Corshellach Storage Project

Ecological Impact Assessment



Client: Renewable Energy Systems Limited

Report Reference: RSE_6854_R1_V4_ECIA Issue Date: June 2024







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EXECUTIVE SUMMARY

1.1 Background

- i RammSanderson Ecology Ltd was commissioned by Renewable Energy Systems Limited (the Applicant) to prepare an Ecological Impact Assessment (EcIA) to support the planning application for the construction of a battery energy storage system (the Scheme) located on land to the west of the existing Electricity Substation Berryburn (the Application Site), in Moray, Scotland.
- ii The Application Site consists of an area of heavily grazed grassland (cattle and rabbit), wet heath, wet bog, acid grassland, dense scrub and hardstanding in the form of an access road in Tomnamoon. Immediately adjacent to the north boundary of the Application Site is a line of electricity pylons.
- iii Table 1 summarises the EcIA.

Table 1: Summary of EcIA

Ecological Feature	Comment	Avoidance	Mitigation	Compensation/Enhancement	
					Effect
Designated Sites	No designated sites in 2km radius	N/A	N/A	N/A	N/A
Habitats	Habitats of high	As far as practical, areas of	An area of heathland (otherwise	N/A	Significant
	biodiversity/conservation value on	wet heath and grassland	lost to infrastructure		at site level
	Site, including wet heath.	will be retained.	development) will be translocated		
			within the red line boundary.		
Birds	Valuable habitats present onsite that	As far as practical, areas of	All works to be carried out outside	N/A	Significant
	are utilised by BOCC Red and BOCC	suitable bird habitat will be	of peak nesting bird season		at site level
	Amber bird species.	retained within the red line	(March to August inclusive)		
		boundary.			
Reptiles	Grassland and heath suitable for	As far as practical, areas of	Precautionary method of working	N/A	Negligible
	reptiles.	suitable reptile habitat will	during construction.		
		be retained within the red			
		line boundary.			
Brown hare	Habitats on Site suitable for brown	As far as practical, areas of	Precautionary method of working	N/A	Negligible
	hare foraging/traversing.	suitable brown hare habitat	during construction.		



Storage Project Corshellach EcIA

Fcological Feature	Comment	Avoidance	Avoidance Mitigation		Residual
					Effect
		will be retained within the			
		red line boundary.			
Other Mammals (red	Considered likely absent, or passing	N/A	No species-specific mitigation	N/A	Negligible
squirrel, Scottish wildcat,	through only at very low frequencies.		required.		
pine marten, bats, badger,					
water vole, otter)					
Amphibians	Considered absent.	N/A	N/A	N/A	N/A
Terrestrial Invertebrates	The Application Site does not provide	N/A	N/A	N/A	N/A
	habitats suited to any notable				
	invertebrate species				



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1 INTRODUCTION

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1.1 Purpose and Scope of this Report

- RammSanderson Ecology Ltd was commissioned by Renewable Energy Systems Limited (the Applicant) to prepare an Ecological Impact Assessment (EcIA) to inform the planning application for the construction of a battery energy storage system (the Scheme) located on land to the west of the existing Electricity Substation Berryburn (the Application Site), in Moray, Scotland.
- i The study area was defined depending on the proposals, desk study and applicable legislation (Appendix 1: Legislation and Planning Policy). The Site was defined based on the red line boundary provided by the Applicant, as shown in the enclosed Site Location Plan (Figure 1).
- ii The proposed energy storage scheme is planned to be located in the site context plan below. The hardstanding and associated infrastructure will be approximately 1 ha. It will include hardstanding, storage containers, substations and other equipment, surrounded by an acoustic fencing up to 3m in height. A new access track will connect to the road which runs along the southern boundary of the Site. An infiltration/attenuation pond will be located to the west of the hardstanding.
- To complete an EcIA of the proposals, a desk-based assessment, an Extended Phase 1 Habitat Survey and protected species assessments were carried out. This report is a stand-alone EcIA which has been prepared following current guidance (Chartered Institute of Ecology and Environmental Management (CIEEM, 2018)) and can be used to lawfully determine a planning application in line with current planning policy. This report does not form part of a wider discipline Environmental Impact Assessment (EIA) of Environmental Statement (ES), nor does it confer the need for any such documentation.
- This EclA is based on a review of the development proposals provided by the Applicant in Drawings: '04876-RES-LAY-DR-PT-001' and 'P23-0525_EN_02B Landscape Strategy' (Appendix 2: Applicant Proposals), desk study data (third party information, Appendix 3) and the surveys of the Site. The aims of this report are to:
 - Classify the habitat types at the Site based on standard Phase 1 Habitat survey methodology;
 - Evaluate any potential for protected species to be present;
 - Identify any ecological constraints that may affect the scheme design;
 - Identify likely significant effects on ecological receptors;
 - Detail a mitigation strategy to address impacts so effects on ecological receptors are not significant;
 - Assess if the proposals are compliant with legislation and policy relating to biodiversity; and
- This report pertains to these results only; assessments included within this report are the professional opinion
 of an experienced ecologist and therefore the view of RammSanderson Ecology Ltd.
- vi The surveys and desk-based assessments undertaken as part of this review and subsequent are prepared in accordance with the British Standard for Biodiversity Code of Practice for Planning and Development (BS42020:2013) and follow current guidance (CIEEM, 2018).

