
- Planning (Listed Buildings and Conservation Areas) (Scotland) Act 1997
- 'Managing Change in the Historic Environment – Setting'⁴³
- 'Planning Advice Note 2/2011: Planning and Archaeology'⁴⁴

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- 2.32. Policy NBH4: Built heritage and NBH5: Archaeology are relevant to this chapter. They state:

*"Development which preserves or enhances the architectural, artistic, commemorative or historic significance of built heritage assets will be supported."*⁴⁵

*"Development proposals which preserve, protect, or enhance the archaeological significance of heritage assets, including their settings, will be supported."*⁴⁶

⁴² 'Historic Environment Policy for Scotland', Historic Scotland (2019)

⁴³ Historic Environment Scotland, 'Managing change in the Historic Environment-Setting', Published 2016, updated 2020, Key Issues, Page5

⁴⁴ 'Planning Advice Note 2/2011: Planning and archaeology', published 2011

⁴⁵ Outer Hebrides Local Development Plan 2018, Policy NBH4: Built Heritage, Page 58

⁴⁶ Outer Hebrides Local Development Plan 2018, Policy NBH5: Archaeology, Page 62

Direct Impacts of the Proposed Development

- 2.33. No known historic sites are located within the proposed development's red line boundary. Impacts on the historic environment caused by this development are therefore reduced to potential indirect effects on setting.

Setting Effects

- 2.34. Because the remainder of this assessment is concerned with effects on the 'setting' of historic assets rather than direct impacts, it is worth considering what the term 'setting' means in this context. Historic Environment Scotland provides the following definition in 'Managing Change in the Historic Environment – Setting':

*"Setting' is the way the surroundings of a historic asset or place contribute to how it is understood, appreciated and experienced. Monuments, buildings, gardens and settlements were almost always placed and orientated deliberately, normally with reference to the surrounding topography, resources, landscape and other structures. Over time, these relationships change, although aspects of earlier settings can be retained."*⁴⁷

The Setting of Scheduled Ancient Monuments

- 2.35. Scheduled Ancient Monuments (SAMs) are designated and protected under the Ancient Monuments and Archaeological Areas Act 1979 and are of national importance.
- 2.36. There is one Scheduled Ancient Monument (SAM) 1.3 km from the site named Cnoc na Croich. This site is a prehistoric chambered cairn of national importance. The proposal will not affect this SAM.

The Setting of Listed Buildings and Conservation Areas

- 2.37. Listed buildings are listed under the Planning (Listed Buildings and Conservation Areas) (Scotland) Act 1997 and are described in the act as being those buildings considered to be of 'special architectural or historic interest'⁴⁸. There are 3 categories of listed building: A, B, and C. The descriptions of these are as follows: *"Buildings of a special architectural or historical interest which are outstanding(A) / major(B) / representative(C) examples of a particular period, style or building type."*
- 2.38. There are no listed buildings within 500 m of the red line boundary.
- 2.39. There are a large number of listed buildings within 1km of the site area. These are almost entirely within or bordering the Stornoway Conservation area which begins 585m from the red line boundary. These listed buildings are discussed below in conjunction with the conservation area.

Conservation Area

- 2.40. Conservation areas are designated under the Planning (Listed Buildings and Conservation Areas) (Scotland) Act 1997 and are described in section 61 (part 2) of the act as *"areas of special architectural or historic interest the character or appearance of which it is desirable to preserve or enhance"*⁴⁹.

⁴⁷ Historic Environment Scotland, 'Managing change in the Historic Environment-Setting', Published 2016, updated 2020. Page 6.

⁴⁸ Planning (Listed Buildings and Conservation Areas) (Scotland) Act 1997, section 1, part 1

⁴⁹ Planning (Listed Buildings and Conservation Areas) (Scotland) Act 1997, section 61, Part 2

2.41. The Stornoway Conservation Area is approximately 600 m from the red line boundary of the development. The development is not anticipated to be prominent in views from the conservation area, hence there will be limited to no effect on the local setting of this area.

Garden and Designed Landscapes

2.42. Gardens and Designed Landscapes (GDLs) are designated on behalf of the Scottish Ministers by Historic Environment Scotland. Designated GDLs are selected for their national importance. Section 11 part 2 of the 2011 Act explains that a GDL is defined as “*grounds which have been laid out for artistic effect*”⁵⁰.

2.43. There is a Garden and Designed Landscape (GDL) just over 1 km from the proposed development – Lews Castle and Lady Lever Park.

2.44. There will be no direct impact on this GDL. While the proposal may be visible from some areas of the GDL, this will be from a significant distance and in the context of the large neighbouring power station hence will have a negligible impact on the setting.

The Setting of Non-Statutory Sites

2.45. Archaeological and historic sites of lesser importance are recorded on the National Monuments Record of Scotland.

2.46. There are several surrounding canmore and historic environment record sites including the Coastguard Station, Power Station, and 18th-19th Century Coastal Battery. Only negligible effects are anticipated on the settings of these sites.

Conclusions

2.47. There will be no direct effects on any known historic site.

2.48. Due to the relatively small and low-lying nature of the development, effects on the setting of historic sites out-with the site boundary will be negligible. The proposed development will be situated adjacent to the existing Power Station and nearby the Newton Commercial Area, its design will be in keeping with this local landscape. The project is in accordance with Policy NBH4: Built heritage and NBH5: Archaeology from the Outer Hebrides Local Development Plan 2018.

⁵⁰ The Historic Environment (Amendment) (Scotland) Act 2011, Section 11 part 2

Flood Risk and Drainage

Introduction

2.49. This section of the design statement will assess the current and future flood risks, and the possible effects of the proposed development on the local water environment.

Pre-Application Consultation

2.50. In their request for pre-application advice, The Greenspan Agency stated that information on flood risk and drainage would be provided with this application. This section of the report seeks to fulfil that commitment.

2.51. In the pre-application response letter from Comhairle nan Eilean Siar, they have requested a surface water drainage strategy of the proposal. A 'Proposed Drainage Layout' drawing has been provided with this planning application.

