TECHNICAL APPENDIX 10 – SOIL AND WATER

TA10.1: Peat Landslide Hazard Risk Assessment

TA10.2: Draft Peat Management Plan

TA10.3: Groundwater Dependent Terrestrial Ecosystems Risk Assessment

TA10.4: Flood Risk Assessment and Drainage Impact Assessment

TA10.5: Private Water Supply Risk Assessment

TA10.6: Watercourse Crossing Assessment

TA10.1: Peat Landslide Hazard Risk Assessment

STRATHY SOUTH WIND FARM

Technical Appendix 10.1
Peat Landslide Hazard and Risk Assessment
Prepared for: **SSE Generation Ltd**

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BASIS OF REPORT

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Peat Landslide Hazard and Risk Assessment

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1.0 INTRODUCTION

SLR Consulting Ltd (SLR) was commissioned by SSE Generation Ltd (the Applicant) to undertake a Peat Landslide Hazard and Risk Assessment (PLHRA) for the proposed Strathy South Wind Farm ('the site').

The Applicant currently has consent under section 36 of the Electricity Act 1989 and section 57 of the Town and Country Planning (Scotland) Act 1997 to construct and operate a wind farm consisting of 39 wind turbines and associated infrastructure ('The Consented Scheme'), 12 km south of the village of Strathy in Sutherland. The Applicant has submitted a Section 36C variation application which proposes variations to the Consented Scheme, and it is the Proposed Varied Development that is assessed within this report.

The purpose of this report is to consider the potential risk of peat slides occurring at the main site such that suitable controls and appropriate methodologies can be employed during construction and commissioning of the Proposed Varied Development to mitigate against these risks. The preferred/alternative access route between Strathy North and the main site have not been included within this assessment because they are already consented.

This report incorporates previous peat probing data gathered in 2007, by Mouchel Parkman[1] and in 2013 by SLR[2].

An additional site visit was undertaken by SLR in September 2019 to provide supplementary probing where data gaps were identified. Further probing was undertaken by RPS in February 2020 at a number of the proposed borrow pit locations following consultation with SEPA. Consultation with SEPA has been carried out throughout the development process, and whilst it is accepted that the current survey data is not in line with current guidance, SEPA has confirmed that for the purposes of the Section 36C Variation, no further peat probing is required. Full details on consultation can be found in Table 10.2 of Chapter 10: Soils and Water (EIAR Volume 2). Further detail is provided in relation to this limitation to the survey data in Section 4.1 below.

The assessment has been undertaken in line with best practice guidance[3,4] issued by the Scottish Government for investigation, assessment and reporting for wind farms in peat areas. Where relevant, reference is also made to guidance published by the Scottish Environment Protection Agency (SEPA) and wind farm construction good practice guidance[5].

1.1 Background

The importance of assessing the stability of peat deposits in relation to wind farm developments came to the fore as a result of peat slides during the construction of Derrybrien[6] Wind Farm in Ireland in 2003. Although no fatalities were associated with these failures, there was a significant environmental impact. Wind farms tend to be constructed in high moorland areas, which are primarily associated with significant peat deposits (typically blanket bogs). There is a potential for peat instability to occur, particularly where deposits are in excess of 1 m

[1] Mouchel Parkman., (March 2007). *Peat Stability Risk Assessment.* Appendix 14.1 Strathy South Windfarm, ES Volume 4: Technical Appendices, 2007 Environmental Statement

[2] SLR Consulting Ltd., (May 2013) *Strathy South Wind Farm, Peat Landslide and Hazard Risk Assessment* Appendix 14.1 Strathy South Wind Farm, ES Addendum Volume 4: Technical Appendices

[3] Energy Consents Unit Scottish Government., (April 2017) *Peat Landslide Hazard and Risk Assessments: Best Practice Guide for Proposed Electricity Generation Developments. Second Edition.*

[4] Scottish Government, Scottish Natural Heritage, SEPA., (2017) *Peatland Survey. Guidance on Developments on Peatland,* on-line version only.

[5] Scottish Renewables, Scottish Natural Heritage, SEPA, Forestry Commission Scotland, Historic Environment Scotland, Marine Scotland Science, AEECoW (2019)., *Good Practice During Wind Farm Construction.,* Fourth Edition

[6] Lindsay, R.A. and Bragg, O., (2004), 'Windfarm and Blanket Peat, The Bog Slide of 16th October 2003 at Derrybrien, Co. Galway, Ireland'. University of East London

thick. Peat instability is influenced by many factors, including, but not limited to, peat thickness, hill slope gradient, underlying geology and subsurface hydrology.

1.2 Objectives of Report

The PLHRA is primarily concerned with the influence of the peat on the Proposed Varied Development.

The main objective is to assess the potential peat stability at the main site, identify areas of potential concern and identify mitigation measures to ensure the maintenance of peat stability before, during and after construction. All aspects of construction should be based on ensuring minimum disruption to the peat areas.

The objectives have been achieved by completion of the following:

- A desk study of available reports which include reports submitted as part of the previous section 36 application[1,2], geological, hydrological and topographical information;
- Geomorphological mapping of the main site to identify the prevailing conditions influencing the potential for, or any evidence of, active, incipient or relict peat instability, including identification of the location and photographic record, as appropriate;
- Reporting on evidence of any active, incipient or relict peat instability, and the potential risk of future instability, describing the likely causes and contributory factors;
- Identification of potential controls to be imposed on the contractors for the works to minimise the risk of peat instability occurring at the main site;
- Several phases of peat probing by RPS, Mouchel Parkman and SLR; and
- Provide recommendations for further work or specific construction methodologies to suit the ground conditions at the main site to mitigate any unacceptable risk of potential peat instability.

This report summarises the findings of the desk study and peat surveys and provides an assessment of the prevailing ground conditions and how they relate to peat stability issues.

1.3 Site Location and Description

The Proposed Varied Development is located approximately 12 km south of Strathy Village in northeast Sutherland, a few kilometres south of the existing Strathy North Wind Farm. The location and layout of the Proposed Varied Development are shown in Figure 10.1.1 and Figure 10.1.2, respectively. The site is located within the Strathy South conifer plantation. No residential properties are located within the site.

The site is currently accessed via the existing Strathy North Wind Farm access track off the A836 which enters the main site from the north east.

The ground elevation ranges from 130 m at Turbine 72 to 200 m Above Ordnance Datum (AOD) in the vicinity of Turbine 36 and the site occupies an area of about 1,785 hectares (ha).

The site is currently used for commercial forestry with recreational use (fishing) and limited rough grazing. The main site forms a roughly U-shaped boundary and occupies most of the forest between Loch nam Breac Mor and the River Strathy with the River Strathy flowing through the centre of the main site to the north. The land immediately adjacent to the site principally comprises open peatlands and moorland which is gently undulating with extensive blanket bog, lochs and pools.

Photo 1-1
View towards existing Strathy North Wind Farm looking northwest from NGR 280725

Photo 1-2
River Strathy (NGR 281333 955603)

Photo 1-3
Existing forestry track to be upgraded (NGR 279791 949264)

Photo 1-4
General site conditions (NGR 277617 953131)

Peaty soil and peat deposits cover most of the site and overlie glacially derived soils such as Glacial Till comprising, sand and gravels and in places bedrock. There are limited exposures of bedrock, where exposed it is observed to be metasedimentary rocks over the entire site.

The Proposed Varied Development would comprise the following:

- Up to 39 wind turbines with a maximum height to blade tip of 200 m and rotor diameter of up to 162 m, and associated crane pads;
- Turbine foundations and hardstandings;
- Access tracks (including up to 32.7 km[7] of new or upgraded permanent access tracks);
- Watercourse crossings;
- Substation;
- Up to seven borrow pits;
- Temporary lay down areas;
- Temporary construction compounds;
- Temporary Batching Plant; and
- Welfare building;

Access from the A836 public road and the most southerly part of the Strathy North wind farm is common to both the Consented Scheme and the operational Strathy North wind farm, it is proposed to utilise this access before taking one of two options (Preferred or Alternative) to reach the site.

A full description of the Proposed Varied Development is provided in Chapter 2: Description of Development (EIAR Volume 2: Main Report)

1.4 Scope of Report

There has been substantial works undertaken to date at the site to inform the consenting process for the Consented Scheme. Revisions to the layout for the Proposed Varied Development are restricted to associated infrastructure, with turbines remaining in the consented locations.

The scope of the report is primarily concerned with the influence of peat on the design, construction and operation of the Proposed Varied Development and secondly to minimise the disturbance of peat, where present.

The principal objective was to assess the extent of organic peat (greater than 0.5 m) and peaty soils (less than 0.5 m) on-site, with the purpose of identifying stability at the main site, areas of potential concern and any mitigation measures required to ensure the maintenance of peat stability before, during and after construction.

Following design revisions, this information should demonstrate that areas of increased peat slide risk have been avoided and that there is minimum disruption to peat areas by avoidance of deeper peat.

The objectives were achieved by completion of the following:

- Review of geological, hydrological and topographical information;
- Review of baseline information contained within reports[1,2] prepared for previous submissions[8,9,10];

[7] 32.7 km if the Alternative Access Track is used and 31.4 km for the Preferred Access Track

[8] SSE (2007). *Strathy South Wind Farm, Environmental Statement*

[9] SSE Renewables (2013). *Strathy South Wind Farm, Environmental Statement Addendum*

[10] ENVIRON, on behalf of SSE Generation Ltd (2014). *Strathy South Wind Farm, Further Information Report (T39 Layout)*

- Geomorphological mapping of the main site to identify the prevailing conditions influencing the potential for, or any evidence of, active, incipient or relict peat instability, including a photographic record and identification of their location and report on the potential risk of future instability, describing the likely causes and contributory factors;
- Identifying potential controls to be imposed on the construction contractor to minimise the risk of peat instability occurring at the site of the Proposed Varied Development; and
- Provide recommendations for further work or specific construction methodologies to suit the ground conditions at the site to mitigate any unacceptable risk of potential peat instability.

Probing has been undertaken in several phases and due to the dense forestry coverage, probing could not be completed on a grid. Rides and clearings were utilised to gain coverage across the main site and conditions between, where inaccessible, were inferred. The results have been used to produce a peat thickness (Figure 10.1.4) and peat landslide risk and hazard map (Figure 10.1.8). Further details are given in subsequent sections of this report.

1.4.1 Peat Landslide Hazard and Risk Assessment

The purpose of a PLHRA is to identify those parts of the site that are naturally susceptible to a higher risk of instability so that they can be avoided or accommodated. It should be noted that all peat slopes have a risk of instability and the vast majority of peat slope failures occur naturally.

Construction of a wind farm would only increase the risk of peat slope instability if good geotechnical construction practice is ignored and it is a requirement of all wind farm developments to follow a very carefully worded and designed Construction Environmental Management Plan (CEMP) which uses many of the recommendations of the PLHRA.

Without the guidance contained in a Construction Method Statement or CEMP, the following factors would increase the risk of instability:

- Construction of access tracks;
- Excavation and stockpiling for foundations;
- Construction of hardstanding area; and
- Blocking of natural drainage, inappropriate new drainage or drainage discharge.

It is important to note that peat instability and the impacts of any instability are not constrained by artificial site or ownership boundaries but by topographic and geomorphologic boundaries. It is therefore important to ensure that the breadth of scope of any assessment adequately covers the areal extent of possible impact.

The risk assessment is based on ground models developed using a Geographical Information System (GIS) specifically for this site. A numerical analysis was undertaken in which coefficients were allocated for each of the factors influencing peat stability and their impact on possible receptors. This aspect is described in greater detail in Section 6.0.

The conceptual layout of the wind turbines and access routes, the findings from the peat probing, sampling and analysis were used by the design team to optimise the wind turbine layout to avoid or mitigate areas of unacceptable peat slide risk. The layout presented in the drawings represents the final iteration of the wind turbine layout.

This system outlined above was developed in accordance with the guidelines on PLHRA by the Scottish Government (SG) for the investigation, assessment, and reporting for wind farms in peat areas[11]. The analysis and interpretation are based upon the results obtained from this process as well as previous experience and the results of case studies elsewhere. Where deviations from this guidance have occurred, this is highlighted and explained in the text.

2.0 Peat Instability

This section reviews the nature of peat and how current and past activities can influence stability. The factors which are likely to influence the potential for peat instability are:

- Significant peat depths over impermeable bedrock or minimal soil;
- The presence of slope gradients greater than 4° (approximately) and general topography;
- Natural drainage paths;
- Evidence of past failures, including soil creep;
- Drainage features at the base of slopes which could lead to undercutting;
- Forestry plantations and artificial drainage; and
- Recent climate patterns.

It should be noted that peat instability is not a recent phenomenon and there is documentary evidence of peat landslides dating back over 500 years[12]. Many landslides that involve peat have no human interference that could be considered as a trigger and this should be borne in mind when considering the susceptibility of a site to potential instability.

2.1 Background Information Regarding Peat

Peat is found in extensive areas in the upland and lowland regions of the UK and is defined as the partly decomposed plant remains that have accumulated in-situ, rather than being deposited by sedimentation. When peat forming plants die, they do not decay completely as their remains become waterlogged due to regular rainfall. The effect of water logging is to exclude air and hence limit the degree of decomposition. Consequently, instead of decaying to carbon dioxide and water, the partially decomposed material is incorporated into the underlying material and the peat 'grows' in-situ.

Peat is characterised by low density, high moisture content, high compressibility and low shear strength, all of which are related to the degree of decomposition and hence residual plant fabric and structure. To some extent, it is this structure that affects the retention or expulsion of water in the system and differentiates one peat from another.

Lindsay[13] defined two main types of peat bog, raised bog and blanket bog, which are prevalent on the west coast of Europe along the Atlantic seaboard. In Britain, the dominant peatland is blanket bog which occurs on the gentle slopes of upland plateaux, ridges and benches and is predominantly supplied with water and nutrients in the form of precipitation. Blanket peat is usually considered to be hydrologically disconnected from the underlying mineral layer.

[11] Energy Consents Unit Scottish Government., (April 2017) Peat Landslide Hazard and Risk Assessments: Best Practice Guide for Proposed Electricity Generation Developments. Second Edition.

[12] Smith, L.T., (Ed) (1910), *'The literary of John Leland in or about the years 1535-1543.'* Vol.5, Part IX. London: AF Bell and Sons.

[13] Lindsay, R.A., (1995), '*Bogs: The ecology, classification and conservation of Ombrotrophic Mires*.' Scottish Natural Heritage, Perth.

There are two distinct layers within a peat bog, the upper acrotelm and the lower catotelm. The acrotelm is the fibrous surface to the peat bog[14], typically less than 0.5 m thick; which exists between the growing bog surface and the lowest position of the water table in dry summers. Below this are various stages of decomposition of the vegetation as it slowly becomes assimilated into the body of the peat.

For geotechnical purposes the degree of decomposition (humification) can be estimated in the field by applying the 'squeezing test' proposed by von Post and Grunland[15] (1926). The humification value ranges from H1 (no decomposition) to H10 (highly decomposed). The extended system set out by Hobbs[16] provides a means of correlating the types of peat with their physical, chemical and structural properties.

The relative position of the water table within the peat controls the balance between accumulation and decomposition and therefore its stability, hence artificial adjustment of the water table by drainage requires careful consideration.

2.1.1 Peat Shear Strength

In geotechnical terms, the shear strength of a soil is the physical characteristic that provides stability and coherence to a body of soil. For mineral soils such as clays or sands, such strength is variously given by an inter-particle friction value and cohesion. Depending whether the mineral soil is predominantly cohesive (clay) or non-cohesive (sand) governs which of the components of strength control the behaviour of the soil.

For peat soils, where the major constituent is organic and there is likely to be little or no mineral component, the geotechnical definition of shear strength does not strictly apply. At present there is no real alternative method defining the shear strength of peat, therefore the geotechnical definition is generally adopted, in the knowledge that it should be used with great caution.

As noted before the acrotelm or near surface peat comprises a tangle of fresh and slightly rotted roots and vegetable fibres. These roots and fibres impart a significant tensile shear strength capacity to the material which provides it with a significant load carrying capacity. The acrotelm is, in effect, a fibre reinforced soil.

In the more decomposed catotelm, the tensile shear strength is reduced as the roots and fibres become more rotted. However, the loss in strength due to decomposition is off-set to a limited degree, by a gain in strength due to the overburden pressure. In geotechnical engineering there is an established relationship for recently deposited soils, between the shear strength of a sample and the thickness of overburden above it.

Consequently, it is almost impossible to predict a shear strength profile in peat and attempts to measure the shear strength using normal geotechnical methods can be misleading. Typical values of shear strength from hand shear vanes would be in the range 10-60 kilopascal (kPa) although values over 100 kPa have been recorded in peat elsewhere. The higher strengths are almost certainly the influence of roots or other non-decomposed material. It is believed that the strength of peat should be quoted as a cohesion value as there are few, if any, discrete particles to give the material a significant frictional resistance. It should be noted that any quotation of shear strength for peat should be treated with extreme caution.

2.1.2 Peat Stability – Factors to be Considered

There is considerable observational information relating to debris and peat flows although the actual mechanisms involved in peat instability are not fully understood. The main influences on slope stability are geological, geotechnical, geomorphic, hydrological, topographic, climatic, agricultural and human influences such as drainage

[14] Ingram, H.A.P., (1978), '*Soil layers in mires: function and terminology*'. Journal of Soil Science, 29, 224-227.

[15] von Post, L. and Grunland, E., (1926), '*Sodra Sveriges torvillganger 1*' Sverges Geol. Unders. Avh., C335, 1-127.

[16] Hobbs, N.B., (1986), '*Mire morphology and the properties and behaviour of some British and foreign peats*.' Quarterly Journal of Engineering Geology, London, 19, 7-80.

and construction activity. Peat is affected to a degree by changes in any of the above list and it is vital to appreciate that changes to the existing equilibrium would affect the level of slope stability during construction and operation of the Proposed Varied Development.

Some of the contributory factors to peat instability are summarised below:

- The geographical limits which could be affected by potential instability are not confined to the artificial boundaries imposed by land ownership; landslip occurring above a site could affect the site and property down slope or downstream of the site for several kilometres.
- Agriculture and grazing have a substantial effect on peat areas, and this can be compounded in areas that have been managed to improve grazing. Grazing compacts the peat surface reducing the rainwater infiltration and the additional nutrients change the ecological balance of the original peat bog. Agricultural management can include surface drainage and periodic burning, both of which can leave the surface of the peat bare for a period of time resulting in temporary desiccation of the surface. Subsequent wetting of the peat and resumption of peat accumulation results in the former desiccated and possibly ash covered surface being incorporated into the body of the peat which introduces a weak discontinuity in the profile; this in turn becomes another unknown factor in the stability assessment.
- Forestry has a substantial effect on slope stability particularly in the early stages as the creation of a forest involves disruption of the natural equilibrium and drainage of the slopes and the installation of artificial drains by deep ploughing. The construction of access tracks further disrupts the drainage and concentrates groundwater flow into narrow, fast flowing erosive streams. The work by Winter *et al*[17] noted that forest tracks can act to retard or concentrate the down slope flow of water and thus aid its penetration into the slope below. Such a mechanism has been observed at a number of recent landslips that have affected the road network in Scotland.
- Natural Drainage – some of the precipitation falling onto a natural upland peat bog would be absorbed into the low permeability catotelm peat. However, most of the water would run-off as sheet flow through upper, high permeability acrotelm. Thus, the water is transmitted to the lower slopes in a reasonably controlled manner through a range of interconnections that operate at different scales and speed. Failure to understand this and to disrupt the transmission process for the groundwater could result in instability.
- Artificial Drainage - where agricultural drainage has been used to improve the quality of the grazing or to promote forestry it reduces the overall volume of water entering the bog and transfers this water to the edges more rapidly. This can result in ditches and streams becoming enlarged, causing increased erosion and a greater silt burden in the stream water.

2.2 Peat Mass Stability

The principal surface indicator of peat slide potential is cracking of the peat land surface and it is the identification of crack patterns in the field and the attendant causes of the cracking that is fundamental to a peat stability assessment.

Locations that have exhibited natural instability in the past are likely to be more susceptible to future instability during and following construction of a wind farm, therefore it is important to identify such instability as part of the Peat Stability Assessment.

[17] Winter, M.R., Macgregor, F. and Shackman, L. (2005a), '*Scottish tracks networks landslide study'* Trunk tracks: network management division, published report series. The Scottish Government.

2.2.1 Types of Failure

The result of instability in peat is the down-slope mass movement of the material; there are a number of definitions of peat instability which are used to characterise the type of failure. A brief description is given below:

- Bog Bursts or Bog Flows – the emergence of a fluid form of well humified, amorphous peat from the surface of a bog, followed by the settling of the residual peat, in-situ[18];
- Peat Slides – the failure of the peat at or below the peat/substratum interface leading to translational sliding of detached blocks of surface vegetation together with the whole underlying peat stratum[18]; and
- Bog Slide – an intermediate form of instability where failure occurs on a surface within the peat mass with rafts of surface vegetation being carried by the movement of a mass of liquid peat.

2.2.2 Bog Bursts

Accounts of bog bursts are generally associated with very wet climates or areas which have received storm rainfall events. Bog bursts can be associated with particularly wet peat landscapes; therefore, it is possible to identify broad regions of a higher susceptibility to these failures. The constraints used to identify the areas of higher susceptibility to bog burst failure are given below:

- Peat thickness in excess of 1.5 m with no upper limit;
- Shallow gradients, generally within the range of 2 to 10°, peat thicker than 1.5 m is generally not observed on slopes steeper than 10°, also moisture content is generally reduced on steeper slopes due to drainage);
- Ground which is annually waterlogged to within the upper 1 m below ground level, (the groundwater level may rise above this but rarely falls below)[19];
- Greater humification of the lower catotelm within the waterlogged ground; and
- Lower surface tensile strength of the fibrous peat and vegetation.

The humified mass can be considered as analogous to a heavy liquid and the stability of this mass is maintained by the strength of the surface or acrotelm peat. Should the surface become weakened through erosion or desiccation or the construction of a surface drainage ditch for agricultural or forestry reasons or through turbary (peat cutting), failure is made more likely.

2.2.3 Peat Slides

Peat slides tend to be translational failures with a defined shear surface at or close to the interface with the substrate.

The factors generally considered to influence susceptibility to peat slide failures are listed below:

- Peat depth up to 2.0 m;
- Slope gradients between 5° and 15°;
- Natural or artificial drainage cut into the surrounding peat landscape;
- Greater humification of the lower catotelm within the waterlogged ground; and

[18] Dykes, A.P and Kirk, K.J., (2001), '*Initiation of a multiple peat slide on Cuilcagh Mountain, Northern Ireland*.' Earth Surface Processes and Landforms, 26, 395-408.

[19] Crisp, D.T., Dawes, M. & Welch, D. (1964), '*A Pennine Peat Slide*', The Geographical Journal, Vol 130, No4, pp519-524.

- Lower surface tensile strength of the fibrous peat and vegetation.

It is noted that some of the factors causing instability are common to both bog bursts and peat slides.

The peat – substrate interface is the primary zone of failure and is enhanced by elevated water content at this boundary and softening or weathering of the lower mineral surface. For this reason, any investigation or probing should try to distinguish the nature of the lower mineral substrate.

2.2.4 Bog Slides

A bog slide is a variation on a peat slide where part of the peat mass is subject to movement, usually on an internal layer of material, which may be more prone to movement, such as an interface between the acrotelmic and catotelmic layer.

2.2.5 Natural Instability

The stability of a peat mass is maintained by a complex interrelationship of many factors, some of which may not be immediately obvious. Key factors include sloping rock head and proximity to a water body. Rainfall often acts as the trigger after the slope has already been conditioned to fail by natural processes.

It should also be remembered that peat bogs are growing environments and that there would come a time, on sloping ground, where the forces causing instability, the weight of the bog, can no longer be resisted by the internal strength of the peat and its interface with the underlying mineral surface. At this point, failure would occur.

The weight of the peat bog or any soils mantling steep hill slopes would be increased during periods of very heavy rain and it is common to see landslips occurring following extreme rain events. This may be a concern for future developments where one of the predicted effects of global warming is a greater frequency of extreme weather, intense storms being one element.

3.0 Desk-Based Assessment

A desk based review of the site has been conducted by use of the following sources of information:

- Previous reports[1,2] providing an assessment of peat depth, condition and slide risk relating to the Consented Scheme;
- Hydrological and geological maps and records;
- Topographical survey data;
- Historic OS mapping and aerial photography; and
- Other publicly available data pertaining to the site.

3.1 Geological Setting

3.1.1 Superficial Geology

The extent of superficial coverage is presented in Figure 10.1.3 which is a summary of the geology taken from the available British Geological Survey (BGS) maps. Peat is mapped as being developed over the whole of the main site, draped over existing Glacial Till and bedrock. The peat has been subject to limited erosion from fluvial activity and localised erosion, causing minor hagging and ponding on the peat. The peat on-site is generally a blanket type peat overlying the underlying strata, dissected by distinct watercourses, with thicker peat (deeper isolated peat) at the stream head of the River Strathy to the south of the main site.

The BGS Sheet 115W, Bedrock and Superficial Deposits (Strathy Point) confirms that the superficial geology at site is recorded as being predominantly Recent to Quaternary Peat. Peat is extensively developed over the site which in turn entirely overlies bedrock. There is limited evidence of glacial deposits exposed on-site, which are recorded by the BGS as being predominantly glaciofluvial and hummocky glacial deposits developed to the north of the main site.

The peat in this area is generally fibrous and shows quite low levels of decomposition in the top 100 cm. The peat is generally flat lying with very little erosion or hagging associated with it. Where the peat was found to be deeper (greater than 1.5 m) the level of decomposition was far more evident with increased humification and higher moisture content.

Soils

The soils on-site are classified as peaty gleys and peat. The Carbon and Peatland 2016 map[20] shows predominately Class 5 Peat across the site (no peatland vegetation) with some areas of Class 1 Peat which is considered 'nationally important carbon-rich soils, deep peat and priority peatland habitat. Areas likely to be of high conservation value'.

3.1.2 Bedrock Geology

The bedrock geology at site is almost entirely underlain by Moine age strata. The site can broadly be characterised by two areas, comprising Moine metasediments of the Loch Coire Formation across the western portion of the site and the Kirktomy Gneisses across the eastern portion of the site. The site is divided by the Swordly Thrust Fault which is orientated in a north northwest to south southeast orientation, displacing the younger Kirktomy Gneisses over the older Loch Coire Formation. There is no clear evidence of the Swordly Thrust Fault on the site.

[20] Scottish Natural Heritage (SNH), The James Hutton Institute and Scottish Government., (2016) *Carbon and Peatland 2016 map*.[viewed October 2019] Available from: map.environment.gov.scot/soil_maps/ Scottish Government, 2016, Last accessed October 2019

Several outcropping granitic rocks occur as sheets on the site, these are seen in the area where rock outcrops at surface. These granitic sheets comprise the Scottish Highland Ordovician Granitic Intrusion Suite. The granitic sheets are divided as those outcropping the west of the Swordly Fault and those to the east of the fault. These areas have been selected as potential borrow pit sites, as they appear to form slight ridges of outcropping rock at or close to surface.

The bedrock geology of the site is shown in Figure 10.1.3. Details of the geological units present on-site and immediately adjacent to site are detailed in Table 3-1.

Table 3-1
Bedrock Geology Summary

Age	Stratigraphic Group	Unit	Description
Silurian 444 – 419 Ma	-	Clerkhill Appinite Suite	Ultramafitite (mafic igneous rock).
Ordovician 485 – 443 Ma	-	Scottish Highland Ordovician Minor Intrusion Suite	Granite.
Neoproterozoic 1000 – 541 Ma	Moine Supergroup	Kirtomy Gneisses	Semipelite, gneissose metamorphic bedrock.
Neoproterozoic 1000 – 541 Ma		Loch Coire Formation (Bettyhill Gneisses)	Migmatitic psammite with migmatitic semipelite.

3.1.3 Mining and Quarrying

Following review of publicly available records, there is no evidence of commercial mining or quarrying within the site boundary or immediate surrounds.

3.1.4 Hydrology

The site lies within the headwaters of the River Strathy catchment, principally drained at site via the River Strathy, and its contributing watercourses. The catchment rises to the south where the topography is steeper and comprises hilly moorland. The River Strathy flows through the site, and there are several water bodies on the site, including Loch nan Clach, as well as a number of unnamed water bodies (pools and small lochs). Further details are given in Chapter 10:Soil and Water of the EIAR (see EIAR Volume 2).

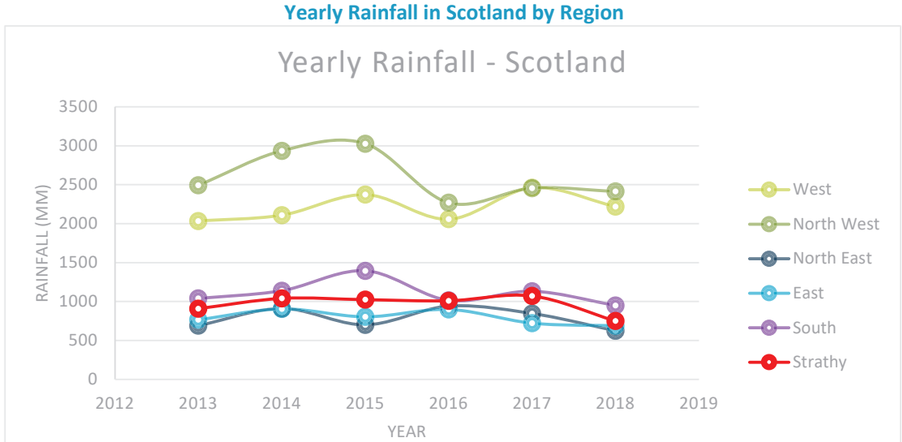
3.1.5 Hydrogeology

The site is underlain by impervious rock generally without groundwater except at shallow depth or in fractures. A review of aquifer characteristics confirms that water is likely to be retained in the peat and that groundwater may be present within sand and gravel horizons within the Glacial Till (where present) and within fractures or fault zones within the bedrock deposits. It is also probable that there will be limited groundwater storage and movement at the weathered surface of the bedrock. Groundwater flow in upland areas typical of much of the site tends to follow flow paths from high ground to adjacent valleys. Again, further details are given in Chapter 10 (Soil and Water) of the EIA (see EIAR Volume 2).

3.1.6 Rainfall

Periods of intense, heavy rainfall are often seen as a trigger for instability events. SEPA Rainfall data sourced from the Strathy Bridge weather station[21], approximately 12 km north of the site, shows that the average annual rainfall in the region (2013-2018) is 967 mm per annum, as detailed in Plate 3-1. This is compared with less than 800 mm in the east and northeast of Scotland, greater than 1,100 mm in the south of Scotland and in excess of 2,000 mm in the west and northwest of Scotland.

Plate 3-1
Yearly Rainfall in Scotland by Region



3.1.7 Topographic Surveys

All of the surveys were based on 5 m Digital Terrain Model (DTM) data which was used to determine slopes across the site and to determine slope coefficient (score) factors at each probe hole location. The site has been characterised into slope classes and a slope plan produced to identify slope areas where potential gradients are more or less susceptible to slope failure mechanisms. The site is generally flat, predominately <5% gradient.

3.1.8 Aerial Photo Interpretation

The site is almost entirely covered in forestry which limits photo interpretation. The aerial photography indicates very limited changes in vegetation on the ground, but it is however possible to identify stream courses, ditches, areas of localised ponding and roads/tracks from the photographs. The aerial photographs were used in

[21] SEPA, (2019) *Scottish Rainfall Data*. Available from: https://www2.sepa.org.uk/rainfall/ (Date accessed: October 2019).

conjunction with the site DTM data to identify the major geomorphological features, mainly as breaks of slope. The site was further assessed during site visits when more detailed mapping of the site was also undertaken.

Interpretation of available aerial photographs was undertaken to assess and identify evidence of historic peat instability. The photographs were examined to highlight features of interest, where present, including:

- possible extension and/or compression features;
- areas of historic failure scars and debris;
- evidence of peat creep;
- areas with apparently poor drainage;
- areas with concentrations of surface drainage networks; and
- steeply incised stream cuttings within peat deposits.

Selected photographs are used to illustrate the mapping and interpretation, however only poor drainage and concentrations of surface water networks were evident. Areas on steeper forest rides were also investigated for potential peat drift; however, there was no significant evidence of movement.

From the aerial photograph and topographic survey interpretation a number of locations were inspected during the site reconnaissance. Areas considered susceptible to further peat instability were identified such as the major breaks of slope where peat is present and where areas of peat hagging/erosion and ponding occur. These locations were generally avoided during site selection based on the anticipated ground conditions and the nature of the features seen in the photographs.

Historic Mapping

Freely available historic OS mapping has been reviewed however no evidence of historic instability was identified.

Extension /Compression Features

There was no evidence visible in the aerial photographs of any extension or compression features in the peat. It was not possible to identify evidence of any significant historic peat failures or slides from the aerial photographs. Ground investigation proved that there were no significant features of this nature in the vicinity of the site and no slumping of peat was evident along existing track corridors.

Natural Drainage

Drainage across the site is characterised by a number of streams feeding into the River Strathy. There are also approximately eight areas of ponding on the site, indicating the saturated nature of the peat and impermeable nature of the substrate, predominantly bedrock.

There are a number of man-made drainage ditches in the peat across the site, which related to the commercial conifer forest. The ditches have been constructed to facilitate drainage in the forest and link up via the natural and man-made drainage channels in the peat to small streams which ultimately link up to the River Strathy. The drainage ditches inspected during the site reconnaissance were all constructed in the peat, i.e. the ditches were not excavated into the subsoil material beneath the peat, although erosion indicated that mainly bedrock was immediately below the surface.

A summary of the geomorphology identified through aerial photography and site reconnaissance is included in Figure 10.1.9.

Local Knowledge

No anecdotal insight has been provided from landowners or past site users to suggest that there has been a history of peat instability at the site.

4.0 Site Work

4.1 Peat Depth Survey

Peat depth surveys have been undertaken across three phases, initially by Mouchel Parkman[1] as part of the 2007 Environmental Statement[8] with additional probing and sampling undertaken by SLR[2] as part of the 2013 Environmental Statement Addendum[9] and 2014 Further Information Report[10] for the Consented T39 Layout.

An additional site visit was undertaken by SLR in September 2019 to provide supplementary probing where data gaps were identified. Further probing was undertaken by RPS in February 2020 at the proposed borrow pits E, F and G, following consultation with SEPA. SEPA confirmed that no additional probing was required around these locations as the probing undertaken showed shallow peat to be present.