1.2 The Application Site

- i The Application Site is located adjacent to the Electricity Substation Berryburn in Corshellach, Moray, Scotland at (grid reference NJ 04116 46970). Dunphail is approximately 3.4km northwest and Forres is approximately 11.5km north.
- The Application Site (c.6ha) consists of an area of heavily grazed grassland (cattle and rabbit), wet heath, wet
 bog, acid grassland, dense scrub and hardstanding in the form of an access road in Tomnamoon. Immediately
 adjacent to the north boundary of the Application Site is a line of electricity pylons.
- iii The wider landscape is a mixture of heathland, plantation woodland and cattle and sheep grazed grassland.





2 METHODOLOGY

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2.1 Ecological impact Assessment

This EclA is based on the standard best practice methodology provided by the Guidelines for Ecological impact Assessment (CIEEM, 2018). The assessment identifies important sites, habitats, species and other ecological features that are of conservation value based on factors such as legal protection, statutory or local site designations such as Sites of Special Scientific Interest (SSSI) or Local Wildlife Sites (LWS) or inclusion on Red Data Book Lists or Local Biodiversity Action Plans.

The importance of an ecological feature is considered within a defined geographical context. The following frame of reference is used, or adapted to suit local circumstances:

- International and European Importance
- National
- Regional
- Metropolitan, County, vice-county or other local authority-wide area
- River Basin District
- Estuarine system/Coastal cell
- Local
- Below Local level e.g. on site only Importance



Negligible

Consideration of impacts at all scales is important, and essential if objectives for no net loss of biodiversity and maintenance of healthy ecosystems are to be achieved. In identifying impacts, the review considers the Client's Site proposals and any subsequent recommendations made are proportionate / appropriate to the site and have considered the Mitigation Hierarchy as identified below:

- Avoid: Provide advice on how the development may proceed by avoiding impacts to any species or sites by either consideration of site design or identification of an alternative option.
- Mitigate: Where avoidance cannot be implemented mitigation proposals are put forward to minimise impacts to species or sites as a result of the proposals. Mitigation put forward is proportionate to the site.
- Compensate: Where avoidance cannot be achieved any mitigation strategy will consider the requirements for site compensatory measures.
- Enhance: The assessment refers to planning policy guidance to relate the ecological value of the site and identify appropriate and proportionate ecological enhancement in line with both national and local policy.
- iv For the purpose of this EcIA, a 'significant effect' is an effect that either supports or undermines biodiversity conservation objectives for 'important ecological features' (explained in 3.1.i.) or for biodiversity in general. Conservation objectives may be specific (e.g. for a designated site) or broad (e.g. national/local nature conservation policy) or more wide-ranging (enhancement of biodiversity). Effects are considered significant at the range of scales from international to local. A significant effect is an effect that is sufficiently important to require assessment and reporting so that the ecological consequences of the project are understood. In broad terms, significant effects encompass impacts on structure and function of defined sites, habitats or ecosystems and the conservation status of habitats and species (including extent, abundance and distribution).
 - Note: The following definitions are used for the terms 'impact' and 'effect' throughout this report:
 - **Impact** Actions resulting in changes to an ecological feature. For example, the construction activities of a development removing a hedgerow.



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• **Effect** – Outcome to an ecological feature from an impact. For example, the effects on a dormouse population from loss of a hedgerow.

2. Desk Study

1.2.1 Background Records Search

- i The EclA includes a desk study to obtain background records relevant to a Site and the Scheme. The data obtained provides contextual information for the scope of field surveys, to aid the evaluation of field survey results, and to provide supplementary information where complete field survey coverage is not possible.
- ii The Study Area is dependent upon the nature, timing and scale of the Scheme, as well as the location of the Site and the surrounding landscape. These variables all contribute to what is referred to as the Zone of Influence (ZoI) of the Scheme, which is the area over which ecological features may be affected by biophysical changes because of the works and associated activities.
- iii In April 2023 the Northeast Scotland Biological Records Centre was contacted to obtain the following ecological data:
 - Records of non-statutory designated sites within 2km of the Site boundary;
 - Notable habitats within 2km of the Site boundary, such as ancient woodland;
 - Records of legally protected and notable species (fauna and flora) within 2 km of the Site boundary.
- iv The Multi-Agency Geographic Information for the Countryside (MAGIC) (www.magic.gov.uk) website was reviewed for the following information:
 - Designated sites of nature conservation importance (National Nature Reserves (NNRs), Sites of Special Scientific Interest (SSSIs)) and internationally designated sites: Special Protection Areas (SPAs), Wetlands of International Importance (Ramsar sites) and Special Areas of Conservation (SACs) within 2km of the Site.

1.2.2 Great Crested Newt Pond Search

Although rare in Scotland, populations are known to occur in the Highlands. Ordnance Survey maps and the Where's the Path website (https://wtp2.appspot.com/wheresthepath.htm) have been used to identify the presence of water bodies within 500m of the Site boundary, in order to help establish if the land within and immediately surrounding the Site could be used by great crested newts. This species can use suitable terrestrial habitat up to 500m from a breeding pond (English Nature, 2001), though there is a notable decrease in great crested newt abundance beyond 250m from a breeding pond (Natural England, 2004).