Policy, Legislation and Guidance

2.52. The following documents and legislation have been considered:

- Water Environment and Water Services (Scotland) Act 2003 (WEWs Act)
- Scottish Environment Protection Agency (SEPA), Groundwater Protection Policy V3 2009
- SEPA, Land Use Vulnerability Guidance (2018)
- SEPA, Planning Background Paper Water Environment (2017)
- Construction Industry Research and Information Association (CIRIA) report C753, The SuDS Manual (2015)

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2.53. Policy EI 1: Flooding states that in general *"Development proposals should avoid areas susceptible to flooding and promote sustainable flood management."*⁵¹

2.54. The policy states:

*"Information which demonstrates compliance with Scottish Planning Policy (SPP) will be required for development proposals within or closely bordering a medium to high-risk flood area (1:200 year extents (0.5% Annual Probability), or greater), as identified by the flood risk management dataset issued by SEPA."*⁵²

2.55. Since this proposal is coastal the following passage is also applicable:

*"Coastal: The following UK Climate Change Projections (UKCP09) sea level rise projections should be used to derive an allowance above the extreme still water design flood level: Lewis and Harris - 0.55m"*⁵³

Current Flood Risk

The Scottish Environment Protection Agency (SEPA) flood risk maps can be used to assess the theoretical annual flood risk of an area. The flood risk mapping tool suggests there is no chance of flooding from river or coastal flooding for the site. There is a small area of potential surface flooding on the eastern periphery

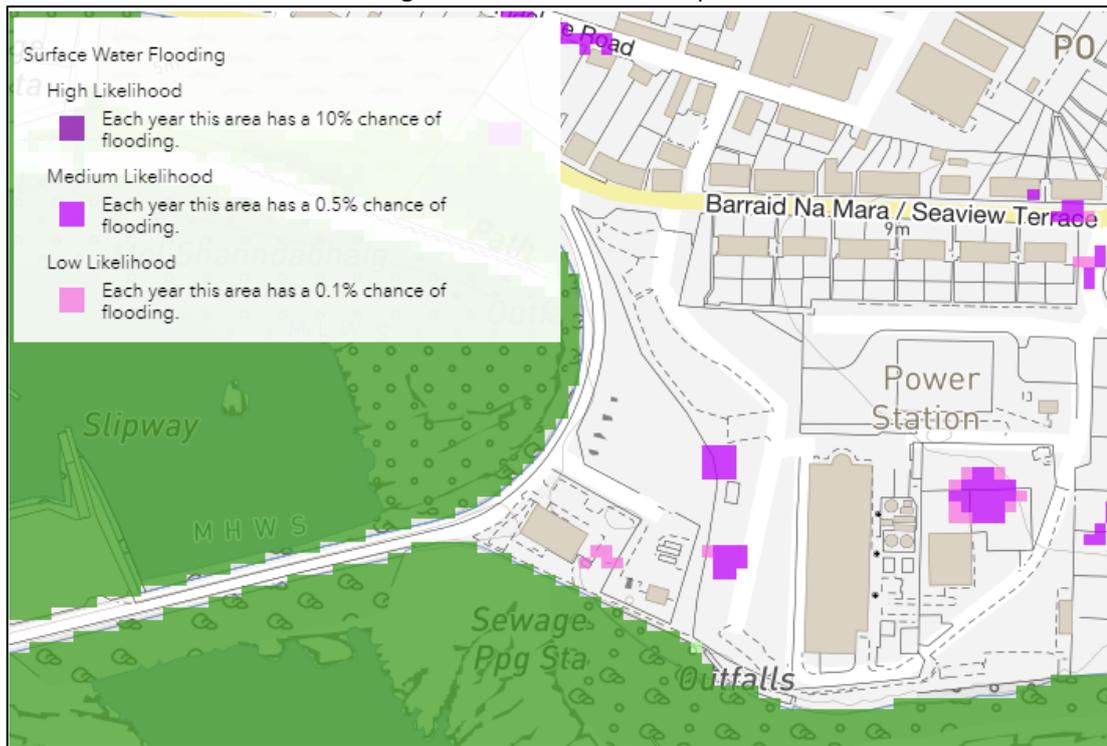
⁵¹ Outer Hebrides Local Development Plan 2018, Policy EI1, page 37

⁵² Outer Hebrides Local Development Plan 2018, Policy EI1, page 37

⁵³ Outer Hebrides Local Development Plan 2018, Policy EI1, page 38

of the site (0.5% chance of flooding, see figure below). This risk has been considered and avoided in the design. No actual evidence of flooding on this small part of the site is visible on the site itself, and the area highlighted on the SEPA map as vulnerable to surface flooding appears to reflect the SEPA model rather than actual flood risk on the ground. In addition, the equipment on the site will be mounted on concrete plinths and will not be vulnerable to flooding.

Figure 2: SEPA Flood Risk Map⁵⁴.



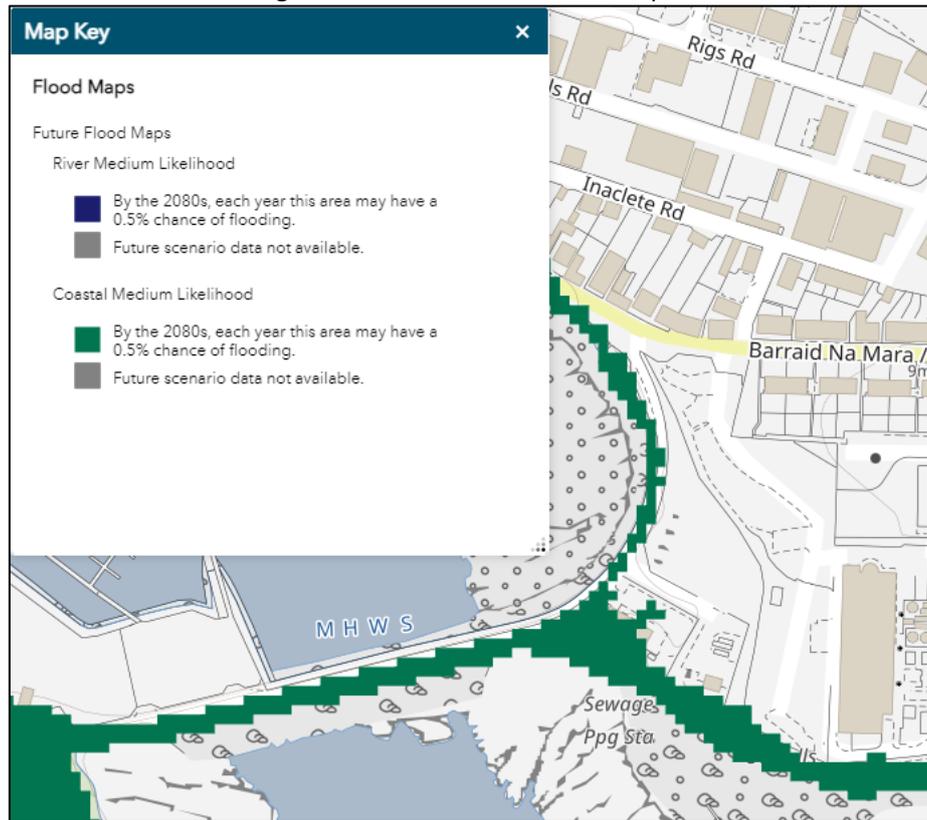
Future Flood Risk

- 2.56. The SEPA Flood Map tool can display the potential increase in flood risk resulting from climate change. The data used to produce these maps assumes a high emissions scenario. The Future Flood Risk Map can be considered a worst-case assessment of future flood risk because of climate change⁵⁵. This tool suggests it is unlikely climate change caused by a high-emissions scenario will result in flood risks from either river flooding or coastal flooding at this site (see figure below).