The inspection was limited to the existing tracks, forest rides and clearings and included observations of areas both up-slope and down-slope of the turbine sites, and proposed infrastructure locations (where accessible).

Methodology

The surveys carried out followed best practice guidance for developments on peatland[4,22] where possible. Limitations due to extensive forestry restricted detailed mapping around each turbine, however every effort was made to access as close to every turbine as physically possible. The network of existing tracks and forest rides allowed SLR to complete a comprehensive grid of data around most of the infrastructure, turbines and tracks. It is however acknowledged that due to the limitations described, the survey does not fully comply with the recommendations of the guidance mentioned above. Where probing data was limited, geomorphological interpretation was used to infer ground conditions. Consultation with SEPA has been carried out throughout the development process, and whilst it is accepted that the current survey date is not in line with current guidance, SEPA has confirmed that for the purposes of the Section 36C application, no further peat probing is required. Full details on consultation can be found in Table 10.2 of Chapter 10: Soils and Water (EIAR Volume 2). Further probing is to be undertaken during detailed ground investigations following removal of existing forestry.

Peat Depth Analysis

The thickness of the peat was assessed using a graduated fibre glass peat probe, which can be extended to over 10 m depth. This was pushed vertically into the peat to refusal and the depth recorded, together with a unique location number and the coordinates from a handheld Global Positioning System instrument (GPS). The accuracy of the GPS was quoted as ±4 m, which was considered sufficiently accurate for this preliminary reconnoitre. All data was uploaded to a PC for incorporation into various figures and analysis assessments. Where the peat probing met refusal on a hard substrate, the 'feel' of the refusal can provide an insight into the nature of the substrate. The following criteria were used to assess likely material:

- Solid and abrupt refusal – rock;
- Solid but less abrupt refusal with grinding or crunching sound – sand or gravel;
- Rapid and firm refusal – clay;
- Gradual refusal – dense peat or soft clay.

The peat depth data has been uploaded into various figures and analysis assessments included within this report.

[22] Scottish Renewables & SEPA (2012) '*Developments on Peatland Guidance on the Assessment of Peat Volumes, Reuse of Excavated Peat and the Minimisation of Waste*'.

A peat auger was used to recover disturbed samples from a range of depths for moisture content analysis. The auger was also used to determine the thickness of the peat and to recover samples of the substrate when the material is cohesive. There was no cohesive material on the site.

5.0 Slope Stability/Ground Conditions

The stability of slopes is dependent upon the shear strength of the soil to resist the disturbing forces due to the weight of the soil, the effects of the groundwater and other disturbing influencing forces.

The level of stability of a slope is normally assessed by reference to the factor of safety, which is expressed numerically, as the degree of confidence that exists, for a given set of conditions, against a particular failure mechanism occurring. It is commonly expressed as the ratio of the load or action which would cause failure against the actual load or actions likely to be applied during service. This is readily determined for some types of analysis (e.g. limit equilibrium slope stability analyses).

5.1 Shear Strength

The strength of the peat in the upper acrotelm is significantly influenced by the root and fibres that are abundant in this layer. There are many influences on the stability of the peat and observing or measuring high shear strength should not be used to assume a high degree of stability.

5.2 Stability Risk Assessment

It is apparent that the stability of peat is complex and the numerous inter-relationships that affect the stability are not fully understood.

The problem with a quantitative assessment is that it requires a numerical input and the analysis cannot account for the unquantifiable input required for a comprehensive peat stability assessment. For this reason, a purely quantitative assessment should only be considered as a guide and that a qualitative assessment of stability should be used to provide the final recommendations.

A stability risk assessment was undertaken to evaluate the risk of instability occurring associated with the construction of the turbine bases and access tracks at the development.

5.3 Results

The results of the probing exercise are detailed in the following sections and the peat depths identified on-site are shown in Figure 10.1.4 and Figure 10.1.5.

5.3.1 Peat/Peaty Soils

The peat was found to vary across the site in terms of thickness and coverage. The slopes on-site are detailed in Figure 10.1.7. When viewed in conjunction with the Peat Depth Plans (Figure 10.1.4 and Figure 10.1.5), it is evident that the peat is generally limited to flat expanses that mimic the topographic flat lying areas.

A total of 2,209 probe holes have been undertaken across all survey phases, (2007 – 2019) with the results summarised in Table 5-1 below.

Table 5-1
Peat Probing Data

Peat Thickness (m)	No. of Probes	Percentage (of total probes undertaken on-site)
0 (no peat)	39	<2
0.01 – 0.49 (peaty soil)	458	20.7
0.50 – 1.49	955	43.2
1.50 – 1.99	278	12.6
2.00 – 2.49	192	8.7
2.50 – 2.99	165	7.5
3.00 – 3.99	103	4.7
> 4.0	19	<1

In summary the peat depth probing has shown that:

- The peat was found to vary across the main site in terms of thickness, surface slopes and apparent characteristics;
- Peat thickness varies from 0.5 m to 5.0 m in the main site; and
- The geomorphology of the peat areas varies between large, flat expanses of apparently thick peat with high moisture content and smaller areas of thinner drier deposits blanketing the moderate undulating slopes.

Accumulations of peat up to 0.5 m thick are considered to be too thin to be classified as true peat deposits and are often classified as organic soils or peaty soils.

The underlying soil/peat thickness at each location was recorded and the data used to draw the interpreted peat thickness map, presented as Figure 10.1.4.

5.3.2 Peat Condition

The probing investigation identified the following profiles within the peat:

- Soft to firm from surface to base of peat;
- Relatively firmer, vegetative root system at surface to approximately 0.5 m, underlain by slightly softer, partially waterlogged peat to base; and
- Vegetation still present to base of peat and clearly identifiable.

Peat is described using the von Post[15] classification which is summarised in Table 5-2.

Peat samples were collected by SLR[2] using a peat auger and used to inform interpretations of the peat condition and underlying substrate.

Table 5-2
von Post Classification for Peat Humification

Degree of Humification	Decomposition	Plant Structure	Content of Amorphous Material	Material Extruded on Squeezing	Nature of Residue
H1	None	Easily identified	None	Clear, colourless water	Not pasty
H2	Insignificant	Easily identified	None	Yellowish water	
H3	Very slight	Still identifiable	Slight	Brown, muddy water; no peat	
H4	Slight	Not easily identifiable	Some	Dark brown, muddy water; no peat	Somewhat pasty
H5	Moderate	Recognisable but vague	Considerable	Muddy water and some peat	Strongly pasty
H6	Moderately strong	Indistinct (more distinct after squeezing)	Considerable	About ⅓ peat squeezed out; water dark brown	Fibres and roots more resistant to decomposition
H7	Strong	Faintly recognisable	High	About ½ peat squeezed out; any water very dark brown	

H8	Very strong	Very indistinct	High	About ⅔ peat squeezed out; also some pasty water	
H9	Nearly complete	Almost unrecognisable		Nearly all the peat squeezed out as a uniform paste	
H10	Complete	Not discernible		All the peat passes between the fingers; no free water visible	

The moisture content of the peat is estimated on a scale from 1 (dry) to 5 (very high), designated as B_1 to B_5 and is often used in combination with the van Post classification to characterise peat.

As a general guide, the limits presented in Table 5-3 have been applied.

Table 5-3
Moisture Content

Moisture Content	%
B_1	Dry
B_2	<500%
B_3	500-1000%
B_4	1000-2000%
B_5	>2000%

The moisture content was interpreted visually and confirmed with laboratory testing as B_3 – B_4 range as described above and there is a general trend for a slight increase in moisture content with depth, within a broad range. The laboratory data is included in Appendix B.

Sampling for carbon content is included; these were collected in August 2012. The carbon content returned was 46% which is within the generally accepted range of 45-65% for Scottish peatlands. A number of bulk density samples were collected but these returned values which were unacceptably low for typical peat deposits.

Based on field descriptions, most of the shallow peat would be classified as between H_3 and H_4 in the von Post classification, showing slight decomposition with some amorphous material. The deeper peat generally in excess of 1.5 m is more decomposed and would be in the range of H_5 to H_7.

5.3.3 Substrate

The underlying substrate was interpreted by SLR during previous survey phases[2] and during the site visit in September 2019. From the evidence of the probing and sampling where available, the substrate falls into one of two principal categories:

- Granular (sand and/or gravel/weathered rock), of glacial origin and occasionally interbedded with silty sands;
- Rock - no rock samples were recovered from the probe locations although where exposed, the rock was indicated from field observations to be strong to very strong metasedimentary rocks ranging from psammites through to gneisses. The bedding dip and discontinuity spacing could not be determined at this stage but evidence from outcrops confirms the metasediments are folded and exhibit variable bedding orientations and should be subject to further investigation for the design of the turbine foundations; and
- No clay horizons were encountered and evidence from SLR site walkovers did not encounter cohesive clay materials on-site.

Photo 5-1
Peat Hag (NGR 278454 949561)

Photo 5-2
Peat overlying weathered rock over bedrock (NGR 277534 952621)

Photo 5-3
Outcropping bedrock (NGR 280699 950347)

The interpreted substrate is shown in Figure 10.1.6.

5.4 Description of Ground Conditions at Wind Turbine Locations

Table 5-4 outlines the ground conditions found at each proposed wind turbine location. Where access was limited around the turbines, the closest probing point has been used to interpret the conditions at the turbine location.

Table 5-4
Ground Conditions at Proposed Wind Turbine Locations

Turbine No.	Peat Thickness (m)	Peat Conditions	Slope (°)
T1	0.3	Peaty Soil	10.4
T2	0.7	Thin Peat	2.5
T4	0.5	Thin Peat	5.1
T6	0.4	Peaty Soil	2.3
T8	0.4	Peaty Soil	2.3
T9	3.0	Thick Peat	0.9
T10	1.7	Thick Peat	2.9
T11	0.5	Thin Peat	2.9
T13	0.5	Thin Peat	2.3
T15	0.7	Thin Peat	1.8
T17	1.5	Thick Peat	2.4
T18	2.5	Thick Peat	1.2
T19	2.7	Thick Peat	0.5
T20	0.9	Thin Peat	1.8
T22	1.5	Thick Peat	4.7
T24	0.4	Peaty Soil	3.0
T26	0.5	Thin Peat	1.8
T28	0.8	Thin Peat	1.6
T29	2.3	Thick Peat	0.7
T30	1.0	Thin Peat	1.4
T33	3.2	Thick Peat	2.3
T35	1.3	Thin Peat	1.5
T36	1.4	Thin Peat	1.2
T39	1.2	Thin Peat	3.1

Turbine No.	Peat Thickness (m)	Peat Conditions	Slope (°)
T41	0.9	Thin Peat	3.9
T42	2.3	Thick Peat	1.1
T43	1.6	Thick Peat	1.8
T45	1.1	Thin Peat	2.8
T46	1.6	Thick Peat	1.8
T47	0.8	Thin Peat	3.8
T49	2.8	Thick Peat	1.2
T50	1.0	Thin Peat	1.0
T52	3.3	Thick Peat	1.9
T56	1.5	Thick Peat	0.4
T57	2.4	Thick Peat	1.2
T61	0.2	Peaty Soil	4.7
T69	2.1	Thick Peat	1.6
T70	0.6	Thin Peat	1.5
T72	2.7	Thick Peat	0.8

6.0 Peat Landslide Hazard and Risk Assessment

A PLHRA has been undertaken for the main site. Following several phases of peat probing, a site visit by an experienced SLR wind farm geotechnical engineer, and appraisal of the data, the potential for a peat slide occurring at the main site was initially assessed as low, this was based on the fact that:

- Although there are significant thicknesses of peat present on-site, the Proposed Varied Development infrastructure has generally avoided the thickest areas of peat;
- The existing Strathy North Wind Farm access track and existing forestry tracks that are to be adopted/upgraded have had no history of peat stability issues;
- No evidence of historical or current peat slide activity at the site (having reviewed historical dating back to 2004, with additional photos in 2016 and 2019);
- Shallow to moderate gradients (<7^0) where turbines overlying peat are proposed; and
- Conclusions of a detailed walkover and results from probing;

Where areas of medium and high risk are present, further assessment is necessary.

The site is mostly covered by commercial forestry plantation. Forestry can increase the likelihood of a peat slide occurring by altering natural drainage patterns and generating high pore-water pressures on potential rupture surfaces such as at the boundary between peat and the underlying substrate. There were no areas of significant peat instability identified within the forestry during the survey work.

To further quantify this initial assessment, analysis of the terrain at site utilising GIS has been undertaken to analyse slopes and gradients, as shown on Figure 10.1.7. The site-specific slope data has been combined with site specific peat depth data and using Scottish Government guidance[3] for the assessment of the risk of instability in peat, an assessment of peat slide risk has been completed.

The method of risk and hazard assessment has been developed with reference to the Scottish Guidance[6]. Key factors which may have an effect on the stability of the peat deposits have been identified leading to an assessment of the RISK of instability. The potential impact of any instability, the HAZARD, was then considered for identified potential receptors. Scores were attributed to the key factors that have the greatest influence on peat stability. Risk scores were determined, which, when combined with an assessment of vulnerability of potential targets, were developed into an assessment of the hazard.

In order to differentiate between risk and hazard, the following nomenclature has been adopted (Table 6-1).

Table 6-1
Risk versus Hazard

Risk	Hazard
Negligible	Insignificant
Low	Significant
Medium	Substantial
High	Serious

This section outlines the approach taken and the scores allocated for various factors relevant to peat stability.

At this stage in the environmental impact assessment work for the Proposed Varied Development, the objective is to determine the peat areas that would have an effect on the Proposed Varied Development and to set out the mitigation that could be adopted and incorporated into the overall Proposed Varied Development plan to ensure that due cognisance is taken in this regard.

The level of slope is normally assessed by reference to the factor of safety, which is expressed numerically, as the degree of confidence that exists, for a given set of conditions, against a particular failure mechanism occurring. It is commonly expressed as the ratio of the load or action which would cause failure against the actual load or actions likely to be applied during service. This is readily determined for some types of analysis (e.g. limit equilibrium slope stability analysis). The following sections present a brief discussion on some of the issues relating to stability and risk assessment.

The stability of peat is a complex subject and there are numerous inter-relationships that affect the stability.

A quantitative assessment requires a numerical input and such an analysis cannot account for the unquantifiable input required for a comprehensive peat stability assessment. For this reason, a purely quantitative assessment should only be considered as a guide and a qualitative assessment of stability should be used to inform the final recommendations.

The characteristics of the peat failure phenomena have been incorporated in a stability risk assessment to evaluate the risk of instability occurring within the peat areas. The main factors controlling the stability of the peat mass are the surface gradients, the depth and condition of the peat at each location and the type of substrate.

The natural moisture content and undrained shear strength of the peat are important; however, it is generally accepted that where present, the peat would be saturated and have a very low strength. It is believed to be unrealistic to rely on specific values of shear strength to maintain stability when back analysis of failed slopes indicates that there is often a significant discrepancy between measured strength in peat and stability. Shear strength has been assumed to be constant and worst case, throughout this assessment. It has also been assumed, as a worst case, that the groundwater level is coincident with the ground surface.

The key factors identified as being critical to stability and the development of a risk rating system are:

- A – Slope gradient;
- B – Peat thickness;
- C – Substrate type or condition; and
- D – Historic instability.

The risk scores are multiplied together to generate a risk rating which is a measure of the likelihood of peat instability.

6.1 Slope Gradients

The slope gradients were assessed by reference to the mapping and particularly the DTM which was used to generate a gradient map (Figure 10.1.7), from which the gradient at each probe location could be determined and input into the risk rating spread sheet (Appendix A). The gradient quoted at each location was based on the average gradient over a 5 m grid. Significant effort has gone into reducing slopes along routes and at wind turbine bases and positioning infrastructure on flat areas, it is evident from the slope plan that the majority of the tracks close to turbines and at turbines are on areas with moderate gradients (<8°).

Table 6-2
Coefficients for Slope Gradients

Slope Angle (°)	Slope Angle Coefficients
Slope <2°	1
2°≤ Slope <4°	2
4°≤ Slope <8°	4
8°≤ Slope <12°	6
>12° Slope	8

Coefficients for slope gradient have been assigned to ensure the potential for both peat slides (gradients of 4-15°) and bog slides (gradients of 2-10°) are addressed.

By simple inspection it is clear that steeper slopes pose a greater risk of instability than shallow gradients. Therefore, a graduated gradient scale from 0° to >12° (the practical maximum gradient on which peat is commonly observed) has been applied.

6.2 Peat Thickness and Ground Conditions

The ground conditions were assessed by using peat depths recorded during peat probing. Thin peat was classed as being 0.5 m to 1.5 m thick, with deposits in excess of this being classed as thick. The thickness ranges used are intended to reflect the risk of instability associated with both peat slides (in thin peat) and bog slides. Where the probing recorded peat less than 0.5 m thick, this has been considered to be an organic soil rather than peat. Table 6-3 gives the coefficients applied to the various ground conditions.

In addition to peat thickness, the presence of existing landslip debris or indicators of meta-stable conditions such as tension cracks or slumping in the peat suggest the material is likely to become even less stable should the existing ground conditions change. Where evidence of historical slips, collapses, creep or flows is seen, a separate coefficient has been applied.

Table 6-3
Coefficients for Peat Thickness and Ground Conditions

Ground Conditions	Ground Condition Coefficients
Peaty or organic soil (<0.5 m)	1
Thin Peat (0.5 – 1.5 m)	2

Ground Conditions	Ground Condition Coefficients
Thick Peat (>1.5 m)	3*
Slips /collapses / creep / flows	8

***Note that thicker peat generally occurs in areas of shallow gradients and records indicate that thick peat does not generally occur on steeper gradients.**

6.3 Substrate

As noted above, most failures in thin peat layers occur at the interface with the underlying substrate; the nature of the substrate has a very large influence on the probable level of stability.

Where sand and/or gravel (derived from Glacial Till) form the substrate, the effective strength of the interface can be considered to be good with comparatively high friction values. Under these conditions, failure is likely to occur in a zone within the peat, just above the interface. Further factors are necessary to cause a failure of this nature (increased pore pressures within the peat) and occurrence of such events is rare.

Where clay forms the interface, there is likely to be a significant zone of softening in the clay (due to saturation at low normal stresses, poor or non-existent vertical drainage and the effect of organic acids), resulting in either very low undrained shear strength or low effective shear strength parameters. The result is that potential shearing could occur either in the peat, on the interface or in the clay; all three possibilities have been documented in the past.

A rock substrate provides a high strength stratum, however, the rock surface can be smooth, and, depending on the dip orientation of the strata, it can provide a very weak interface. For these reasons, at this stage, a rock interface has been given the same risk rating as clay.

Table 6-4
Coefficients for Substrate

Substrate Conditions	Substrate Coefficients
Sand/gravel (granular)	1
Clay	2
Rock	2
Not proven	3
Slip material (Existing materials)	5

If the overall thickness of the peat had not been proven, the risk associated with the significant thickness and the unknown substrate would have been given a high rating to accommodate the unknown factors.

6.4 Risk Rating

The risk rating coefficient (score) was derived by multiplying the coefficients for the four key factors (with historic instability as 1) identified in the above sections together to produce a risk rating which is a measure of the likelihood of peat instability, and this enables potential areas of concern to be highlighted.

For the stability risk assessment, the following Potential Stability Risk classes were applied as shown in Table 6-5.

Table 6-5
Risk Rating

Risk Rating Coefficient	Potential Stability Risk (Pre-Mitigation)	Action
<5	Negligible	No mitigation action required.
5 - <15	Low	As for negligible condition plus development of a site-specific construction and management plan for peat areas.
15 - <31	Medium	As for Low condition plus may require mitigation to improve site conditions.
>31	High	Unacceptable level of risk, the area should be avoided. If unavoidable, detailed investigation and quantitative assessment required to determine stability and sensitivity to minor changes in strength and groundwater regime combined with long term monitoring.

The rating system outlined above differs slightly from that proposed in the Scottish Government Guidance[3] as the system adopted here incorporates three inputs compared to two in the guidance, with the potential impact of substrate added in this section.

The table of results (included in Appendix A) shows that 2,209 probe locations were identified within the extent of the DTM and peat/peaty soil was present at 2,170 locations. The stability risk rating identified the following:

- Negligible risk at 1,176 (~53 %) probe locations;
- Low risk at 860 (~39%) locations;
- Medium risk at 130 (~6%) locations;
- High risk at 4 (<1%) locations; and
- No peat was recorded at 39 locations (<2%), hence no risk.

Figure 10.1.8 presents the interpreted risk of peat instability based on the multiplication of the risk coefficients discussed above in Table 6-2 to Table 6-4 and using the detailed mitigation in Table 6-5. The peat stability risk rating for each proposed wind turbine is summarised in Table 6-6.

Table 6-6
Stability Risk Rating at Each Wind Turbine

Turbine No.	Stability Risk Rating	Peat Depth (m)	Slope (^{o})	Acceptable Location
T1	Medium	0.3	10.4	Steeper slope locally, micrositing within 100 m allowance would mitigate risk.
T2	Negligible	0.7	2.5	Yes
T4	Low	0.5	5.1	Yes
T6	Negligible	0.4	2.3	Yes
T8	Negligible	0.4	2.3	Yes
T9	Low	3.0	0.9	Yes
T10	Low	1.7	2.9	Yes
T11	Low	0.5	2.9	Yes
T13	Negligible	0.5	2.3	Yes
T15	Low	0.7	1.8	Yes
T17	Low	1.5	2.4	Yes
T18	Negligible	2.5	1.2	Yes
T19	Medium	2.7	0.5	Thick peat on flat ground – micrositing within 100 m allowance would mitigate risk.
T20	Negligible	0.9	1.8	Yes
T22	Low	1.5	4.7	Yes
T24	Negligible	0.4	3.0	Yes
T26	Low	0.5	1.8	Yes
T28	Low	0.8	1.6	Yes
T29	Low	2.3	0.7	Yes
T30	Negligible	1.0	1.4	Yes
T33	Negligible	3.2	2.3	Yes
T35	Negligible	1.3	1.5	Yes
T36	Negligible	1.4	1.2	Yes

Turbine No.	Stability Risk Rating	Peat Depth (m)	Slope (^{0})	Acceptable Location
T39	Negligible	1.2	3.1	Yes
T41	Low	0.9	3.9	Yes
T42	Low	2.3	1.1	Yes
T43	Low	1.6	1.8	Yes
T45	Low	1.1	2.8	Yes
T46	Low	1.6	1.8	Yes
T47	Negligible	0.8	3.8	Yes
T49	Negligible	2.8	1.2	Yes
T50	Negligible	1.0	1.0	Yes
T52	Low	3.3	1.9	Yes
T56	Low	1.5	0.4	Yes
T57	Negligible	2.4	1.2	Yes
T61	Negligible	0.2	4.7	Yes
T69	Medium	2.1	1.6	Thick peat on flat ground – micrositing within 100 m allowance would mitigate risk.
T70	Negligible	0.6	1.5	Yes
T72	Low	2.7	0.8	Yes

As can be seen from Table 6-6, 36 of the 39 proposed wind turbine positions fall within the 'negligible' or 'low' risk classification. All of the proposed wind turbines that are sited on peat are located on shallow to moderate slopes (< 7^0).

There are a number of areas within influencing distance of proposed infrastructure where the risk of instability has been classed as 'medium' and as such warrants further consideration. These are assessed in further detail within Section 6.12.

6.5 Wind Turbine Sites

The table of results shows that the following potential stability risks exist at the wind turbine locations:

- NEGLIGIBLE risk at 18 locations;
- LOW risk at 18 locations;
- MEDIUM risk at 3 locations; and
- No HIGH risk locations were identified.

6.6 Access Track (within the main site)

The results show that the majority of locations along the proposed access track show a negligible potential stability risk (Figure 10.1.8), with some areas of medium and high risk, which are assessed further in Section 6.12.

6.7 Hazard Score Development

A further assessment of the medium and high risk locations has been undertaken. It should be noted that the impact assessment is primarily concerned with impacts that affect the environment, ecology, public or infrastructure associated with the Proposed Varied Development, both on-site and potentially off-site. These assessments do not consider the detailed ecological impact of construction induced peat instability; however, the majority of the sensitive on-site receptors are the watercourses and thus the inferred ecological and environmental issues are addressed. The proposed mitigation measures in Section 7.0 would limit the potential for any slope failures into water courses and drainage features hence limit such impacts.

The effect a slope failure may have on the construction site and infrastructure can be easily identified. However, the effect of an instability event on features impacted by an event not associated with the Proposed Varied Development is harder to predict.

In order to address this effect, it is not considered appropriate to assess the effect at every potential receptor location close to a site; but rather to assess the effect a particular infrastructure feature (track, wind turbine, substation, etc.) would have on the structures or features surrounding it. By adopting such an approach, the assessment of infrastructure features where a risk ranking of 'negligible' or 'low' (assessed in the stability risk assessments described above) is discounted from further assessment.

6.8 Receptor Ranking

Now the infrastructure features with a 'medium' or higher risk rating for instability have been identified it is necessary to identify potential impact receptors. These are nearby structures or features that could be affected by peat movements caused during or following construction. Generally, only receptors immediately down gradient of the infrastructure feature could be affected by peat instability therefore the first phase of feature ranking requires topographic ridges and valleys to be identified across the site and surrounding area. From this, receptors at risk from particular infrastructure features can be identified. However, should instability occur on a steep slope, there is the risk of the back scarp of the instability migrating up-slope, thereby affecting areas previously considered not to be at risk.

Following identification of receptors at risk, these are ranked according to their size and sensitivity. Table 6-7 presents the coefficients placed on particular receptor types.

At the site, local receptors include the River Strathy and its tributaries and non-adopted forestry tracks which cross the central parts of the main site. Communities have been discounted due to distance from infrastructure; therefore, the impact should a slide occur is directly to watercourses.

Table 6-7
Coefficients for Impact Receptor Ranking

Nature of Feature	Feature Coefficient
Non-critical infrastructure (minor/private roads, tracks)	1
Watercourses and critical infrastructure (pipelines, motorways, dwellings and business properties etc.)	3
Sub-Community (settlement 1-10 residents)	6
Community (settlement of >10 residents)	8

6.9 Receptor Proximity

The proximity of an impact receptor is also critical in assessing the likely level of disruption it may suffer following an instability event. Based on this, two further coefficients – distance from infrastructure feature and relative elevation differences between the infrastructure feature and impact receptor - are applied in deriving an impact ranking. Table 6-8 and Table 6-9 present the coefficients derived for distance and elevation of impact receptors.

Table 6-8
Coefficient for Impact Feature Distance

Distance from Coefficient Feature	Distance Coefficient
> 1 km	1
100 m – 1 km	2
10 – 100 m	3
0 – 10 m	4

Table 6-9
Coefficient for Impact Feature Elevation

Relative Elevation of Feature	Elevation Coefficient
0-10 m	1
10 – 50 m	2
50 – 100 m	3
> 100 m	4

6.9.1 Impact Rating

The impact rating coefficient (score) is derived by multiplying the receptor ranking coefficient (score) by the distance coefficient (score) and the elevation coefficient (score) for each impact receptor associated with a particular infrastructure feature.

Based on distance to impact receptors, in this instance SLR has identified watercourses (which are the most sensitive receptor near the site). The other receptors have been discounted, either they are not present or distance to receptor mitigates risk. Watercourses are the principal receptor as they are at risk of not only direct impact from a peat slide but potentially the water course creates a pathway to impact other receptors indirectly, either ecological or potential water users downstream. Based on Table 6-7 the watercourses would have an impact receptor coefficient (score) of 3 and then, considering the distance to the receptor and the relative elevation differences on-site of receptors, a potential impact can be derived.

6.10 Hazard Ranking

The Scottish Government[3] guidance recommends that the hazard ranking is assessed using the following formula:

1. **Hazard Ranking = Hazard x Exposure**

This philosophy can be applied to the assessment carried out so far in the following approach:

2. **Hazard Ranking = Risk Rating x Impact Rating**

In order to achieve a meaningful and manageable result from the hazard ranking, the results of the Stability Risk Assessment and Impact Assessment have been normalised to a standard numerical scale (below).

Table 6-10
Rating Normalisation

Risk Rating		Impact Rating	
Current Scale	Normalised Scale	Current Scale	Normalised Scale
Negligible <5	1	Very Low <10	1
Low 5 - <15	2	Low 11 - 20	2
Medium <15 - 30	3	High 21 - 30	3
High 31 - 50	4	Very High 31-50	4
Very High >51	5	Extremely High >51	5

The method of assessing risk, impact and hazard developed by SLR Consulting incorporates additional critical elements such as the substrate interface and coefficients for the receptor position, distance and elevation and as such is considered to be more rigorous than the assessment scheme proposed by the Scottish Government (SG)[3]. Whilst the scales used in the SLR method deviate from the SG Guidance, the ultimate Hazard Ranking scale does equate to the SG scale, with hazard rankings divided over four zones.

A simple multiplication of these coefficients would result in potentially large and unwieldy risk and impact rating numbers. SLR has therefore opted to normalise these values to bring them in line with the values used in the SG Guidance, as illustrated in Table 6-10 above.

Table 6-11
Hazard Ranking

Hazard Ranking	Hazard Ranking Zone	Action
1-4	Insignificant	No mitigation action required although slide management and monitoring shall be employed. Slide management shall include the development of a site specific construction plan for peat areas.
5 - 10	Significant	As for Insignificant condition plus further investigation to refine the assessment combined with detailed quantitative risk assessment to determine appropriate mitigation through relocation or re-design.
11 - 16	Substantial	Consideration of avoiding project development in these areas should be made unless hazard mitigation can be put in place without significant environmental effect.
17-25	Serious	Unacceptable level of hazard; development within the area should be avoided.

6.11 Results

The stability risk assessment has demonstrated that the majority of the main site lies within an area of negligible to low risk with regards to stability based on Figure 10.1.8. Those areas that have been identified as being at medium risk of instability, but which would not impact the site layout, have not been considered in a hazard impact assessment.

There are no communities of any description within the site or within 1 km of any down slope regions of the site. The tributaries and the River Strathy are designated as a Special Area of Conservation (SAC) and there are sporting activities in the form of fishing and grouse shooting as well as public access rights within the site boundary.

Elevations are not significant within the main site with the maximum change of 60 m between turbine elevations, although local height differences between the various items of infrastructure and possible on-site receptors are typically less than 15 m. The proposed infrastructure within the site is limited to the turbines, access tracks and cable routes, the substation and the construction compound (temporary). Local receptors include the River Strathy and its tributaries and non-adopted forestry tracks which cross the central parts of the site.

The stability risk assessment results are presented in Table 6-12 shows the calculated hazard ranking associated with every location where there is a stability risk of medium or above, at or close to wind farm infrastructure. The particular mitigation measures to reduce the risk of instability occurring are dependent upon location and the type of proposed structure. Proposed mitigation measures and actions already undertaken to reduce the risk of peat instability occurring are also identified in Table 6-12, together with the associated, revised hazard ranking. A more detailed discussion of the possible mitigation measures is presented in Section 7.0.

There are 17 areas identified that display a medium or high risk of peat instability on the proposed access tracks or at areas of potential infrastructure that require further assessment.

A total of 200 medium or high risk probe locations have been identified across the main site, mostly in localised areas; following review, the majority of these locations are not considered to have either a potential impact on the site infrastructure, due to locality, either well away from influencing site infrastructure, in a down gradient position or have no impact on the local watercourses (receptors).

6.12 Hazard Rated Locations

As noted in Figure 10.1.8 and, where the risk assessment has identified a negligible or low risk of peat instability, no specific mitigation measures are necessary. However, in order to ensure best practise is employed, there would be a need for careful monitoring and the construction management must include careful design of both the permanent and temporary works appropriate for peat soils; these are discussed further in Section 7.0.

The areas of the infrastructure that were rated as medium risk, or above, were subjected to a hazard assessment; a number of areas were discounted as they were located off the proposed on-site access track and do not fall within influencing distance of any of the key proposed site infrastructure.

The procedure adopted was to review Figure 10.1.8 and identify those areas with a medium risk or greater, that were in close proximity or influencing distance of any of the proposed infrastructure or watercourses. Those risk areas where there is no development would not affect the natural stability of the peat.

The assessment carried out in Table 6-12 was completed as described in the sections above. For example, Location 1 has a risk rating of 3 (derived from Table 6-5 and Table 6-10) with an impact rating of 1 (derived from the process described in Section 6.9.1 and normalised in Table 6-10). These ratings are multiplied (3x1) to give a hazard ranking of 3 (insignificant), as detailed in Table 6-11.

Although the potential hazards identified in Table 6-12 can be mitigated to 'insignificant' it is believed that hazards should be subject to further post-consent investigation and ongoing monitoring during construction. Further details of mitigation during construction are described in Section 7.0.

Table 6-12
Stability Hazard Ranking Assessment

Location (refer to Figure 10.1.8)	Coordinates	Risk Rating	Impact Rating	Hazard Ranking	Mitigation	Revised Hazard Ranking
1	280618, 953024	Medium (3)	Very Low (1)	Insignificant (1)	Risk area influenced by steep slope – no peat present.	Insignificant
2	280711, 952879	Low (2)	Very Low (1)	Insignificant (1)	Existing track, upgrading track would not be greatly impacted by peat, no mitigation required.	Insignificant
3	280735, 951223	Low (2)	Very Low (1)	Insignificant (1)	Existing track, upgrading track would not be greatly impacted by peat, no mitigation required.	Insignificant
4	280747, 951024	Low (2)	Very Low (1)	Insignificant (1)	Existing track, upgrading track would not be greatly impacted by peat, no mitigation required.	Insignificant

Location (refer to Figure 10.1.8)	Coordinates	Risk Rating	Impact Rating	Hazard Ranking	Mitigation	Revised Hazard Ranking
5	280731, 950862	Low (2)	Very Low (1)	Insignificant (1)	Existing track, upgrading track would not be greatly impacted by peat, no mitigation required.	Insignificant
6	280671, 950652	Low (2)	Low (2)	Insignificant (2)	Existing track, upgrading track would not be greatly impacted by peat, no mitigation required.	Insignificant
7	280241, 950130	Medium (3)	Low (2)	Significant (2)	Thick peat adjacent to existing track, upgrading track would not be greatly impacted by peat, no mitigation required.	Insignificant
8	280048, 950450	Medium (3)	Very Low (1)	Insignificant (1)	Thick peat but no significant gradient. good construction practices to mitigate against risk.	Insignificant
9	279983, 949785	Low (2)	Very Low (1)	Insignificant (1)	Micrositing northeast to avoid thicker peat.	Insignificant
10	279903, 949567	Low (2)	Very Low (1)	Insignificant (1)	Existing track, upgrading track would not be greatly impacted by peat, no mitigation required.	Insignificant
11	280238, 949491	Medium (3)	Low (2)	Significant (2)	Moderate gradient but no thick peat. Good construction practices to mitigate against risk.	Insignificant
12	278296, 950840	Low (2)	Very Low (1)	Insignificant (1)	Moderate gradient but no thick peat. Good construction practices to mitigate against risk or micrositing to west to avoid slope.	Insignificant
13	278431, 951685	Medium (3)	Low (1)	Insignificant (1)	Existing track, upgrading track would not be greatly impacted by peat, no mitigation required.	Insignificant

Location (refer to Figure 10.1.8)	Coordinates	Risk Rating	Impact Rating	Hazard Ranking	Mitigation	Revised Hazard Ranking
14	278519, 952057	Medium (3)	Low (1)	Insignificant (1)	Existing track, upgrading track would not be greatly impacted by peat, no mitigation required.	Insignificant
15	279052, 952292	Low (2)	Low (1)	Insignificant (1)	Existing track, upgrading track would not be greatly impacted by peat, no mitigation required.	Insignificant
16	278834, 952950	Medium (3)	Low (1)	Insignificant (1)	Existing track, upgrading track would not be greatly impacted by peat, no mitigation required.	Insignificant
17	278835, 953145	Low (2)	Low (1)	Insignificant (1)	Existing track, upgrading track would not be greatly impacted by peat, no mitigation required.	Insignificant

7.0 Construction Issues and Mitigation Measures

It has been shown that excavation, drainage and general construction activities can have a destabilising influence on peat and that design should allow for the delicate and susceptible condition of the peat. There is no extensive evidence for past peat instability on-site, however appropriate good practice measures and mitigation should be employed to minimise the risk of adverse effects on peat and hydrological receptors.