3. Phase 1 Survey

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- The Phase 1 walkover of the Survey Area (all land within the Site) broadly followed the Phase 1 habitat survey methodology as set out in Joint Nature Conservation Committee guidance (Joint Nature Conservation Committee, 2010). This survey method records information on habitat types and is 'extended' to record any evidence of and potential for protected or notable species to be present. Plant names recorded during the survey follow (Stace, 2019).
- ii During the walkover survey, the following protected or notable species are considered:
 - Badger: the survey involves searching for signs of badger activity including setts, tracks, snuffle holes and latrines, following the methodology detailed in (Scottish Natural Heritage, 2018) and (Harris, 1989).
 - Bats: the survey involves searching for potential roosting sites for bats within trees and structures (such as buildings, bridges or underground features such as mines). The overall value of the Site and its connectivity to the wider countryside was also assessed in relation to bats. The likelihood of bats



roosting at the Site or moving through the site between local roost sites and foraging/mating/hibernation habitats was considered.

- Otter: the survey involves assessing the potential of watercourses and water bodies, and adjacent terrestrial habitat within the Survey Area to support otter, following RSPB (Ward, 1994) and (Chanin, 2003) guidance;
- Water vole: the survey involves assessing the potential of watercourses and water bodies within the Survey Area to support water vole, following The Mammal Society (Dean, 2016) guidance;
- Birds: the survey involves assessing the potential of habitats within the Survey Area to support breeding, wintering or migrating birds, either individually notable species or assemblages of both common and rarer species;
- Great crested newt: the survey involves assessing the potential of habitats within the Survey Area to support great crested newt, following English Nature (English Nature, 2001) and Froglife (Froglife, 2001) guidance;
- Reptiles: the survey involves assessing the potential of habitats within the Survey Area to support reptiles (typically adder, grass snake, common lizard and slow worm only, though in some locations and habitat types (most notably heathland) may also include smooth snake and sand lizard), following Froglife (Froglife, 1999) and JNCC ((Joint Nature Conservation Committee, 2003) guidance;
- Notable species of invertebrate: the survey involves assessing the potential of habitats within the Survey Area to support notable species of invertebrates, both terrestrial and aquatic (including whiteclawed crayfish);
- Protected or Notable species of plants: the survey involves recording protected or notable plant species;
- Other notable species: the survey involves assessing the potential of habitat within the Survey Area to support other Notable Species, such as hedgehog, brown hare, polecat or common toad;
- Non-native invasive plant species: the survey involves recording evidence of the presence of invasive plants listed on (Wildlife and Countryside Act, 1981 (as amended)) and subject to strict legal control.
- iii The results of the Phase 1 showed a requirement for further specific surveys for protected species, as detailed below.

2.1 National Vegetation Classification (NVC) Survey

- The survey was undertaken using standard methodology set out within the National Vegetation Classification:
 Users' handbook (JNCC, 2006). Homogenous stands of vegetation were assessed and classified to the NVC communities and sub communities.
- ii The habitats were split into six compartments based on species differences, management (grazing) and standing water levels. Quadrats of 2x2m size were then randomly selected within the habitat parcels, and all species were noted along with the vegetation height, structure and percentage cover of each species within the quadrat. All compartments had a minimum of five quadrats.
- Where appropriate the MAVIS software was then used to ascertain the vegetation classification, by inputting the species lists and frequency for the NVC plots. For groups of plots entered into MAVIS as constancy tables, matching coefficients are assessed between the published NVC data tables and the new field survey data. The top 10 coefficients/matching habitats are displayed (Smart et al., 2016). Higher plant species nomenclature follows that provided in Stace (2019) for vascular plants and Atherton, Bosanquet and Lawley (2010) for bryophytes.

4. Birds

1.4.1 Breeding Bird Surveys (BBS)

A suite of breeding bird surveys was carried out at the Site following a method based on the British Trust for
 Ornithology's (BTO) Common Bird Census (CBC) methodology. A total of four visits were carried out between
 May and July 2023 (survey dates are listed in Table 2). The surveys were split across two seasons since the



initial Phase 1 survey was conducted in late April, resulting in the initial bird surveys starting mid-way through the season; the early season survey was therefore conducted the following year.

- ii Two of the visits were at dusk and two at dawn. Visits were carried out in suitable weather conditions with winds less than force 3 on the Beaufort scale and no precipitation.
- iii On each visit the entirety of the Site was surveyed, with the surveyor coming within 50 metres of all points within the Site boundary. The location and activity of each bird detected (visually and/or aurally) was recorded.
- iv Birds were considered to be demonstrating breeding behaviour if they were singing, displaying, alarm calling, carrying food, and undertaking distraction displays or if eggs or chicks were found. All birds engaged in other forms of behaviour were considered to be feeding, passing through or loafing within the Site boundary and were not, therefore, considered to be breeding in the location of the observation.
- The location of each registration was mapped using standard two-letter BTO Codes, and bird activity was recorded using BTO behaviour codes.

2.2 Surveyor Competency and Survey Dates

- The Phase 1 field survey was conducted by Matt Oakley MCIEEM CEnv. Matt has over 18 years' experience of professional ecology and is appropriately experienced and qualified to undertake this type of survey.
- ii The NVC Survey was conducted by Amy Skuce MCIEEM. Amy has been a professional ecologist for nine years and holds a FISC (Field Identification Skills Certificate) Level 4 in Botanical Identification and as such is appropriately experienced and qualified to undertake NVC assessment.
- iii The BBS were conducted by Peter Stronach (The Wildlife Survey Unit). Peter has over 15 years' experience of professional ecology, is a specialist in ornithology, and is the former bird recorder for the Highland recording area. Therefore, he is appropriately experienced and qualified to undertake these surveys.