⁵⁴ SEPA, Flood Map. Accessed online 06 March 2024. Accessible [here](#).

⁵⁵ SEPA, About the Future Flood Maps. Accessed online 19 August 2022. Accessible [here](#).

Figure 3: SEPA Future Flood Risk Map⁵⁶.



- 2.57. This development will not increase the risk of flooding elsewhere. It will also not be inhabited or manned during operation. Any negligible residual risk of flooding therefore only impacts the equipment on site, and it is for the developer to consider if the commercial and insurance risks are appropriate.
- 2.58. According to the SEPA Flood Risk Land Use Vulnerability Guidance⁵⁷ this development is classed as “Essential Infrastructure” as it is an electricity generating technology. It is therefore of a development type which SEPA guidance advises is least constrained by flood risks.

⁵⁶ SEPA, About the Future Flood Maps. Accessed online 19 August 2022. Accessible [here](#).

⁵⁷ SEPA, ‘Flood Risk and Land Use Vulnerability Guidance’, Version 4, 2018

Existing Drainage Arrangement

- 2.59. The site is currently well drained grassland. There are no watercourses within or adjacent to the site. Site visits, a topographic survey, and trail pits, have been carried out to understand the current drainage pattern.
- 2.60. The image below explains how rainwater which falls on much of the site currently moves west from the relatively high site, across the non-adopted road maintained by the port authority, to the sea below. The sea indicated by the red arrow below is a sheltered lagoon which is almost cut-off from the open sea by Goat Island. As such it does not require a storm protection wall. The roadway therefore does not have a wall or curb on the side closest to this lagoon, and simply drains to the lagoon. This arrangement, with the road draining to the lagoon, is followed along the length of the road to Goat Island.
- 2.61. Water landing on the far east of the site is thought to drain to the sea via a grass covered strip toward and then through gabion baskets at the shore.

Figure 4: Existing Drainage Pathway
For majority of site surface water



Figure 5: Existing Drainage Pathway
For site surface water at site eastern periphery



Proposed Drainage Arrangement / Drainage Strategy

- 2.62. The topographic survey and site visits have established that the site is relatively flat. The highest point on the site is at 5.8 m and the lowest is 4.0. The completion of the project is not expected to change site levels by more than 0.5 m, with the intention being to flatten the site a little where possible, but without removing the general camber of the site which is raised toward its centre. This will allow surface water to continue to drain away from the site in the manner it does currently.
- 2.63. All battery components, plant and equipment, on site will accommodate rainwater drainage to ground.
- 2.64. It is proposed that the grass surface is replaced by a compacted aggregate surface across much of the site, as shown in the proposed site layout. Once compacted this material may become relatively impermeable. Heavy rain may wash material from the site toward the roads to the south and west of the site.
- 2.65. Because the site drains to the sea nearby it does not require any connection to an urban surface water sewer network, nor does it drain into a watercourse. The rate of water discharge to sewers or watercourses is therefore not of concern at this site in the same way it is for many development sites. This also reduces the propensity for the site to create flooding elsewhere.
- 2.66. It is therefore proposed that run-off from the compacted aggregate hardstanding be intercepted by a new filter drain around the perimeter of the site as shown in the 'Proposed Drainage Layout' drawing. This filter drain will sit between the site and the hedgerow where it runs along the eastern site edge. The benefits of this filter drain will be threefold:
1. It will provide a path for surface rainwater to run around the site to a low-point, and then toward the sea.
 2. It will also slow runoff from the site and prevent any loose material or silt being washed from the site onto the adjacent roads.
 3. It will preserve the existing drainage pattern and surface water routes.
- 2.67. As set out later in this report, there is a complex pattern of Scottish Water pipework beneath the site. It is proposed that some of these pipes are re-aligned to accommodate the proposed development. During these excavations, it may become clear that the site drains directly into the large sewer pipes and manholes within the site. If this is the case, the drainage strategy set out above may be amended in accordance with construction phase engineer's recommendations.

Conclusions

- 2.68. The assessment above has established that the site is not at risk of flooding.
- 2.69. The proposed drainage strategy via a filter drain at the site periphery seeks not to change the way rainwater moves away from the site. Surface water will not be discharged into a sewer or watercourse.
- 2.70. This is in accordance with Policy EI 1: Flooding from the Outer Hebrides Local Development Plan 2018.

Landscape and Visual Amenity

Pre-Application Consultation

- 2.71. In their request for pre-application advice, The Greenspan Agency stated that information on landscape and visual impacts would be provided with this application. This section of the design statement seeks to fulfil that commitment.
- 2.72. The visual design and impact of the project was a key consideration from an early stage. During pre-application discussions with Comhairle nan Eilean Siar it was suggested that information on the type, size and colour of the units proposed would be important as *“the site viewed against the background of the power station will be quite prominent on approach along Newton”*. This chapter seeks to fulfil that request. Comhairle nan Eilean Siar have not requested a full Landscape Visual Impact Assessment.
- 2.73. Several options were discussed and explored before the final design was settled on.

Policy, Legislation and Guidance

- 2.74. The following guidance was considered: 'Guidelines for Landscape and Visual Impact Assessment' published by the Institute of Environmental Management and Assessment and the Landscape Institute (3rd edition, 2013). Referred to as 'the GLVIA'.

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- 2.75. Policy NBH1: Landscape states:

“Development proposals should relate to the specific landscape and visual characteristics of the local area, ensuring that the overall integrity of landscape character is maintained.

The Western Isles Landscape Character Assessment (WI-LCA) will be taken into account in determining applications and developers should refer to Appendix 1 of this Plan for a summary of this guidance.

Development proposals should not have an unacceptable significant landscape or visual impact. If it is assessed that there will be a significant landscape or visual impact, the applicant will be required to provide mitigation measures demonstrating how a satisfactory landscape and visual fit can be achieved.”⁵⁸

Site Description and Existing Landscape

- 2.76. Scottish Natural Heritage places the proposal within the Gently Sloping Crofting Landscape Character Type⁵⁹. Some key characteristics of this landscape include long sweeping gentle slopes, visual diversity, and the contrasting urban settlement of Stornoway. The Nature Scot landscape character assessment document splits Stornoway into the original central core, and an outer area of urban expansion in which this proposal sits⁶⁰.
- 2.77. Historic maps indicate the site is partially reclaimed land, being built up from an original landscape of coastal rocks in the first half of the 20th century during the construction of the causeway to Goat Island.