The following sections highlight the construction issues that should be considered for each general area of construction. Many of the issues raised would be incorporated into the CEMP for the site. For full details of the mitigation measures proposed, please refer to EIAR Volume 4: Technical Appendix 2.1: CEMP.

The following is a list of controls that should be considered for incorporation into the development of construction methodologies for the works in all areas of peat during detailed design stage:

- An appropriately experienced and qualified engineering geologist/geotechnical engineer should be appointed during the construction phase, to provide advice during the setting out, micrositing and construction phases of the works;
- A Geotechnical Risk Register is developed and maintained by the appointed geotechnical engineer;
- A minimisation of "undercutting" of peat slopes, but where this cannot be avoided, a more detailed assessment of the area of concern by the geotechnical engineer would be required;
- Careful micrositing of wind turbine bases, crane hardstandings and access track alignments to minimise effects on the prevailing hydrology;
- Although the risk of a peat slide is considered to be low for the majority of the main site, it is recommended that methodologies should be developed as a contingency to minimise the effects to watercourses in the unlikely event of peat instability; and
- Use of floating track across areas of peat (>0.5 m).

Notwithstanding any of the above comments, detailed design and construction practices would need to consider the particular ground conditions and the specific works at each location throughout the construction period.

The following list of mitigation measures is provided to minimise the risk of potentially inducing peat landslides during construction of the Proposed Varied Development.

7.1 General

- Raise Health and Safety awareness of the peat environment at the Proposed Varied Development for construction staff by incorporating the issue into the site induction. Include peat slide risk assessment information (e.g. peat instability indicators, best practice and emergency procedures) in toolbox talks with relevant operatives e.g. plant drivers;
- Introduce a 'Peat Hazard Emergency Plan' to provide instructions for site staff in the event of a peat slide or discovery of peat instability indicators;
- For sections of track that require track side cuttings into peat, suitable support measures would need to be designed to maintain the stability of the adjacent peat terrain;
- Refine/optimise the design through the pre-construction phase following completion of a detailed ground investigation; and

- Develop methodologies to ensure that accelerated degradation and erosion of exposed peat deposits does not occur as the break-up of the peat top mat has significant implications for the morphology, and thus hydrology, of the peat (e.g. minimise off-track plant movements within areas of peat).

7.2 Drainage Measures

Drainage design for the Proposed Varied Development is a critical mitigation measure in maintaining the hydrological conditions and which are discussed in Technical Appendix 10.6 (Watercourse Crossing Assessment), Technical Appendix 10.4 (Flood Risk Assessment and Drainage Impact Assessment) and Technical Appendix 2.1 (Outline CEMP), refer to EIAR Volume 4. In order to maintain hydrological conditions, and maintain peat stability, the following requirements of the drainage measures should to be met:

- Development of drainage systems that would not create areas of concentrated flow or cause over-, or under-saturation of peat habitats;
- Development of robust drainage systems that would require minimal maintenance;
- A robust design of drainage systems and associated measures (i.e. silt traps, etc.) to minimise sedimentation into natural watercourses. These should be maintained, and silt build up should be removed regularly;
- Method statements should be prepared in advance to mitigate against a slide occurring and should include, but not be limited to, the use of check dams/water bars and scour/erosion protection to limit flows and prevent contamination of watercourses; and
- Measures should be put in place to ensure drainage systems are well maintained, to include the identification and demarcation of zones of sensitive drainage or hydrology in areas of construction, e.g. inclusion of maintenance regimes for drainage systems into the CEMP.
- Additional mitigation measures, to safeguard the water environment are given in Chapter 10 (Soil and Water) of the EIAR (refer to EIAR Volume 2)

7.3 Construction Recommendations

A summary of recommendations for site-specific infrastructure is provided in the following sections.

The complexity of peat stability has been discussed in this report and by Lindsay and Bragg[6], amongst others. Following a review of published work and the observation and analysis undertaken for the Proposed Varied Development, there would be a negligible hazard from peat instability if the recommendations contained in this report are adopted.

Suitable guidance and documentation in the form of a CEMP would be established before work commences to ensure good construction practices. Due to the complex inter-reactions affecting peat stability it is proposed that the recommendations given below are used as a set of guidelines to generate a detailed design concept. The concept should include the range of potential risks discussed in this report and the design should be sufficiently flexible to allow for continual modification and up-dating as construction progresses.

7.4 Wind Turbine Locations and Crane Pads

It is proposed that construction of the wind turbine foundations would require excavation of peat and subsoil to create a suitable area for the foundation of the base, though subject to ground investigation, piled foundations could be considered

It is the objective of this assessment to consider the potential risk from peat instability and to recommend solutions and mitigation measures to eliminate, or at least reduce the risk to a manageable level. Risk reduction

would best be achieved by minimising the effect of any construction works and an appropriate CEMP is an integral element in ensuring that all parties understand and acknowledge the potential consequences of a peat slide.

In general, the bearing stresses imposed by a wind turbine are relatively low and the main requirement of the base is to resist the overturning moments generated by the wind acting on the turbine. Gravity base foundations are designed to control bearing pressures to a level appropriate to the local ground conditions and provide stability against turbine loading.

The excavations for wind turbine bases and crane pads should be kept to a minimum where possible but it is likely that the required hard stratum would be typically several metres deep, beneath soft materials (peat), unless directly on rock. The very soft nature of peat means that unsupported cut or excavated slopes could be unstable unless shallow gradients are used. The overall width of such an excavation would be up to 28 m diameter at the original ground surface, depending on the thickness of the peaty soil/peat and Glacial Till and appropriate methods of stabilising the temporary slopes should be considered. Foundation excavation would produce large volumes of peat and this should be reused across the site in an environmentally acceptable manner for restoration. Peat would not be used to back fill the excavation void within the footprint of the foundation as it would have a very low strength. Peat could be used as backfill outside the foundation footprint and also to dress verges to tracks and around wind turbine bases, in line with current Waste Management guidance[23]. For further details on reuse of peat, refer to Technical Appendix 10.2: Peat Management Plan (EIAR Volume 4: Technical Appendices). Management of the water in the peat, by maintaining existing drainage during excavation is essential to avoid creating conditions likely to increase the risk of a peat slide. A 'permit to pump' procedure would be in place prior to water being pumped from an excavation to prevent standing water within the base of an excavation.

7.5 Access Tracks

The general principles regarding the construction of the access tracks in peat, which minimise the risk of instability and environmental effects, are discussed below.

In order to maintain the current level or improve the stability of the peat mass on the slopes around the access track, it is necessary to ensure that the construction methods do not seriously disrupt the established drainage and that no areas are surcharged, either by water discharge or spoil.

Wherever possible, the following principles should be adopted:

- Maintenance of existing drainage is critical therefore all existing drainage tracks should be maintained and where necessary, channelled below the proposed track construction. Upslope side drainage ditches to the track would be required on side-long ground; the ditches should be constructed with small dams and cross drains where necessary so that:
- Water can pass below the track at regular intervals;
- Scour and erosion is avoided in the side ditches due the limited volume and velocity, concentrated discharges to the peat on the down slope side of the track are avoided;
- The camber of the track should encourage surface water to drain to the up-slope side drainage ditch;
- Track gradients to be maintained at the recommended gradients from the wind turbine supplier, typically shallower than 1 v: 8 h to facilitate access by the large specialist vehicles for both construction and

[23] SEPA (May 2017)., *SEPA Regulatory Position Statement – Developments on Peat and Off-site Uses of Waste Peat*)SEPA Guidance., WST-G-052. Version 1.

transport of the wind turbine components. The maximum acceptable gradients are usually defined by the appointed wind turbine manufacturer;

- Identify and mark all existing drainage features within the access track corridors; these drainage features should be maintained where possible (not enhanced) during the construction and operational phases of the Proposed Varied Development;
- Install cross drains at regular intervals to maintain interstitial groundwater flow through the peat mass below the tracks where track settlement could reduce the natural permeability. Where the roadside ditches are on the up-slope side of the road, regular cross drains will be used to take the flow towards the down-slope side and out to silt control devices and back onto the hillside;
- Install additional drainage in areas up-slope to any track to prevent ponding and possible instability;
- Install small check dams at regular intervals along the track side drains to prevent high water velocities in the side drains causing deep erosion in the peat;
- Where track construction is required over peat areas in excess of 0.5 m thick, this would be undertaken with a floating track construction, where the integrity of the peat allows;
- Cut and fill should be avoided in peat greater than 0.5 m thick if possible; if not, the following requirements on side long ground (across contours) should be adopted;
  - Excavate to a sound stratum;
  - The majority of construction surfaces to be essentially horizontal with a slight fall to aid drainage;
  - Where the depth of cut is deemed unstable, employ a stepped or benched surface with the intention of minimising the exposed surface of the up-slope cut face;
  - Protect all exposed peat surfaces from erosion and desiccation, by ensuring the integrity and moisture content of the peat is maintained; and
  - The track drainage would be on the up-slope side of the road, with the cross-fall towards that side. The track drainage ditches would be sized to accommodate the runoff -anticipated – generally to be located on one side of the track, but on both if there is a short section with no cross slope;
  - The top of cut slopes should be provided with a small bund to retain the peat to prevent desiccation and maintain the local stability of the peat.

It is acknowledged that in places, the existing track drainage is not currently sufficient and would require upgrading.

7.6 Cable Routes

The general principles regarding the construction of the cable trenches in peat that minimises the risk of instability and environmental effects are discussed below.

In order to maintain the current level or improve the stability of the peat mass on the slopes around the cable route, it is necessary to ensure that the construction methods do not seriously disrupt the established drainage and that no areas are surcharged, either by water discharge or spoil.

The construction of the cable route would minimise disturbance to drainage by taking cable route alongside existing access track and around the wind turbines adjacent to new tracks. Cable trenches would be reinstated as soon as possible to minimise the time they are left open and to avoid trenches acting as conduits for surface water, causing erosion and potential silt run off.

Mitigation could be required within the trench to maintain local hydrological conditions and hydraulic connection in sensitive habitats. This could include clay plugs/ peat bunds to prevent the trenches from becoming a preferential flow path for water flows.

7.7 Crossing Watercourses

The proposed access tracks would cross existing watercourses at 16 locations, with five existing crossings requiring upgrade and 11 new crossings constructed as part of the Proposed Varied Development. Care would be required to ensure conformity in the settlement characteristics between the crossing structure and the approaches to avoid undue settlement. The preferred option for the stream crossings would be with the use of culverts and bridges. The larger watercourse crossings would not be influenced by peat. For further details on watercourse crossings, refer to Technical Appendix 10.6: Watercourse Crossing Assessment and Technical Appendix 2.1 (Outline CEMP), EIAR Volume 4: Technical Appendices.

7.8 Substation

The position of the substation has been identified close to where the common access route reaches the main site. There are no peat issues associated with the substation site.

7.9 Borrow Pits

The proposed borrow pits would be required to comply with appropriate construction and quarrying regulations. They have been deliberately sited to avoid excavating peat and no significant construction mitigation would be required. Should blasting of rock be required during excavation, it is not likely to increase the likelihood of a peat slide as the borrow pits have been proposed in locations with limited peat. For further details on proposed borrow pits, refer to Technical Appendix 2.2: Borrow Pit Appraisal (EIAR Volume 4: Technical Appendices).

7.10 Construction Compound

The temporary construction compound is located on an area of thin peat on relatively flat ground and would require minimal construction management.

7.11 Further Work

This report should be considered as the first stage in the development of a fundamental understanding of the various inter-relationships that govern and control the peatlands at the site.

More detailed ground investigations would be required post-consent to facilitate the geotechnical design of the various foundations and access tracks.

8.0 Conclusion

The Proposed Varied Development has been assessed for potential hazards associated with peat instability; the assessment has been based on:

- A walk-over survey by an experienced geologist;
- A thorough inspection of the digital terrain map;
- Review of historical and geological maps and publications and aerial photography;
- Review of previous reports prepared for the site[1,2]; and
- A detailed geotechnical probing exercise at 2,209 locations in areas of identified peaty soil/peat to determine the thickness thereof.

The overall conclusion regarding peat stability is that there is a negligible to low risk of peat instability over most of the main site although some areas of medium and high risk have been identified. For these areas, a hazard impact assessment was completed which concluded that, subject to micrositing and the employment of appropriate mitigation measures, all these areas can be considered as an insignificant hazard.

Additional mitigation measures have been identified in areas where hazards are already considered insignificant to further reduce the risk of potential hazards occurring.

The entire site can be considered to be extensively covered in peat with a maximum recorded thickness of 5.0 m on the flatter areas. The locally thicker areas of peat have been avoided through layout design. The site is predominately flat lying (<5% gradient) with limited potential for a peat slide to occur, or to travel significant distances.

The report has highlighted the complicated inter-relationship between all the aspects that have an effect on the stability of peat. Consequently, the discussion has also addressed areas of construction and drainage in order to avoid a stability problem rather than attempt to put it right after the event.

8.1 Recommendations

A summary of recommendations is provided in the following sections.

8.1.1 Stability

The complexity of peat stability has been discussed in some detail in this report and at great length by Lindsay and Bragg[6], amongst others. Following a review of published work and the observation and analysis undertaken for this project, it is believed that there would be a negligible risk of peat instability occurring if the recommendations contained in this report are adopted.

Suitable guidance and documentation in the form of a construction method statement will be established before work commences to ensure poor construction practices do not precipitate instability.

Due to the complex inter-reactions affecting peat stability it is proposed that the recommendations given below are used as a set of guidelines to generate a design concept. The concept should include the range of potential risks discussed in this report and the design should be sufficiently flexible to allow for continual modification and up-dating as construction progresses.

8.1.2 Turbines

It is the objective of this assessment to consider the potential risk from, or to initiate, peat instability and to recommend solutions and mitigation measures to eliminate, or at least reduce the risk to a manageable level. Risk reduction can be best achieved by minimising the effect of any construction works and an appropriate

construction method statement is believed to be an integral element in ensuring that all parties understand and acknowledge the potential consequences of a peat slide.
The Developer would be using a gravity pad foundation, bearing on a sound stratum which is the preferred solution for foundations on areas of thick peat. The side slopes of the excavation in the peat should be maintained in a stable condition throughout the construction process; consideration should be given to constructing a rock retaining bund (rock doughnut) prior to excavation of the peat or alternatively micrositing to reduce peat thickness.
Although gravity pad foundation is the preferred foundation solution, this would be subject to further ground investigation and piled foundations may be considered.

8.1.3 Access Track

The main recommendations for the design and construction of typical site access tracks over peat are listed below:

- Identify and mark all existing drainage features within track corridors; these drainage features should be maintained (not enhanced) during the construction and operational phases of the Proposed Varied Development;
- Install cross drains at regular intervals to maintain interstitial groundwater flow through the peat mass below the tracks where track settlement could reduce the natural permeability
- Install additional drainage in areas up-slope to any access track to prevent ponding and possible instability;
- Install small dams at regular intervals along the track side drains to prevent significant water velocities in the side drains causing deep erosion in the peat;
- Tracks would be constructed using the cut method where underlying peat is less than 0.5 m and would be constructed using the floating method where peat is deeper;
- Longitudinal gradients to be consistent with limitations of the heavy lift and large transport vehicles, probably no steeper than 1 v:8 h;
- Crossfalls on the track surface to shed water to the up-slope drainage ditches;
- Cut and fill should be avoided in peat greater than 0.5 m thick if possible; if not, the following requirements on side long ground should be adopted;
    - Excavate to a sound stratum;
    - Construction surface to be essentially horizontal with a slight fall to aid drainage;
    - Where the depth of cut is deemed unstable, employ a stepped or benched surface with the intention of minimising the exposed surface of the up-slope cut face;
    - Protect all exposed peat surfaces from erosion and desiccation, by ensuring the integrity and moisture content of the peat is maintained;
    - The top of cut slopes should be provided with a small bund to retain the peat to prevent desiccation and maintain the local stability of the peat.

8.1.4 Temporary Construction Compound

The position of temporary construction compound site is, by design, in an area of negligible to low risk, with limited peat thickness.

8.1.5 Substation

The on-site substation is located in an area with limited peat thickness and low risk.

8.1.6 Cabling Route

The cabling route on-site would be installed adjacent to roads, where reasonably practicable. The majority of the route is situated in areas of negligible to low risk of peat instability.
The grid connection between the Proposed Varied Development and the existing substation at Strathy North Wind Farm would be via a single 132 kV underground cable from the proposed on-site substation.

8.1.7 Further Work

This report should be considered as the first stage in the development of a fundamental understanding of the various inter-relationships that govern and control the peatlands at Strathy South.

The commissioned assessment has purposefully kept the extent of physical intrusion into the sensitive peat areas to an absolute minimum. The results are considered appropriate for the Section 36C application.

More detailed ground investigations would be required to facilitate the geotechnical design of the various foundations and access track, particularly the vertical and horizontal alignment and the design of the river/stream crossings post-consent. These would be incorporated into the CEMP which would be submitted to the Planning Authority for approval as part of the condition compliance prior to any site works commencing.

It is not the purpose of this report to provide a detailed scope for the investigation; however, it is believed that the strength and stiffness parameters would be needed for turbine design and regular probes along access tracks would be required to determine bearing capacity for either excavated or floated track design.

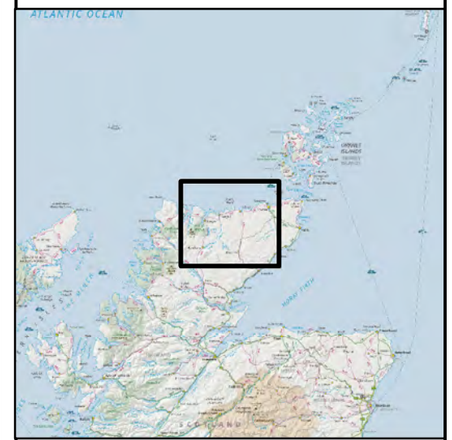
FIGURE 10.1.1

Site Location

sse Renewables

Key

Site Boundary



Scale 1:250,000@ A3

0 5 10 Km

N

Figure 10.1.1

Site Location

Strathy South Wind Farm
EIAR 2020

FIGURE 10.1.2

Site Layout

sse Renewables

Key

- Site Boundary
- Turbines
- LiDAR A
- LiDAR B
- Preferred Access Route
- Alternative Access Route
- Common Access Route
- Existing Yellow Bog Track, Surfacing to be Upgraded and Minor Localised Widening
- Strathy North Access Route
- LiDAR Track

Access Track

- Cut
- Floating
- Upgrade
- Borrow Pit
- Laydown Area
- Temporary Laydown Area
- Construction Compound
- Substation
- Batching Plant
- Hardstanding

Scale 1:25,000 @ A3

0 0.5 1 Km

N

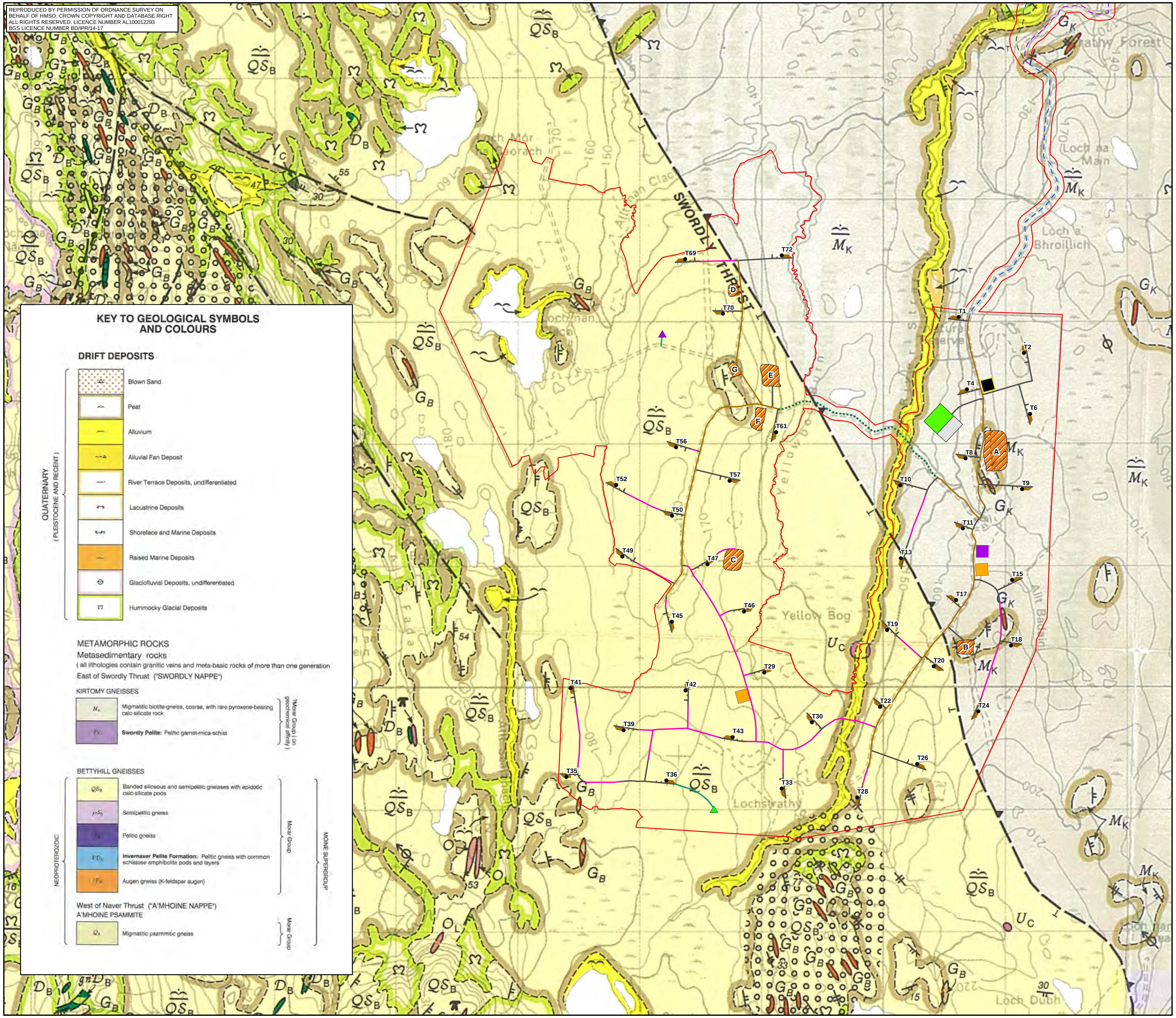
Figure 10.1.2

Site Layout

Strathy South Wind Farm
EIAR 2020

FIGURE 10.1.3

Superficial and Bedrock Geology



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BGS LICENCE NUMBER BD/IPR/14-17
KEY TO GEOLOGICAL SYMBOLS AND COLOURS
DRIFT DEPOSITS
QUATERNARY (PLEISTOCENE AND RECENT)
Blown Sand
Peat
Alluvium
Alluvial Fan Deposit
River Terrace Deposits, undifferentiated
Lacustrine Deposits
Shoreface and Marine Deposits
Raised Marine Deposits
Glaciofluvial Deposits, undifferentiated
Hummocky Glacial Deposits
METAMORPHIC ROCKS
Metasedimentary rocks
(all lithologies contain granitic veins and meta-basic rocks of more than one generation
East of Swordly Thrust ("SWORDLY NAPPE")
KIRTOMY GNEISSES
Migmatitic biotite-gneiss, coarse, with rare pyroxene-bearing calc-silicate rock
Swordly Pelite: Pelitic garnet-mica-schist
BETTYHILL GNEISSES
Banded siliceous and semipelitic gneisses with epidotic calc-silicate pods
Semipelitic gneiss
Pelitic gneiss
Invernaver Pelite Formation: Pelitic gneiss with common schistose amphibolite pods and layers
Augen gneiss (K-feldspar augen)
NEOPROTEROZOIC
Moine Group
MOINE SUPERGROUP
West of Naver Thrust ("A'MHOINE NAPPE")
A'MHOINE PSAMMITE
Migmatitic psammitic gneiss
SWORDLY THRUST
Yellow Bog
Lochstrathy
Loch Dubh
Loch Mòr
Loch a' Bhroillich
Loch na Main
T1
T2
T4
T6
T8
T9
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T57
T61
T69
T70
T72
A
B
C
D
E
F
G

Key

- Site Boundary
- Turbines
- LiDAR A
- LiDAR B
- Preferred Access Route
- Alternative Access Route
- Common Access Route
- Existing Yellow Bog Track, Surfacing to be Upgraded and Minor Localised Widening
- Strathy North Access Route
- LiDAR Track

Access Track

- Cut
- Floating
- Upgrade
- Borrow Pit
- Laydown Area
- Temporary Laydown Area
- Construction Compound
- Substation
- Batching Plant
- Hardstanding

Scale 1:30,000 @ A3

0 0.5 1 Km

N

Figure 10.1.3

Superficial and Bedrock Geology

Strathy South Wind Farm

EIAR 2020

FIGURE 10.1.4

Peat Depth

sse Renewables

Key

- Site Boundary
- Turbines
- LiDAR A
- LiDAR B
- Preferred Access Route
- Alternative Access Route
- Common Access Route
- Existing Yellow Bog Track, Surfacing to be Upgraded and Minor Localised Widening
- Strathy North Access Route
- LiDAR Track

Access Track

- Cut
- Floating
- Upgrade
- Borrow Pit
- Laydown Area
- Temporary Laydown Area
- Construction Compound
- Substation
- Batching Plant
- Hardstanding
- Peat Probe

Peat Depths (m)

- 0
- 0 - 0.5
- 0.5 - 1
- 1 - 1.5
- 1.5 - 2
- 2 - 2.5
- 2.5 - 3
- > 3

Scale 1:25,000 @ A3

0 0.5 1 Km

N

Figure 10.1.4

Peat Depths

Strathy South Wind Farm
EIAR 2020

FIGURE 10.1.5

Peat Depth >0.5m

sse Renewables

Key

- Site Boundary
- Turbines
- LiDAR A
- LiDAR B
- Preferred Access Route
- Alternative Access Route
- Common Access Route
- Existing Yellow Bog Track, Surfacing to be Upgraded and Minor Localised Widening
- Strathy North Access Route
- LiDAR Track

Access Track

- Cut
- Floating
- Upgrade
- Borrow Pit
- Laydown Area
- Temporary Laydown Area
- Construction Compound
- Substation
- Batching Plant
- Hardstanding
- Peat Probe

Peat Depths (m)

- 0.5 - 1
- 1 - 1.5
- 1.5 - 2
- 2 - 2.5
- 2.5 - 3
- > 3

Scale 1:25,000 @ A3

0 0.5 1 Km

N

Figure 10.1.5

Peat Depths > 0.5m

Strathy South Wind Farm
EIAR 2020

FIGURE 10.1.6

Interpreted Substrate

sse Renewables

Key

- Site Boundary
- Turbines
- LiDAR A
- LiDAR B
- Preferred Access Route
- Alternative Access Route
- Common Access Route
- Existing Yellow Bog Track, Surfacing to be Upgraded and Minor Localised Widening
- Strathy North Access Route
- LiDAR Track

Access Track

- Cut
- Floating
- Upgrade
- Borrow Pit
- Laydown Area
- Temporary Laydown Area
- Construction Compound
- Substation
- Batching Plant
- Hardstanding

Substrate at Probe Point

- Unknown - Mouchel Data
- Unknown - RPS Data
- Depth Not Proven
- Granular
- Rock

Scale 1:25,000 @ A3

0 0.5 1 Km

N

Figure 10.1.6

Interpreted Substrate

Strathy South Wind Farm
EIAR 2020

FIGURE 10.1.7

Slope

sse Renewables

Key

- Site Boundary
- Turbines
- LiDAR A
- LiDAR B
- Preferred Access Route
- Alternative Access Route
- Common Access Route
- Existing Yellow Bog Track, Surfacing to be Upgraded and Minor Localised Widening
- Strathy North Access Route
- LiDAR Track

Access Track

- Cut
- Floating
- Upgrade
- Borrow Pit
- Laydown Area
- Temporary Laydown Area
- Construction Compound
- Substation
- Batching Plant
- Hardstanding

Slope (Degrees)

- 0 - 5
- 5 - 8
- 8 - 10
- 10 - 12
- >12

Scale 1:25,000 @ A3

0 0.5 1 Km

N

Figure 10.1.7

Slope

Strathy South Wind Farm
EIAR 2020

FIGURE 10.1.8

Peat Slide Risk

sse Renewables

Key

- Site Boundary
- Turbines
- LiDAR A
- LiDAR B
- Preferred Access Route
- Alternative Access Route
- Common Access Route
- Existing Yellow Bog Track, Surfacing to be Upgraded and Minor Localised Widening
- Strathy North Access Route
- LiDAR Track

Access Track

- Cut
- Floating
- Upgrade
- Borrow Pit
- Laydown Area
- Temporary Laydown Area
- Construction Compound
- Substation
- Batching Plant
- Hardstanding
- Direction of Peat Slide
- Peat Risk Locations

Peat Slide Risk

- Negligible
- Low
- Medium
- High

Scale 1:25,000 @ A3

0 0.5 1 Km

N

Figure 10.1.8

Peat Slide Risk

Strathy South Wind Farm
EIAR 2020

FIGURE 10.1.9

Aerial Plan with Geomorphological Interpretation

sse Renewables

Key

- Site Boundary
- Turbines
- LiDAR A
- LiDAR B
- Preferred Access Route
- Alternative Access Route
- Common Access Route
- Existing Yellow Bog Track, Surfacing to be Upgraded and Minor Localised Widening
- Strathy North Access Route
- LiDAR Track

Access Track

- Cut
- Floating
- Upgrade
- Borrow Pit
- Laydown Area
- Temporary Laydown Area
- Construction Compound
- Substation
- Batching Plant
- Hardstanding
- Steep Slope *STEEP SLOPE*
- Thick Peat / Pond Areas