Ecological Feature	Survey Type	Date(s) of Survey(s)
Habitats	Phase 1 habitat survey	5 th April 2023
Plants	NVC Survey	7 th June 2023
Birds	Breeding Bird Surveys	Survey 1: 23 rd May 2023 Survey 2: 11 th June 2023 Survey 3: 20 th June 2023 Survey 4: 16 th July 2023

Table 2: Field Surveys Undertaken to Inform EcIA

2.3 Limitations

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It should be noted that whilst every effort has been made to provide a comprehensive description of the site, no investigation could ensure the complete characterisation and prediction of the natural environment.

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The aim of a desk study is to help characterise the baseline context of a proposed development and provide valuable background information that would not be captured by a single site survey alone. Information obtained during the course of a desk study is dependent upon people and organisations having made and submitted records for the area of interest. As such, a lack of records for a particular habitats or species does not necessarily mean that the habitats or species do not occur in the study area. Likewise, the presence of



records for particular habitats and species does not automatically mean that these still occur within the area of interest or are relevant in the context of the proposed development.

- iii An ecological survey represents a 'snapshot' in time of the ecological condition of a Site. The ecological character of a Site can change substantially throughout both the course of a year, and from year to year impacting on the extent and quality of habitats potential to support protected species.
- iv The PEA was not conducted at an optimal time of year for undertaking detailed botanical surveys. However, this was followed up by the NVC survey.

2.4 Accurate lifespan of ecological data

i The majority of ecological data remain valid for only short periods due to the inherently transient nature of the subject. The survey results contained in this report are considered accurate for approximately 18 months from the date of survey, notwithstanding any considerable changes to the site conditions, the presence of mobile species such as bats, otters and badgers or where species/county specific guidance dictates otherwise (CIEEM, 2019).



3 BASELINE CONDITIONS

3.1 Designated Sites

There are no Statutory Designated Sites or Non-Statutory Designated Sites within the Study Area (Appendix 3).

3.2 Habitats

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- i The desk study results are collated in Appendix 3 (Table 7), which shows notable habitats within the Study Area. The closest is a parcel of native pine woodland which is located adjacent to the Site, south-west of the site boundary.
- ii Habitat types detailed below in Table 3 are listed in order of the JNCC (2010) Handbook. The species list provided in this report reflect only those taxa observed during the survey.
- iii No invasive non-native plant species was identified on or adjacent to the Application Site.



Table 3: Habitats within the Application Site

Habitat	Description	Area (m²)	Proportion of site (%)	Ecological Importance & Outcome of Proposal	Photograph
A2.1 Dense scrub	Two areas of gorse (<i>Ulex europaeus</i>) were present along the southern boundary of the Application Site and adjacent to the access road.	640.99	1.01	Provides nesting opportunities for birds. To be retained.	
B1.2 - Acid grassland - semi- improved	An area of grassland on peat substrate was present in the east of the Application Site. Grass species included sweet vernal grass (<i>Anthoxanthum odoratum</i>), common bent (<i>Agrostis capillaris</i>), wavy hair grass (<i>Deschampsia flexuosa</i>), tufted hair grass (<i>Deschampsia caespitosa</i>), crested dog's-tail (<i>Cynosurus cristatus</i>), with other species including tormentil (<i>Potentilla erecta</i>). Evidence of rabbit grazing, though not extensive.	7924.43	12.47	Provides habitat for ground nesting bird species, as well as reptiles. Very small area of the habitat to be lost to facilitate an access track.	



Habitat	Description	Area (m²)	Proportion of site (%)	Ecological Importance & Outcome of Proposal	Photograph
B4 - Improved grassland	Heavily rabbit grazed grassland, with high abundance of soft rush (<i>Juncus effusus</i>), parts of the habitat were quite wet as water appeared to drain into this corner. Present in the northwestern corner of the site.	2593.72	4.08	Ecological value limited by heavy grazing. To be replaced with higher value habitat.	
D6 - Wet heath/acid grassland	The largest habitat on Site included heather (<i>Calluna</i> sp.), cross-leaved heath (<i>Erica tetralix</i>), common cotton grass (<i>Eriophorum angustifolium</i>), mat grass (<i>Nardus stricta</i>), various sphagnum species including small red peat moss (<i>Sphagnum capillifolium</i>).	29115.70	45.81	Provides habitat for ground nesting bird species. Habitat of Principal Importance. Part of habitat will be removed to facilitate the Scheme.	



Habitat	Description	Area (m²)	Proportion of site (%)	Ecological Importance & Outcome of Proposal	Photograph
E1.7 – Wet modified bog	A small area of wet bog was present by the northwest boundary (outside of the application boundary), including mosses (<i>Sphagnum</i> sp.), lichens, heath rush (<i>Juncus squarrosus</i>), bog myrtle (<i>Myrica gale</i>), bog asphodel (<i>Narthecium ossifragum</i>).	N/A	N/A	Moderate ecological value. Not to be impacted by proposals.	
J6 Hard standing	A road was present along the southeast border.	2715.94	4.27	Negligible value.	
G2.1 - Running water	A narrow, shallow stream was running along the western Application Site boundary. It was brown in colour which highlights the water is running through a peat base.	Off-site	N/A	Limited ecological value. Likely to provide water resource for birds, mammals.	
				Not to be impacted by proposals.	