⁵⁸ Outer Hebrides Local Development Plan 2018, Policy NBH1: Landscape, Page 53

⁵⁹ Scottish Natural Heritage National Landscape Character Assessment, Landscape Character Type 317, Gently Sloping Crofting

⁶⁰ Scottish Natural Heritage National Landscape Character Assessment, Landscape Character Type 317, Gently Sloping Crofting

Figure 6: Site Origins. Historic Maps



- 2.78. The site is an approximately triangular shaped area of 0.44 hectares located between the road to Goat Island, and the Stornoway Power Station. It is currently mostly flat, vacant, grassland with some piles of discarded fishing or port equipment in the south-eastern corner. The site is not managed or maintained; this would be expected to continue in the absence of the proposed development.
- 2.79. Scotland’s Historic Land Use Map, produced by Historic Environment Scotland states that the area has been used for power generation from the 19th Century to the present day⁶¹. The proposed development seeks to modernise and continue this land use.

Surrounding Buildings

- 2.80. The most prominent view of the site will be from Newton Street where the development will be viewed against the backdrop of the Stornoway Power Station, a large beige building with three significant chimney stacks (please refer the panoramic photo below). Another substantial part of this view is the gable end of the Coastguard building which is situated to the south of the site. This a two-storey beige and light green building with large windows and a corrugated roof can be seen on the right of the image below.

Figure 7: View of Site from Shoreline near Newton Street



⁶¹ HLAmap, Accessible [here](#).

- 2.81. The site is also visible from Goat Island where Newton Marina is located, please refer to the panorama below. The Goat Island marina is a mainly industrial area consisting of sheds, containers, and boats.

Figure 8: View of Site from Goat Island



- 2.82. There are several houses along the coastline with views towards the bay and the site. The houses near the site tend to be two-storey buildings with a pale exterior and slate roofing.

Design Options

- 2.83. At an early stage of the project the possibility of constructing a building was proposed and discussed by the development team, as an alternative to placing the battery units outdoors.
- 2.84. The building option was presented to the public at the first consultation event alongside the outdoor unit design. The public seemed accepting of either proposal, although they did suggest that fencing or planting may be a good idea for screening the site.
- 2.85. The building was ultimately rejected, largely due to current grid scale battery systems being designed for outdoor installation in technical and electrical terms. Placing them in a building would create many technical challenges including potential invalidation of the unit's safety tests.
- 2.86. A building would also have been considerably more visible, would require greater investment, a longer and more complex construction phase, and would be a difficult fit for the existing utilities on site. A design without a building was therefore selected.

Visual and Landscape Characteristics of the Proposed Development

- 2.87. Details of the proposal are given in the 'Technical Description of the Development' section of this report and in the planning application drawings. The most visible elements of the development will be:
- Battery modules. These box-like structures are the most numerous items on site.
 - 4 m acoustic barrier
 - 3m perimeter palisade fence
- 2.88. The CCTV poles will be the tallest items of equipment, but even these will be only 5 m in height. The entire project will therefore be very low-lying when compared to the nearby power station, Coastguard building, and housing.

Views from Roads

- 2.89. The proposed development will be visible against the backdrop of the Stornoway Diesel Power Station when travelling east along Newton Road. As indicated on Figure 7 above.

Views from Nearest Dwellings

- 2.90. The development will again be viewed within the industrial context of the existing Stornoway power Station and HM Coastguard building. The low-lying battery project will have a limited capacity to obstruct views to the sea.
- 2.91. The proposed 4m acoustic barrier will screen the electrical equipment and reduce the visual complexity of the site when viewed from the nearest properties on Seaview Place. These houses are also on land some 2-3 m higher than the development site, and this reduces the battery proposal's prominence in views from them.

Core Paths, Viewpoints and Rights of Way

- 2.92. There are no core paths in the vicinity of the proposed development. A path which is a part of the wider path network as designated by Comhairle nan Eilean Siar⁶² runs east-west just to the south of the Coastguard building. This path will not be affected by the proposed development.

Proposed Measures

- 2.93. New tree planting is proposed. Tree positions have been chosen to soften the industrial character of the area, while also avoiding underground Scottish Water pipework, and ensuring visibility splays remain clear for safe vehicle egress. Native tree species will be planted. Hedge planting is also proposed along the western edge of the site. Please refer to Drawing 'Proposed Planting and Landscaping Plan' provided with this planning application. This planting plan responds to requests made by the public during community consultation events, and to comments raised by the Stornoway Port Authority in response to an earlier draft layout.

Conclusions

- 2.94. The chosen site is low-lying, as is the proposed development. The battery project will be visually modest and not intrusive. When viewed in the context of the existing power station it will appear in keeping with the historic land use of electricity generation. Tree and hedge planting will soften the project in the landscape.
- 2.95. The development is in accordance with Policy NBH1: Landscape from the Outer Hebrides Local Development Plan 2018.

⁶² Outer Hebrides Core Paths Plan – Map 6

Utilities

Introduction

- 2.96. The design for the proposed development has taken into account existing utilities, particularly Scottish Water pipes.

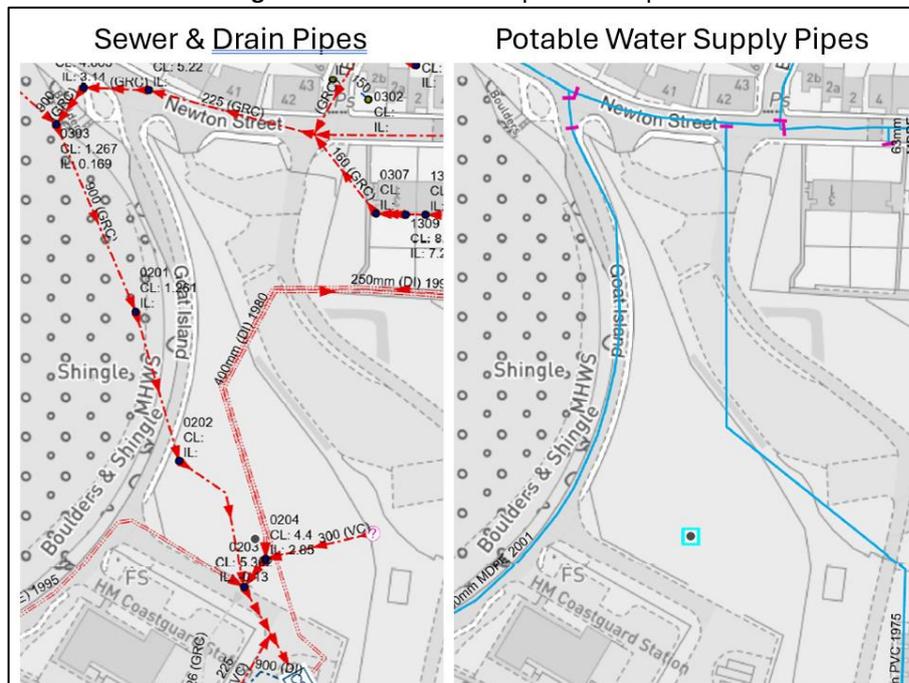
Pre-Application Consultation

- 2.97. Utilities were not focused upon in the pre-application consultation with Comhairle nan Eilean Siar.