Scale 1:25,000 @ A3

0 0.5 1 Km

N

Figure 10.1.9

Geomorphological Interpretation

Strathy South Wind Farm
EIAR 2020

APPENDIX A

Peat Risk Data

ID	Source	Easting	Northing	Peat Depth (m)	Substrate	Slope (Degrees)	Ground Condition Coefficient	Peat Coefficient	Slope Coefficient	Substrate Coefficient	Risk Coefficient	Potential Instability
0	RPS	281338.00	954799.00	0.2	GRANULAR	7.50	Peaty soil	1	4	1	4	Negligible
1	RPS	281377.00	954799.00	0.9	GRANULAR	5.91	Thin Peat	2	4	1	8	Low
2	RPS	281367.00	954798.00	0.0	GRANULAR	8.30	No Peat	0	6	1	0	None
3	RPS	281357.00	954797.00	0.5	GRANULAR	3.94	Peaty soil	1	2	1	2	Negligible
4	RPS	281347.00	954796.00	0.6	GRANULAR	7.24	Thin Peat	2	4	1	8	Low
5	MOUCHEL	277205.00	954786.00	1.9	GRANULAR	1.30	Thick Peat	3	1	1	3	Negligible
6	MOUCHEL	277181.00	954830.00	0.9	GRANULAR	3.27	Thin Peat	2	2	1	4	Negligible
7	RPS	281335.00	954707.00	0.4	GRANULAR	5.99	Peaty soil	1	4	1	4	Negligible
8	RPS	281344.00	954703.00	0.0	GRANULAR	11.40	No Peat	0	6	1	0	None
9	RPS	281353.00	954700.00	0.0	GRANULAR	16.45	No Peat	0	8	1	0	None
10	RPS	281363.00	954696.00	0.5	GRANULAR	9.26	Peaty soil	1	6	1	6	Low
11	MOUCHEL	277239.00	954692.00	2.6	GRANULAR	1.20	Thick Peat	3	1	1	3	Negligible
12	MOUCHEL	277226.00	954741.00	3.1	GRANULAR	2.46	Thick Peat	3	2	1	6	Low
13	RPS	281342.00	954611.00	0.4	GRANULAR	3.33	Peaty soil	1	2	1	2	Negligible
14	RPS	281322.00	954612.00	0.4	GRANULAR	5.10	Peaty soil	1	4	1	4	Negligible
15	RPS	281312.00	954613.00	0.7	GRANULAR	10.84	Thin Peat	2	6	1	12	Low
16	MOUCHEL	277249.00	954638.00	1.0	GRANULAR	5.80	Thin Peat	2	4	1	8	Low
17	RPS	281296.00	954512.00	0.2	GRANULAR	9.13	Peaty soil	1	6	1	6	Low
18	RPS	281306.00	954512.00	0.1	GRANULAR	10.71	Peaty soil	1	6	1	6	Low
19	RPS	281316.00	954511.00	0.0	GRANULAR	0.71	Peaty soil	1	1	1	1	Negligible
20	RPS	281336.00	954510.00	0.4	GRANULAR	9.93	Peaty soil	1	6	1	6	Low
21	RPS	281339.00	954412.00	0.9	GRANULAR	11.19	Thin Peat	2	6	1	12	Low
22	RPS	281329.00	954412.00	0.0	GRANULAR	11.10	No Peat	0	6	1	0	None
23	RPS	281319.00	954412.00	0.0	GRANULAR	11.87	No Peat	0	6	1	0	None
24	RPS	281365.00	954340.00	0.5	GRANULAR	6.97	Thin Peat	2	4	1	8	Low
25	RPS	281374.00	954343.00	0.6	GRANULAR	6.71	Thin Peat	2	4	1	8	Low
26	RPS	281383.00	954347.00	0.4	GRANULAR	6.66	Peaty soil	1	4	1	4	Negligible
27	RPS	281320.00	954316.00	0.4	GRANULAR	7.39	Peaty soil	1	4	1	4	Negligible
28	RPS	281337.00	954325.00	0.3	GRANULAR	11.59	Peaty soil	1	6	1	6	Low
29	RPS	281346.00	954330.00	0.2	GRANULAR	15.16	Peaty soil	1	8	1	8	Low
30	RPS	281355.00	954335.00	0.4	GRANULAR	11.76	Peaty soil	1	6	1	6	Low
31	RPS	281396.00	954238.00	0.1	GRANULAR	5.42	Peaty soil	1	4	1	4	Negligible
32	RPS	281387.00	954235.00	0.3	GRANULAR	2.84	Peaty soil	1	2	1	2	Negligible
33	RPS	281368.00	954228.00	0.3	GRANULAR	5.47	Peaty soil	1	4	1	4	Negligible
34	RPS	281359.00	954224.00	0.4	GRANULAR	2.80	Peaty soil	1	2	1	2	Negligible
35	SLR	277244.36	954285.92	0.4	GRANULAR	5.21	Peaty soil	1	4	1	4	Negligible
36	SLR	277320.88	954143.69	1.6	GRANULAR	3.02	Thick Peat	3	2	1	6	Low
37	SLR	277364.58	954131.55	1.0	GRANULAR	2.71	Thin Peat	2	2	1	4	Negligible
38	SLR	277573.53	954128.55	2.0	GRANULAR	2.17	Thick Peat	3	2	1	6	Low
39	SLR	277274.19	954147.57	0.3	GRANULAR	3.13	Peaty soil	1	2	1	2	Negligible
40	RPS	281409.00	954131.00	1.7	GRANULAR	6.28	Thick Peat	3	4	1	12	Low
41	RPS	281418.00	954136.00	0.2	GRANULAR	3.90	Peaty soil	1	2	1	2	Negligible
42	RPS	281426.00	954140.00	0.2	GRANULAR	11.67	Peaty soil	1	6	1	6	Low
43	RPS	281435.00	954145.00	0.1	GRANULAR	10.87	Peaty soil	1	6	1	6	Low
44	RPS	281444.00	954150.00	0.8	GRANULAR	5.20	Thin Peat	2	4	1	8	Low
45	SLR	279160.70	954153.92	3.7	ROCK	2.28	Thick Peat	3	2	2	12	Low
46	SLR	279180.17	954173.00	3.7	ROCK	2.18	Thick Peat	3	2	2	12	Low
47	SLR	279208.09	954138.16	3.7	ROCK	1.46	Thick Peat	3	1	2	6	Low
48	SLR	278919.23	954140.57	1.5	ROCK	1.61	Thin Peat	2	1	2	4	Negligible
49	SLR	278901.77	954189.58	1.6	GRANULAR	2.79	Thick Peat	3	2	1	6	Low
50	SLR	278897.71	954202.89	1.4	ROCK	2.72	Thin Peat	2	2	2	8	Low
51	SLR	279172.94	954162.64	3.8	ROCK	2.34	Thick Peat	3	2	2	12	Low
52	SLR	277215.42	954204.00	0.5	GRANULAR	1.97	Peaty soil	1	1	1	1	Negligible
53	MOUCHEL	278893.00	954199.00	1.3	GRANULAR	1.53	Thin Peat	2	1	1	2	Negligible
54	SLR	278848.85	954083.88	0.8	GRANULAR	2.67	Thin Peat	2	2	1	4	Negligible
55	SLR	277235.22	954078.04	0.8	GRANULAR	2.27	Thin Peat	2	2	1	4	Negligible
56	SLR	277292.92	954071.59	0.7	GRANULAR	1.37	Thin Peat	2	1	1	2	Negligible
57	SLR	277326.13	954062.93	0.7	GRANULAR	6.44	Thin Peat	2	4	1	8	Low
58	SLR	277402.03	954121.47	1.3	GRANULAR	2.94	Thin Peat	2	2	1	4	Negligible
59	SLR	277413.95	954076.34	1.2	GRANULAR	2.72	Thin Peat	2	2	1	4	Negligible
60	SLR	277798.12	954065.27	2.2	GRANULAR	1.22	Thick Peat	3	1	1	3	Negligible
61	SLR	277756.34	954070.66	2.9	GRANULAR	2.24	Thick Peat	3	2	1	6	Low
62	SLR	277706.45	954090.60	0.7	GRANULAR	4.92	Thin Peat	2	4	1	8	Low
63	SLR	277663.59	954101.78	0.7	GRANULAR	4.41	Thin Peat	2	4	1	8	Low
64	SLR	277615.55	954118.32	2.0	GRANULAR	2.17	Thick Peat	3	2	1	6	Low
65	SLR	277522.90	954102.83	1.8	GRANULAR	2.36	Thick Peat	3	2	1	6	Low
66	RPS	281390.00	954049.00	1.1	GRANULAR	2.83	Thin Peat	2	2	1	4	Negligible
67	RPS	281381.00	954053.00	1.5	GRANULAR	3.39	Thin Peat	2	2	1	4	Negligible
68	SLR	279042.79	954054.31	1.4	ROCK	1.81	Thin Peat	2	1	2	4	Negligible
69	SLR	279076.75	954091.89	2.1	GRANULAR	0.10	Thick Peat	3	1	1	3	Negligible
70	SLR	279111.78	954123.49	2.9	ROCK	1.11	Thick Peat	3	1	2	6	Low
71	SLR	278950.74	954048.43	0.5	ROCK	2.16	Peaty soil	1	2	2	4	Negligible
72	SLR	278933.94	954093.70	1.0	ROCK	1.28	Thin Peat	2	1	2	4	Negligible
73	SLR	279214.62	954116.23	3.5	ROCK	0.98	Thick Peat	3	1	2	6	Low
74	SLR	277197.04	954092.61	0.3	GRANULAR	4.28	Peaty soil	1	4	1	4	Negligible
75	SLR	278859.43	953993.94	0.3	GRANULAR	1.39	Peaty soil	1	1	1	1	Negligible
76	SLR	277429.19	954037.80	1.2	GRANULAR	2.93	Thin Peat	2	2	1	4	Negligible
77	SLR	277440.05	953996.05	1.2	GRANULAR	2.79	Thin Peat	2	2	1	4	Negligible
78	SLR	277704.54	953991.87	2.1	GRANULAR	3.02	Thick Peat	3	2	1	6	Low
79	SLR	277705.89	954035.09	1.6	GRANULAR	3.54	Thick Peat	3	2	1	6	Low
80	SLR	277763.41	954007.11	2.5	GRANULAR	1.49	Thick Peat	3	1	1	3	Negligible
81	SLR	277801.66	953994.78	1.8	GRANULAR	0.69	Thick Peat	3	1	1	3	Negligible
82	RPS	281427.00	954027.00	0.0	GRANULAR	3.87	No Peat	0	2	1	0	None

SSE Generation Ltd
Strathy South Wind Farm
Peat Landslide Hazard and Risk Assessment
Technical Appendix 10.1

Appendix A - Peat Slide Risk Data

SLR Ref: 428.00660.00070
April 2020

ID	Source	Easting	Northing	Peat Depth (m)	Substrate	Slope (Degrees)	Ground Condition Coefficient	Peat Coefficient	Slope Coefficient	Substrate Coefficient	Risk Coefficient	Potential Instability
83	RPS	281436.00	954022.00	0.1	GRANULAR	3.18	Peaty soil	1	2	1	2	Negligible
84	RPS	281445.00	954020.00	0.4	GRANULAR	1.64	Peaty soil	1	1	1	1	Negligible
85	RPS	281318.00	953986.00	1.1	GRANULAR	2.27	Thin Peat	2	2	1	4	Negligible
86	RPS	281324.00	953978.00	0.8	GRANULAR	2.22	Thin Peat	2	2	1	4	Negligible
87	RPS	281331.00	953971.00	1.0	GRANULAR	5.23	Thin Peat	2	4	1	8	Low
88	RPS	281409.00	954041.00	0.2	GRANULAR	7.44	Peaty soil	1	4	1	4	Negligible
89	RPS	281399.00	954045.00	0.8	GRANULAR	2.13	Thin Peat	2	2	1	4	Negligible
90	SLR	278978.74	953984.61	1.5	ROCK	2.12	Thin Peat	2	2	2	8	Low
91	SLR	279010.25	954015.21	0.7	ROCK	2.12	Thin Peat	2	2	2	8	Low
92	SLR	278963.74	954009.21	1.5	ROCK	2.17	Thin Peat	2	2	2	8	Low
93	SLR	277230.75	953994.24	0.7	GRANULAR	3.89	Thin Peat	2	2	1	4	Negligible
94	MOUCHEL	279205.00	954010.00	2.8	GRANULAR	1.48	Thick Peat	3	1	1	3	Negligible
95	SLR	277451.65	953931.25	1.3	GRANULAR	3.00	Thin Peat	2	2	1	4	Negligible
96	SLR	277490.02	953922.81	1.2	GRANULAR	1.49	Thin Peat	2	1	1	2	Negligible
97	SLR	277539.63	953900.09	1.3	GRANULAR	1.49	Thin Peat	2	1	1	2	Negligible
98	SLR	277719.02	953894.48	2.2	GRANULAR	1.03	Thick Peat	3	1	1	3	Negligible
99	SLR	277715.58	953940.27	2.2	GRANULAR	2.91	Thick Peat	3	2	1	6	Low
100	RPS	281266.00	953892.00	0.2	GRANULAR	4.17	Peaty soil	1	4	1	4	Negligible
101	RPS	281260.00	953900.00	1.2	GRANULAR	9.30	Thin Peat	2	6	1	12	Low
102	RPS	281253.00	953908.00	1.2	GRANULAR	4.55	Thin Peat	2	4	1	8	Low
103	RPS	281247.00	953915.00	1.2	GRANULAR	5.03	Thin Peat	2	4	1	8	Low
104	RPS	281241.00	953923.00	1.3	GRANULAR	3.87	Thin Peat	2	2	1	4	Negligible
105	RPS	281337.00	953963.00	1.0	GRANULAR	2.31	Thin Peat	2	2	1	4	Negligible
106	RPS	281343.00	953955.00	0.1	GRANULAR	2.27	Peaty soil	1	2	1	2	Negligible
107	SLR	278989.79	953891.61	1.2	ROCK	3.04	Thin Peat	2	2	2	8	Low
108	SLR	278979.51	953952.83	1.5	ROCK	2.99	Thin Peat	2	2	2	8	Low
109	SLR	277261.47	953900.06	0.4	GRANULAR	1.26	Peaty soil	1	1	1	1	Negligible
110	SLR	277444.55	953919.03	1.2	ROCK	3.03	Thin Peat	2	2	2	8	Low
111	SLR	277367.69	953913.82	1.0	ROCK	3.25	Thin Peat	2	2	2	8	Low
112	SLR	277367.23	953920.71	0.6	ROCK	3.69	Thin Peat	2	2	2	8	Low
113	MOUCHEL	279237.00	953890.00	3.4	GRANULAR	2.71	Thick Peat	3	2	1	6	Low
114	MOUCHEL	279286.00	953894.00	0.3	GRANULAR	1.39	Peaty soil	1	1	1	1	Negligible
115	MOUCHEL	279337.00	953898.00	1.1	GRANULAR	2.42	Thin Peat	2	2	1	4	Negligible
116	MOUCHEL	279395.00	953904.00	2.2	GRANULAR	2.10	Thick Peat	3	2	1	6	Low
117	SLR	278874.11	953861.57	0.2	GRANULAR	5.88	Peaty soil	1	4	1	4	Negligible
118	SLR	277568.94	953860.17	1.2	GRANULAR	2.54	Thin Peat	2	2	1	4	Negligible
119	RPS	281162.00	953860.00	1.9	GRANULAR	1.75	Thick Peat	3	1	1	3	Negligible
120	RPS	281169.00	953852.00	2.0	GRANULAR	1.59	Thick Peat	3	1	1	3	Negligible
121	RPS	281175.00	953844.00	0.8	GRANULAR	6.62	Thin Peat	2	4	1	8	Low
122	RPS	281181.00	953836.00	0.9	GRANULAR	8.14	Thin Peat	2	6	1	12	Low
123	RPS	281188.00	953829.00	1.8	GRANULAR	2.07	Thick Peat	3	2	1	6	Low
124	SLR	279002.34	953844.43	1.5	ROCK	2.90	Thin Peat	2	2	2	8	Low
125	SLR	277290.37	953816.15	0.3	GRANULAR	3.48	Peaty soil	1	2	1	2	Negligible
126	SLR	277459.26	953835.56	1.4	GRANULAR	2.41	Thin Peat	2	2	1	4	Negligible
127	SLR	277452.89	953871.42	1.1	ROCK	1.29	Thin Peat	2	1	2	4	Negligible
128	SLR	277552.12	953820.22	1.5	ROCK	4.49	Thin Peat	2	4	2	16	Medium
129	SLR	277593.69	953829.88	1.5	GRANULAR	2.74	Thin Peat	2	2	1	4	Negligible
130	SLR	277639.74	953836.61	1.2	GRANULAR	1.56	Thin Peat	2	1	1	2	Negligible
131	SLR	277696.43	953847.46	3.3	GRANULAR	1.14	Thick Peat	3	1	1	3	Negligible
132	SLR	277742.21	953845.66	3.0	GRANULAR	2.85	Thick Peat	3	2	1	6	Low
133	SLR	277748.39	953853.27	3.5	GRANULAR	2.88	Thick Peat	3	2	1	6	Low
134	SLR	277782.22	953814.52	2.5	GRANULAR	2.16	Thick Peat	3	2	1	6	Low
135	MOUCHEL	278537.00	953832.00	2.0	GRANULAR	1.21	Thick Peat	3	1	1	3	Negligible
136	MOUCHEL	278811.00	953863.00	0.6	GRANULAR	1.98	Thin Peat	2	1	1	2	Negligible
137	MOUCHEL	278871.00	953868.00	0.2	GRANULAR	4.90	Peaty soil	1	4	1	4	Negligible
138	MOUCHEL	278923.00	953870.00	1.0	GRANULAR	3.64	Thin Peat	2	2	1	4	Negligible
139	MOUCHEL	278976.00	953871.00	1.2	GRANULAR	2.93	Thin Peat	2	2	1	4	Negligible
140	MOUCHEL	279034.00	953871.00	0.4	GRANULAR	2.48	Peaty soil	1	2	1	2	Negligible
141	MOUCHEL	279087.00	953875.00	3.7	GRANULAR	0.65	Thick Peat	3	1	1	3	Negligible
142	MOUCHEL	279140.00	953881.00	3.9	GRANULAR	2.24	Thick Peat	3	2	1	6	Low
143	MOUCHEL	279187.00	953884.00	3.7	GRANULAR	0.79	Thick Peat	3	1	1	3	Negligible
144	MOUCHEL	278966.00	953811.00	0.8	GRANULAR	3.48	Thin Peat	2	2	1	4	Negligible
145	SLR	278803.55	953788.92	0.4	GRANULAR	3.21	Peaty soil	1	2	1	2	Negligible
146	RPS	281180.00	953747.00	0.1	GRANULAR	3.48	Peaty soil	1	2	1	2	Negligible
147	RPS	281160.00	953744.00	0.1	GRANULAR	3.65	Peaty soil	1	2	1	2	Negligible
148	RPS	281150.00	953743.00	0.3	GRANULAR	6.52	Peaty soil	1	4	1	4	Negligible
149	RPS	281140.00	953742.00	0.3	GRANULAR	2.89	Peaty soil	1	2	1	2	Negligible
150	SLR	279032.40	953752.51	2.6	ROCK	2.71	Thick Peat	3	2	2	12	Low
151	SLR	279003.30	953780.71	1.4	ROCK	4.50	Thin Peat	2	4	2	16	Medium
152	SLR	279014.53	953800.97	1.8	ROCK	2.24	Thick Peat	3	2	2	12	Low
153	SLR	277319.18	953797.24	1.1	ROCK	4.89	Thin Peat	2	4	2	16	Medium
154	SLR	277355.48	953797.21	0.8	ROCK	2.76	Thin Peat	2	2	2	8	Low
155	SLR	277397.26	953798.14	0.4	ROCK	3.14	Peaty soil	1	2	2	4	Negligible
156	SLR	277401.79	953799.66	0.4	GRANULAR	3.18	Peaty soil	1	2	1	2	Negligible
157	SLR	277444.90	953799.43	0.7	GRANULAR	2.24	Thin Peat	2	2	1	4	Negligible
158	SLR	277476.41	953801.79	2.5	GRANULAR	0.79	Thick Peat	3	1	1	3	Negligible
159	SLR	277503.87	953805.39	3.0	ROCK	0.92	Thick Peat	3	1	2	6	Low
160	MOUCHEL	278537.00	953731.00	2.1	GRANULAR	0.26	Thick Peat	3	1	1	3	Negligible
161	MOUCHEL	278536.00	953782.00	2.0	GRANULAR	1.29	Thick Peat	3	1	1	3	Negligible
162	SLR	278691.21	953722.39	0.2	GRANULAR	2.77	Peaty soil	1	2	1	2	Negligible
163	SLR	279094.38	953647.72	2.2	GRANULAR	1.89	Thick Peat	3	1	1	3	Negligible
164	SLR	279080.21	953664.87	2.7	ROCK	2.89	Thick Peat	3	2	2	12	Low
165	SLR	279058.31	953705.84	2.7	ROCK	2.42	Thick Peat	3	2	2	12	Low

ID	Source	Easting	Northing	Peat Depth (m)	Substrate	Slope (Degrees)	Ground Condition Coefficient	Peat Coefficient	Slope Coefficient	Substrate Coefficient	Risk Coefficient	Potential Instability
166	SLR	279004.50	953693.76	0.4	ROCK	3.47	Peaty soil	1	2	2	4	Negligible
167	SLR	278931.48	953689.71	0.5	GRANULAR	2.72	Peaty soil	1	2	1	2	Negligible
168	SLR	277328.62	953697.78	0.8	GRANULAR	5.93	Thin Peat	2	4	1	8	Low
169	MOUCHEL	278536.00	953680.00	2.2	GRANULAR	1.12	Thick Peat	3	1	1	3	Negligible
170	MOUCHEL	277296.00	953650.00	1.6	GRANULAR	2.51	Thick Peat	3	2	1	6	Low
171	MOUCHEL	277326.00	953657.00	1.0	GRANULAR	3.32	Thin Peat	2	2	1	4	Negligible
172	MOUCHEL	277375.00	953655.00	0.5	GRANULAR	4.07	Peaty soil	1	4	1	4	Negligible
173	SLR	278625.55	953616.72	1.4	GRANULAR	0.98	Thin Peat	2	1	1	2	Negligible
174	SLR	277548.39	953568.55	0.8	GRANULAR	2.59	Thin Peat	2	2	1	4	Negligible
175	RPS	281102.00	953569.00	0.5	GRANULAR	3.80	Peaty soil	1	2	1	2	Negligible
176	RPS	281152.00	953643.00	0.5	GRANULAR	2.98	Thin Peat	2	2	1	4	Negligible
177	RPS	281162.00	953643.00	0.5	GRANULAR	6.70	Thin Peat	2	4	1	8	Low
178	RPS	281172.00	953644.00	0.5	GRANULAR	4.76	Peaty soil	1	4	1	4	Negligible
179	RPS	281192.00	953645.00	0.1	GRANULAR	5.53	Peaty soil	1	4	1	4	Negligible
180	SLR	279067.76	953573.71	1.0	ROCK	4.08	Thin Peat	2	4	2	16	Medium
181	SLR	279078.34	953617.02	2.5	ROCK	1.75	Thick Peat	3	1	2	6	Low
182	SLR	278803.93	953619.00	0.6	GRANULAR	2.51	Thin Peat	2	2	1	4	Negligible
183	SLR	277354.32	953617.13	0.4	GRANULAR	2.62	Peaty soil	1	2	1	2	Negligible
184	MOUCHEL	278540.00	953573.00	2.2	GRANULAR	1.04	Thick Peat	3	1	1	3	Negligible
185	MOUCHEL	278535.00	953631.00	2.4	GRANULAR	1.21	Thick Peat	3	1	1	3	Negligible
186	MOUCHEL	276578.00	953599.00	0.9	GRANULAR	2.53	Thin Peat	2	2	1	4	Negligible
187	MOUCHEL	276632.00	953600.00	1.1	GRANULAR	1.38	Thin Peat	2	1	1	2	Negligible
188	MOUCHEL	276685.00	953599.00	1.0	GRANULAR	3.95	Thin Peat	2	2	1	4	Negligible
189	MOUCHEL	276735.00	953594.00	1.0	GRANULAR	0.89	Thin Peat	2	1	1	2	Negligible
190	MOUCHEL	276786.00	953591.00	2.0	GRANULAR	0.33	Thick Peat	3	1	1	3	Negligible
191	MOUCHEL	276838.00	953580.00	2.1	GRANULAR	2.50	Thick Peat	3	2	1	6	Low
192	MOUCHEL	276869.00	953579.00	1.9	GRANULAR	6.99	Thick Peat	3	4	1	12	Low
193	MOUCHEL	276923.00	953590.00	5.0	GRANULAR	1.05	Thick Peat	3	1	1	3	Negligible
194	MOUCHEL	276971.00	953598.00	1.2	GRANULAR	1.42	Thin Peat	2	1	1	2	Negligible
195	MOUCHEL	277034.00	953607.00	1.6	GRANULAR	1.22	Thick Peat	3	1	1	3	Negligible
196	MOUCHEL	277076.00	953624.00	3.7	GRANULAR	1.27	Thick Peat	3	1	1	3	Negligible
197	MOUCHEL	277122.00	953633.00	2.0	GRANULAR	0.59	Thick Peat	3	1	1	3	Negligible
198	MOUCHEL	277181.00	953643.00	2.8	GRANULAR	3.58	Thick Peat	3	2	1	6	Low
199	MOUCHEL	277240.00	953639.00	2.0	GRANULAR	1.03	Thick Peat	3	1	1	3	Negligible
200	MOUCHEL	277429.00	953643.00	1.0	GRANULAR	2.24	Thin Peat	2	2	1	4	Negligible
201	MOUCHEL	277482.00	953637.00	0.9	GRANULAR	1.51	Thin Peat	2	1	1	2	Negligible
202	MOUCHEL	277534.00	953625.00	0.5	GRANULAR	3.27	Peaty soil	1	2	1	2	Negligible
203	MOUCHEL	277590.00	953614.00	1.6	GRANULAR	2.90	Thick Peat	3	2	1	6	Low
204	MOUCHEL	277642.00	953605.00	2.8	GRANULAR	0.37	Thick Peat	3	1	1	3	Negligible
205	MOUCHEL	277687.00	953601.00	2.8	GRANULAR	1.82	Thick Peat	3	1	1	3	Negligible
206	MOUCHEL	277734.00	953595.00	2.0	GRANULAR	2.87	Thick Peat	3	2	1	6	Low
207	MOUCHEL	277788.00	953583.00	3.3	GRANULAR	1.05	Thick Peat	3	1	1	3	Negligible
208	MOUCHEL	277834.00	953574.00	1.5	GRANULAR	2.04	Thin Peat	2	2	1	4	Negligible
209	SLR	278309.92	953497.83	1.1	GRANULAR	2.30	Thin Peat	2	2	1	4	Negligible
210	SLR	278306.65	953540.08	0.7	GRANULAR	2.39	Thin Peat	2	2	1	4	Negligible
211	SLR	278390.09	953550.30	2.1	GRANULAR	1.72	Thick Peat	3	1	1	3	Negligible
212	SLR	278373.80	953492.50	2.1	GRANULAR	1.61	Thick Peat	3	1	1	3	Negligible
213	SLR	278407.08	953552.01	1.8	GRANULAR	2.05	Thick Peat	3	2	1	6	Low
214	SLR	278477.19	953555.96	2.5	GRANULAR	0.94	Thick Peat	3	1	1	3	Negligible
215	SLR	279175.24	953514.50	2.8	GRANULAR	0.86	Thick Peat	3	1	1	3	Negligible
216	RPS	281044.00	953487.00	1.5	GRANULAR	3.31	Thin Peat	2	2	1	4	Negligible
217	RPS	281134.00	953545.00	0.0	GRANULAR	10.94	Peaty soil	1	6	1	6	Low
218	RPS	281126.00	953551.00	0.5	GRANULAR	5.32	Peaty soil	1	4	1	4	Negligible
219	RPS	281118.00	953557.00	0.5	GRANULAR	5.65	Peaty soil	1	4	1	4	Negligible
220	RPS	281110.00	953563.00	0.5	GRANULAR	4.16	Thin Peat	2	4	1	8	Low
221	SLR	279064.65	953517.17	0.2	ROCK	5.17	Peaty soil	1	4	2	8	Low
222	SLR	278807.75	953550.36	0.6	GRANULAR	3.04	Thin Peat	2	2	1	4	Negligible
223	SLR	277380.38	953538.69	0.3	GRANULAR	2.85	Peaty soil	1	2	1	2	Negligible
224	MOUCHEL	278540.00	953525.00	1.1	GRANULAR	0.96	Thin Peat	2	1	1	2	Negligible
225	SLR	278315.85	953453.82	1.1	GRANULAR	1.28	Thin Peat	2	1	1	2	Negligible
226	SLR	279068.72	953469.32	0.3	GRANULAR	4.28	Peaty soil	1	4	1	4	Negligible
227	SLR	279114.03	953470.71	2.2	GRANULAR	3.51	Thick Peat	3	2	1	6	Low
228	SLR	279171.92	953463.73	2.5	GRANULAR	0.86	Thick Peat	3	1	1	3	Negligible
229	SLR	279046.63	953469.45	0.9	GRANULAR	4.50	Thin Peat	2	4	1	8	Low
230	RPS	280983.00	953410.00	0.5	GRANULAR	10.93	Peaty soil	1	6	1	6	Low
231	RPS	280976.00	953418.00	0.6	GRANULAR	4.27	Thin Peat	2	4	1	8	Low
232	RPS	281052.00	953482.00	1.1	GRANULAR	3.37	Thin Peat	2	2	1	4	Negligible
233	RPS	281060.00	953476.00	1.2	GRANULAR	3.56	Thin Peat	2	2	1	4	Negligible
234	RPS	281068.00	953470.00	1.0	GRANULAR	7.36	Thin Peat	2	4	1	8	Low
235	RPS	281076.00	953464.00	0.0	GRANULAR	1.29	Peaty soil	1	1	1	1	Negligible
236	SLR	279068.37	953410.47	0.7	ROCK	4.06	Thin Peat	2	4	2	16	Medium
237	SLR	279097.63	953424.98	0.9	ROCK	4.88	Thin Peat	2	4	2	16	Medium
238	SLR	279066.08	953468.85	0.8	ROCK	5.10	Thin Peat	2	4	2	16	Medium
239	SLR	278808.17	953463.45	0.5	GRANULAR	1.83	Peaty soil	1	1	1	1	Negligible
240	SLR	278587.89	953453.37	0.6	ROCK	3.20	Thin Peat	2	2	2	8	Low
241	SLR	277416.28	953429.31	0.6	GRANULAR	3.03	Thin Peat	2	2	1	4	Negligible
242	MOUCHEL	278547.00	953416.00	1.4	GRANULAR	2.83	Thin Peat	2	2	1	4	Negligible
243	MOUCHEL	278545.00	953470.00	0.6	GRANULAR	1.88	Thin Peat	2	1	1	2	Negligible
244	SLR	278927.06	953404.25	0.6	ROCK	5.08	Thin Peat	2	4	2	16	Medium
245	SLR	278324.13	953328.59	0.8	GRANULAR	3.64	Thin Peat	2	2	1	4	Negligible
246	SLR	278318.54	953399.33	1.5	GRANULAR	3.29	Thin Peat	2	2	1	4	Negligible
247	RPS	280887.00	953351.00	0.3	GRANULAR	4.81	Peaty soil	1	4	1	4	Negligible
248	RPS	280895.00	953345.00	0.3	GRANULAR	6.41	Peaty soil	1	4	1	4	Negligible

SSE Generation Ltd
Strathy South Wind Farm
Peat Landslide Hazard and Risk Assessment
Technical Appendix 10.1

Appendix A - Peat Slide Risk Data

SLR Ref: 428.00660.00070
April 2020

ID	Source	Easting	Northing	Peat Depth (m)	Substrate	Slope (Degrees)	Ground Condition Coefficient	Peat Coefficient	Slope Coefficient	Substrate Coefficient	Risk Coefficient	Potential Instability
249	RPS	280904.00	953340.00	0.4	GRANULAR	1.22	Peaty soil	1	1	1	1	Negligible
250	RPS	280912.00	953335.00	0.7	GRANULAR	4.07	Thin Peat	2	4	1	8	Low
251	RPS	281002.00	953387.00	0.6	GRANULAR	11.36	Thin Peat	2	6	1	12	Low
252	RPS	280996.00	953395.00	0.4	GRANULAR	15.47	Peaty soil	1	8	1	8	Low
253	RPS	280989.00	953402.00	0.5	GRANULAR	6.48	Thin Peat	2	4	1	8	Low
254	SLR	279073.49	953362.03	0.6	ROCK	3.80	Thin Peat	2	2	2	8	Low
255	SLR	278821.63	953341.59	0.7	GRANULAR	1.97	Thin Peat	2	1	1	2	Negligible
256	SLR	278840.77	953333.94	0.5	GRANULAR	6.39	Peaty soil	1	4	1	4	Negligible
257	SLR	278879.09	953333.13	0.5	ROCK	4.73	Peaty soil	1	4	2	8	Low
258	SLR	278926.51	953330.55	1.8	GRANULAR	4.85	Thick Peat	3	4	1	12	Low
259	SLR	278651.14	953346.12	1.4	ROCK	2.89	Thin Peat	2	2	2	8	Low
260	SLR	278634.46	953388.79	1.2	ROCK	3.56	Thin Peat	2	2	2	8	Low
261	SLR	278616.59	953402.90	1.3	GRANULAR	3.74	Thin Peat	2	2	1	4	Negligible
262	SLR	278556.87	953372.81	1.2	ROCK	1.38	Thin Peat	2	1	2	4	Negligible
263	SLR	277447.21	953328.99	0.4	GRANULAR	2.95	Peaty soil	1	2	1	2	Negligible
264	SLR	277497.70	953334.28	0.3	GRANULAR	4.00	Peaty soil	1	2	1	2	Negligible
265	SLR	277510.64	953327.57	0.3	GRANULAR	3.54	Peaty soil	1	2	1	2	Negligible
266	SLR	277540.20	953352.62	0.3	GRANULAR	3.45	Peaty soil	1	2	1	2	Negligible
267	SLR	277557.86	953366.22	0.3	GRANULAR	3.47	Peaty soil	1	2	1	2	Negligible
268	MOUCHEL	278550.00	953365.00	1.3	GRANULAR	3.00	Thin Peat	2	2	1	4	Negligible
269	MOUCHEL	278619.00	953372.00	0.8	GRANULAR	2.85	Thin Peat	2	2	1	4	Negligible
270	MOUCHEL	279072.00	953397.00	0.9	GRANULAR	4.06	Thin Peat	2	4	1	8	Low
271	SLR	278730.58	953274.21	0.6	GRANULAR	5.97	Thin Peat	2	4	1	8	Low
272	SLR	278799.94	953304.37	0.2	GRANULAR	3.85	Peaty soil	1	2	1	2	Negligible
273	RPS	280856.00	953247.00	0.4	GRANULAR	9.83	Peaty soil	1	6	1	6	Low
274	RPS	280848.00	953253.00	0.7	GRANULAR	11.62	Thin Peat	2	6	1	12	Low
275	RPS	280840.00	953259.00	0.7	GRANULAR	3.38	Thin Peat	2	2	1	4	Negligible
276	RPS	280832.00	953265.00	1.0	GRANULAR	3.18	Thin Peat	2	2	1	4	Negligible
277	SLR	279082.63	953263.89	0.8	ROCK	3.93	Thin Peat	2	2	2	8	Low
278	SLR	279079.94	953299.81	1.0	ROCK	3.81	Thin Peat	2	2	2	8	Low
279	SLR	278979.40	953318.88	0.4	GRANULAR	4.58	Peaty soil	1	4	1	4	Negligible
280	SLR	279023.98	953309.52	0.5	GRANULAR	5.17	Peaty soil	1	4	1	4	Negligible
281	SLR	278690.63	953294.76	0.2	GRANULAR	2.11	Peaty soil	1	2	1	2	Negligible
282	SLR	278745.62	953275.14	0.2	GRANULAR	5.52	Peaty soil	1	4	1	4	Negligible
283	SLR	278560.07	953278.19	1.3	GRANULAR	2.80	Thin Peat	2	2	1	4	Negligible
284	SLR	278333.29	953247.35	0.8	GRANULAR	2.05	Thin Peat	2	2	1	4	Negligible
285	SLR	278326.67	953291.37	0.6	ROCK	3.74	Thin Peat	2	2	2	8	Low
286	SLR	278325.00	953315.75	0.8	GRANULAR	3.82	Thin Peat	2	2	1	4	Negligible
287	SLR	277475.70	953290.41	0.5	GRANULAR	3.51	Peaty soil	1	2	1	2	Negligible
288	MOUCHEL	278558.00	953259.00	1.5	GRANULAR	2.56	Thin Peat	2	2	1	4	Negligible
289	MOUCHEL	278554.00	953313.00	1.2	GRANULAR	3.09	Thin Peat	2	2	1	4	Negligible
290	SLR	278809.38	953212.91	0.1	GRANULAR	4.75	Peaty soil	1	4	1	4	Negligible
291	SLR	278774.29	953214.37	0.3	GRANULAR	5.85	Peaty soil	1	4	1	4	Negligible
292	SLR	278743.73	953205.28	0.2	GRANULAR	8.78	Peaty soil	1	6	1	6	Low
293	SLR	278729.71	953183.06	0.4	GRANULAR	4.73	Peaty soil	1	4	1	4	Negligible
294	SLR	278723.22	953234.33	0.7	GRANULAR	4.22	Thin Peat	2	4	1	8	Low
295	SLR	278639.46	953213.90	0.2	GRANULAR	2.91	Peaty soil	1	2	1	2	Negligible
296	SLR	279103.46	953172.26	1.5	ROCK	4.38	Thin Peat	2	4	2	16	Medium
297	SLR	279090.16	953217.79	1.2	ROCK	4.83	Thin Peat	2	4	2	16	Medium
298	SLR	278834.54	953195.42	0.6	GRANULAR	4.31	Thin Peat	2	4	1	8	Low
299	SLR	278809.37	953215.70	0.4	ROCK	4.75	Peaty soil	1	4	2	8	Low
300	SLR	278772.41	953222.97	0.4	GRANULAR	7.47	Peaty soil	1	4	1	4	Negligible
301	SLR	278558.44	953225.51	1.8	GRANULAR	2.08	Thick Peat	3	2	1	6	Low
302	SLR	278512.74	953205.20	1.1	ROCK	2.00	Thin Peat	2	1	2	4	Negligible
303	SLR	278465.85	953181.02	0.7	ROCK	2.00	Thin Peat	2	1	2	4	Negligible
304	SLR	278350.67	953189.43	1.0	GRANULAR	2.38	Thin Peat	2	2	1	4	Negligible
305	SLR	278192.94	953194.70	1.3	ROCK	4.51	Thin Peat	2	4	2	16	Medium
306	SLR	278202.65	953215.94	0.9	GRANULAR	4.03	Thin Peat	2	4	1	8	Low
307	SLR	277457.41	953228.58	0.9	GRANULAR	4.96	Thin Peat	2	4	1	8	Low
308	MOUCHEL	278561.00	953213.00	1.6	GRANULAR	1.97	Thick Peat	3	1	1	3	Negligible
309	SLR	279114.01	953126.25	1.7	ROCK	2.57	Thick Peat	3	2	2	12	Low
310	SLR	278840.59	953133.03	0.8	ROCK	8.15	Thin Peat	2	6	2	24	Medium
311	SLR	278411.67	953150.77	1.3	ROCK	2.88	Thin Peat	2	2	2	8	Low
312	SLR	278378.68	953135.45	1.3	ROCK	3.55	Thin Peat	2	2	2	8	Low
313	SLR	278334.86	953122.32	0.3	ROCK	3.13	Peaty soil	1	2	2	4	Negligible
314	SLR	278285.70	953106.58	1.0	ROCK	1.97	Thin Peat	2	1	2	4	Negligible
315	SLR	278242.28	953087.69	1.9	ROCK	2.59	Thick Peat	3	2	2	12	Low
316	SLR	278206.50	953092.14	1.7	ROCK	1.56	Thick Peat	3	1	2	6	Low
317	SLR	278188.47	953116.66	2.5	GRANULAR	1.07	Thick Peat	3	1	1	3	Negligible
318	SLR	278189.48	953164.72	2.3	GRANULAR	2.55	Thick Peat	3	2	1	6	Low
319	SLR	278146.52	953154.36	2.4	ROCK	5.15	Thick Peat	3	4	2	24	Medium
320	SLR	278141.19	953114.42	1.9	ROCK	4.02	Thick Peat	3	4	2	24	Medium
321	SLR	277454.70	953151.23	0.6	GRANULAR	6.10	Thin Peat	2	4	1	8	Low
322	MOUCHEL	278561.00	953107.00	0.8	GRANULAR	2.46	Thin Peat	2	2	1	4	Negligible
323	MOUCHEL	278561.00	953162.00	1.3	GRANULAR	1.09	Thin Peat	2	1	1	2	Negligible
324	MOUCHEL	279312.00	953087.00	3.9	GRANULAR	1.15	Thick Peat	3	1	1	3	Negligible
325	MOUCHEL	279258.00	953093.00	3.0	GRANULAR	0.97	Thick Peat	3	1	1	3	Negligible
326	MOUCHEL	279202.00	953092.00	2.3	GRANULAR	1.92	Thick Peat	3	1	1	3	Negligible
327	MOUCHEL	279152.00	953097.00	2.2	GRANULAR	2.35	Thick Peat	3	2	1	6	Low
328	MOUCHEL	279105.00	953099.00	1.2	GRANULAR	6.48	Thin Peat	2	4	1	8	Low
329	MOUCHEL	279044.00	953103.00	1.7	GRANULAR	6.64	Thick Peat	3	4	1	12	Low
330	MOUCHEL	278994.00	953110.00	0.9	GRANULAR	5.29	Thin Peat	2	4	1	8	Low
331	MOUCHEL	278942.00	953109.00	1.5	GRANULAR	5.45	Thin Peat	2	4	1	8	Low