3.2.2 NVC

- i A detailed botanical assessment was undertaken in peak botanical growing season to provide robust habitat classification of sufficient detail. The majority of the site comprised a mosaic of M15 Scirpus-Erica wet heath and M16 wet heathland habitats. This habitat was in poor condition, with negligible levels of lichen recorded, livestock poaching and overgrazing contributing to low floristic diversity.
- ii Areas of bare ground from livestock poaching were recorded frequently in the wet heath habitats, with the southern and western extents in poorest quality, although some presence of *Drosera* and *Pinguicula* were noted in these areas.
- iii Localised patches of sphagnum dominated bog habitat were identified in the northern most area of the site however MAVIS analysis still indicated M16 habitat in these areas.
- iv The western grassland comprised U4 Festuca-Agrostis-Galium grassland. Severe sheep grazing and nutrient pressures on the vegetation in the eastern grassland restricted NVC survey and it is considered that this is an improved grassland of acid base.





- The wet heath was present on sloping land, with flatter areas tending to SHOW dominance of sphagnum and damper areas showed dominance of rushes including compact rush and heath rush. Scrub present within the heath habitat was constrained by grazing and generally was low growing and creeping.
- vi Evidence of livestock damage was recorded in all habitats, with the habitats being closely grazed with damage and bare ground locally frequent particularly in the south of the site.
- vii The heathland habitat was considered, following MAVIS analysis to be a mosaic of M15 and M16 habitats, with U4 grassland in the west of the site. The Scottish Environmental Protection Agency (SEPA) has classified a number of NVC communities as potentially dependent on groundwater (SEPA, 2017). Whilst designation as a potential GWDTE does not therefore infer an intrinsic biodiversity value, and GWDTE status has not been used as criteria to determine a habitats respective conservation importance. M15 and M16 habitats are of Moderate-High GWDTE. GWDTE sensitivity has been assigned solely on the SEPA listings (SEPA, 2004a, 2014b). As such, depending on a number of factors such as geology, superficial geology, presence of peat and topography, many of the potential GWDTE communities recorded may in fact be only partially groundwater fed or not dependant on groundwater. Determining the actual groundwater dependency of particular areas or habitat would require further hydrological assessment to ascertain any impacts of adjacent works on retained heathland habitat and suitable mitigation undertaken to minimise impacts where required.

Table 4: NVC communities dependent upon ground water SEPA 2017

NVC Code	NVC Name	Annexe1 Title	Annexe 1 Code	SBL ¹ Priority Habitat Type
M15	M15 Scirpus cespitosus- Erica tetralix wet heath	Northern Atlantic wet heaths with <i>Erica tetralix</i> (when recorded on peat <50cm)	H4010	Upland Heathland
M16	M16 Erica tetralix- Sphagnum compactum wet heath	Northern Atlantic wet heaths with <i>Erica tetralix</i>	H4010	Upland Heathland
U4	N/A	N/A	N/A	

viii Areas of habitat onsite corresponded with an Annexe1 Habitat, Northern Atlantic wet heath with *erica tetralix* (H4010). This habitat predominately occurs on acidic nutrient poor substrates, including those with peat soils and impeded drainage (Rodwell et al 1991; Elkington et al 2001). As recorded on site, vegetation is generally dominated by presence of *Calluna vulgaris, Erica tetralix* and sphagnum mosses and abundant deergrass. This area of habitat correlates to Upland Heathland priority habitat on the SBL. This habitat is noted as requiring conservation action, with the need to minimise negative impacts. However, it is not listed as H2 Rare Habitat type, and is listed as a habitat type with high relative extent, being relatively common and widespread within Scotland.