Scottish Water

- 2.98. Initial desktop research highlighted several sub-surface Scottish Water pipes. The Greenspan Agency completed an Asset Impact Assessment (DSCAS-0074408-XV9) through Scottish Water to gain further clarity on these assets and possible solutions. Scottish Water provided confirmation of the assets on site and stand-off distances to be observed.

Figure 9: Scottish Water Pipework Maps



- 2.99. An online meeting was held between The Greenspan Agency and Kevin Mackenzie, Scottish Water Asset Impact Team on 14 December 2022. (Scottish Water correspondence Ref: DSCAS-0074408-XV9). It was agreed that any required diversion of Scottish Water Assets would be designed and implemented by an appropriate contractor and agreed with Scottish Water before starting works.

- 2.100. By their own admission many Scottish Water maps, including those excerpts in the figure above, contain inaccuracies. With this in mind, in January 2023 local civil engineering and contractor firm Duncan Mackay and Sons were instructed to conduct trial pits to determine the exact locations of the Scottish Water assets. The exercise was successful and confirmed the actual location of several pipes. A 6in PVC mains water pipe which appears just within the eastern edge of the site Scottish Water maps was not found.

This indicated that the pipe is further east than indicated on the Scottish Water map and is not within the proposed battery site.

- 2.101. The site investigation also found no evidence of the pipe marked 300mm (VC) on Scottish Water drawings in the southeast of the site, indicating that this is no longer present.
- 2.102. To meet the access and standoff distances from pipes required by Scottish Water it is proposed that two of the pipes beneath the site are diverted as part of the construction work for the battery project. Pre-application discussions with Scottish Water have provided assurances that this will be technically feasible and acceptable to them, subject to detailed design approval and the use of an approved contractor. An approved contractor has been identified on the island by the applicant's team, and they have provisionally indicated they would be able to do the work. The Contractor and The Greenspan Agency have prepared draft proposals for the water pipe re-routing ready for review by Scottish Water at an appropriate time.

BT

- 2.103. There are sub-surface telecoms lines at the site. BT open reach will be consulted via the usual process prior to construction. They may divert services if required.

Other Utilities

- 2.104. There are no overhead lines above the site.

Conclusions

- 2.105. A complex pattern of Scottish Water pipework is present, but this is now well understood through desktop research and site investigation trial pits. Scottish Water have been consulted by the applicant during the design phase. The Scottish Water assets are not a barrier to the successful implementation of the battery project. BT equipment will be dealt with appropriately prior to and during construction.

Site Investigation and Ground Conditions

Pre-Application Consultation

2.106. During pre-application discussions with Comhairle nan Eilean Siar⁶³ it was suggested that the Comhairle's environmental health team be contacted with the aim of understanding if the site is contaminated. The Greenspan Agency then contacted the Comhairle's Environmental Health department on 14 October 2022. Colm Fraser, Consumer and Environmental Services Manager, replied by email on 20 October 2022. He indicated that the site may have been used for the disposal of old fishing gear and may have been affected by the neighbouring power station but there was no other known contamination. He advised against any contaminated ground found on site being removed from the site and disposed of improperly. Mr Fraser recommended a desktop study and possibly a couple of trial holes, he also set out four standard conditions which could be attached to any planning permission granted. Mr Fraser's provisional opinion at that time in respect of contaminated land was *"I don't see any issues with the development going ahead"*.

SEPA

2.107. The Greenspan Agency contacted SEPA to learn more about the site, and request any information they had in relation to the Power Station Environmental Permit. The SEPA planning team had no specific comments to make on this site, or this type of proposal⁶⁴.

2.108. The local SEPA Senior Environmental Protection Officer confirmed that the site contains reclaimed land. No specific concerns were raised about the proposed development.

History of Site

2.109. Historic OS maps and google maps aerial images have been studied to identify previous land uses. Information has also been sourced from a member of the local community and neighbour of the site for over 70 years.

1897-1899

2.110. The OS maps from 1897 and 1899 show the site was previously rocky shoreline that there was no land bridge connecting Battery Point to Goat Island (Eilean na Gothail).

1958-1964

2.111. By 1958 maps show some of the rocky land had been overtopped with earth or rock and a bridge built to Goat Island. The longstanding neighbour of the site suggests this occurred in 1948.

2.112. The Stornoway Power Station is also present on these maps, matching records that this was commissioned in 1954. Tanks were also added to the land between the proposed battery site and the power station. It is assumed these tanks stored fuel for the power station.

⁶³ Email to Calum MacDonald, Point and Sandwick Trust, from Morag Ferguson, Comhairle nan Eilean Siar, 10 October 2022

⁶⁴ Email to Emma Menzies, The Greenspan Agency, from Nicki Dunn, Senior Planning Officer SEPA, 21 October 2022

2005-2023

- 2.113. Historic google maps aerial imagery confirms the Stornoway Power Station tanks remained in place on land between the project site and the power station until at least 2005. By 2009 these tanks had been removed.
- 2.114. The Stornoway Coastguard building and Scottish Water Pumping Station were both built to the south of the site around 1990 and are present in aerial imagery from 2005.
- 2.115. The site area has been empty grassland throughout the imaged period from 2005 to 2021 and is still empty grassland currently.

Site Investigation

- 2.116. Local civil engineering firm Duncan Mackay and Sons visited the site and conducted trial pits in February 2023. They noted the ground was hard and likely contained hydrocarbons. No evidence of rocks or old rubbish from a dump was found.

Conclusions

- 2.117. The Comhairle's Environmental Health Department have been consulted. They have indicated they have no objection in principle to the proposed development in respect of contaminated land. Draft planning conditions have been considered. Trial pits and a desktop study have been carried out as recommended by the Environmental Health Department.
- 2.118. The design of the project incorporates an earth bund area so that material from the site does not need to be removed during construction. It is proposed that this will be seeded with grass and planted with trees after the build phase is complete as indicated on the 'Proposed Planting and Landscaping Plan'.