ID	Source	Easting	Northing	Peat Depth (m)	Substrate	Slope (Degrees)	Ground Condition Coefficient	Peat Coefficient	Slope Coefficient	Substrate Coefficient	Risk Coefficient	Potential Instability
332	MOUCHEL	278894.00	953113.00	0.5	GRANULAR	5.83	Peaty soil	1	4	1	4	Negligible
333	SLR	278388.63	953038.77	0.3	GRANULAR	5.53	Peaty soil	1	4	1	4	Negligible
334	SLR	278381.32	953082.63	0.2	GRANULAR	3.58	Peaty soil	1	2	1	2	Negligible
335	SLR	278827.71	953069.17	0.9	GRANULAR	4.84	Thin Peat	2	4	1	8	Low
336	SLR	278766.07	953072.43	0.5	GRANULAR	3.19	Peaty soil	1	2	1	2	Negligible
337	SLR	278687.82	953063.27	0.6	GRANULAR	1.46	Thin Peat	2	1	1	2	Negligible
338	SLR	280666.84	953070.49	0.2	ROCK	13.14	Peaty soil	1	8	2	16	Medium
339	SLR	280642.72	953026.47	0.2	ROCK	12.39	Peaty soil	1	8	2	16	Medium
340	SLR	279128.17	953026.66	1.6	ROCK	3.58	Thick Peat	3	2	2	12	Low
341	SLR	279124.98	953071.69	1.4	ROCK	3.53	Thin Peat	2	2	2	8	Low
342	SLR	278866.78	953044.94	0.7	ROCK	7.08	Thin Peat	2	4	2	16	Medium
343	SLR	278854.35	953039.57	0.7	ROCK	7.95	Thin Peat	2	4	2	16	Medium
344	SLR	278223.09	953068.42	1.7	ROCK	2.27	Thick Peat	3	2	2	12	Low
345	SLR	278215.57	953036.34	1.1	GRANULAR	3.32	Thin Peat	2	2	1	4	Negligible
346	SLR	277440.67	953054.37	1.6	GRANULAR	12.97	Thick Peat	3	8	1	24	Medium
347	SLR	277462.90	953027.30	0.3	ROCK	5.40	Peaty soil	1	4	2	8	Low
348	SLR	277518.97	953011.81	0.4	ROCK	1.70	Peaty soil	1	1	2	2	Negligible
349	SLR	278151.30	953058.42	0.0	GRANULAR	3.21	No Peat	0	2	1	0	None
350	MOUCHEL	278565.00	953051.00	0.3	GRANULAR	3.19	Peaty soil	1	2	1	2	Negligible
351	MOUCHEL	279363.00	953081.00	2.9	GRANULAR	0.77	Thick Peat	3	1	1	3	Negligible
352	MOUCHEL	278881.00	953053.00	0.4	GRANULAR	7.16	Peaty soil	1	4	1	4	Negligible
353	SLR	278410.02	952940.80	0.2	GRANULAR	0.67	Peaty soil	1	1	1	1	Negligible
354	SLR	278400.95	952996.79	0.1	ROCK	4.86	Peaty soil	1	4	2	8	Low
355	SLR	280616.31	952990.33	0.5	ROCK	10.33	Peaty soil	1	6	2	12	Low
356	SLR	280589.04	952951.61	0.5	GRANULAR	8.77	Peaty soil	1	6	1	6	Low
357	SLR	279129.95	952980.36	1.4	ROCK	5.79	Thin Peat	2	4	2	16	Medium
358	SLR	278826.74	952930.68	0.7	ROCK	7.03	Thin Peat	2	4	2	16	Medium
359	SLR	278204.26	952991.94	1.1	ROCK	3.21	Thin Peat	2	2	2	8	Low
360	SLR	278189.26	952944.87	1.1	ROCK	4.14	Thin Peat	2	4	2	16	Medium
361	SLR	280693.06	952943.80	0.6	GRANULAR	8.17	Thin Peat	2	6	1	12	Low
362	SLR	277434.75	952952.24	0.6	GRANULAR	4.34	Thin Peat	2	4	1	8	Low
363	SLR	277569.44	953003.92	0.6	ROCK	1.65	Thin Peat	2	1	2	4	Negligible
364	SLR	277560.38	952941.44	0.5	GRANULAR	1.72	Peaty soil	1	1	1	1	Negligible
365	SLR	278067.61	952949.02	0.3	ROCK	1.67	Peaty soil	1	1	2	2	Negligible
366	SLR	278028.27	952954.89	0.5	GRANULAR	5.75	Peaty soil	1	4	1	4	Negligible
367	SLR	278223.31	952928.40	0.8	ROCK	1.61	Thin Peat	2	1	2	4	Negligible
368	SLR	278267.89	952931.47	1.5	ROCK	1.25	Thin Peat	2	1	2	4	Negligible
369	SLR	278301.01	952931.93	2.0	ROCK	1.56	Thick Peat	3	1	2	6	Low
370	SLR	278355.80	952928.37	0.8	GRANULAR	4.05	Thin Peat	2	4	1	8	Low
371	MOUCHEL	278570.00	952951.00	0.6	GRANULAR	1.69	Thin Peat	2	1	1	2	Negligible
372	MOUCHEL	278568.00	953003.01	0.3	GRANULAR	3.76	Peaty soil	1	2	1	2	Negligible
373	SLR	280559.45	952906.83	0.7	ROCK	5.28	Thin Peat	2	4	2	16	Medium
374	SLR	280540.56	952877.88	0.6	ROCK	7.34	Thin Peat	2	4	2	16	Medium
375	SLR	280532.86	952858.43	0.3	ROCK	9.34	Peaty soil	1	6	2	12	Low
376	SLR	279084.59	952869.79	0.8	ROCK	6.59	Thin Peat	2	4	2	16	Medium
377	SLR	279031.32	952875.52	1.7	GRANULAR	6.28	Thick Peat	3	4	1	12	Low
378	SLR	278981.82	952874.08	2.1	ROCK	5.23	Thick Peat	3	4	2	24	Medium
379	SLR	278928.61	952878.51	1.1	ROCK	5.12	Thin Peat	2	4	2	16	Medium
380	SLR	278879.91	952880.75	0.6	ROCK	5.12	Thin Peat	2	4	2	16	Medium
381	SLR	278839.08	952882.57	0.7	ROCK	7.22	Thin Peat	2	4	2	16	Medium
382	SLR	279130.53	952866.52	1.1	GRANULAR	5.04	Thin Peat	2	4	1	8	Low
383	SLR	279181.12	952862.17	1.0	ROCK	5.01	Thin Peat	2	4	2	16	Medium
384	SLR	279155.34	952866.12	1.9	ROCK	5.05	Thick Peat	3	4	2	24	Medium
385	SLR	279140.97	952923.95	2.6	ROCK	4.53	Thick Peat	3	4	2	24	Medium
386	SLR	278816.42	952858.21	0.6	GRANULAR	3.90	Thin Peat	2	2	1	4	Negligible
387	SLR	278433.93	952886.21	0.5	ROCK	2.90	Peaty soil	1	2	2	4	Negligible
388	SLR	280705.09	952891.25	0.8	GRANULAR	12.10	Thin Peat	2	8	1	16	Medium
389	SLR	281348.60	952880.63	2.7	ROCK	1.28	Thick Peat	3	1	2	6	Low
390	SLR	278152.11	952861.35	0.5	GRANULAR	2.94	Peaty soil	1	2	1	2	Negligible
391	SLR	278146.17	952892.73	0.7	GRANULAR	3.25	Thin Peat	2	2	1	4	Negligible
392	SLR	278110.09	952915.58	0.4	GRANULAR	5.00	Peaty soil	1	4	1	4	Negligible
393	SLR	278024.66	952904.49	0.5	GRANULAR	4.53	Peaty soil	1	4	1	4	Negligible
394	SLR	277992.67	952855.79	0.5	GRANULAR	4.25	Peaty soil	1	4	1	4	Negligible
395	SLR	278170.81	952902.36	0.7	GRANULAR	2.13	Thin Peat	2	2	1	4	Negligible
396	SLR	278400.39	952919.19	0.3	GRANULAR	2.03	Peaty soil	1	2	1	2	Negligible
397	SLR	278434.89	952885.80	1.5	GRANULAR	3.17	Thin Peat	2	2	1	4	Negligible
398	SLR	278453.34	952846.61	0.4	ROCK	5.76	Peaty soil	1	4	2	8	Low
399	MOUCHEL	278573.00	952891.00	0.3	GRANULAR	0.97	Peaty soil	1	1	1	1	Negligible
400	MOUCHEL	279272.00	952847.00	3.0	GRANULAR	0.60	Thick Peat	3	1	1	3	Negligible
401	SLR	280530.92	952813.93	0.6	GRANULAR	8.94	Thin Peat	2	6	1	12	Low
402	SLR	278452.65	952843.29	0.4	GRANULAR	5.88	Peaty soil	1	4	1	4	Negligible
403	SLR	280725.16	952773.47	1.5	GRANULAR	7.54	Thin Peat	2	4	1	8	Low
404	SLR	280921.12	952783.30	1.1	ROCK	2.75	Thin Peat	2	2	2	8	Low
405	SLR	281114.17	952802.87	1.5	ROCK	1.58	Thin Peat	2	1	2	4	Negligible
406	SLR	281153.08	952821.19	0.0	ROCK	1.58	No Peat	0	1	2	0	None
407	SLR	281126.93	952816.44	1.6	ROCK	1.43	Thick Peat	3	1	2	6	Low
408	SLR	281200.73	952822.53	1.6	ROCK	1.31	Thick Peat	3	1	2	6	Low
409	SLR	281251.17	952819.89	5.0	ROCK	1.28	Thick Peat	3	1	2	6	Low
410	SLR	281298.75	952812.88	2.7	ROCK	1.30	Thick Peat	3	1	2	6	Low
411	SLR	281351.93	952810.71	2.7	ROCK	0.46	Thick Peat	3	1	2	6	Low
412	SLR	281403.30	952809.71	2.7	ROCK	0.59	Thick Peat	3	1	2	6	Low
413	SLR	281417.55	952810.77	2.7	ROCK	0.73	Thick Peat	3	1	2	6	Low
414	SLR	277433.70	952844.01	0.2	ROCK	9.52	Peaty soil	1	6	2	12	Low

SSE Generation Ltd
Strathy South Wind Farm
Peat Landslide Hazard and Risk Assessment
Technical Appendix 10.1

Appendix A - Peat Slide Risk Data

SLR Ref: 428.00660.00070
April 2020

ID	Source	Easting	Northing	Peat Depth (m)	Substrate	Slope (Degrees)	Ground Condition Coefficient	Peat Coefficient	Slope Coefficient	Substrate Coefficient	Risk Coefficient	Potential Instability
415	SLR	278108.43	952790.28	2.1	GRANULAR	6.52	Thick Peat	3	4	1	12	Low
416	SLR	278214.29	952779.01	0.6	GRANULAR	1.78	Thin Peat	2	1	1	2	Negligible
417	SLR	278285.75	952770.40	0.6	GRANULAR	8.28	Thin Peat	2	6	1	12	Low
418	SLR	278129.12	952810.81	1.3	ROCK	7.35	Thin Peat	2	4	2	16	Medium
419	SLR	278459.30	952797.21	0.2	ROCK	1.16	Peaty soil	1	1	2	2	Negligible
420	MOUCHEL	278575.00	952770.00	2.0	GRANULAR	0.66	Thick Peat	3	1	1	3	Negligible
421	MOUCHEL	278574.00	952825.00	0.8	GRANULAR	1.73	Thin Peat	2	1	1	2	Negligible
422	MOUCHEL	279183.00	952843.00	1.6	GRANULAR	5.05	Thick Peat	3	4	1	12	Low
423	SLR	280527.24	952757.22	0.8	GRANULAR	8.21	Thin Peat	2	6	1	12	Low
424	SLR	280529.35	952714.63	0.8	ROCK	6.77	Thin Peat	2	4	2	16	Medium
425	SLR	278803.27	952747.57	0.7	GRANULAR	5.34	Thin Peat	2	4	1	8	Low
426	SLR	280762.90	952692.66	1.4	ROCK	3.35	Thin Peat	2	2	2	8	Low
427	SLR	280799.03	952705.68	1.3	ROCK	3.28	Thin Peat	2	2	2	8	Low
428	SLR	280841.12	952719.62	1.3	ROCK	2.26	Thin Peat	2	2	2	8	Low
429	SLR	280882.46	952741.21	1.8	ROCK	3.27	Thick Peat	3	2	2	12	Low
430	SLR	280938.37	952761.42	0.7	ROCK	2.80	Thin Peat	2	2	2	8	Low
431	SLR	281098.71	952707.16	0.4	ROCK	0.89	Peaty soil	1	1	2	2	Negligible
432	SLR	281099.34	952756.72	1.0	ROCK	5.41	Thin Peat	2	4	2	16	Medium
433	SLR	277424.50	952752.19	0.2	ROCK	2.58	Peaty soil	1	2	2	4	Negligible
434	SLR	277904.73	952712.14	1.6	GRANULAR	8.80	Thick Peat	3	6	1	18	Medium
435	SLR	277940.39	952724.21	1.1	GRANULAR	3.88	Thin Peat	2	2	1	4	Negligible
436	SLR	278376.07	952755.34	0.6	GRANULAR	4.91	Thin Peat	2	4	1	8	Low
437	SLR	278472.40	952707.68	0.3	GRANULAR	5.52	Peaty soil	1	4	1	4	Negligible
438	SLR	278577.50	952702.42	0.3	GRANULAR	4.44	Peaty soil	1	4	1	4	Negligible
439	SLR	278145.19	952707.81	0.6	ROCK	1.08	Thin Peat	2	1	2	4	Negligible
440	SLR	278163.65	952762.76	1.7	GRANULAR	2.88	Thick Peat	3	2	1	6	Low
441	SLR	278466.74	952742.02	0.7	GRANULAR	2.03	Thin Peat	2	2	1	4	Negligible
442	MOUCHEL	278578.00	952721.00	1.8	GRANULAR	1.87	Thick Peat	3	1	1	3	Negligible
443	SLR	281160.48	952758.91	0.7	GRANULAR	1.95	Thin Peat	2	1	1	2	Negligible
444	SLR	281217.57	952744.39	1.2	GRANULAR	1.89	Thin Peat	2	1	1	2	Negligible
445	SLR	281219.79	952744.87	1.4	ROCK	1.93	Thin Peat	2	1	2	4	Negligible
446	SLR	281230.79	952690.51	1.8	GRANULAR	1.91	Thick Peat	3	1	1	3	Negligible
447	SLR	280527.82	952677.17	1.5	ROCK	6.36	Thin Peat	2	4	2	16	Medium
448	SLR	280520.61	952660.86	1.2	GRANULAR	6.04	Thin Peat	2	4	1	8	Low
449	SLR	280511.49	952613.97	1.3	ROCK	5.37	Thin Peat	2	4	2	16	Medium
450	SLR	279129.47	952633.14	2.1	ROCK	6.52	Thick Peat	3	4	2	24	Medium
451	SLR	278791.40	952662.89	0.5	GRANULAR	6.27	Peaty soil	1	4	1	4	Negligible
452	SLR	278771.84	952631.74	0.4	ROCK	8.15	Peaty soil	1	6	2	12	Low
453	SLR	280786.40	952684.15	0.4	ROCK	2.95	Peaty soil	1	2	2	4	Negligible
454	SLR	280809.68	952662.27	0.7	ROCK	2.92	Thin Peat	2	2	2	8	Low
455	SLR	280855.93	952643.23	1.1	ROCK	3.76	Thin Peat	2	2	2	8	Low
456	SLR	281090.72	952607.50	0.6	ROCK	2.05	Thin Peat	2	2	2	8	Low
457	SLR	281092.04	952654.07	1.2	ROCK	2.88	Thin Peat	2	2	2	8	Low
458	SLR	280749.26	952644.24	1.0	ROCK	2.80	Thin Peat	2	2	2	8	Low
459	SLR	277458.99	952647.12	1.0	GRANULAR	7.49	Thin Peat	2	4	1	8	Low
460	SLR	277837.32	952612.66	1.9	GRANULAR	2.32	Thick Peat	3	2	1	6	Low
461	SLR	277838.82	952670.18	2.0	GRANULAR	5.00	Thick Peat	3	4	1	12	Low
462	SLR	278675.93	952676.94	1.3	GRANULAR	5.20	Thin Peat	2	4	1	8	Low
463	SLR	278791.78	952650.06	0.5	GRANULAR	4.27	Peaty soil	1	4	1	4	Negligible
464	SLR	278453.97	952684.85	0.5	ROCK	1.84	Peaty soil	1	1	2	2	Negligible
465	SLR	278437.08	952636.17	0.7	GRANULAR	1.55	Thin Peat	2	1	1	2	Negligible
466	SLR	278114.66	952621.30	0.8	GRANULAR	1.83	Thin Peat	2	1	1	2	Negligible
467	SLR	278132.37	952655.28	0.6	ROCK	1.65	Thin Peat	2	1	2	4	Negligible
468	MOUCHEL	278592.00	952626.00	1.0	GRANULAR	0.20	Thin Peat	2	1	1	2	Negligible
469	MOUCHEL	278586.00	952676.00	1.0	GRANULAR	1.05	Thin Peat	2	1	1	2	Negligible
470	SLR	281070.35	952617.24	0.7	ROCK	1.82	Thin Peat	2	1	2	4	Negligible
471	SLR	281266.57	952653.15	1.3	ROCK	1.95	Thin Peat	2	1	2	4	Negligible
472	SLR	281295.30	952613.71	0.6	ROCK	2.07	Thin Peat	2	2	2	8	Low
473	SLR	278742.74	952650.69	0.1	GRANULAR	6.42	Peaty soil	1	4	1	4	Negligible
474	SLR	278740.75	952635.15	0.6	GRANULAR	4.53	Thin Peat	2	4	1	8	Low
475	SLR	278746.02	952609.14	0.6	GRANULAR	0.80	Thin Peat	2	1	1	2	Negligible
476	SLR	278771.04	952611.67	0.4	GRANULAR	6.74	Peaty soil	1	4	1	4	Negligible
477	SLR	278761.33	952636.82	0.2	GRANULAR	6.09	Peaty soil	1	4	1	4	Negligible
478	SLR	278778.18	952633.23	0.4	GRANULAR	9.33	Peaty soil	1	6	1	6	Low
479	SLR	278791.94	952611.10	0.1	GRANULAR	9.36	Peaty soil	1	6	1	6	Low
480	SLR	280507.35	952583.83	1.2	GRANULAR	5.02	Thin Peat	2	4	1	8	Low
481	SLR	280526.03	952567.29	0.8	ROCK	4.96	Thin Peat	2	4	2	16	Medium
482	SLR	279141.81	952544.18	1.2	GRANULAR	6.55	Thin Peat	2	4	1	8	Low
483	SLR	279134.90	952594.72	1.1	GRANULAR	5.59	Thin Peat	2	4	1	8	Low
484	SLR	278826.82	952570.99	0.4	GRANULAR	7.12	Peaty soil	1	4	1	4	Negligible
485	SLR	278763.72	952605.25	0.0	ROCK	4.09	No Peat	0	4	2	0	None
486	SLR	280899.86	952605.68	0.8	ROCK	3.87	Thin Peat	2	2	2	8	Low
487	SLR	280955.91	952585.60	0.4	ROCK	3.47	Peaty soil	1	2	2	4	Negligible
488	SLR	281006.17	952573.86	0.8	GRANULAR	2.96	Thin Peat	2	2	1	4	Negligible
489	SLR	281054.99	952568.66	0.3	GRANULAR	5.91	Peaty soil	1	4	1	4	Negligible
490	SLR	281097.97	952557.52	0.5	ROCK	2.35	Peaty soil	1	2	2	4	Negligible
491	SLR	281094.75	952573.21	1.1	ROCK	2.41	Thin Peat	2	2	2	8	Low
492	SLR	280771.42	952553.32	0.5	GRANULAR	0.57	Peaty soil	1	1	1	1	Negligible
493	SLR	277544.66	952575.37	1.2	GRANULAR	4.79	Thin Peat	2	4	1	8	Low
494	SLR	277626.70	952574.29	0.6	GRANULAR	0.95	Thin Peat	2	1	1	2	Negligible
495	SLR	277714.83	952602.92	0.8	GRANULAR	0.56	Thin Peat	2	1	1	2	Negligible
496	SLR	277779.00	952600.36	1.9	ROCK	3.37	Thick Peat	3	2	2	12	Low
497	SLR	277771.36	952551.77	3.0	ROCK	0.87	Thick Peat	3	1	2	6	Low

ID	Source	Easting	Northing	Peat Depth (m)	Substrate	Slope (Degrees)	Ground Condition Coefficient	Peat Coefficient	Slope Coefficient	Substrate Coefficient	Risk Coefficient	Potential Instability
498	SLR	277877.31	952527.67	1.2	GRANULAR	3.33	Thin Peat	2	2	1	4	Negligible
499	SLR	277861.05	952571.25	1.4	GRANULAR	3.05	Thin Peat	2	2	1	4	Negligible
500	SLR	278429.76	952585.33	3.0	ROCK	0.77	Thick Peat	3	1	2	6	Low
501	SLR	278437.29	952530.13	3.0	ROCK	0.69	Thick Peat	3	1	2	6	Low
502	SLR	278072.63	952534.40	3.0	ROCK	2.45	Thick Peat	3	2	2	12	Low
503	SLR	278082.89	952532.59	2.7	GRANULAR	2.51	Thick Peat	3	2	1	6	Low
504	SLR	278096.38	952578.23	2.0	ROCK	2.50	Thick Peat	3	2	2	12	Low
505	MOUCHEL	278623.00	952533.00	0.5	GRANULAR	1.68	Peaty soil	1	1	1	1	Negligible
506	MOUCHEL	278609.00	952579.00	0.2	GRANULAR	2.55	Peaty soil	1	2	1	2	Negligible
507	MOUCHEL	278753.00	952583.00	0.5	GRANULAR	1.48	Peaty soil	1	1	1	1	Negligible
508	SLR	281025.03	952547.75	0.4	ROCK	1.48	Peaty soil	1	1	2	2	Negligible
509	SLR	281349.04	952593.56	0.4	ROCK	2.05	Peaty soil	1	2	2	4	Negligible
510	SLR	281414.30	952588.00	0.6	GRANULAR	0.96	Thin Peat	2	1	1	2	Negligible
511	SLR	281260.18	952594.95	0.4	ROCK	2.05	Peaty soil	1	2	2	4	Negligible
512	SLR	281194.23	952584.53	0.6	ROCK	3.95	Thin Peat	2	2	2	8	Low
513	SLR	281202.56	952535.94	0.3	ROCK	2.12	Peaty soil	1	2	2	4	Negligible
514	SLR	278759.10	952584.93	0.0	ROCK	3.07	No Peat	0	2	2	0	None
515	SLR	278769.97	952567.88	0.0	ROCK	5.68	No Peat	0	4	2	0	None
516	SLR	278787.10	952557.53	0.1	GRANULAR	6.22	Peaty soil	1	4	1	4	Negligible
517	SLR	278781.92	952577.21	0.1	GRANULAR	3.81	Peaty soil	1	2	1	2	Negligible
518	SLR	278775.65	952592.31	0.3	GRANULAR	3.92	Peaty soil	1	2	1	2	Negligible
519	SLR	278802.03	952588.80	0.1	GRANULAR	13.11	Peaty soil	1	8	1	8	Low
520	SLR	278811.00	952570.05	0.4	GRANULAR	10.75	Peaty soil	1	6	1	6	Low
521	SLR	280532.13	952511.96	0.3	ROCK	4.73	Peaty soil	1	4	2	8	Low
522	SLR	280535.80	952466.17	0.4	ROCK	5.15	Peaty soil	1	4	2	8	Low
523	SLR	280536.75	952462.42	0.0	GRANULAR	5.36	No Peat	0	4	1	0	None
524	SLR	279137.12	952496.23	1.6	GRANULAR	7.78	Thick Peat	3	4	1	12	Low
525	SLR	278888.84	952467.31	0.6	GRANULAR	7.40	Thin Peat	2	4	1	8	Low
526	SLR	281106.97	952511.01	0.3	ROCK	3.55	Peaty soil	1	2	2	4	Negligible
527	SLR	281135.18	952461.87	0.5	GRANULAR	2.62	Peaty soil	1	2	1	2	Negligible
528	SLR	281151.92	952468.05	1.0	ROCK	2.32	Thin Peat	2	2	2	8	Low
529	SLR	281183.38	952497.55	0.6	GRANULAR	1.77	Thin Peat	2	1	1	2	Negligible
530	SLR	281221.11	952512.19	0.7	ROCK	1.89	Thin Peat	2	1	2	4	Negligible
531	SLR	281248.25	952472.93	0.4	ROCK	1.33	Peaty soil	1	1	2	2	Negligible
532	SLR	280797.27	952446.32	0.5	ROCK	2.53	Peaty soil	1	2	2	4	Negligible
533	SLR	277771.27	952505.34	3.0	ROCK	1.53	Thick Peat	3	1	2	6	Low
534	SLR	277758.93	952459.31	2.7	ROCK	2.38	Thick Peat	3	2	2	12	Low
535	SLR	277894.29	952485.17	0.8	GRANULAR	3.28	Thin Peat	2	2	1	4	Negligible
536	SLR	278423.34	952491.38	2.2	ROCK	0.67	Thick Peat	3	1	2	6	Low
537	SLR	278393.70	952455.53	1.4	GRANULAR	1.08	Thin Peat	2	1	1	2	Negligible
538	SLR	278275.94	952447.67	1.1	GRANULAR	1.18	Thin Peat	2	1	1	2	Negligible
539	SLR	278238.40	952449.03	0.8	GRANULAR	1.76	Thin Peat	2	1	1	2	Negligible
540	SLR	278255.42	952498.20	0.8	GRANULAR	2.01	Thin Peat	2	2	1	4	Negligible
541	SLR	278012.13	952454.95	1.7	ROCK	3.63	Thick Peat	3	2	2	12	Low
542	SLR	278026.57	952468.42	1.6	GRANULAR	3.67	Thick Peat	3	2	1	6	Low
543	SLR	278043.06	952494.84	1.9	GRANULAR	3.66	Thick Peat	3	2	1	6	Low
544	MOUCHEL	278638.00	952485.00	0.5	GRANULAR	1.97	Peaty soil	1	1	1	1	Negligible
545	MOUCHEL	279143.00	952490.00	1.5	GRANULAR	7.60	Thin Peat	2	4	1	8	Low
546	SLR	280815.49	952481.20	0.6	GRANULAR	3.38	Thin Peat	2	2	1	4	Negligible
547	SLR	280856.86	952482.21	0.3	GRANULAR	4.63	Peaty soil	1	4	1	4	Negligible
548	SLR	280898.91	952485.07	0.3	GRANULAR	4.63	Peaty soil	1	4	1	4	Negligible
549	SLR	280944.22	952489.60	0.3	ROCK	3.21	Peaty soil	1	2	2	4	Negligible
550	SLR	281004.64	952495.64	0.3	ROCK	1.40	Peaty soil	1	1	2	2	Negligible
551	SLR	280996.04	952448.05	0.3	ROCK	1.76	Peaty soil	1	1	2	2	Negligible
552	SLR	280780.00	952435.52	0.2	GRANULAR	4.62	Peaty soil	1	4	1	4	Negligible
553	SLR	280753.41	952431.69	0.8	ROCK	4.61	Thin Peat	2	4	2	16	Medium
554	SLR	280701.84	952436.04	0.2	ROCK	5.23	Peaty soil	1	4	2	8	Low
555	SLR	280690.72	952438.42	0.4	ROCK	5.13	Peaty soil	1	4	2	8	Low
556	SLR	280697.00	952433.59	0.6	GRANULAR	5.17	Thin Peat	2	4	1	8	Low
557	SLR	280745.78	952440.28	0.7	ROCK	5.26	Thin Peat	2	4	2	16	Medium
558	SLR	280541.93	952437.38	0.0	GRANULAR	6.40	No Peat	0	4	1	0	None
559	SLR	280550.94	952410.56	0.7	GRANULAR	12.63	Thin Peat	2	8	1	16	Medium
560	SLR	280550.12	952374.00	0.4	ROCK	7.14	Peaty soil	1	4	2	8	Low
561	SLR	279170.74	952389.91	0.4	ROCK	11.44	Peaty soil	1	6	2	12	Low
562	SLR	279151.50	952444.72	1.8	ROCK	9.09	Thick Peat	3	6	2	36	High
563	SLR	278929.78	952405.89	0.4	GRANULAR	7.88	Peaty soil	1	4	1	4	Negligible
564	SLR	281259.85	952428.38	0.4	ROCK	2.30	Peaty soil	1	2	2	4	Negligible
565	SLR	281265.55	952388.29	0.4	ROCK	1.79	Peaty soil	1	1	2	2	Negligible
566	SLR	277745.53	952413.67	3.3	GRANULAR	2.06	Thick Peat	3	2	1	6	Low
567	SLR	277744.31	952368.22	3.0	DEPTH NOT PROVEN	2.25	Thick Peat	3	2	3	18	Medium
568	SLR	277918.47	952370.77	1.4	ROCK	2.64	Thin Peat	2	2	2	8	Low
569	SLR	277914.28	952420.48	1.1	GRANULAR	2.61	Thin Peat	2	2	1	4	Negligible
570	SLR	278355.32	952432.95	1.1	GRANULAR	1.16	Thin Peat	2	1	1	2	Negligible
571	SLR	278313.51	952437.78	1.4	ROCK	1.36	Thin Peat	2	1	2	4	Negligible
572	SLR	278193.36	952431.48	0.8	GRANULAR	1.84	Thin Peat	2	1	1	2	Negligible
573	SLR	278097.21	952417.02	1.1	GRANULAR	2.93	Thin Peat	2	2	1	4	Negligible
574	SLR	278039.12	952415.11	1.6	ROCK	4.82	Thick Peat	3	4	2	24	Medium
575	SLR	277995.58	952417.39	1.1	GRANULAR	3.32	Thin Peat	2	2	1	4	Negligible
576	SLR	277977.62	952418.75	1.6	GRANULAR	3.63	Thick Peat	3	2	1	6	Low
577	MOUCHEL	279057.00	952370.00	0.3	GRANULAR	5.24	Peaty soil	1	4	1	4	Negligible
578	MOUCHEL	279007.00	952380.00	0.3	GRANULAR	4.37	Peaty soil	1	4	1	4	Negligible
579	MOUCHEL	278957.00	952379.00	0.4	GRANULAR	6.22	Peaty soil	1	4	1	4	Negligible
580	MOUCHEL	278897.00	952392.00	0.9	GRANULAR	4.95	Thin Peat	2	4	1	8	Low