¹ Scottish Biodiversity List

3.3 Birds

- i All the bird records returned during the record search were more than 10 years old and hence not included in this report.
- ii During the phase 1 survey, several bird species were noted associated with the grassland in the eastern portion of the Application Site, and next to the Application Site in the grounds of the Electricity Station to the east. These species included displaying lapwing (*Vanellus vanellus*), curlew (*Numenius arquata*), skylark (*Alauda arvensis*), and meadow pipit (*Anthus pratensis*). Snipe (*Gallinago gallinago*) was noted around the wetter areas of the Site. Along the road within the gorse scrub, stonechat (*Saxicola rubicola*) and song thrush (*Turdus philomelos*) were observed.
- iii The breeding bird surveys that were undertaken recorded a total of 38 species of bird within and around the periphery of the Site boundary.
- Of these species, one species was listed under Sch 1 of the Wildlife and Countryside Act. 1981 (as amended).
 This species was: common crossbill (*Loxia curvirostra*). 12 Species were listed under birds of conservation concern red (BOCC Red). These species were: skylark (Alauda arvensis), mistle thrush (Turdus viscivorus), lapwing (*Vanellus vanellus*), spotted flycatcher (*Muscicapa striata*), curlew (*Numenius arquata*) linnet (*Linaria cannabina*), house martin (*Delichon urbicum*), house sparrow (Passer domesticus), tree pipit (*Anthus trivialis*), greenfinch (*Chloris chloris*), cuckoo (*Cuculus canorus*), and starling (*Sturnus vulgaris*). Nine species of BOCC Amber status were also recorded during the breeding bird surveys, these species were: woodpigeon (*Columba palumbus*), wren (*Troglodytes troglodytes*), dunnock (*Prunella modularis*), common gull (*Larus canus*), snipe (*Gallinago gallinago*), meadow pipit (*Anthus pratensis*), song thrush (*Turdus philomelos*), willow warbler (*Phylloscopus trochilus*), and sparrowhawk (*Accipiter nisus*). One other notable species was recorded during the surveys undertaken, notable due to its regional endemic nature within the UK, this species was crested tit (*Lophophanes cristatus*).
- In terms of habitats onsite suitable for breeding birds, some species recorded during the breeding bird (BBS) surveys were ground-nesting species that prefer upland heathland and moorland in which to nest, some of these species were BOCC red species such as Lapwing and Curlew.
- vi Also noted onsite were a large number of singing and displaying skylarks, these species require large territories exceeding 16m squared per pair, and a vegetation height of approximately 20-50cm in order to maintain optimal nesting conditions.
- vii Where the Sch 1 species recorded onsite (Common crossbill) is concerned, much of the surrounding conifer plantation woodland that is located within the Site's immediate vicinity means that this species is likely to remain relatively unaffected by the proposals.

3.4 Reptiles

- i Desk study returned no records for reptiles.
- The dense scrub, grassland and heath offers suitable habitat for reptiles (adder, common lizard, slow worm).
 However, given the small scale of the scheme, significant impacts on populations are not anticipated.

3.5 Amphibians

- i Desk study returned no records for amphibians.
- ii Great crested newts are sparsely distributed in the Scottish Highlands and there are no known populations close to the Application Site.
- iii There are no suitable waterbodies (for amphibian breeding) within the Application site or within 500m of the Application Site. Appendix 4 provides the Application Site waterbody plan.



3.6 Mammals

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3.6.1 Brown Hare

Four records of brown hare (*Lepus europaeus*) were returned within the desk study, the closest one being 200m to the southwest. It is considered likely for this species to be using the site for foraging and traversing.

3.6.2 Red Squirrel

Four records of red squirrel (*Sciurus vulgaris*) were returned within the desk study, the closest one being 1.41km to the west. As there is no suitable woodland within or adjacent to the Application Site, red squirrel are considered likely absent from the Application Site.

3.6.3 Scottish Wildcat

The habitats on site offer some limited foraging (in the form of rabbits), but there are no opportunities for den building as the gaps in the pile of boulders were far too small for this species to utilise. Given the exceptional rarity of this species, and the lack of records from the desk study, wildcat are likely absent from the Application Site.

3.6.4 Pine Marten

A single record of pine marten was returned within the desk study, 1.33km to the southwest. A mustelid scat was recorded adjacent to a pile of boulders in the southeast of the Application Site (TN1). The size of the scat suggests that it was from a stoat rather than a pine marten. The habitats on site offer some limited foraging (in the form of rabbits) but as this species is associated more with woodland habitat than open grassland and heathland, pine marten are likely absent from the Application Site.

3.6.5 Bats

- Four species of bats were returned within the desk study, including Daubenton's bat (*Myotis daubentonii*), common pipistrelle (*Pipistrellus pipistrellus*), soprano pipistrelle (*Pipistrellus pygmaeus*), and brown longeared bat (*Plecotus auritus*). All the record were from the same grid reference 1.47km to the southwest of the Application Site.
- ii There are no trees or buildings within or adjacent to the Application Site; therefore, there are no opportunities for roosting bats.
- When assessed against criteria in best practice guidelines (Collins J., eds, 2016) the Application Site offers
 low quality foraging and commuting habitat for bats. As such further survey of the Application Site for bat
 foraging is considered disproportionate to the scale and nature of the Scheme.

3.6.6 Badger

A single record of badger (*Meles meles*) was returned within the desk study, beyond 1km from the Site. No evidence of badger presence was recorded. Badgers may be present in the woodlands in the wider landscape and may use the Application Site for foraging, albeit on a sporadic basis given the lack of evidence to support this.

3.6.7 Water Vole and Otter

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A single record of otter (*Lutra lutra*) was returned during the record search, which was located 1.33km to the southwest of the Application Site.

The stream and ditch within/adjacent to the Application Site are not suitable for either water vole or otter.
 They are both small, very shallow and lack opportunities for burrows, holts, resting sites or foraging.



iii These species are considered absent from the Application Site.

3.7 Invertebrates

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- i A single record of small pearl-bodied fritillary (*Boloria selene*) was returned within the desk study, 360m to the northeast.
- ii The grassland and heathland offer some opportunities for invertebrates, though as these habitats are present in the wider landscape the Application Site is not considered to be an important resource for notable invertebrate species.
- iii Small pearl-bordered fritillary requires common dog-violet or marsh violet for its caterpillars; as these species are absent from the Application Site, this butterfly species is unlikely to be present.

3.8 Summary Nature Conservation Evaluation

Table 4 below summarises the nature conservation importance of IEFs present, or likely to be present.