Noise

Noise Impact Assessment

- 2.119. A separate noise impact assessment has been produced by Bureau Veritas and is provided with this planning application.
- 2.120. The Comhairle's Environmental Health Department, Colm Fraser, was consulted at the pre-application stage. The assessment provided evaluates the project against the criteria provided by Mr Fraser.
- 2.121. In conclusion, the assessment identifies that the project can comply with the criteria provided by the Environmental Health Department.

Lighting

Introduction

2.122. This chapter describes the measures being taken to mitigate any impact from lighting resulting from the proposed development project.

2.123. The applicant, The Point and Sandwich Development Trust, is keen to ensure the proposal is not disruptive to the local community.

Pre-Application Consultation

2.124. Comhairle nan Eilean Siar requested details of security lighting⁶⁵.

Current Lighting Arrangements

2.125. The site currently has no operational lighting equipment.

2.126. There is some street lighting on the existing road to the immediate west of the site, which joins Newton Street with the marina at Goat Island. There are floodlights attached to the northern and eastern elevations of the HM Coastguard building adjacent to the site. These lights help illuminate the HM Coastguard car park.

2.127. There is lighting fixed to the western Elevation of the power station, this being the side of the power station closest to the proposed battery site. There are several lamp posts (which each support twin spotlights) in the grounds of the power station on the land between the power station and the proposed battery site.

2.128. There is street lighting at Newton Street / Seaview Terrace (this being the closest stretch of adopted Council road to the site). The semi-detached properties south of Seaview Terrace benefit from an access / parking lane, situated between them and the power station. This lane is also illuminated.

2.129. The marina areas and waterfront are generally well illuminated at night throughout this part of the Stornoway urban area.

Planned Lighting Arrangements

2.130. The proposed development will be accessible 24/7, however there will be no continuous lighting on site.

2.131. To minimise artificial light produced by the site, particularly in the interests of nearby residents, several low impact forms of illumination will be installed:

- Motion sensor lights. For site security.
- Task lights. Small light fittings will be installed in specific areas, for use by maintenance personnel in low light conditions.
- CCTV lighting. The proposed new CCTV cameras will have built-in lighting components. Please refer to the drawing 'Proposed Lighting and CCTV Plan'.

2.132. Lighting mounted on tall poles which is directed toward residential properties will not be needed.

2.133. Currently, details of exact equipment and lighting location are not finalised.

⁶⁵ Email from Morag Ferguson, Planning Manager to Calum MacDonald on 10 October 2022.

Expected Impact on Neighbouring Properties

- 2.134. As described above, lighting is commonplace across this locality. The development site will need illumination from time to time, however the effects of any lighting on neighbouring residential properties will be mitigated by the absence of tall floodlights and permanent (always on) lighting, the low brightness of the planned lighting arrangements, and the relative brightness and permeance of the existing local lighting.
- 2.135. The proposed acoustic fence will mitigate lighting impact because it also provides a barrier to light.

Conclusions

- 2.136. Lighting has been considered carefully during the design phase. The proposed lighting is not expected to have a material impact on neighbouring properties.

3. Access Statement (Including Transport Statement)

Transport and Vehicle Access

Introduction

- 3.1. The Technical Description of the Development chapter earlier in this document introduces the project and will assist with an understanding of the transport matters set out here.

Pre-Application Consultation

- 3.2. During the design phase of the project contact was made with John Macleod from Roads, Bridges & Streetlighting within Comhairle nan Eilean Siar to discuss their requirements for access to the site⁶⁶.
- 3.3. John Macleod advised that:

“the Goat Island road is not a Council adopted road but the Roads Section of the Council would still have an input on roads related issues through the planning process. This would mainly relate to access visibility, on site parking/ turning etc”⁶⁷.

- 3.4. Visibility at the junction with Newton Street was deemed ‘good’ by John Macleod in his initial email⁶⁸.
- 3.5. Mr Macleod requested access gates be positioned to allow a vehicle to park “off road” while they are being opened.
- 3.6. Comhairle nan Eilean Siar planning department also stated that *“it would be useful to have early statement on logistics, maximum weight of units and likely means/transport route of consignments”⁶⁹.*

Policy, Legislation and Guidance

National Planning Framework 4 (2023)

- 3.7. Policy 11: Energy is relevant to this chapter, it states:

“Project design and mitigation will demonstrate how the following impacts are addressed: (vi) impacts on road traffic and on adjacent trunk roads, including during construction.”⁷⁰

Access

- 3.8. There will be two gated vehicle access points. One will be located on the north of the site (northern entrance) and will be the primary entrance for construction and operation as it is easier to approach and is equipped with a full turning circle. This primary access will be wide enough for vehicles to pass each other when entering and exiting the site. This access will also have a new off-road passing and waiting area of aggregate hard standing surface, approximately 32 metres in length between the road to Goat Island and the northern access gate (complying with Mr Macleod’s request set out above). The location already benefits from a passing place along the western edge of the road to Goat Island (see photo

⁶⁶ Email from The Greenspan Agency to John Macleod of Roads, Bridges and Streetlighting at Comhairle nan Eilean Siar on 10 January 2023.

⁶⁷ Pre application advice email sent by John Macleod of Roads, Bridges and Streetlighting at Comhairle nan Eilean Siar to The Greenspan Agency on 13 October 2023.

⁶⁸ Pre application advice email sent by John Macleod of Roads, Bridges and Streetlighting at Comhairle nan Eilean Siar to The Greenspan Agency on 13 October 2023.

⁶⁹ Pre-application advice email sent by the Planning Manager at Comhairle nan Eilean Siar to the applicant on 10 October 2023.

⁷⁰ Scottish Government, ‘National Planning Framework 4’, 2023, page 53.

below), and close to the junction with Newton St. This passing place further reduces the likelihood of HGVs or other construction vehicles waiting on the public road.

Figure 10: Existing Layby Adjacent to Site Access
Layby outlined yellow



- 3.9. The photo below shows the approximate location of the northern vehicle access, off the existing road to the immediate west of the site, which joins Newton Street with the marina at Goat Island. Part of the existing concrete and metal fence will be removed to create the vehicle access point. The remaining concrete and metal fence will be retained along the western site edge.
- 3.10. A dropped curb will be added at the vehicle access, with the pavement also made good.
- 3.11. The existing lamp post to the immediate south of the vehicle access will be retained. No alterations to the existing streetlighting are necessary.

Figure 11: Proposed Northern Vehicle Access



- 3.12. The other access will be located at the south of the site and will support the entrance and exit of smaller vehicles such as cars and vans, together with servicing and emergency access. This southern gate will also be 6 metres in width. The photo below shows the approximate proposed location of the southern access.