SSE Generation Ltd
Strathy South Wind Farm
Peat Landslide Hazard and Risk Assessment
Technical Appendix 10.1

Appendix A - Peat Slide Risk Data

SLR Ref: 428.00660.00070
April 2020

ID	Source	Easting	Northing	Peat Depth (m)	Substrate	Slope (Degrees)	Ground Condition Coefficient	Peat Coefficient	Slope Coefficient	Substrate Coefficient	Risk Coefficient	Potential Instability
581	MOUCHEL	278849.00	952400.00	0.2	GRANULAR	10.63	Peaty soil	1	6	1	6	Low
582	MOUCHEL	278800.00	952407.00	0.1	GRANULAR	4.99	Peaty soil	1	4	1	4	Negligible
583	MOUCHEL	278750.00	952411.00	0.3	GRANULAR	5.15	Peaty soil	1	4	1	4	Negligible
584	MOUCHEL	278701.00	952415.00	0.8	GRANULAR	3.13	Thin Peat	2	2	1	4	Negligible
585	MOUCHEL	278649.00	952417.00	2.0	GRANULAR	1.28	Thick Peat	3	1	1	3	Negligible
586	MOUCHEL	278600.00	952416.00	2.2	GRANULAR	1.54	Thick Peat	3	1	1	3	Negligible
587	MOUCHEL	278553.00	952423.00	1.0	GRANULAR	0.66	Thin Peat	2	1	1	2	Negligible
588	MOUCHEL	278505.00	952430.00	3.4	GRANULAR	0.28	Thick Peat	3	1	1	3	Negligible
589	MOUCHEL	278458.00	952430.00	4.0	GRANULAR	0.37	Thick Peat	3	1	1	3	Negligible
590	MOUCHEL	278408.00	952424.00	2.0	GRANULAR	0.17	Thick Peat	3	1	1	3	Negligible
591	MOUCHEL	278355.00	952422.00	1.6	GRANULAR	1.02	Thick Peat	3	1	1	3	Negligible
592	MOUCHEL	278307.00	952431.00	1.5	GRANULAR	1.42	Thin Peat	2	1	1	2	Negligible
593	MOUCHEL	278258.00	952429.00	1.2	GRANULAR	1.76	Thin Peat	2	1	1	2	Negligible
594	MOUCHEL	278207.00	952425.00	0.8	GRANULAR	1.81	Thin Peat	2	1	1	2	Negligible
595	MOUCHEL	278156.00	952420.00	0.5	GRANULAR	2.97	Peaty soil	1	2	1	2	Negligible
596	MOUCHEL	278106.00	952414.00	0.6	GRANULAR	2.87	Thin Peat	2	2	1	4	Negligible
597	MOUCHEL	278055.00	952413.00	1.5	GRANULAR	4.67	Thin Peat	2	4	1	8	Low
598	MOUCHEL	278005.00	952407.00	1.4	GRANULAR	3.38	Thin Peat	2	2	1	4	Negligible
599	MOUCHEL	277957.00	952402.00	0.8	GRANULAR	3.48	Thin Peat	2	2	1	4	Negligible
600	MOUCHEL	277907.00	952394.00	1.5	GRANULAR	2.63	Thin Peat	2	2	1	4	Negligible
601	MOUCHEL	277856.00	952400.00	3.0	GRANULAR	0.43	Thick Peat	3	1	1	3	Negligible
602	MOUCHEL	277807.00	952403.00	3.3	GRANULAR	1.59	Thick Peat	3	1	1	3	Negligible
603	MOUCHEL	277758.00	952402.00	3.6	GRANULAR	1.91	Thick Peat	3	1	1	3	Negligible
604	MOUCHEL	277709.00	952398.00	0.6	GRANULAR	0.94	Thin Peat	2	1	1	2	Negligible
605	MOUCHEL	277661.00	952383.00	1.0	GRANULAR	4.23	Thin Peat	2	4	1	8	Low
606	MOUCHEL	278651.00	952436.00	1.3	GRANULAR	0.53	Thin Peat	2	1	1	2	Negligible
607	MOUCHEL	280520.00	952370.00	0.3	GRANULAR	7.73	Peaty soil	1	4	1	4	Negligible
608	SLR	281111.85	952439.98	0.4	ROCK	2.72	Peaty soil	1	2	2	4	Negligible
609	SLR	281105.93	952402.94	0.4	GRANULAR	1.86	Peaty soil	1	1	1	1	Negligible
610	SLR	280991.28	952397.33	0.3	ROCK	2.68	Peaty soil	1	2	2	4	Negligible
611	SLR	280521.52	952365.22	0.3	GRANULAR	7.99	Peaty soil	1	4	1	4	Negligible
612	SLR	280533.14	952286.50	0.5	ROCK	5.76	Peaty soil	1	4	2	8	Low
613	SLR	280547.35	952324.51	0.5	ROCK	5.14	Peaty soil	1	4	2	8	Low
614	SLR	280564.68	952362.97	0.2	GRANULAR	4.15	Peaty soil	1	4	1	4	Negligible
615	SLR	280598.96	952340.95	1.2	GRANULAR	2.69	Thin Peat	2	2	1	4	Negligible
616	SLR	280639.89	952310.18	0.9	ROCK	3.61	Thin Peat	2	2	2	8	Low
617	SLR	280845.30	952335.12	0.6	ROCK	3.94	Thin Peat	2	2	2	8	Low
618	SLR	278921.65	952303.26	0.3	ROCK	12.93	Peaty soil	1	8	2	16	Medium
619	SLR	279012.17	952296.01	0.5	ROCK	6.64	Peaty soil	1	4	2	8	Low
620	SLR	279376.49	952317.84	1.2	ROCK	3.33	Thin Peat	2	2	2	8	Low
621	SLR	279478.15	952302.46	0.9	ROCK	1.80	Thin Peat	2	1	2	4	Negligible
622	SLR	279193.48	952347.24	2.7	DEPTH NOT PROVEN	3.74	Thick Peat	3	2	3	18	Medium
623	SLR	279259.26	952339.83	2.3	ROCK	2.66	Thick Peat	3	2	2	12	Low
624	SLR	279275.19	952316.68	2.4	GRANULAR	7.85	Thick Peat	3	4	1	12	Low
625	SLR	278983.85	952318.61	0.0	GRANULAR	4.94	No Peat	0	4	1	0	None
626	SLR	278995.61	952286.31	0.3	GRANULAR	8.45	Peaty soil	1	6	1	6	Low
627	SLR	281250.81	952338.79	0.5	ROCK	0.96	Peaty soil	1	1	2	2	Negligible
628	SLR	281235.39	952299.14	0.3	GRANULAR	0.98	Peaty soil	1	1	1	1	Negligible
629	SLR	280814.86	952349.05	0.2	ROCK	2.76	Peaty soil	1	2	2	4	Negligible
630	SLR	280822.64	952297.56	0.5	ROCK	4.52	Peaty soil	1	4	2	8	Low
631	SLR	280472.41	952296.71	0.7	GRANULAR	3.51	Thin Peat	2	2	1	4	Negligible
632	SLR	280430.53	952305.60	0.5	ROCK	3.51	Peaty soil	1	2	2	4	Negligible
633	SLR	280396.26	952296.25	0.5	ROCK	3.15	Peaty soil	1	2	2	4	Negligible
634	SLR	277706.23	952327.44	3.5	ROCK	5.28	Thick Peat	3	4	2	24	Medium
635	SLR	277945.78	952337.80	1.0	ROCK	3.47	Thin Peat	2	2	2	8	Low
636	SLR	278886.98	952293.09	0.2	ROCK	9.84	Peaty soil	1	6	2	12	Low
637	MOUCHEL	279302.00	952336.00	2.8	GRANULAR	14.32	Thick Peat	3	8	1	24	Medium
638	MOUCHEL	279253.00	952342.00	2.0	GRANULAR	2.95	Thick Peat	3	2	1	6	Low
639	MOUCHEL	279205.00	952353.00	0.8	GRANULAR	3.72	Thin Peat	2	2	1	4	Negligible
640	MOUCHEL	279156.00	952358.00	0.5	GRANULAR	10.44	Peaty soil	1	6	1	6	Low
641	MOUCHEL	279106.00	952364.00	0.4	GRANULAR	6.72	Peaty soil	1	4	1	4	Negligible
642	MOUCHEL	277612.00	952366.00	1.7	GRANULAR	2.02	Thick Peat	3	2	1	6	Low
643	MOUCHEL	277557.00	952354.00	1.3	GRANULAR	2.20	Thin Peat	2	2	1	4	Negligible
644	MOUCHEL	277518.00	952327.00	1.3	GRANULAR	0.58	Thin Peat	2	1	1	2	Negligible
645	MOUCHEL	277470.00	952322.00	2.3	GRANULAR	1.14	Thick Peat	3	1	1	3	Negligible
646	MOUCHEL	277420.00	952327.00	3.9	GRANULAR	0.82	Thick Peat	3	1	1	3	Negligible
647	MOUCHEL	277370.00	952327.00	3.0	GRANULAR	0.72	Thick Peat	3	1	1	3	Negligible
648	MOUCHEL	277321.00	952330.00	2.5	GRANULAR	0.74	Thick Peat	3	1	1	3	Negligible
649	MOUCHEL	277285.00	952329.00	2.1	GRANULAR	0.99	Thick Peat	3	1	1	3	Negligible
650	MOUCHEL	277235.00	952337.00	1.0	GRANULAR	1.09	Thin Peat	2	1	1	2	Negligible
651	MOUCHEL	277186.00	952336.00	3.1	GRANULAR	1.07	Thick Peat	3	1	1	3	Negligible
652	MOUCHEL	277139.00	952332.00	2.4	GRANULAR	0.92	Thick Peat	3	1	1	3	Negligible
653	MOUCHEL	277085.00	952333.00	1.5	GRANULAR	0.45	Thin Peat	2	1	1	2	Negligible
654	MOUCHEL	277028.00	952331.00	0.8	GRANULAR	3.59	Thin Peat	2	2	1	4	Negligible
655	MOUCHEL	276975.00	952337.00	1.9	GRANULAR	2.20	Thick Peat	3	2	1	6	Low
656	MOUCHEL	276929.00	952335.00	2.4	GRANULAR	2.09	Thick Peat	3	2	1	6	Low
657	MOUCHEL	276877.00	952333.00	1.3	GRANULAR	2.03	Thin Peat	2	2	1	4	Negligible
658	MOUCHEL	276827.00	952335.00	1.3	GRANULAR	3.28	Thin Peat	2	2	1	4	Negligible
659	MOUCHEL	276776.00	952334.00	1.2	GRANULAR	2.84	Thin Peat	2	2	1	4	Negligible
660	MOUCHEL	276727.00	952333.00	0.7	GRANULAR	4.18	Thin Peat	2	4	1	8	Low
661	MOUCHEL	281230.00	952328.00	0.4	GRANULAR	0.96	Peaty soil	1	1	1	1	Negligible
662	SLR	281107.44	952356.10	0.3	ROCK	1.70	Peaty soil	1	1	2	2	Negligible
663	SLR	281143.71	952334.42	0.4	ROCK	1.69	Peaty soil	1	1	2	2	Negligible

ID	Source	Easting	Northing	Peat Depth (m)	Substrate	Slope (Degrees)	Ground Condition Coefficient	Peat Coefficient	Slope Coefficient	Substrate Coefficient	Risk Coefficient	Potential Instability
664	SLR	281198.19	952331.50	0.5	ROCK	1.32	Peaty soil	1	1	2	2	Negligible
665	SLR	281061.51	952336.85	0.3	ROCK	1.99	Peaty soil	1	1	2	2	Negligible
666	SLR	281013.47	952341.86	0.3	ROCK	1.41	Peaty soil	1	1	2	2	Negligible
667	SLR	280965.92	952349.78	0.3	ROCK	2.38	Peaty soil	1	2	2	4	Negligible
668	SLR	280935.81	952295.90	0.3	ROCK	1.98	Peaty soil	1	1	2	2	Negligible
669	SLR	279137.02	952252.98	0.7	GRANULAR	6.78	Thin Peat	2	4	1	8	Low
670	SLR	280678.44	952281.33	0.4	ROCK	4.45	Peaty soil	1	4	2	8	Low
671	SLR	280721.87	952249.56	0.5	GRANULAR	4.43	Peaty soil	1	4	1	4	Negligible
672	SLR	280761.79	952211.21	0.4	ROCK	4.64	Peaty soil	1	4	2	8	Low
673	SLR	280841.68	952260.96	0.4	ROCK	4.34	Peaty soil	1	4	2	8	Low
674	SLR	278641.36	952253.62	1.1	ROCK	3.88	Thin Peat	2	2	2	8	Low
675	SLR	278730.34	952281.51	0.4	ROCK	8.03	Peaty soil	1	6	2	12	Low
676	SLR	278829.01	952282.91	0.3	ROCK	8.91	Peaty soil	1	6	2	12	Low
677	SLR	279098.32	952270.33	1.0	ROCK	6.26	Thin Peat	2	4	2	16	Medium
678	SLR	279206.72	952268.29	0.8	ROCK	6.83	Thin Peat	2	4	2	16	Medium
679	SLR	279555.90	952253.64	0.4	ROCK	4.38	Peaty soil	1	4	2	8	Low
680	SLR	279661.53	952221.62	0.6	ROCK	0.25	Thin Peat	2	1	2	4	Negligible
681	SLR	279754.94	952207.05	0.1	ROCK	2.72	Peaty soil	1	2	2	4	Negligible
682	SLR	278994.91	952241.58	0.6	GRANULAR	5.62	Thin Peat	2	4	1	8	Low
683	SLR	281224.51	952245.25	0.3	GRANULAR	1.50	Peaty soil	1	1	1	1	Negligible
684	SLR	280820.74	952238.38	0.4	ROCK	6.04	Peaty soil	1	4	2	8	Low
685	SLR	280544.43	952276.69	0.7	ROCK	5.95	Thin Peat	2	4	2	16	Medium
686	SLR	280398.38	952234.90	0.7	ROCK	3.48	Thin Peat	2	2	2	8	Low
687	SLR	277716.35	952267.70	3.5	ROCK	0.24	Thick Peat	3	1	2	6	Low
688	SLR	277707.27	952235.86	3.5	ROCK	0.95	Thick Peat	3	1	2	6	Low
689	SLR	277737.64	952229.15	2.3	ROCK	1.31	Thick Peat	3	1	2	6	Low
690	SLR	278009.77	952235.34	2.6	ROCK	2.98	Thick Peat	3	2	2	12	Low
691	SLR	277979.77	952278.62	2.2	GRANULAR	3.15	Thick Peat	3	2	1	6	Low
692	SLR	280957.21	952224.58	0.4	ROCK	1.25	Peaty soil	1	1	2	2	Negligible
693	SLR	279141.77	952141.79	0.4	GRANULAR	4.32	Peaty soil	1	4	1	4	Negligible
694	SLR	279125.57	952197.25	0.4	GRANULAR	5.67	Peaty soil	1	4	1	4	Negligible
695	SLR	280790.87	952171.89	0.2	ROCK	5.70	Peaty soil	1	4	2	8	Low
696	SLR	280752.38	952199.42	0.4	GRANULAR	4.69	Peaty soil	1	4	1	4	Negligible
697	SLR	280798.01	952188.75	0.3	ROCK	6.20	Peaty soil	1	4	2	8	Low
698	SLR	280829.05	952169.05	0.5	GRANULAR	2.71	Peaty soil	1	2	1	2	Negligible
699	SLR	280825.71	952136.10	0.5	GRANULAR	4.64	Peaty soil	1	4	1	4	Negligible
700	SLR	281153.09	952166.27	3.0	DEPTH NOT PROVEN	1.46	Thick Peat	3	1	3	9	Low
701	SLR	281137.12	952131.10	3.0	DEPTH NOT PROVEN	1.58	Thick Peat	3	1	3	9	Low
702	SLR	281216.41	952138.73	1.3	ROCK	1.42	Thin Peat	2	1	2	4	Negligible
703	SLR	281233.90	952185.55	1.5	ROCK	1.94	Thin Peat	2	1	2	4	Negligible
704	SLR	278579.13	952171.25	1.3	ROCK	5.91	Thin Peat	2	4	2	16	Medium
705	SLR	279828.52	952152.43	0.1	ROCK	1.20	Peaty soil	1	1	2	2	Negligible
706	SLR	278995.35	952202.20	0.5	GRANULAR	4.65	Peaty soil	1	4	1	4	Negligible
707	SLR	278994.37	952158.04	0.4	ROCK	8.16	Peaty soil	1	6	2	12	Low
708	SLR	278675.04	952143.21	1.7	ROCK	3.70	Thick Peat	3	2	2	12	Low
709	SLR	278611.11	952147.60	1.5	ROCK	1.70	Thin Peat	2	1	2	4	Negligible
710	SLR	281199.57	952190.12	0.7	ROCK	1.78	Thin Peat	2	1	2	4	Negligible
711	SLR	280408.70	952187.05	0.5	GRANULAR	3.48	Peaty soil	1	2	1	2	Negligible
712	SLR	280417.36	952142.22	0.8	ROCK	3.71	Thin Peat	2	2	2	8	Low
713	SLR	277776.02	952204.74	2.5	ROCK	1.00	Thick Peat	3	1	2	6	Low
714	SLR	277801.54	952164.58	3.0	GRANULAR	1.45	Thick Peat	3	1	1	3	Negligible
715	SLR	277836.34	952134.71	3.0	GRANULAR	1.96	Thick Peat	3	1	1	3	Negligible
716	SLR	278000.31	952147.06	3.0	ROCK	1.50	Thick Peat	3	1	2	6	Low
717	SLR	278020.61	952198.61	2.7	ROCK	2.94	Thick Peat	3	2	2	12	Low
718	SLR	280961.96	952154.84	0.6	ROCK	1.60	Thin Peat	2	1	2	4	Negligible
719	SLR	278146.14	952049.31	0.4	GRANULAR	2.75	Peaty soil	1	2	1	2	Negligible
720	SLR	279122.15	952048.62	1.1	GRANULAR	4.56	Thin Peat	2	4	1	8	Low
721	SLR	279118.62	952085.68	0.2	GRANULAR	4.60	Peaty soil	1	4	1	4	Negligible
722	SLR	279111.42	952110.97	0.4	GRANULAR	6.30	Peaty soil	1	4	1	4	Negligible
723	SLR	280795.99	952122.34	0.3	GRANULAR	3.31	Peaty soil	1	2	1	2	Negligible
724	SLR	280840.82	952079.01	0.2	GRANULAR	9.14	Peaty soil	1	6	1	6	Low
725	SLR	281109.39	952086.64	3.0	DEPTH NOT PROVEN	1.59	Thick Peat	3	1	3	9	Low
726	SLR	281059.33	952076.46	3.0	DEPTH NOT PROVEN	1.58	Thick Peat	3	1	3	9	Low
727	SLR	281206.74	952092.60	2.7	DEPTH NOT PROVEN	1.44	Thick Peat	3	1	3	9	Low
728	SLR	277987.85	952062.77	2.7	DEPTH NOT PROVEN	1.59	Thick Peat	3	1	3	9	Low
729	SLR	278536.81	952084.54	1.2	ROCK	6.20	Thin Peat	2	4	2	16	Medium
730	SLR	279901.30	952087.25	0.9	ROCK	7.13	Thin Peat	2	4	2	16	Medium
731	SLR	280006.93	952093.12	1.4	ROCK	3.93	Thin Peat	2	2	2	8	Low
732	SLR	280097.32	952100.56	1.1	ROCK	10.59	Thin Peat	2	6	2	24	Medium
733	SLR	278991.94	952110.76	0.3	GRANULAR	11.63	Peaty soil	1	6	1	6	Low
734	SLR	278995.91	952053.26	1.1	GRANULAR	7.30	Thin Peat	2	4	1	8	Low
735	SLR	278867.67	952075.23	0.6	GRANULAR	3.64	Thin Peat	2	2	1	4	Negligible
736	SLR	278831.93	952096.95	1.1	ROCK	3.83	Thin Peat	2	2	2	8	Low
737	SLR	278785.97	952109.32	0.8	GRANULAR	3.27	Thin Peat	2	2	1	4	Negligible
738	SLR	278744.11	952116.00	1.6	GRANULAR	4.05	Thick Peat	3	4	1	12	Low
739	SLR	278692.88	952115.54	1.6	GRANULAR	3.43	Thick Peat	3	2	1	6	Low
740	SLR	278651.89	952121.83	1.4	GRANULAR	3.11	Thin Peat	2	2	1	4	Negligible
741	SLR	278666.76	952121.18	1.7	ROCK	4.37	Thick Peat	3	4	2	24	Medium
742	SLR	280402.18	952091.25	0.6	ROCK	3.51	Thin Peat	2	2	2	8	Low
743	SLR	280371.80	952068.78	0.8	ROCK	3.03	Thin Peat	2	2	2	8	Low
744	SLR	280364.24	952060.47	0.5	ROCK	3.01	Peaty soil	1	2	2	4	Negligible
745	SLR	277889.61	952106.69	3.0	GRANULAR	2.21	Thick Peat	3	2	1	6	Low
746	SLR	277944.61	952099.96	3.0	GRANULAR	1.96	Thick Peat	3	1	1	3	Negligible

SSE Generation Ltd
Strathy South Wind Farm
Peat Landslide Hazard and Risk Assessment
Technical Appendix 10.1

Appendix A - Peat Slide Risk Data

SLR Ref: 428.00660.00070
April 2020

ID	Source	Easting	Northing	Peat Depth (m)	Substrate	Slope (Degrees)	Ground Condition Coefficient	Peat Coefficient	Slope Coefficient	Substrate Coefficient	Risk Coefficient	Potential Instability
747	SLR	277991.87	952101.09	2.7	ROCK	1.43	Thick Peat	3	1	2	6	Low
748	MOUCHEL	281073.00	952047.00	3.9	GRANULAR	1.57	Thick Peat	3	1	1	3	Negligible
749	MOUCHEL	281026.00	952052.00	2.2	GRANULAR	1.57	Thick Peat	3	1	1	3	Negligible
750	MOUCHEL	280281.00	952054.00	2.4	GRANULAR	2.18	Thick Peat	3	2	1	6	Low
751	MOUCHEL	280236.00	952067.00	2.0	GRANULAR	2.93	Thick Peat	3	2	1	6	Low
752	SLR	280964.41	952084.35	0.2	ROCK	1.49	Peaty soil	1	1	2	2	Negligible
753	SLR	278255.97	951983.13	0.9	GRANULAR	0.76	Thin Peat	2	1	1	2	Negligible
754	SLR	278283.47	952025.36	0.4	GRANULAR	1.75	Peaty soil	1	1	1	1	Negligible
755	SLR	278239.14	952037.14	0.4	ROCK	2.35	Peaty soil	1	2	2	4	Negligible
756	SLR	278197.03	952041.79	0.4	GRANULAR	2.29	Peaty soil	1	2	1	2	Negligible
757	SLR	278137.25	952026.19	0.9	GRANULAR	2.02	Thin Peat	2	2	1	4	Negligible
758	SLR	278150.80	951989.19	0.9	GRANULAR	2.74	Thin Peat	2	2	1	4	Negligible
759	SLR	279083.68	952010.25	0.7	GRANULAR	3.69	Thin Peat	2	2	1	4	Negligible
760	SLR	279126.67	952008.93	1.8	ROCK	3.76	Thick Peat	3	2	2	12	Low
761	SLR	280857.49	951996.43	0.2	GRANULAR	6.21	Peaty soil	1	4	1	4	Negligible
762	SLR	280860.89	952018.42	0.6	GRANULAR	5.39	Thin Peat	2	4	1	8	Low
763	SLR	280888.45	951989.92	0.5	GRANULAR	3.53	Peaty soil	1	2	1	2	Negligible
764	SLR	281004.84	952042.46	0.7	ROCK	1.48	Thin Peat	2	1	2	4	Negligible
765	SLR	280945.13	951980.58	0.8	ROCK	1.27	Thin Peat	2	1	2	4	Negligible
766	SLR	281176.91	951995.09	2.7	DEPTH NOT PROVEN	1.75	Thick Peat	3	1	3	9	Low
767	SLR	281196.80	952040.91	2.7	DEPTH NOT PROVEN	1.75	Thick Peat	3	1	3	9	Low
768	SLR	277861.66	951969.03	2.3	ROCK	1.26	Thick Peat	3	1	2	6	Low
769	SLR	277878.97	951996.34	2.8	ROCK	1.22	Thick Peat	3	1	2	6	Low
770	SLR	277924.17	952015.92	2.7	GRANULAR	1.13	Thick Peat	3	1	1	3	Negligible
771	SLR	277955.71	952024.97	2.6	DEPTH NOT PROVEN	1.68	Thick Peat	3	1	3	9	Low
772	SLR	278236.54	951975.38	0.9	GRANULAR	0.72	Thin Peat	2	1	1	2	Negligible
773	SLR	278519.52	952023.05	1.1	ROCK	9.63	Thin Peat	2	6	2	24	Medium
774	SLR	280159.56	952040.73	1.7	ROCK	1.12	Thick Peat	3	1	2	6	Low
775	SLR	278994.38	952010.04	0.5	GRANULAR	5.80	Peaty soil	1	4	1	4	Negligible
776	SLR	279021.32	952005.86	0.9	ROCK	5.10	Thin Peat	2	4	2	16	Medium
777	SLR	279055.78	952027.46	0.5	ROCK	5.00	Peaty soil	1	4	2	8	Low
778	SLR	278952.44	952026.56	0.8	GRANULAR	4.74	Thin Peat	2	4	1	8	Low
779	SLR	278904.72	952045.30	1.1	ROCK	3.97	Thin Peat	2	2	2	8	Low
780	SLR	280349.27	952013.39	0.5	GRANULAR	2.77	Peaty soil	1	2	1	2	Negligible
781	SLR	280388.92	951975.79	0.5	ROCK	3.20	Peaty soil	1	2	2	4	Negligible
782	MOUCHEL	281317.00	952017.00	3.3	GRANULAR	1.96	Thick Peat	3	1	1	3	Negligible
783	MOUCHEL	281268.00	952023.00	3.0	GRANULAR	1.64	Thick Peat	3	1	1	3	Negligible
784	MOUCHEL	281218.00	952034.00	3.2	GRANULAR	1.62	Thick Peat	3	1	1	3	Negligible
785	MOUCHEL	281169.00	952040.00	2.7	GRANULAR	1.75	Thick Peat	3	1	1	3	Negligible
786	MOUCHEL	281122.00	952044.00	3.1	GRANULAR	1.52	Thick Peat	3	1	1	3	Negligible
787	MOUCHEL	280988.00	952028.00	0.2	GRANULAR	1.49	Peaty soil	1	1	1	1	Negligible
788	MOUCHEL	280955.00	951994.00	0.5	GRANULAR	1.34	Peaty soil	1	1	1	1	Negligible
789	MOUCHEL	280902.00	952010.00	0.6	GRANULAR	1.77	Thin Peat	2	1	1	2	Negligible
790	MOUCHEL	280855.00	952024.00	0.3	GRANULAR	5.72	Peaty soil	1	4	1	4	Negligible
791	MOUCHEL	280817.00	952033.00	0.5	GRANULAR	4.91	Peaty soil	1	4	1	4	Negligible
792	MOUCHEL	280770.00	952027.00	1.2	GRANULAR	2.72	Thin Peat	2	2	1	4	Negligible
793	MOUCHEL	280721.00	952025.00	0.5	GRANULAR	3.45	Peaty soil	1	2	1	2	Negligible
794	MOUCHEL	280674.00	952019.00	0.5	GRANULAR	2.45	Peaty soil	1	2	1	2	Negligible
795	MOUCHEL	280622.00	952013.00	0.5	GRANULAR	3.15	Peaty soil	1	2	1	2	Negligible
796	MOUCHEL	280574.00	952013.00	1.0	GRANULAR	3.88	Thin Peat	2	2	1	4	Negligible
797	MOUCHEL	280526.00	952015.00	0.4	GRANULAR	2.35	Peaty soil	1	2	1	2	Negligible
798	MOUCHEL	280477.00	952013.00	0.4	GRANULAR	2.81	Peaty soil	1	2	1	2	Negligible
799	MOUCHEL	280430.00	952030.00	0.7	GRANULAR	4.44	Thin Peat	2	4	1	8	Low
800	MOUCHEL	280382.00	952045.00	0.4	GRANULAR	3.73	Peaty soil	1	2	1	2	Negligible
801	MOUCHEL	280326.00	952041.00	0.5	GRANULAR	2.35	Peaty soil	1	2	1	2	Negligible
802	SLR	280947.71	952031.51	0.3	ROCK	1.37	Peaty soil	1	1	2	2	Negligible
803	SLR	278313.41	951901.50	1.1	GRANULAR	0.99	Thin Peat	2	1	1	2	Negligible
804	SLR	278267.57	951920.75	1.2	GRANULAR	0.87	Thin Peat	2	1	1	2	Negligible
805	SLR	278218.00	951920.62	0.8	GRANULAR	1.27	Thin Peat	2	1	1	2	Negligible
806	SLR	278286.37	951955.64	1.6	ROCK	0.40	Thick Peat	3	1	2	6	Low
807	SLR	278169.04	951943.12	0.9	GRANULAR	1.29	Thin Peat	2	1	1	2	Negligible
808	SLR	280863.84	951894.48	0.0	ROCK	8.16	No Peat	0	6	2	0	None
809	SLR	280932.08	951890.73	0.5	ROCK	2.49	Peaty soil	1	2	2	4	Negligible
810	SLR	280972.08	951890.26	0.4	GRANULAR	1.53	Peaty soil	1	1	1	1	Negligible
811	SLR	281011.11	951889.82	2.1	ROCK	1.48	Thick Peat	3	1	2	6	Low
812	SLR	281043.34	951889.58	2.3	GRANULAR	1.54	Thick Peat	3	1	1	3	Negligible
813	SLR	280928.72	951905.13	0.1	ROCK	1.20	Peaty soil	1	1	2	2	Negligible
814	SLR	280922.68	951940.41	0.9	ROCK	8.31	Thin Peat	2	6	2	24	Medium
815	SLR	280903.73	951957.51	0.1	ROCK	5.08	Peaty soil	1	4	2	8	Low
816	SLR	280893.85	951962.46	0.5	GRANULAR	3.17	Peaty soil	1	2	1	2	Negligible
817	SLR	280824.53	951943.58	0.5	GRANULAR	12.01	Peaty soil	1	8	1	8	Low
818	SLR	280759.51	951893.01	0.4	GRANULAR	2.93	Peaty soil	1	2	1	2	Negligible
819	SLR	280934.94	951891.95	0.5	ROCK	1.66	Peaty soil	1	1	2	2	Negligible
820	SLR	280996.00	951889.16	1.8	GRANULAR	1.32	Thick Peat	3	1	1	3	Negligible
821	SLR	281141.19	951889.59	1.1	GRANULAR	1.18	Thin Peat	2	1	1	2	Negligible
822	SLR	281155.28	951949.69	2.7	DEPTH NOT PROVEN	3.35	Thick Peat	3	2	3	18	Medium
823	SLR	281182.98	951886.84	2.2	ROCK	1.51	Thick Peat	3	1	2	6	Low
824	SLR	281210.36	951887.68	2.0	ROCK	1.50	Thick Peat	3	1	2	6	Low
825	SLR	281260.06	951888.96	1.9	ROCK	1.49	Thick Peat	3	1	2	6	Low
826	SLR	281277.43	951890.29	2.1	GRANULAR	1.45	Thick Peat	3	1	1	3	Negligible
827	SLR	277813.24	951887.16	2.6	DEPTH NOT PROVEN	1.42	Thick Peat	3	1	3	9	Low
828	SLR	277826.06	951917.22	3.1	GRANULAR	1.18	Thick Peat	3	1	1	3	Negligible
829	SLR	277836.59	951930.26	3.2	GRANULAR	1.22	Thick Peat	3	1	1	3	Negligible