Table 5: Summary of Nature Conservation Importance

IEF	Nature Conservation Importance	Justification
Habitats	National	Priority habitat on-site
Birds	Local	BOCC onsite
Reptiles	Site	Limited opportunities for reptiles but cannot scope out. No background records.
Brown hare	Site	Opportunities on Site for foraging and traversing but unlikely present in high numbers/densities.



4 IMPACTS AND MITIGATION (CUMULATIVE AND/OR IN ISOLATION)

4.1 Planning Application Search

A planning application search was conducted for this site. The latest planning application 20/01026/S36 for a proposed wind farm extension at Berry Burn Wind Farm Dunphail, Forres, Moray was granted in 2021. The extent of the proposals for the new battery storage should not have a cumulative effect, since it is smaller in size than the Berry Burn Wind Farm extension.

4.2 Habitats

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- i There is a total of 2.8ha of wet heath habitat onsite with approximately 1.6ha being retained. Further retention through relocation of the proposals not feasible due to archaeological constraints and additional site feasibility constraints. Proposals are however located on the area of habitat currently most damaged by excessive livestock poaching and grazing, with the deeper areas of peat and sphaghnum moss habitat in the north being retained.
- ii To mitigate some of the loss of this habitat, the area of improved grassland will be utilised for translocation of wet heath. It is possible that wet heath would be present in this area, if it were not actively utilised for grazing. This will reduce the extent of the loss of wet heath habitat. It cannot be guaranteed that translocation of this habitat type will be successful, however, since it is likely that this area contains the same, or a very similar, soil type, and landscape morphology, it is considered likely to succeed. Methodology for the translocation will be formalised within a CEMP.
- iii With the translocation in place, it is not considered that the loss of the small area of heathland would be of a greater than site level impact.

4.3 Birds

- i Within proposals, areas of wet heath/acid grassland habitats are retained (or translocated) where possible.
- ii Whilst it is not possible to retain all suitable habitat for ground-nesting birds, the amount lost is not considered to have a significant impact on any populations, since ample alternative is available across the landscape.
- iii Any vegetation clearance will take place outside the bird nesting season (which runs March to August inclusive) to ensure compliance with the general protection afforded to wild birds under the Wildlife and Countryside Act 1981 (as amended). If this is unavoidable, the vegetation will be carefully checked, by a suitably qualified ecologist, prior to removal. Where active nests are found, working restrictions would be put in place until follow up survey can demonstrate that all chicks have fledged.

4.4 Reptiles

- i A Precautionary methods of works will be implemented with relation to reptiles that may be present on Site during any vegetation clearance required. This will include directional clearance of vegetation, and will be implemented within a Construction Environmental Management Plan (CEMP) and an ecological watching brief.
- ii Implementation of these precautionary measures will reduce potential impacts on any reptiles to a negligible level.



4.5 Mammals

- During construction, best practice guidance will be followed in relation to any terrestrial mammals (including brown hare and badger) that may pass through the Site.
- ii This will include the following measures, and will be formalised within the CEMP:
 - Mammal ladders (such as a plank) or earth ramps to be placed in any open excavations at the end of each day;
 - Cap off any open pipes at the end of each day;
 - Keep all fuel and other harmful substances in a locked area;
 - Ensure any spillages are treated with spill kits;
 - If any fresh sett digging is observed/suspected notify an ecologist immediately and leave a 30m buffer around the area until an assessment can be made.



5 CONCLUSION

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- This EclA is based on a desk study and ecological surveys undertaken between April and July 2023. The scope of the surveys was based on the Ecological Zone of Influence of the Scheme and included an extended Phase 1 habitat survey, NVC survey and a suite of BBS. Once all relevant available information was obtained, the significance of effects (both positive and negative) on IEFs was assessed.
- ii The Applicant has agreed that the avoidance, mitigation, and compensation measures identified in above will be incorporated into the detailed design proposals for the Scheme and implemented as part of the overall development of the Application Site. The Scheme has maximised opportunities to incorporate and enhance biodiversity within the proposals wherever possible.
- iii Impacts from the construction or operational phases of the Scheme are predicted to result in none of the following significant negative residual effects:
 - Undermine the conservation objectives or condition of designated sites and their features of interest;
 - A change in ecosystem structure and function; and,
 - Threaten the conservation status of undesignated habitats or protected and notable species.
- Taking avoidance, mitigation and compensation measures into account, the Scheme conforms in respect of biodiversity to the National Planning Framework 4 (NPF4) Policy 3 and the Moray Council Local Development Plan 2020 (Environmental Policy 2 – Biodiversity).