Figure 12: Location of Proposed Southern Access



- 3.13. The low-level wooden fence will be removed to create the southern vehicle access.
- 3.14. Consultation was undertaken with staff at the nearby Coastguard station. They explained they were short of parking spaces at busy times, particularly when responding to significant incidents. To assist them, it

is proposed that ten additional car parking spaces will also be created for Coastguard use, approximately where the grass verge currently begins. There will be five parking spaces on either side of the new southern access.

- 3.15. Both vehicle accesses can be viewed on the Proposed Site Layout included with this planning application.
- 3.16. There will be a turning circle within the site boundaries, allowing for vehicles to enter and exit the site in a forward gear.

Baseline Traffic Assessment

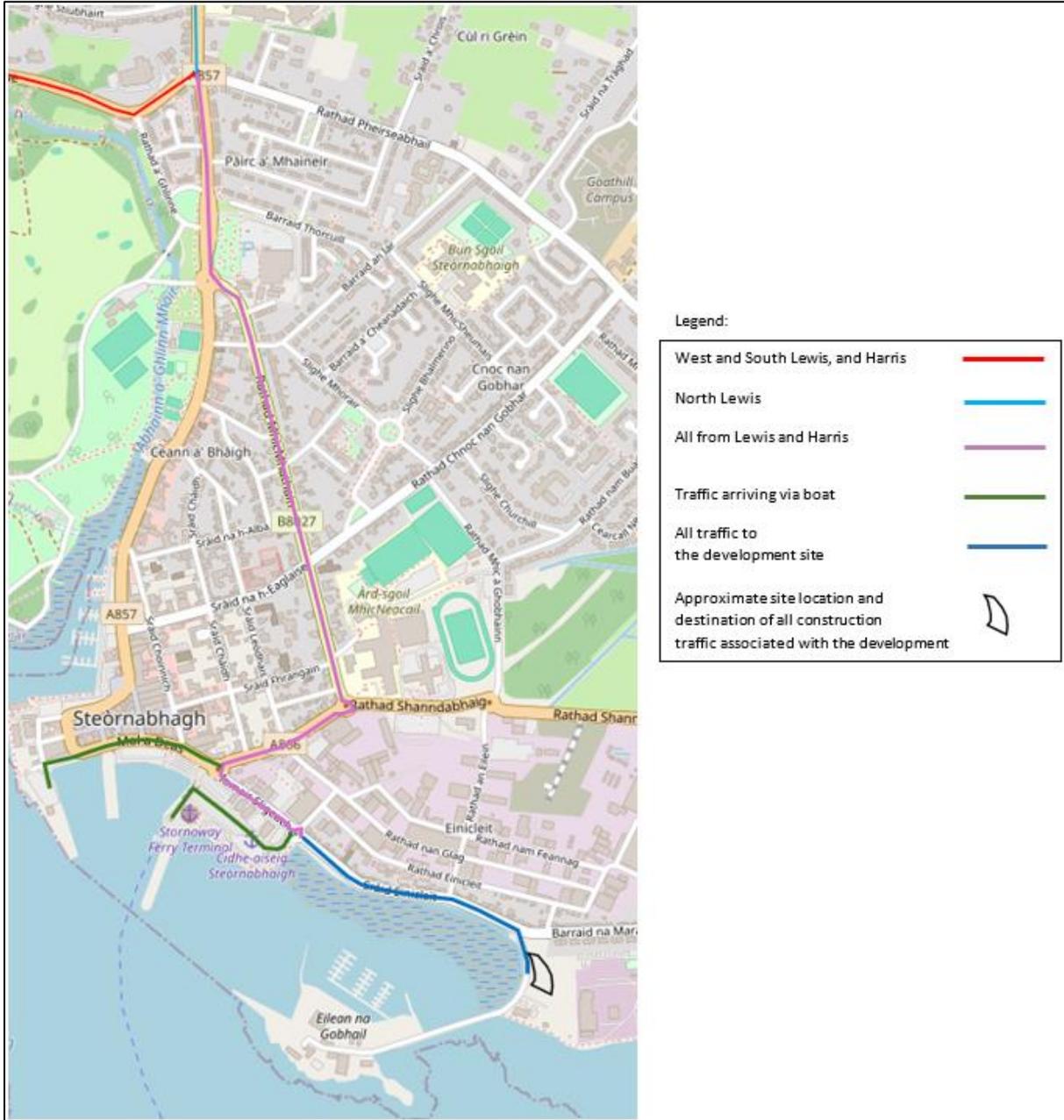
Adjacent Roads – Baseline

- 3.17. No new traffic surveys have been carried out for this planning application. This was not considered necessary as the development is of a type which produces very little traffic during operation.
- 3.18. A proposed construction deliveries route map has been provided below. Site visits and desk-based study have suggested that the roads on this route (including Newton Street, Shell Street, James Street and Matheson Road) benefit from free-flowing traffic.

Construction Vehicle Movements

- 3.19. Most HGV movements are expected to be rigid HGVs; however, some articulated HGV movements may also be required. A crane will also be needed to position the battery containers and power converters.
- 3.20. Specialist technical and electrical equipment, such as the battery containers, will arrive by sea via Stornoway Port. Construction materials such as crushed rock aggregate will be sourced from a local quarry on the islands. The map below highlights the likely transport routes for construction and delivery vehicles approaching the site.
- 3.21. It is expected that the road network in and around Stornoway will be able to support the project construction traffic. Table 1 below shows indicative numbers of vehicle movements during the construction phase.
- 3.22. The indicative candidate best routes to and from the site are straightforward. Traffic approaching from west and south Lewis, and Harris, is expected to approach along the A858 Willowglen Road. This includes a candidate supplier of concrete and aggregate materials, which is located at a quarry approximately 5km west of the proposed development site.
- 3.23. Traffic approaching from the north of Stornoway is expected to use the A857.
- 3.24. Macaulay Road and Matheson Road (both A857) will likely provide a route into the centre of Stornoway, where vehicles will meet the Matheson Road / James Street roundabout and turn west along James Street. Vehicles will take the Shell Street exit at the James Street and Shell Street roundabout.
- 3.25. All construction vehicles are expected to travel along Newton Street to reach the development site before turning south onto the existing road to the immediate west of the site, which joins Newton Street with the marina at Goat Island.

Figure 13: Proposed Construction Deliveries Route Map



3.26. The table below shows predicted delivery trip numbers by vehicle type. Each delivery represents one return and departure vehicle movement associated with the construction phase of the project. It is estimated that a total of 395⁷¹ deliveries will be required during the construction phase.