ID	Source	Easting	Northing	Peat Depth (m)	Substrate	Slope (Degrees)	Ground Condition Coefficient	Peat Coefficient	Slope Coefficient	Substrate Coefficient	Risk Coefficient	Potential Instability
830	SLR	277864.47	951965.60	1.8	ROCK	1.26	Thick Peat	3	1	2	6	Low
831	SLR	278122.05	951928.80	0.8	ROCK	1.27	Thin Peat	2	1	2	4	Negligible
832	SLR	278216.70	951957.24	2.1	ROCK	1.27	Thick Peat	3	1	2	6	Low
833	SLR	278187.60	951919.89	0.5	ROCK	1.55	Peaty soil	1	1	2	2	Negligible
834	SLR	278483.23	951887.79	1.2	ROCK	6.78	Thin Peat	2	4	2	16	Medium
835	SLR	280404.93	951938.90	0.3	GRANULAR	5.65	Peaty soil	1	4	1	4	Negligible
836	SLR	280392.04	951889.90	0.8	GRANULAR	5.72	Thin Peat	2	4	1	8	Low
837	SLR	280229.03	951943.72	0.3	GRANULAR	1.52	Peaty soil	1	1	1	1	Negligible
838	SLR	280227.54	951945.80	0.4	GRANULAR	2.05	Peaty soil	1	2	1	2	Negligible
839	SLR	280863.73	951895.11	0.3	ROCK	8.16	Peaty soil	1	6	2	12	Low
840	SLR	280865.54	951945.64	0.8	GRANULAR	4.85	Thin Peat	2	4	1	8	Low
841	SLR	278447.61	951832.90	0.7	GRANULAR	4.15	Thin Peat	2	4	1	8	Low
842	SLR	278399.98	951854.44	0.7	GRANULAR	0.41	Thin Peat	2	1	1	2	Negligible
843	SLR	278355.16	951881.64	1.2	GRANULAR	1.90	Thin Peat	2	1	1	2	Negligible
844	SLR	280776.82	951856.83	0.7	GRANULAR	9.54	Thin Peat	2	6	1	12	Low
845	SLR	280748.72	951867.90	0.6	ROCK	3.16	Thin Peat	2	2	2	8	Low
846	SLR	280698.84	951873.31	0.6	GRANULAR	2.64	Thin Peat	2	2	1	4	Negligible
847	SLR	280670.89	951870.08	0.4	GRANULAR	2.29	Peaty soil	1	2	1	2	Negligible
848	SLR	280803.51	951882.94	0.1	GRANULAR	4.70	Peaty soil	1	4	1	4	Negligible
849	SLR	280823.23	951868.60	0.3	GRANULAR	7.11	Peaty soil	1	4	1	4	Negligible
850	SLR	280847.26	951868.06	0.0	ROCK	9.72	No Peat	0	6	2	0	None
851	SLR	280871.53	951840.02	0.8	ROCK	5.56	Thin Peat	2	4	2	16	Medium
852	SLR	280917.70	951853.29	0.3	GRANULAR	1.57	Peaty soil	1	1	1	1	Negligible
853	SLR	281126.29	951882.98	1.9	GRANULAR	2.64	Thick Peat	3	2	1	6	Low
854	SLR	280782.21	951854.99	0.6	ROCK	1.99	Thin Peat	2	1	2	4	Negligible
855	SLR	280820.65	951847.88	0.6	ROCK	4.16	Thin Peat	2	4	2	16	Medium
856	SLR	280848.25	951852.62	0.0	ROCK	5.76	No Peat	0	4	2	0	None
857	SLR	280852.33	951871.25	0.0	ROCK	12.14	No Peat	0	8	2	0	None
858	SLR	281090.12	951884.64	2.5	ROCK	1.62	Thick Peat	3	1	2	6	Low
859	SLR	281159.97	951857.08	2.7	DEPTH NOT PROVEN	3.59	Thick Peat	3	2	3	18	Medium
860	SLR	281158.42	951857.31	2.7	ROCK	3.92	Thick Peat	3	2	2	12	Low
861	SLR	281159.09	951808.64	2.4	ROCK	2.23	Thick Peat	3	2	2	12	Low
862	SLR	277828.92	951840.06	3.0	ROCK	1.78	Thick Peat	3	1	2	6	Low
863	SLR	278167.89	951881.14	1.2	ROCK	1.68	Thin Peat	2	1	2	4	Negligible
864	SLR	278141.31	951840.37	1.3	GRANULAR	1.69	Thin Peat	2	1	1	2	Negligible
865	SLR	280380.89	951846.61	0.9	ROCK	1.47	Thin Peat	2	1	2	4	Negligible
866	SLR	280372.00	951820.32	0.8	ROCK	3.51	Thin Peat	2	2	2	8	Low
867	SLR	278491.64	951814.46	0.3	GRANULAR	3.59	Peaty soil	1	2	1	2	Negligible
868	SLR	278855.05	951814.91	1.4	GRANULAR	1.85	Thin Peat	2	1	1	2	Negligible
869	SLR	278881.72	951845.84	0.8	ROCK	2.94	Thin Peat	2	2	2	8	Low
870	SLR	280312.82	951862.42	1.2	GRANULAR	3.04	Thin Peat	2	2	1	4	Negligible
871	SLR	280876.77	951791.21	0.3	ROCK	4.37	Peaty soil	1	4	2	8	Low
872	SLR	280948.84	951727.75	0.4	ROCK	4.73	Peaty soil	1	4	2	8	Low
873	SLR	280890.11	951801.02	0.3	GRANULAR	1.69	Peaty soil	1	1	1	1	Negligible
874	SLR	278654.86	951742.74	0.6	GRANULAR	3.38	Thin Peat	2	2	1	4	Negligible
875	SLR	281152.58	951751.28	2.7	DEPTH NOT PROVEN	2.73	Thick Peat	3	2	3	18	Medium
876	SLR	281201.31	951797.89	0.4	ROCK	1.35	Peaty soil	1	1	2	2	Negligible
877	SLR	280372.24	951735.46	0.5	ROCK	1.87	Peaty soil	1	1	2	2	Negligible
878	SLR	280369.51	951773.61	0.4	ROCK	2.97	Peaty soil	1	2	2	4	Negligible
879	SLR	280349.31	951769.02	0.6	ROCK	1.47	Thin Peat	2	1	2	4	Negligible
880	SLR	280306.05	951755.30	0.3	ROCK	2.55	Peaty soil	1	2	2	4	Negligible
881	SLR	277931.56	951737.15	2.6	DEPTH NOT PROVEN	1.90	Thick Peat	3	1	3	9	Low
882	SLR	277921.81	951739.87	2.7	ROCK	1.86	Thick Peat	3	1	2	6	Low
883	SLR	277882.31	951750.38	2.5	ROCK	1.39	Thick Peat	3	1	2	6	Low
884	SLR	277850.81	951792.59	2.7	ROCK	1.75	Thick Peat	3	1	2	6	Low
885	SLR	278103.35	951797.35	1.0	ROCK	1.56	Thin Peat	2	1	2	4	Negligible
886	SLR	278074.71	951756.28	0.8	ROCK	1.56	Thin Peat	2	1	2	4	Negligible
887	SLR	278136.86	951766.23	1.4	ROCK	1.88	Thin Peat	2	1	2	4	Negligible
888	SLR	278181.23	951749.62	1.4	ROCK	1.03	Thin Peat	2	1	2	4	Negligible
889	SLR	278228.71	951726.24	1.8	ROCK	1.14	Thick Peat	3	1	2	6	Low
890	SLR	278463.04	951787.12	0.5	ROCK	9.24	Peaty soil	1	6	2	12	Low
891	SLR	280390.76	951780.76	0.8	ROCK	2.77	Thin Peat	2	2	2	8	Low
892	SLR	280421.11	951735.27	0.4	GRANULAR	2.92	Peaty soil	1	2	1	2	Negligible
893	SLR	280784.56	951755.95	0.4	GRANULAR	4.05	Peaty soil	1	4	1	4	Negligible
894	SLR	278535.90	951800.64	0.3	ROCK	4.99	Peaty soil	1	4	2	8	Low
895	SLR	278579.56	951795.39	0.6	ROCK	3.39	Thin Peat	2	2	2	8	Low
896	SLR	278620.48	951789.67	0.7	ROCK	4.10	Thin Peat	2	4	2	16	Medium
897	SLR	278670.95	951781.23	1.7	GRANULAR	3.75	Thick Peat	3	2	1	6	Low
898	SLR	278725.67	951768.40	2.2	GRANULAR	1.68	Thick Peat	3	1	1	3	Negligible
899	SLR	278772.60	951758.96	2.7	GRANULAR	1.30	Thick Peat	3	1	1	3	Negligible
900	SLR	278818.94	951764.96	3.0	ROCK	2.43	Thick Peat	3	2	2	12	Low
901	SLR	278822.19	951737.75	2.7	ROCK	2.89	Thick Peat	3	2	2	12	Low
902	SLR	279007.04	951726.10	0.7	ROCK	5.00	Thin Peat	2	4	2	16	Medium
903	SLR	278967.91	951735.85	0.9	GRANULAR	4.68	Thin Peat	2	4	1	8	Low
904	SLR	278931.02	951745.90	1.5	GRANULAR	3.87	Thin Peat	2	2	1	4	Negligible
905	SLR	278889.64	951755.53	2.0	ROCK	3.12	Thick Peat	3	2	2	12	Low
906	SLR	278833.72	951764.13	2.7	DEPTH NOT PROVEN	2.61	Thick Peat	3	2	3	18	Medium
907	SLR	280138.47	951650.31	1.7	GRANULAR	2.99	Thick Peat	3	2	1	6	Low
908	SLR	280879.22	951689.20	0.1	ROCK	7.12	Peaty soil	1	4	2	8	Low
909	SLR	280941.67	951677.46	0.4	ROCK	4.75	Peaty soil	1	4	2	8	Low
910	SLR	278660.73	951684.06	1.6	GRANULAR	2.64	Thick Peat	3	2	1	6	Low
911	SLR	278733.50	951665.84	2.5	GRANULAR	0.90	Thick Peat	3	1	1	3	Negligible
912	SLR	281130.22	951710.73	2.7	DEPTH NOT PROVEN	1.22	Thick Peat	3	1	3	9	Low

SSE Generation Ltd
Strathy South Wind Farm
Peat Landslide Hazard and Risk Assessment
Technical Appendix 10.1

Appendix A - Peat Slide Risk Data

SLR Ref: 428.00660.00070
April 2020

ID	Source	Easting	Northing	Peat Depth (m)	Substrate	Slope (Degrees)	Ground Condition Coefficient	Peat Coefficient	Slope Coefficient	Substrate Coefficient	Risk Coefficient	Potential Instability
913	SLR	281074.86	951705.91	2.7	DEPTH NOT PROVEN	0.49	Thick Peat	3	1	3	9	Low
914	SLR	281038.28	951668.21	2.7	DEPTH NOT PROVEN	0.34	Thick Peat	3	1	3	9	Low
915	SLR	280380.39	951683.59	0.5	ROCK	2.41	Peaty soil	1	2	2	4	Negligible
916	SLR	280281.96	951712.59	0.6	ROCK	1.40	Thin Peat	2	1	2	4	Negligible
917	SLR	280271.38	951662.77	0.5	GRANULAR	1.31	Peaty soil	1	1	1	1	Negligible
918	SLR	277909.86	951668.93	2.3	ROCK	1.91	Thick Peat	3	1	2	6	Low
919	SLR	277915.59	951712.21	2.0	ROCK	1.88	Thick Peat	3	1	2	6	Low
920	SLR	278034.87	951715.18	0.4	ROCK	2.73	Peaty soil	1	2	2	4	Negligible
921	SLR	278003.17	951682.00	0.7	ROCK	3.21	Thin Peat	2	2	2	8	Low
922	SLR	277970.61	951646.62	0.9	ROCK	1.61	Thin Peat	2	1	2	4	Negligible
923	SLR	278273.66	951699.96	1.4	ROCK	0.82	Thin Peat	2	1	2	4	Negligible
924	SLR	278313.68	951681.08	1.3	ROCK	1.20	Thin Peat	2	1	2	4	Negligible
925	SLR	278357.47	951657.99	1.6	ROCK	1.73	Thick Peat	3	1	2	6	Low
926	SLR	278418.99	951679.30	1.3	GRANULAR	11.90	Thin Peat	2	6	1	12	Low
927	SLR	280485.58	951665.15	0.4	ROCK	1.99	Peaty soil	1	1	2	2	Negligible
928	SLR	280799.52	951658.94	1.6	ROCK	3.34	Thick Peat	3	2	2	12	Low
929	SLR	280830.39	951668.40	0.7	ROCK	8.10	Thin Peat	2	6	2	24	Medium
930	SLR	280848.32	951668.97	0.0	ROCK	13.10	No Peat	0	8	2	0	None
931	SLR	280875.25	951686.72	0.0	ROCK	9.03	No Peat	0	6	2	0	None
932	SLR	280895.83	951713.57	0.0	ROCK	7.01	No Peat	0	4	2	0	None
933	SLR	280795.59	951680.23	1.1	ROCK	2.77	Thin Peat	2	2	2	8	Low
934	SLR	278825.38	951695.87	2.3	ROCK	2.67	Thick Peat	3	2	2	12	Low
935	SLR	278838.26	951652.58	3.0	ROCK	3.56	Thick Peat	3	2	2	12	Low
936	SLR	279081.33	951706.72	1.7	ROCK	8.51	Thick Peat	3	6	2	36	High
937	SLR	279041.15	951720.59	1.3	ROCK	4.50	Thin Peat	2	4	2	16	Medium
938	SLR	280256.95	951630.35	0.3	GRANULAR	1.26	Peaty soil	1	1	1	1	Negligible
939	SLR	280201.89	951616.25	0.3	GRANULAR	2.11	Peaty soil	1	2	1	2	Negligible
940	SLR	280166.86	951642.39	1.1	GRANULAR	2.98	Thin Peat	2	2	1	4	Negligible
941	SLR	280381.52	951621.53	0.2	GRANULAR	2.31	Peaty soil	1	2	1	2	Negligible
942	SLR	277876.85	951618.89	3.0	ROCK	1.26	Thick Peat	3	1	2	6	Low
943	SLR	277822.20	951627.84	3.0	ROCK	1.35	Thick Peat	3	1	2	6	Low
944	SLR	277791.69	951636.22	3.6	ROCK	2.50	Thick Peat	3	2	2	12	Low
945	SLR	277753.20	951641.69	2.5	ROCK	1.80	Thick Peat	3	1	2	6	Low
946	SLR	280902.11	951631.87	0.3	ROCK	4.05	Peaty soil	1	4	2	8	Low
947	SLR	281001.12	951621.43	2.7	DEPTH NOT PROVEN	0.46	Thick Peat	3	1	3	9	Low
948	SLR	281015.12	951572.54	2.7	DEPTH NOT PROVEN	0.36	Thick Peat	3	1	3	9	Low
949	SLR	280380.71	951639.75	0.4	GRANULAR	2.37	Peaty soil	1	2	1	2	Negligible
950	SLR	280374.51	951640.69	0.4	ROCK	2.41	Peaty soil	1	2	2	4	Negligible
951	SLR	280311.96	951607.69	0.6	GRANULAR	2.25	Thin Peat	2	2	1	4	Negligible
952	SLR	280247.68	951610.58	0.4	GRANULAR	1.31	Peaty soil	1	1	1	1	Negligible
953	SLR	280210.68	951604.28	0.6	ROCK	2.00	Thin Peat	2	2	2	8	Low
954	SLR	277954.88	951591.58	0.9	ROCK	1.52	Thin Peat	2	1	2	4	Negligible
955	SLR	277894.74	951611.65	2.6	ROCK	1.32	Thick Peat	3	1	2	6	Low
956	SLR	277913.83	951627.40	2.3	ROCK	1.34	Thick Peat	3	1	2	6	Low
957	SLR	277938.51	951625.89	1.3	ROCK	1.32	Thin Peat	2	1	2	4	Negligible
958	SLR	277935.02	951623.21	1.3	ROCK	1.32	Thin Peat	2	1	2	4	Negligible
959	SLR	278403.84	951636.50	1.6	ROCK	4.56	Thick Peat	3	4	2	24	Medium
960	SLR	278391.43	951585.08	1.3	ROCK	4.98	Thin Peat	2	4	2	16	Medium
961	SLR	277900.53	951619.46	3.0	ROCK	1.34	Thick Peat	3	1	2	6	Low
962	SLR	280560.36	951591.38	0.3	GRANULAR	1.85	Peaty soil	1	1	1	1	Negligible
963	SLR	280796.02	951581.98	1.5	GRANULAR	2.19	Thin Peat	2	2	1	4	Negligible
964	SLR	278888.19	951636.18	1.4	ROCK	2.55	Thin Peat	2	2	2	8	Low
965	SLR	278949.11	951625.38	1.5	ROCK	3.67	Thin Peat	2	2	2	8	Low
966	SLR	279056.40	951612.05	1.2	ROCK	6.11	Thin Peat	2	4	2	16	Medium
967	MOUCHEL	280389.00	951642.00	0.1	GRANULAR	2.35	Peaty soil	1	2	1	2	Negligible
968	SLR	280095.74	951545.96	2.0	GRANULAR	0.75	Thick Peat	3	1	1	3	Negligible
969	SLR	280382.16	951511.59	0.5	GRANULAR	2.46	Peaty soil	1	2	1	2	Negligible
970	SLR	280382.32	951564.69	0.2	GRANULAR	2.08	Peaty soil	1	2	1	2	Negligible
971	SLR	281036.51	951526.59	2.7	DEPTH NOT PROVEN	1.06	Thick Peat	3	1	3	9	Low
972	SLR	280210.00	951562.89	2.2	ROCK	1.75	Thick Peat	3	1	2	6	Low
973	SLR	280221.31	951509.07	2.6	GRANULAR	1.78	Thick Peat	3	1	1	3	Negligible
974	SLR	277977.22	951492.66	0.5	ROCK	4.00	Peaty soil	1	2	2	4	Negligible
975	SLR	277969.35	951543.41	0.7	ROCK	2.57	Thin Peat	2	2	2	8	Low
976	SLR	278360.98	951491.87	1.5	ROCK	1.72	Thin Peat	2	1	2	4	Negligible
977	SLR	280633.87	951527.13	0.6	ROCK	3.74	Thin Peat	2	2	2	8	Low
978	SLR	280824.21	951493.85	0.3	ROCK	1.99	Peaty soil	1	1	2	2	Negligible
979	SLR	280814.73	951518.65	0.2	GRANULAR	5.86	Peaty soil	1	4	1	4	Negligible
980	SLR	280592.62	951515.01	0.1	GRANULAR	0.44	Peaty soil	1	1	1	1	Negligible
981	SLR	280051.21	951436.84	2.7	GRANULAR	2.90	Thick Peat	3	2	1	6	Low
982	SLR	280387.18	951417.85	0.3	GRANULAR	2.46	Peaty soil	1	2	1	2	Negligible
983	SLR	280382.66	951467.38	1.7	GRANULAR	2.46	Thick Peat	3	2	1	6	Low
984	SLR	281036.41	951474.97	1.6	ROCK	2.06	Thick Peat	3	2	2	12	Low
985	SLR	281041.37	951429.88	2.3	ROCK	0.37	Thick Peat	3	1	2	6	Low
986	SLR	280235.96	951472.23	2.3	ROCK	1.84	Thick Peat	3	1	2	6	Low
987	SLR	280245.83	951422.35	1.8	GRANULAR	2.46	Thick Peat	3	2	1	6	Low
988	SLR	277977.67	951444.55	0.4	ROCK	2.63	Peaty soil	1	2	2	4	Negligible
989	SLR	278322.27	951465.04	1.2	ROCK	1.53	Thin Peat	2	1	2	4	Negligible
990	SLR	278287.17	951445.14	1.3	ROCK	0.97	Thin Peat	2	1	2	4	Negligible
991	SLR	280703.99	951447.37	0.8	ROCK	1.31	Thin Peat	2	1	2	4	Negligible
992	MOUCHEL	278598.00	951422.00	2.7	GRANULAR	1.97	Thick Peat	3	1	1	3	Negligible
993	MOUCHEL	278552.00	951439.00	2.4	GRANULAR	2.11	Thick Peat	3	2	1	6	Low
994	MOUCHEL	278505.00	951453.00	2.5	GRANULAR	3.56	Thick Peat	3	2	1	6	Low
995	MOUCHEL	278459.00	951471.00	1.7	GRANULAR	1.76	Thick Peat	3	1	1	3	Negligible

ID	Source	Easting	Northing	Peat Depth (m)	Substrate	Slope (Degrees)	Ground Condition Coefficient	Peat Coefficient	Slope Coefficient	Substrate Coefficient	Risk Coefficient	Potential Instability
996	MOUCHEL	278413.00	951479.00	2.3	GRANULAR	5.35	Thick Peat	3	4	1	12	Low
997	MOUCHEL	278244.00	951409.00	1.3	GRANULAR	1.10	Thin Peat	2	1	1	2	Negligible
998	MOUCHEL	278197.00	951432.00	1.0	GRANULAR	1.10	Thin Peat	2	1	1	2	Negligible
999	MOUCHEL	278152.00	951453.00	0.5	GRANULAR	1.34	Peaty soil	1	1	1	1	Negligible
1000	MOUCHEL	278105.00	951466.00	0.5	GRANULAR	2.32	Peaty soil	1	2	1	2	Negligible
1001	MOUCHEL	278054.00	951467.00	0.8	GRANULAR	2.31	Thin Peat	2	2	1	4	Negligible
1002	MOUCHEL	278003.00	951466.00	0.6	GRANULAR	3.86	Thin Peat	2	2	1	4	Negligible
1003	MOUCHEL	277955.00	951464.00	0.6	GRANULAR	3.17	Thin Peat	2	2	1	4	Negligible
1004	MOUCHEL	277906.00	951454.00	2.5	GRANULAR	1.14	Thick Peat	3	1	1	3	Negligible
1005	MOUCHEL	277857.00	951437.00	3.4	GRANULAR	1.41	Thick Peat	3	1	1	3	Negligible
1006	MOUCHEL	277812.00	951417.00	3.3	GRANULAR	1.28	Thick Peat	3	1	1	3	Negligible
1007	MOUCHEL	277762.00	951409.00	2.0	GRANULAR	5.65	Thick Peat	3	4	1	12	Low
1008	MOUCHEL	277666.00	951413.00	1.4	GRANULAR	1.71	Thin Peat	2	1	1	2	Negligible
1009	MOUCHEL	280707.00	951430.00	0.3	GRANULAR	1.79	Peaty soil	1	1	1	1	Negligible
1010	SLR	280541.02	951453.12	0.4	GRANULAR	3.47	Peaty soil	1	2	1	2	Negligible
1011	SLR	280346.23	951326.62	1.8	GRANULAR	2.51	Thick Peat	3	2	1	6	Low
1012	SLR	280376.06	951366.01	0.6	GRANULAR	2.50	Thin Peat	2	2	1	4	Negligible
1013	SLR	278261.25	951400.45	1.0	GRANULAR	1.04	Thin Peat	2	1	1	2	Negligible
1014	SLR	281020.62	951391.15	2.3	ROCK	2.57	Thick Peat	3	2	2	12	Low
1015	SLR	280986.54	951359.31	1.3	ROCK	2.12	Thin Peat	2	2	2	8	Low
1016	SLR	280264.17	951359.77	1.3	ROCK	2.46	Thin Peat	2	2	2	8	Low
1017	SLR	280653.67	951333.22	0.5	ROCK	1.50	Peaty soil	1	1	2	2	Negligible
1018	SLR	280681.66	951344.07	0.5	ROCK	2.78	Peaty soil	1	2	2	4	Negligible
1019	SLR	278098.82	951363.34	1.0	ROCK	1.85	Thin Peat	2	1	2	4	Negligible
1020	SLR	278050.74	951364.28	0.9	ROCK	2.62	Thin Peat	2	2	2	8	Low
1021	SLR	278004.00	951361.28	0.8	ROCK	1.76	Thin Peat	2	1	2	4	Negligible
1022	SLR	277982.78	951392.77	0.8	ROCK	2.32	Thin Peat	2	2	2	8	Low
1023	SLR	278348.11	951400.36	1.0	ROCK	0.71	Thin Peat	2	1	2	4	Negligible
1024	SLR	280740.38	951388.89	1.1	ROCK	3.00	Thin Peat	2	2	2	8	Low
1025	SLR	280879.69	951403.41	0.3	GRANULAR	3.11	Peaty soil	1	2	1	2	Negligible
1026	SLR	280897.99	951326.35	0.1	ROCK	1.41	Peaty soil	1	1	2	2	Negligible
1027	MOUCHEL	278948.00	951328.00	1.2	GRANULAR	4.49	Thin Peat	2	4	1	8	Low
1028	MOUCHEL	278897.00	951332.00	1.6	GRANULAR	2.96	Thick Peat	3	2	1	6	Low
1029	MOUCHEL	278843.00	951335.00	3.5	GRANULAR	1.99	Thick Peat	3	1	1	3	Negligible
1030	MOUCHEL	278795.00	951353.00	1.8	GRANULAR	2.63	Thick Peat	3	2	1	6	Low
1031	MOUCHEL	278747.00	951372.00	0.3	GRANULAR	1.90	Peaty soil	1	1	1	1	Negligible
1032	MOUCHEL	278706.00	951387.00	1.3	GRANULAR	1.90	Thin Peat	2	1	1	2	Negligible
1033	MOUCHEL	278650.00	951406.00	2.7	GRANULAR	1.81	Thick Peat	3	1	1	3	Negligible
1034	MOUCHEL	278331.00	951366.00	0.9	GRANULAR	1.37	Thin Peat	2	1	1	2	Negligible
1035	MOUCHEL	278286.00	951385.00	1.2	GRANULAR	1.54	Thin Peat	2	1	1	2	Negligible
1036	MOUCHEL	277716.00	951405.00	1.3	GRANULAR	4.13	Thin Peat	2	4	1	8	Low
1037	MOUCHEL	277620.00	951404.00	3.4	GRANULAR	2.09	Thick Peat	3	2	1	6	Low
1038	MOUCHEL	277569.00	951406.00	2.0	GRANULAR	2.34	Thick Peat	3	2	1	6	Low
1039	MOUCHEL	277519.00	951401.00	0.6	GRANULAR	2.27	Thin Peat	2	2	1	4	Negligible
1040	MOUCHEL	277470.00	951401.00	1.5	GRANULAR	2.25	Thin Peat	2	2	1	4	Negligible
1041	MOUCHEL	277422.00	951397.00	0.8	GRANULAR	3.77	Thin Peat	2	2	1	4	Negligible
1042	MOUCHEL	277372.00	951393.00	0.5	GRANULAR	4.67	Peaty soil	1	4	1	4	Negligible
1043	MOUCHEL	277324.00	951389.00	0.2	GRANULAR	2.15	Peaty soil	1	2	1	2	Negligible
1044	MOUCHEL	277277.00	951379.00	0.4	GRANULAR	0.65	Peaty soil	1	1	1	1	Negligible
1045	MOUCHEL	277228.00	951375.00	0.4	GRANULAR	3.31	Peaty soil	1	2	1	2	Negligible
1046	SLR	280562.21	951387.07	0.2	GRANULAR	2.14	Peaty soil	1	2	1	2	Negligible
1047	SLR	280325.11	951285.49	2.5	GRANULAR	2.37	Thick Peat	3	2	1	6	Low
1048	SLR	280974.11	951315.50	1.1	ROCK	2.67	Thin Peat	2	2	2	8	Low
1049	SLR	280270.94	951322.98	0.9	ROCK	2.48	Thin Peat	2	2	2	8	Low
1050	SLR	280266.42	951264.44	1.5	ROCK	2.42	Thin Peat	2	2	2	8	Low
1051	SLR	280742.98	951304.51	0.8	ROCK	2.33	Thin Peat	2	2	2	8	Low
1052	SLR	278110.64	951267.35	1.8	ROCK	0.93	Thick Peat	3	1	2	6	Low
1053	SLR	278108.12	951321.09	1.0	ROCK	1.35	Thin Peat	2	1	2	4	Negligible
1054	SLR	278337.38	951289.83	1.9	GRANULAR	2.40	Thick Peat	3	2	1	6	Low
1055	SLR	280947.23	951318.73	0.7	ROCK	0.26	Thin Peat	2	1	2	4	Negligible
1056	SLR	280980.35	951286.71	1.2	GRANULAR	2.80	Thin Peat	2	2	1	4	Negligible
1057	SLR	281011.50	951247.89	1.4	ROCK	4.01	Thin Peat	2	4	2	16	Medium
1058	SLR	278923.63	951247.92	0.9	GRANULAR	3.07	Thin Peat	2	2	1	4	Negligible
1059	SLR	278779.57	951288.73	0.9	GRANULAR	1.94	Thin Peat	2	1	1	2	Negligible
1060	MOUCHEL	279140.00	951301.00	2.2	GRANULAR	0.67	Thick Peat	3	1	1	3	Negligible
1061	MOUCHEL	279091.00	951308.00	2.7	GRANULAR	1.61	Thick Peat	3	1	1	3	Negligible
1062	MOUCHEL	279046.00	951317.00	2.0	GRANULAR	1.49	Thick Peat	3	1	1	3	Negligible
1063	MOUCHEL	278999.00	951323.00	1.7	GRANULAR	2.27	Thick Peat	3	2	1	6	Low
1064	SLR	280598.32	951264.40	0.2	GRANULAR	2.03	Peaty soil	1	2	1	2	Negligible
1065	SLR	280575.13	951321.15	0.3	GRANULAR	1.80	Peaty soil	1	1	1	1	Negligible
1066	SLR	280206.56	951243.24	0.5	GRANULAR	2.86	Peaty soil	1	2	1	2	Negligible
1067	SLR	280257.82	951234.80	0.4	GRANULAR	2.19	Peaty soil	1	2	1	2	Negligible
1068	SLR	280291.60	951192.92	0.7	GRANULAR	2.17	Thin Peat	2	2	1	4	Negligible
1069	SLR	280307.45	951239.97	0.9	GRANULAR	2.16	Thin Peat	2	2	1	4	Negligible
1070	SLR	278735.06	951174.82	0.5	GRANULAR	3.65	Peaty soil	1	2	1	2	Negligible
1071	SLR	280268.56	951226.12	0.6	ROCK	2.15	Thin Peat	2	2	2	8	Low
1072	SLR	280271.14	951205.25	0.6	GRANULAR	2.16	Thin Peat	2	2	1	4	Negligible
1073	SLR	280279.78	951175.64	0.4	GRANULAR	2.44	Peaty soil	1	2	1	2	Negligible
1074	SLR	280723.58	951207.98	1.2	ROCK	4.64	Thin Peat	2	4	2	16	Medium
1075	SLR	280777.05	951188.90	0.1	GRANULAR	1.03	Peaty soil	1	1	1	1	Negligible
1076	SLR	280801.20	951185.57	0.2	GRANULAR	4.25	Peaty soil	1	4	1	4	Negligible
1077	SLR	278051.94	951189.88	0.8	ROCK	2.18	Thin Peat	2	2	2	8	Low
1078	SLR	278086.09	951223.36	1.8	ROCK	0.85	Thick Peat	3	1	2	6	Low

SSE Generation Ltd
Strathy South Wind Farm
Peat Landslide Hazard and Risk Assessment
Technical Appendix 10.1

Appendix A - Peat Slide Risk Data

SLR Ref: 428.00660.00070
April 2020

ID	Source	Easting	Northing	Peat Depth (m)	Substrate	Slope (Degrees)	Ground Condition Coefficient	Peat Coefficient	Slope Coefficient	Substrate Coefficient	Risk Coefficient	Potential Instability
1079	SLR	278336.91	951177.50	0.6	GRANULAR	3.09	Thin Peat	2	2	1	4	Negligible
1080	SLR	278362.42	951214.78	0.5	ROCK	3.54	Peaty soil	1	2	2	4	Negligible
1081	SLR	278399.32	951214.56	0.7	ROCK	4.09	Thin Peat	2	4	2	16	Medium
1082	SLR	278445.74	951213.31	0.7	ROCK	4.15	Thin Peat	2	4	2	16	Medium
1083	SLR	278496.26	951209.33	0.3	ROCK	5.17	Peaty soil	1	4	2	8	Low
1084	SLR	278521.33	951185.71	1.1	ROCK	2.06	Thin Peat	2	2	2	8	Low
1085	SLR	281018.44	951203.85	1.4	ROCK	2.99	Thin Peat	2	2	2	8	Low
1086	SLR	280793.02	951188.60	0.1	ROCK	4.38	Peaty soil	1	4	2	8	Low
1087	SLR	281083.89	951204.10	0.9	ROCK	2.01	Thin Peat	2	2	2	8	Low
1088	SLR	278976.47	951189.84	0.3	ROCK	2.35	Peaty soil	1	2	2	4	Negligible
1089	SLR	278948.97	951213.90	0.8	GRANULAR	3.44	Thin Peat	2	2	1	4	Negligible
1090	SLR	280718.28	951176.24	1.8	GRANULAR	0.81	Thick Peat	3	1	1	3	Negligible
1091	SLR	280641.68	951188.29	1.5	GRANULAR	2.35	Thin Peat	2	2	1	4	Negligible
1092	SLR	278742.24	951107.75	1.1	GRANULAR	3.44	Thin Peat	2	2	1	4	Negligible
1093	SLR	280282.28	951120.23	0.7	GRANULAR	1.59	Thin Peat	2	1	1	2	Negligible
1094	SLR	280743.79	951097.44	0.6	ROCK	1.12	Thin Peat	2	1	2	4	Negligible
1095	SLR	278032.56	951099.12	0.3	ROCK	1.41	Peaty soil	1	1	2	2	Negligible
1096	SLR	278033.77	951156.83	0.5	ROCK	2.21	Peaty soil	1	2	2	4	Negligible
1097	SLR	281040.29	951144.14	0.6	ROCK	2.83	Thin Peat	2	2	2	8	Low
1098	SLR	281064.44	951111.66	0.6	GRANULAR	1.48	Thin Peat	2	1	1	2	Negligible
1099	SLR	280859.60	951162.07	0.1	ROCK	1.31	Peaty soil	1	1	2	2	Negligible
1100	SLR	280886.18	951145.66	1.0	ROCK	1.31	Thin Peat	2	1	2	4	Negligible
1101	SLR	279077.66	951098.14	4.0	ROCK	1.32	Thick Peat	3	1	2	6	Low
1102	SLR	279047.94	951116.88	4.0	ROCK	1.31	Thick Peat	3	1	2	6	Low
1103	SLR	279029.29	951137.14	0.9	ROCK	2.43	Thin Peat	2	2	2	8	Low
1104	SLR	278999.73	951164.05	0.3	ROCK	2.68	Peaty soil	1	2	2	4	Negligible
1105	SLR	279032.66	951114.01	1.7	GRANULAR	1.75	Thick Peat	3	1	1	3	Negligible
1106	SLR	278985.66	951093.18	1.6	GRANULAR	2.06	Thick Peat	3	2	1	6	Low
1107	MOUCHEL	279006.00	951106.00	1.3	GRANULAR	2.21	Thin Peat	2	2	1	4	Negligible
1108	MOUCHEL	279051.00	951125.00	2.0	GRANULAR	1.31	Thick Peat	3	1	1	3	Negligible
1109	MOUCHEL	281074.00	951142.00	1.5	GRANULAR	2.79	Thin Peat	2	2	1	4	Negligible
1110	SLR	280140.50	951018.90	0.2	ROCK	1.99	Peaty soil	1	1	2	2	Negligible
1111	SLR	280153.07	951051.02	0.6	GRANULAR	2.83	Thin Peat	2	2	1	4	Negligible
1112	SLR	278830.83	951011.80	0.8	ROCK	4.17	Thin Peat	2	4	2	16	Medium
1113	SLR	278786.35	951038.24	1.3	GRANULAR	7.54	Thin Peat	2	4	1	8	Low
1114	SLR	278750.69	951075.37	2.2	ROCK	3.18	Thick Peat	3	2	2	12	Low
1115	SLR	280282.22	951073.63	0.6	ROCK	1.61	Thin Peat	2	1	2	4	Negligible
1116	SLR	280275.39	951031.87	0.6	GRANULAR	1.60	Thin Peat	2	1	1	2	Negligible
1117	SLR	280739.41	951011.04	1.4	ROCK	9.16	Thin Peat	2	6	2	24	Medium
1118	SLR	278037.22	951045.50	0.6	ROCK	4.15	Thin Peat	2	4	2	16	Medium
1119	SLR	278005.33	951059.67	0.2	ROCK	2.04	Peaty soil	1	2	2	4	Negligible
1120	SLR	278333.20	951082.91	0.6	ROCK	2.55	Thin Peat	2	2	2	8	Low
1121	SLR	278336.41	951016.89	0.6	ROCK	3.31	Thin Peat	2	2	2	8	Low
1122	SLR	281051.82	951068.03	0.9	GRANULAR	2.21	Thin Peat	2	2	1	4	Negligible
1123	SLR	281035.81	951015.41	0.1	ROCK	4.08	Peaty soil	1	4	2	8	Low
1124	SLR	278993.70	951009.74	3.0	DEPTH NOT PROVEN	0.99	Thick Peat	3	1	3	9	Low
1125	SLR	279045.18	951030.44	4.0	ROCK	3.03	Thick Peat	3	2	2	12	Low
1126	SLR	279084.80	951045.55	4.0	ROCK	2.47	Thick Peat	3	2	2	12	Low
1127	SLR	279103.53	951081.37	4.0	ROCK	1.34	Thick Peat	3	1	2	6	Low
1128	SLR	278931.49	951061.05	2.0	ROCK	2.05	Thick Peat	3	2	2	12	Low
1129	SLR	278884.37	951039.48	2.1	GRANULAR	2.11	Thick Peat	3	2	1	6	Low
1130	SLR	278833.35	951008.38	0.8	ROCK	3.90	Thin Peat	2	2	2	8	Low
1131	SLR	278722.76	951013.28	0.3	ROCK	5.75	Peaty soil	1	4	2	8	Low
1132	SLR	278675.02	951009.56	0.4	ROCK	3.61	Peaty soil	1	2	2	4	Negligible
1133	SLR	278635.40	951013.38	1.0	ROCK	3.40	Thin Peat	2	2	2	8	Low
1134	SLR	278574.22	951006.55	1.2	GRANULAR	3.03	Thin Peat	2	2	1	4	Negligible
1135	MOUCHEL	280555.00	951027.00	1.8	GRANULAR	1.83	Thick Peat	3	1	1	3	Negligible
1136	MOUCHEL	280512.00	951050.00	2.3	GRANULAR	1.82	Thick Peat	3	1	1	3	Negligible
1137	MOUCHEL	280464.00	951057.00	2.8	GRANULAR	1.90	Thick Peat	3	1	1	3	Negligible
1138	MOUCHEL	280419.00	951036.00	1.9	GRANULAR	1.83	Thick Peat	3	1	1	3	Negligible
1139	MOUCHEL	280372.00	951024.00	0.7	GRANULAR	1.62	Thin Peat	2	1	1	2	Negligible
1140	MOUCHEL	280327.00	951010.00	0.4	GRANULAR	1.62	Peaty soil	1	1	1	1	Negligible
1141	MOUCHEL	278831.00	951014.00	1.0	GRANULAR	4.17	Thin Peat	2	4	1	8	Low
1142	MOUCHEL	278874.00	951034.00	1.5	GRANULAR	1.79	Thin Peat	2	1	1	2	Negligible
1143	MOUCHEL	278918.00	951056.00	2.0	GRANULAR	2.08	Thick Peat	3	2	1	6	Low
1144	MOUCHEL	278962.00	951080.00	1.7	GRANULAR	1.81	Thick Peat	3	1	1	3	Negligible
1145	SLR	278769.83	951013.48	0.0	ROCK	9.28	No Peat	0	6	2	0	None
1146	SLR	280105.26	950939.76	2.2	GRANULAR	1.99	Thick Peat	3	1	1	3	Negligible
1147	SLR	280119.73	950973.67	1.1	GRANULAR	2.01	Thin Peat	2	2	1	4	Negligible
1148	SLR	277978.41	950967.66	1.8	GRANULAR	1.06	Thick Peat	3	1	1	3	Negligible
1149	SLR	277914.95	950987.65	0.9	GRANULAR	1.22	Thin Peat	2	1	1	2	Negligible
1150	SLR	277864.80	951000.73	2.7	GRANULAR	1.30	Thick Peat	3	1	1	3	Negligible
1151	SLR	278725.09	951003.55	0.3	GRANULAR	11.34	Peaty soil	1	6	1	6	Low
1152	SLR	278723.71	950980.94	0.0	ROCK	3.35	No Peat	0	2	2	0	None
1153	SLR	278746.00	950980.44	0.5	ROCK	3.29	Peaty soil	1	2	2	4	Negligible
1154	SLR	278803.02	950978.68	0.0	ROCK	10.26	No Peat	0	6	2	0	None
1155	SLR	278825.85	950967.39	0.7	GRANULAR	2.33	Thin Peat	2	2	1	4	Negligible
1156	SLR	280253.93	950979.60	0.8	ROCK	4.62	Thin Peat	2	4	2	16	Medium
1157	SLR	280222.14	950927.28	0.4	ROCK	4.08	Peaty soil	1	4	2	8	Low
1158	SLR	278098.49	950926.61	1.0	ROCK	0.43	Thin Peat	2	1	2	4	Negligible
1159	SLR	278047.95	950945.63	0.6	ROCK	1.52	Thin Peat	2	1	2	4	Negligible
1160	SLR	278042.78	951001.69	1.1	ROCK	2.39	Thin Peat	2	2	2	8	Low
1161	SLR	278343.46	950977.31	0.0	ROCK	2.15	No Peat	0	2	2	0	None