6 **REFERENCES**

- i BS 42020:2013 'Biodiversity Code of Practice for Planning and Development 2013: The British Standards Institution'.
- ii Chartered Institute of Ecology and Environmental Management (CIEEM), 2019. 'Advice Note: on the Lifespan of Ecological Report and Surveys'. Winchester: CIEEM.
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- iv Chartered Institute of Ecology and Environmental Management, 2017. 'Guidelines for Preliminary Ecological Appraisal. 2nd ed. Winchester: CIEEM.
- v Collins J eds. 2016. 'Bat Surveys: Good Practice Guidelines, 3rd Edition'. London: Bat Conservation Trust.
- vi Department of Communities & Local Government, 2019. 'National Planning Policy Framework', London: DCLG.
- vii Elkington, T., Dayton, N., Jackson, D.L., & Strachan, I.M. (2002). National Vegetation Classification: Field guide to mires and heaths. ISBN 1 86107 526 X.
- viii Joint Nature Conservancy Council, 2010. 'Handbook for Phase 1 habitat survey'. Peterborough: JNCC.
- ix Rodwell, J.S. (Ed), et al. (1991 2000). British Plant Communities (5 volumes). Cambridge, Cambridge University Press. Rodwell, J.S. (2006). NVC Users' Handbook. ISBN 978 1 86107 574 1
- x SEPA. (2014a). Land Use Planning System SEPA Guidance Note 4: Planning advice on windfarm developments. Issue No: Version 7. Issue date: 14/05/2014.
- xi SEPA. (2014b). Land Use Planning System SEPA Guidance Note 31: Guidance on Assessing the Impacts of Windfarm Development Proposals on Groundwater Abstractions and Groundwater Dependent Terrestrial Ecosystems. Version 2. Issue date: 27/10/2014.



APPENDIX 1: LEGISLATION AND PLANNING POLICY

6.2 General & Regionally Specific Policies

- Articles of British legislation, policy guidance and both Local Biodiversity Action Plans (BAPs) and the NERC Act 2006 are referred to throughout this report. Their context and application is explained in the relevant sections of this report. The relevant articles of legislation are:
 - Scottish Planning Policy (SPP);
 - National Planning Framework 4 (NPF4) (2023);
 - The Nature Conservation (Scotland) Act 2004;
 - Protection of Badgers Act 1992 as amended by the Wildlife and Natural Environment (Scotland) Act 2011;
 - The Conservation of Habitats and Species (Amendment) (EU Exit) Regulations 2019;
 - The Land Reform (Scotland) Act 2003;
 - The Wildlife and Countryside Act 1981 (as amended);
 - North East Scotland Local Biodiversity Action Plan NELBAP.
 - Moray Council Local Development Plan 2020 (Environmental Policy 2 Biodiversity).



APPENDIX 2: APPLICANT PROPOSALS









Corshellach BESS, Forres, Scotland - Landscape Strategy Plan **PEGASUS** GROUP



APPENDIX 3: DESK STUDY DATA

6.3 Desk Study Results

i.

- No statutory or non-statutory designated sites were recorded within the search area.
- vi Table 7 shows Habitats of Principle Importance of The Scottish Biodiversity List located within a 2km radius of the site. These are shown in a table below, with the distance and direction of the closest habitats in regard to the site referenced. The closest is a parcel of native pine woodland which is located adjacent to the Site, south-west of the site boundary.

Table 6: Notable Habitats within 2km of the Site

Habitat/ Flora Feature	Reason for Conservation Interest	Location ²
Native pine woodlands	Priority Habitat	Adjacent (SW)
Upland birchwood	Priority Habitat	Closest 230m SW; additional 14 parcels south, west, and northeast
Wet woodland	Priority Habitat	Closest 1.4km SW

vii Protected species records were received from North East Scotland Biological Records Centre (NESBReC). A summary of the records considered most relevant to the site and/or proposed development are provided in the table below.

Table 7: Summary of protected and Priority species records

Common Name	Scientific Name	Records	Conservation Status
Mammal			
Brown hare	Lepus europaeus	4 records, closest record 0.2km W	WCA, UK BAP
European otter	Lutra lutra	1 record, the closest record 1.33km SW	EPS, WCA
Pine marten	Martes martes	1 record, the closest record 1.33km SW	EPS, WCA, UK BAP
Eurasian red squirrel	Sciurus vulgaris	4 records, the closest record 1.41km W	EPS, WCA, UK BAP

² Where features are situated outside of the Site boundary, the distance and direction is given at the closest point of the designated site from the Site



Common Name	Scientific Name	Records	Conservation Status
Daubenton's bat	Myotis daubentonii	1 record, the closest record 1.47km SW	EPS, WCA
Common pipistrelle	Pipistrellus pipistrellus	1 record, the closest record 1.47km SW	EPS, WCA
Soprano pipistrelle	Pipistrellus pygmaeus	1 record, the closest record 1.47km SW	EPS, WCA
Brown long-eared bat	Plecotus auritus	1 record, the closest record 1.47km SW	EPS, WCA
Eurasian badger	Meles meles	1 record within 2km of the site	EPS, WCA
Invertebrate			
Small pearl- bordered fritillary	Boloria selene	1 record, closest record 360m NE	ИК ВАР

NB: The desk study data is third party controlled data, purchased for the purposes of this report only. RammSanderson Ecology Ltd cannot vouch for its accuracy and cannot be held liable for any error(s) in these data.

6.4 Habitat Connectivity Analysis and Closest Relevant Records

In assessing the site, a review of online resources and desk study data was undertaken to assesses the site with respect to its connectivity to the wider environment, particularly along linear features (rivers, railways, canals etc.) and any designated or protected sites. This assessment enables the evaluation of a particular proposal in context of the wider environment with regard to the site itself and any species which may utilise the site.

The site has connectivity to a wider landscape surrounding the site. To the west and north the site connects to a block of upland birchwood and native pine woodland (a HPI). This offers connectivity and foraging for aerial species such as birds and bats and for terrestrial mammals such as badgers, pine martens, and red squirrels.



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APPENDIX 2: WATERBODY PLAN