Table 1: Number of Site Visits by Vehicle Type⁷²

Activity	Total Loads
Tipper Truck containing stone for hardstanding	268
Crane and support vehicle	1
Rigid HGV containing fencing	11
Concrete Truck Mixer	23
Articulated HGV for delivery of containerised prefabricated battery units and cabling	23
Other construction vehicles: deliveries of CCTV and lighting systems, crane ballast etc.)	70
Total	395
Duration of construction phase (months)	8
Duration of construction phase (weeks)	35
Working days in construction phase (weekdays)	175
Average heavy vehicle visits per day during construction phase	2.2

3.27. Material excavated from the site will be kept on site to create bunding.

Drawings

As part of the suite of drawings provided in this planning application, readers of this transport and vehicle access chapter may be most interested in:

- Proposed Site Layout (including on-site turning circle)
- Swept Path HGV
- Swept Path Tipper
- Swept Path Crane

Swept Paths

3.28. The swept path analysis drawings provided demonstrate that the site entrance and internal layout allow the largest relevant vehicles to use the site.

3.29. Abnormal loads as defined by the Department for Transport⁷³ are not expected to be required for construction phase deliveries, nor will they be in use during site operation.

⁷¹ Based on calculations on 15 March 2024 by Michael Jolly, Design Engineer at The Greenspan Agency.

⁷² Based on calculations on 15 March 2024 by Michael Jolly, Design Engineer at The Greenspan Agency.

⁷³ Accessed from: <https://nationalhighways.co.uk/road-safety/abnormal-loads-and-the-esdal-system/>

Operation

- 3.30. During the operational phase the battery energy systems will be controlled remotely, and the site will not be staffed. Occasional visits for maintenance will occur. The required service vehicles will usually be cars or vans. Based on experience at operational sites, the frequency of site visits is expected to be between 1 and 2 visits per month. The impact on the local road network during operation will therefore be negligible.

Public Access

- 3.31. For security and safety there will be no public access to the development during the construction or operation phases.
- 3.32. The road to the immediate west of the site, which links Newton Street and Goat Island, will not be obstructed during construction or operation.
- 3.33. There are no core paths or designated walking routes within the site boundary.

Disabled Access

- 3.34. Regulation 13 of 'The Town and Country Planning (Development Management Procedure) (Scotland) Regulations 2013' requires that Design and Access Statements include information relating to how access to the development by disabled people has been considered.
- 3.35. Local Development Policies relating to disabled people have been considered. National Planning Framework 4 sets out various policies related to disabled people, particularly in relation to housing and tourism, neither of which are focused on the type of development being proposed here.

The Public

- 3.36. The site will not be accessible to the public and so it is not necessary to consider members of the public with reduced mobility in the design process.
- 3.37. The pre-application consultation events held for this project, which are detailed within the accompanying Pre-Application Consultation Report, were held at accessible venues so that members of the public with reduced mobility could attend if they wished. The issue was not directly raised by the public at these events.

Battery Operations Staff

- 3.38. The proposed development will be unstaffed during the operational phase, except for occasional site maintenance visits. The site can be accessed by vehicle and parking areas are large enough for staff with reduced mobility.
- 3.39. Most employment opportunities associated with this unstaffed project will be created in the fields of remote commercial operation and monitoring. These roles will be suitable for those with reduced mobility.
- 3.40. The Point and Sandwick trust, together with operation and maintenance companies servicing the battery project, will need to consider their obligations under the Equality Act 2010 during the operational phase. They will need to make what are referred to as 'reasonable adjustments' under equalities legislation, but

also keep employees safe under relevant health and safety legislation and prepare appropriate risk assessments. It may be concluded at that time that it would be inappropriate to ask those with reduced mobility to work with high-voltage equipment in confined spaces such as substations or battery enclosures.

- 3.41. The Equality Act protects the rights of those with forms of disability other than those with reduced mobility. Maintenance work at the site may be considered safer for those with disabilities which do not impair their mobility.

Supporting the Coastguard

- 3.42. Page 92 of the Local Development Plan 2018 sets out disabled parking standards. Employment Premises with fewer than 200 spaces should provide a minimum of 2 disabled parking spaces or 5% of the total.
- 3.43. As part of the proposed development ten new parking spaces will be provided for use by the Coastguard offices which neighbour the proposed battery site. During the design phase consideration was given as to whether some of the new spaces could be larger to accommodate disabled parking. However, disabled parking spaces should be located adjacent to the building and the new spaces being created will not be adjacent to the Coastguard building. It is also noted that the Coastguard building does not appear to have ramped access at the main staff entrance. In conclusion, the additional parking provided to the coastguard will free-up space adjacent to their building such that disabled parking spaces could be marked out close to their building and out-with the proposed battery development site in future if required. This Coastguard parking arrangement cannot be delivered within this planning application but could be indirectly facilitated by it.

Conclusions

- 3.44. There will be two access points. One at the north of the site, which will be the main construction phase access, and one at the south of the site.
- 3.45. There will be a new off-road area for HGVs to stop and wait prior to entering the development site.
- 3.46. A turning circle is proposed, so vehicles will not need to reverse into or out of the site.
- 3.47. No abnormal loads are required for the construction of the development.
- 3.48. Road transport routes for the delivery of equipment and materials to site have been identified and assessed. The number of vehicle deliveries has been quantified, with an average of 2.2 per day during the construction phase. The local road network can support the construction of the project.
- 3.49. The project accords with relevant planning policy relating to transport and public access and the above Access Statement has met the statutory requirements for Access Statements accompanying 'major development' planning applications.

Appendix: Design and Access Statement Checklist

The following table summarises the requirements under regulation 13 of ‘The Town and Country Planning (Development Management Procedure) (Scotland) Regulations 2013’.

Table 2: Design and Access Statement Checklist

Requirements as stated in regulation 13	Provided in the above Design and Access Statement?
<i>“(4) A design statement is a written statement about the design principles and concepts that have been applied to the development and which—</i>	
<i>(a) explains the policy or approach adopted as to design and how any policies relating to design in the development plan have been taken into account;</i>	Yes
<i>(b) describes the steps taken to appraise the context of the development and demonstrates how the design of the development takes that context into account in relation to its proposed use; and</i>	Yes
<i>(c) states what, if any, consultation has been undertaken on issues relating to the design principles and concepts that have been applied to the development and what account has been taken of the outcome of any such consultation.</i>	Yes
<i>(5) A design and access statement is a document containing both a design statement and written statement about how issues relating to access to the development for disabled people have been dealt with and which—</i>	
<i>(a) explains the policy or approach adopted as to such access and, in particular, how— (i) policies relating to such access in the development plan have been taken into account; and (ii) any specific issues which might affect access to the development for disabled people have been addressed;</i>	Yes
<i>(b) describes how features which ensure access to the development for disabled people will be maintained; and</i>	Yes
<i>(c) states what, if any, consultation has been undertaken on issues relating to access to the development for disabled people and what account has been taken of the outcome of any such consultation.”</i>	Yes