ID	Source	Easting	Northing	Peat Depth (m)	Substrate	Slope (Degrees)	Ground Condition Coefficient	Peat Coefficient	Slope Coefficient	Substrate Coefficient	Risk Coefficient	Potential Instability
1162	SLR	281013.29	950973.20	1.2	ROCK	2.24	Thin Peat	2	2	2	8	Low
1163	SLR	280638.03	950972.91	1.5	ROCK	2.00	Thin Peat	2	1	2	4	Negligible
1164	SLR	280624.86	950981.66	1.4	ROCK	1.61	Thin Peat	2	1	2	4	Negligible
1165	SLR	278961.29	950947.23	3.0	DEPTH NOT PROVEN	1.09	Thick Peat	3	1	3	9	Low
1166	SLR	278958.17	950985.03	2.9	ROCK	1.47	Thick Peat	3	1	2	6	Low
1167	SLR	278765.82	951000.99	0.0	ROCK	3.00	No Peat	0	2	2	0	None
1168	SLR	278532.24	950996.89	0.4	GRANULAR	3.95	Peaty soil	1	2	1	2	Negligible
1169	SLR	278492.96	950977.13	1.9	ROCK	3.82	Thick Peat	3	2	2	12	Low
1170	SLR	278467.60	950941.52	1.6	ROCK	2.43	Thick Peat	3	2	2	12	Low
1171	MOUCHEL	281060.00	950948.00	1.2	GRANULAR	6.43	Thin Peat	2	4	1	8	Low
1172	MOUCHEL	281027.00	950983.00	1.7	GRANULAR	2.91	Thick Peat	3	2	1	6	Low
1173	MOUCHEL	280976.00	950994.00	0.7	GRANULAR	1.62	Thin Peat	2	1	1	2	Negligible
1174	MOUCHEL	280924.00	950998.00	1.3	GRANULAR	1.67	Thin Peat	2	1	1	2	Negligible
1175	MOUCHEL	280879.00	950980.00	1.3	GRANULAR	1.40	Thin Peat	2	1	1	2	Negligible
1176	MOUCHEL	280837.00	950956.00	1.3	GRANULAR	1.52	Thin Peat	2	1	1	2	Negligible
1177	MOUCHEL	280795.00	950929.00	0.4	GRANULAR	1.46	Peaty soil	1	1	1	1	Negligible
1178	MOUCHEL	280665.00	950952.00	1.2	GRANULAR	0.71	Thin Peat	2	1	1	2	Negligible
1179	MOUCHEL	280633.00	950978.00	1.2	GRANULAR	1.67	Thin Peat	2	1	1	2	Negligible
1180	MOUCHEL	280590.00	951006.00	1.0	GRANULAR	1.69	Thin Peat	2	1	1	2	Negligible
1181	MOUCHEL	280276.00	950996.00	1.2	GRANULAR	1.64	Thin Peat	2	1	1	2	Negligible
1182	MOUCHEL	280230.00	950989.00	0.6	GRANULAR	3.10	Thin Peat	2	2	1	4	Negligible
1183	MOUCHEL	280182.00	950975.00	0.5	GRANULAR	3.18	Peaty soil	1	2	1	2	Negligible
1184	MOUCHEL	280138.00	950958.00	1.3	GRANULAR	1.99	Thin Peat	2	1	1	2	Negligible
1185	MOUCHEL	280093.00	950934.00	2.0	GRANULAR	1.96	Thick Peat	3	1	1	3	Negligible
1186	MOUCHEL	280043.00	950934.00	1.7	GRANULAR	3.55	Thick Peat	3	2	1	6	Low
1187	MOUCHEL	278708.00	950935.00	2.0	GRANULAR	3.80	Thick Peat	3	2	1	6	Low
1188	MOUCHEL	278746.00	950967.00	1.7	GRANULAR	3.31	Thick Peat	3	2	1	6	Low
1189	MOUCHEL	278794.00	950987.00	0.5	GRANULAR	3.47	Peaty soil	1	2	1	2	Negligible
1190	SLR	280743.77	950866.08	2.0	ROCK	6.95	Thick Peat	3	4	2	24	Medium
1191	SLR	281023.21	950853.69	0.2	GRANULAR	2.05	Peaty soil	1	2	1	2	Negligible
1192	SLR	280008.94	950920.98	1.9	ROCK	1.85	Thick Peat	3	1	2	6	Low
1193	SLR	279987.84	950861.47	2.1	GRANULAR	3.31	Thick Peat	3	2	1	6	Low
1194	SLR	278214.01	950857.84	0.3	GRANULAR	0.22	Peaty soil	1	1	1	1	Negligible
1195	SLR	278168.73	950876.89	0.9	ROCK	0.23	Thin Peat	2	1	2	4	Negligible
1196	SLR	278083.46	950925.59	0.6	ROCK	1.46	Thin Peat	2	1	2	4	Negligible
1197	SLR	280211.51	950888.80	0.6	ROCK	3.43	Thin Peat	2	2	2	8	Low
1198	SLR	280745.13	950920.44	0.4	GRANULAR	8.56	Peaty soil	1	6	1	6	Low
1199	SLR	278413.70	950921.09	0.4	ROCK	5.65	Peaty soil	1	4	2	8	Low
1200	SLR	278313.38	950893.01	0.7	ROCK	5.73	Thin Peat	2	4	2	16	Medium
1201	SLR	278219.70	950855.80	0.6	ROCK	0.57	Thin Peat	2	1	2	4	Negligible
1202	SLR	278182.37	950886.49	1.1	ROCK	0.22	Thin Peat	2	1	2	4	Negligible
1203	SLR	278140.89	950905.60	1.5	ROCK	0.22	Thin Peat	2	1	2	4	Negligible
1204	SLR	281005.48	950921.26	1.3	ROCK	2.23	Thin Peat	2	2	2	8	Low
1205	SLR	280997.10	950869.71	0.2	ROCK	1.83	Peaty soil	1	1	2	2	Negligible
1206	SLR	280776.86	950846.13	1.0	ROCK	1.78	Thin Peat	2	1	2	4	Negligible
1207	SLR	278351.11	950894.25	0.5	ROCK	8.25	Peaty soil	1	6	2	12	Low
1208	SLR	278344.77	950846.91	0.8	ROCK	4.80	Thin Peat	2	4	2	16	Medium
1209	SLR	278937.73	950853.07	3.0	ROCK	1.05	Thick Peat	3	1	2	6	Low
1210	SLR	278962.50	950907.65	2.4	ROCK	0.99	Thick Peat	3	1	2	6	Low
1211	SLR	278445.05	950889.30	0.5	GRANULAR	2.93	Peaty soil	1	2	1	2	Negligible
1212	SLR	278415.68	950893.92	0.7	ROCK	4.94	Thin Peat	2	4	2	16	Medium
1213	SLR	278449.76	950871.69	0.7	GRANULAR	2.93	Thin Peat	2	2	1	4	Negligible
1214	SLR	278386.37	950897.43	0.5	GRANULAR	5.53	Peaty soil	1	4	1	4	Negligible
1215	SLR	278355.42	950916.96	0.0	GRANULAR	6.99	No Peat	0	4	1	0	None
1216	SLR	278808.46	950902.75	1.5	GRANULAR	1.85	Thin Peat	2	1	1	2	Negligible
1217	MOUCHEL	281096.00	950910.00	1.5	GRANULAR	4.29	Thin Peat	2	4	1	8	Low
1218	MOUCHEL	280747.00	950915.00	0.5	GRANULAR	10.57	Peaty soil	1	6	1	6	Low
1219	MOUCHEL	280706.00	950923.00	1.1	GRANULAR	3.00	Thin Peat	2	2	1	4	Negligible
1220	MOUCHEL	278633.00	950853.00	2.9	GRANULAR	4.75	Thick Peat	3	4	1	12	Low
1221	MOUCHEL	278662.00	950887.00	3.1	GRANULAR	4.11	Thick Peat	3	4	1	12	Low
1222	SLR	280712.27	950775.30	0.9	ROCK	5.19	Thin Peat	2	4	2	16	Medium
1223	SLR	280744.66	950812.01	1.0	GRANULAR	4.63	Thin Peat	2	4	1	8	Low
1224	SLR	280928.49	950775.05	0.3	GRANULAR	1.74	Peaty soil	1	1	1	1	Negligible
1225	SLR	280969.00	950774.93	0.6	GRANULAR	1.72	Thin Peat	2	1	1	2	Negligible
1226	SLR	280990.75	950820.69	0.9	GRANULAR	1.72	Thin Peat	2	1	1	2	Negligible
1227	SLR	281023.63	950832.51	0.9	GRANULAR	2.04	Thin Peat	2	2	1	4	Negligible
1228	SLR	279973.41	950816.41	1.8	GRANULAR	8.63	Thick Peat	3	6	1	18	Medium
1229	SLR	279960.71	950767.41	2.0	ROCK	3.10	Thick Peat	3	2	2	12	Low
1230	SLR	278259.24	950821.34	0.2	GRANULAR	6.28	Peaty soil	1	4	1	4	Negligible
1231	SLR	280218.04	950844.03	1.5	ROCK	3.55	Thin Peat	2	2	2	8	Low
1232	SLR	280208.50	950812.57	1.6	ROCK	3.61	Thick Peat	3	2	2	12	Low
1233	SLR	280188.28	950816.72	0.9	GRANULAR	2.98	Thin Peat	2	2	1	4	Negligible
1234	SLR	280203.49	950785.61	1.4	GRANULAR	4.85	Thin Peat	2	4	1	8	Low
1235	SLR	278272.56	950839.31	0.5	ROCK	5.55	Peaty soil	1	4	2	8	Low
1236	SLR	278257.78	950827.70	0.4	ROCK	5.49	Peaty soil	1	4	2	8	Low
1237	SLR	278255.66	950784.31	0.8	ROCK	4.50	Thin Peat	2	4	2	16	Medium
1238	SLR	280990.34	950816.81	1.0	ROCK	1.72	Thin Peat	2	1	2	4	Negligible
1239	SLR	280991.76	950767.37	0.9	ROCK	1.78	Thin Peat	2	1	2	4	Negligible
1240	SLR	280892.27	950794.72	0.4	ROCK	2.55	Peaty soil	1	2	2	4	Negligible
1241	SLR	280858.44	950819.14	0.4	ROCK	2.55	Peaty soil	1	2	2	4	Negligible
1242	SLR	280813.77	950836.47	0.6	ROCK	2.07	Thin Peat	2	2	2	8	Low
1243	SLR	280758.28	950811.79	0.6	ROCK	4.58	Thin Peat	2	4	2	16	Medium
1244	SLR	278345.67	950797.30	1.0	ROCK	4.46	Thin Peat	2	4	2	16	Medium

SSE Generation Ltd
Strathy South Wind Farm
Peat Landslide Hazard and Risk Assessment
Technical Appendix 10.1

Appendix A - Peat Slide Risk Data

SLR Ref: 428.00660.00070
April 2020

ID	Source	Easting	Northing	Peat Depth (m)	Substrate	Slope (Degrees)	Ground Condition Coefficient	Peat Coefficient	Slope Coefficient	Substrate Coefficient	Risk Coefficient	Potential Instability
1245	SLR	278967.07	950796.83	3.0	ROCK	1.89	Thick Peat	3	1	2	6	Low
1246	SLR	278969.63	950842.06	3.0	ROCK	1.78	Thick Peat	3	1	2	6	Low
1247	SLR	278476.42	950839.49	0.7	ROCK	3.77	Thin Peat	2	2	2	8	Low
1248	SLR	278497.89	950809.30	0.3	GRANULAR	3.87	Peaty soil	1	2	1	2	Negligible
1249	SLR	278512.24	950791.58	0.3	GRANULAR	3.82	Peaty soil	1	2	1	2	Negligible
1250	SLR	278495.05	950827.58	0.4	GRANULAR	3.85	Peaty soil	1	2	1	2	Negligible
1251	SLR	278775.63	950789.00	2.3	GRANULAR	3.21	Thick Peat	3	2	1	6	Low
1252	MOUCHEL	278573.00	950770.00	1.9	GRANULAR	2.86	Thick Peat	3	2	1	6	Low
1253	MOUCHEL	278604.00	950812.00	2.3	GRANULAR	4.75	Thick Peat	3	4	1	12	Low
1254	MOUCHEL	280200.00	950809.00	1.5	GRANULAR	3.53	Thin Peat	2	2	1	4	Negligible
1255	SLR	280590.43	950701.58	1.6	GRANULAR	2.79	Thick Peat	3	2	1	6	Low
1256	SLR	280656.42	950687.50	0.9	ROCK	2.12	Thin Peat	2	2	2	8	Low
1257	SLR	280696.37	950707.27	0.8	ROCK	6.50	Thin Peat	2	4	2	16	Medium
1258	SLR	279996.46	950735.68	2.0	GRANULAR	0.87	Thick Peat	3	1	1	3	Negligible
1259	SLR	280039.61	950723.03	2.7	GRANULAR	0.86	Thick Peat	3	1	1	3	Negligible
1260	SLR	280096.29	950713.31	2.7	GRANULAR	2.34	Thick Peat	3	2	1	6	Low
1261	SLR	280139.06	950713.86	0.9	ROCK	2.52	Thin Peat	2	2	2	8	Low
1262	SLR	278573.47	950695.91	1.7	GRANULAR	4.35	Thick Peat	3	4	1	12	Low
1263	SLR	280185.09	950744.21	1.3	GRANULAR	5.43	Thin Peat	2	4	1	8	Low
1264	SLR	280150.25	950719.83	1.0	GRANULAR	2.77	Thin Peat	2	2	1	4	Negligible
1265	SLR	278206.90	950713.40	0.8	ROCK	1.30	Thin Peat	2	1	2	4	Negligible
1266	SLR	280997.46	950720.96	0.4	ROCK	1.70	Peaty soil	1	1	2	2	Negligible
1267	SLR	280942.30	950707.22	0.4	ROCK	2.41	Peaty soil	1	2	2	4	Negligible
1268	SLR	280922.73	950755.35	0.1	ROCK	1.72	Peaty soil	1	1	2	2	Negligible
1269	SLR	280710.42	950720.58	0.4	ROCK	3.77	Peaty soil	1	2	2	4	Negligible
1270	SLR	278341.82	950751.56	0.9	ROCK	3.26	Thin Peat	2	2	2	8	Low
1271	SLR	278327.74	950687.19	0.5	GRANULAR	4.50	Peaty soil	1	4	1	4	Negligible
1272	SLR	279022.94	950723.06	2.3	GRANULAR	3.88	Thick Peat	3	2	1	6	Low
1273	SLR	278979.98	950754.28	3.0	ROCK	3.03	Thick Peat	3	2	2	12	Low
1274	SLR	278734.29	950731.05	2.7	ROCK	2.33	Thick Peat	3	2	2	12	Low
1275	MOUCHEL	278512.00	950687.00	1.7	GRANULAR	1.85	Thick Peat	3	1	1	3	Negligible
1276	MOUCHEL	278547.00	950725.00	0.6	GRANULAR	3.49	Thin Peat	2	2	1	4	Negligible
1277	SLR	280620.56	950670.95	0.2	GRANULAR	3.26	Peaty soil	1	2	1	2	Negligible
1278	SLR	278654.82	950655.70	2.1	GRANULAR	2.86	Thick Peat	3	2	1	6	Low
1279	SLR	278604.12	950663.58	2.0	GRANULAR	3.45	Thick Peat	3	2	1	6	Low
1280	SLR	280139.64	950675.22	0.4	GRANULAR	2.93	Peaty soil	1	2	1	2	Negligible
1281	SLR	280150.34	950620.67	0.5	GRANULAR	2.29	Peaty soil	1	2	1	2	Negligible
1282	SLR	278170.77	950660.49	0.4	ROCK	6.71	Peaty soil	1	4	2	8	Low
1283	SLR	281000.63	950671.47	0.4	ROCK	2.28	Peaty soil	1	2	2	4	Negligible
1284	SLR	280996.27	950617.57	0.4	ROCK	2.27	Peaty soil	1	2	2	4	Negligible
1285	SLR	281096.60	950630.68	0.6	ROCK	2.31	Thin Peat	2	2	2	8	Low
1286	SLR	280944.89	950606.32	0.6	ROCK	1.64	Thin Peat	2	1	2	4	Negligible
1287	SLR	280947.60	950653.96	0.7	ROCK	2.09	Thin Peat	2	2	2	8	Low
1288	SLR	280636.61	950618.84	0.6	ROCK	5.10	Thin Peat	2	4	2	16	Medium
1289	SLR	278318.95	950636.21	0.8	GRANULAR	4.73	Thin Peat	2	4	1	8	Low
1290	SLR	278983.88	950644.05	1.2	GRANULAR	6.72	Thin Peat	2	4	1	8	Low
1291	SLR	279004.99	950680.91	2.4	GRANULAR	3.65	Thick Peat	3	2	1	6	Low
1292	SLR	278681.94	950647.43	1.6	GRANULAR	3.17	Thick Peat	3	2	1	6	Low
1293	SLR	278701.96	950671.14	1.4	GRANULAR	2.74	Thin Peat	2	2	1	4	Negligible
1294	MOUCHEL	278438.00	950614.00	2.2	GRANULAR	1.83	Thick Peat	3	1	1	3	Negligible
1295	MOUCHEL	278474.00	950651.00	2.5	GRANULAR	1.09	Thick Peat	3	1	1	3	Negligible
1296	SLR	280025.72	950536.47	2.0	ROCK	2.99	Thick Peat	3	2	2	12	Low
1297	SLR	280170.22	950538.18	1.8	ROCK	1.89	Thick Peat	3	1	2	6	Low
1298	SLR	278655.08	950572.69	0.6	GRANULAR	3.47	Thin Peat	2	2	1	4	Negligible
1299	SLR	280140.58	950550.04	2.3	ROCK	1.88	Thick Peat	3	1	2	6	Low
1300	SLR	280525.02	950565.61	0.9	ROCK	1.25	Thin Peat	2	1	2	4	Negligible
1301	SLR	280983.49	950572.09	0.5	ROCK	1.87	Peaty soil	1	1	2	2	Negligible
1302	SLR	280974.28	950531.52	0.6	ROCK	1.93	Thin Peat	2	1	2	4	Negligible
1303	SLR	281049.43	950562.11	1.2	ROCK	2.89	Thin Peat	2	2	2	8	Low
1304	SLR	281080.87	950603.31	1.0	ROCK	2.10	Thin Peat	2	2	2	8	Low
1305	SLR	281130.63	950529.01	2.6	ROCK	1.94	Thick Peat	3	1	2	6	Low
1306	SLR	280951.23	950555.25	0.8	ROCK	1.71	Thin Peat	2	1	2	4	Negligible
1307	SLR	280276.53	950529.92	0.5	ROCK	2.52	Peaty soil	1	2	2	4	Negligible
1308	SLR	280136.66	950526.76	2.7	DEPTH NOT PROVEN	1.89	Thick Peat	3	1	3	9	Low
1309	SLR	278313.80	950589.57	2.3	ROCK	3.64	Thick Peat	3	2	2	12	Low
1310	SLR	278325.75	950560.23	2.9	ROCK	2.80	Thick Peat	3	2	2	12	Low
1311	SLR	278347.35	950546.75	2.8	ROCK	3.22	Thick Peat	3	2	2	12	Low
1312	SLR	278786.58	950544.30	2.5	GRANULAR	2.92	Thick Peat	3	2	1	6	Low
1313	SLR	278957.52	950537.90	3.0	GRANULAR	0.82	Thick Peat	3	1	1	3	Negligible
1314	SLR	278961.68	950587.54	3.2	GRANULAR	1.53	Thick Peat	3	1	1	3	Negligible
1315	SLR	278387.29	950575.22	2.3	ROCK	2.21	Thick Peat	3	2	2	12	Low
1316	SLR	278673.54	950596.44	0.7	ROCK	6.15	Thin Peat	2	4	2	16	Medium
1317	SLR	278729.39	950597.68	1.2	ROCK	2.17	Thin Peat	2	2	2	8	Low
1318	SLR	278789.79	950588.58	1.6	ROCK	2.58	Thick Peat	3	2	2	12	Low
1319	SLR	278840.46	950560.64	1.3	GRANULAR	0.19	Thin Peat	2	1	1	2	Negligible
1320	SLR	278909.77	950597.13	2.2	ROCK	1.94	Thick Peat	3	1	2	6	Low
1321	MOUCHEL	278351.00	950549.00	2.5	GRANULAR	3.31	Thick Peat	3	2	1	6	Low
1322	MOUCHEL	278393.00	950581.00	2.2	GRANULAR	2.23	Thick Peat	3	2	1	6	Low
1323	MOUCHEL	280487.00	950579.00	1.2	GRANULAR	1.74	Thin Peat	2	1	1	2	Negligible
1324	SLR	279956.34	950465.61	2.5	ROCK	5.05	Thick Peat	3	4	2	24	Medium
1325	SLR	280213.45	950524.79	0.4	GRANULAR	2.51	Peaty soil	1	2	1	2	Negligible
1326	SLR	280266.31	950523.92	0.5	ROCK	2.52	Peaty soil	1	2	2	4	Negligible
1327	SLR	280126.52	950504.05	2.7	GRANULAR	1.75	Thick Peat	3	1	1	3	Negligible

ID	Source	Easting	Northing	Peat Depth (m)	Substrate	Slope (Degrees)	Ground Condition Coefficient	Peat Coefficient	Slope Coefficient	Substrate Coefficient	Risk Coefficient	Potential Instability
1328	SLR	280155.09	950482.93	1.1	GRANULAR	1.89	Thin Peat	2	1	1	2	Negligible
1329	SLR	280156.60	950446.12	0.6	GRANULAR	1.72	Thin Peat	2	1	1	2	Negligible
1330	SLR	280561.85	950469.97	0.1	GRANULAR	4.95	Peaty soil	1	4	1	4	Negligible
1331	SLR	278661.87	950508.78	2.2	ROCK	3.31	Thick Peat	3	2	2	12	Low
1332	SLR	278616.41	950468.97	2.8	GRANULAR	1.87	Thick Peat	3	1	1	3	Negligible
1333	SLR	280569.65	950466.95	0.5	GRANULAR	5.47	Peaty soil	1	4	1	4	Negligible
1334	SLR	280977.49	950467.36	1.1	ROCK	4.15	Thin Peat	2	4	2	16	Medium
1335	SLR	280516.60	950458.72	0.4	ROCK	3.11	Peaty soil	1	2	2	4	Negligible
1336	SLR	280981.20	950486.93	0.6	ROCK	1.68	Thin Peat	2	1	2	4	Negligible
1337	SLR	280999.08	950501.62	0.7	GRANULAR	2.00	Thin Peat	2	2	1	4	Negligible
1338	SLR	281020.34	950521.58	0.4	ROCK	2.84	Peaty soil	1	2	2	4	Negligible
1339	SLR	280427.55	950506.00	1.8	ROCK	1.49	Thick Peat	3	1	2	6	Low
1340	SLR	280110.88	950483.17	2.7	DEPTH NOT PROVEN	1.73	Thick Peat	3	1	3	9	Low
1341	SLR	278323.31	950522.24	1.8	ROCK	3.00	Thick Peat	3	2	2	12	Low
1342	SLR	278287.35	950493.65	0.8	ROCK	2.79	Thin Peat	2	2	2	8	Low
1343	SLR	278253.72	950467.58	1.1	GRANULAR	3.88	Thin Peat	2	2	1	4	Negligible
1344	SLR	278798.57	950465.93	1.4	ROCK	2.36	Thin Peat	2	2	2	8	Low
1345	SLR	278822.52	950468.54	0.7	GRANULAR	2.49	Thin Peat	2	2	1	4	Negligible
1346	SLR	278859.76	950469.61	1.2	GRANULAR	2.84	Thin Peat	2	2	1	4	Negligible
1347	SLR	278903.52	950476.62	1.8	GRANULAR	4.44	Thick Peat	3	4	1	12	Low
1348	SLR	278937.70	950498.40	2.2	GRANULAR	3.02	Thick Peat	3	2	1	6	Low
1349	MOUCHEL	278133.00	950520.00	1.1	GRANULAR	1.47	Thin Peat	2	1	1	2	Negligible
1350	MOUCHEL	278183.00	950494.00	0.7	GRANULAR	3.23	Thin Peat	2	2	1	4	Negligible
1351	MOUCHEL	278227.00	950470.00	1.1	GRANULAR	1.51	Thin Peat	2	1	1	2	Negligible
1352	MOUCHEL	278272.00	950484.00	0.8	GRANULAR	5.90	Thin Peat	2	4	1	8	Low
1353	MOUCHEL	278312.00	950516.00	1.4	GRANULAR	2.75	Thin Peat	2	2	1	4	Negligible
1354	MOUCHEL	278808.00	950454.00	1.5	GRANULAR	2.50	Thin Peat	2	2	1	4	Negligible
1355	SLR	280197.23	950417.77	0.8	GRANULAR	1.69	Thin Peat	2	1	1	2	Negligible
1356	SLR	280240.28	950382.84	0.9	GRANULAR	2.14	Thin Peat	2	2	1	4	Negligible
1357	SLR	280643.83	950385.77	0.3	GRANULAR	4.55	Peaty soil	1	4	1	4	Negligible
1358	SLR	280756.51	950368.97	0.2	GRANULAR	2.14	Peaty soil	1	2	1	2	Negligible
1359	SLR	280791.57	950407.09	0.9	GRANULAR	2.26	Thin Peat	2	2	1	4	Negligible
1360	SLR	280837.01	950437.83	0.7	GRANULAR	2.06	Thin Peat	2	2	1	4	Negligible
1361	SLR	280865.98	950429.34	0.2	ROCK	3.14	Peaty soil	1	2	2	4	Negligible
1362	SLR	280902.03	950397.79	0.2	GRANULAR	2.66	Peaty soil	1	2	1	2	Negligible
1363	SLR	280586.83	950436.34	0.2	GRANULAR	6.25	Peaty soil	1	4	1	4	Negligible
1364	SLR	280614.50	950398.18	0.3	GRANULAR	4.66	Peaty soil	1	4	1	4	Negligible
1365	SLR	280600.73	950419.21	0.1	ROCK	5.16	Peaty soil	1	4	2	8	Low
1366	SLR	280638.81	950387.04	0.1	ROCK	4.60	Peaty soil	1	4	2	8	Low
1367	SLR	280938.76	950404.29	0.7	GRANULAR	2.44	Thin Peat	2	2	1	4	Negligible
1368	SLR	280960.94	950441.87	0.5	ROCK	4.46	Peaty soil	1	4	2	8	Low
1369	SLR	280447.04	950381.37	1.1	ROCK	1.14	Thin Peat	2	1	2	4	Negligible
1370	SLR	280092.78	950423.19	2.7	DEPTH NOT PROVEN	2.32	Thick Peat	3	2	3	18	Medium
1371	SLR	280071.20	950380.21	2.7	DEPTH NOT PROVEN	2.67	Thick Peat	3	2	3	18	Medium
1372	SLR	278218.24	950438.78	1.1	ROCK	2.97	Thin Peat	2	2	2	8	Low
1373	SLR	278167.32	950398.59	0.9	ROCK	1.30	Thin Peat	2	1	2	4	Negligible
1374	SLR	278188.37	950377.13	2.1	ROCK	2.41	Thick Peat	3	2	2	12	Low
1375	SLR	278363.73	950391.08	2.7	GRANULAR	1.58	Thick Peat	3	1	1	3	Negligible
1376	SLR	278441.52	950367.05	3.0	DEPTH NOT PROVEN	3.28	Thick Peat	3	2	3	18	Medium
1377	SLR	278447.53	950372.25	4.2	GRANULAR	2.12	Thick Peat	3	2	1	6	Low
1378	SLR	278476.22	950392.90	4.2	DEPTH NOT PROVEN	2.99	Thick Peat	3	2	3	18	Medium
1379	SLR	278513.38	950413.29	4.2	DEPTH NOT PROVEN	2.27	Thick Peat	3	2	3	18	Medium
1380	SLR	278554.65	950431.14	4.2	DEPTH NOT PROVEN	0.48	Thick Peat	3	1	3	9	Low
1381	SLR	278605.66	950426.78	4.3	DEPTH NOT PROVEN	2.36	Thick Peat	3	2	3	18	Medium
1382	SLR	278660.03	950405.41	1.4	GRANULAR	2.81	Thin Peat	2	2	1	4	Negligible
1383	SLR	278692.77	950392.89	1.4	ROCK	1.95	Thin Peat	2	1	2	4	Negligible
1384	SLR	278717.90	950411.79	0.6	ROCK	1.20	Thin Peat	2	1	2	4	Negligible
1385	SLR	278751.44	950418.44	1.6	ROCK	1.81	Thick Peat	3	1	2	6	Low
1386	MOUCHEL	280088.00	950404.00	3.0	GRANULAR	2.22	Thick Peat	3	2	1	6	Low
1387	SLR	280113.33	950302.23	1.5	GRANULAR	0.83	Thin Peat	2	1	1	2	Negligible
1388	SLR	280063.27	950337.56	3.0	ROCK	0.90	Thick Peat	3	1	2	6	Low
1389	SLR	280270.96	950353.87	1.1	ROCK	2.13	Thin Peat	2	2	2	8	Low
1390	SLR	280303.48	950321.31	1.3	GRANULAR	2.78	Thin Peat	2	2	1	4	Negligible
1391	SLR	280709.50	950344.59	0.5	ROCK	15.35	Peaty soil	1	8	2	16	Medium
1392	SLR	280936.82	950362.94	0.3	GRANULAR	4.88	Peaty soil	1	4	1	4	Negligible
1393	SLR	280995.08	950347.25	0.9	GRANULAR	5.99	Thin Peat	2	4	1	8	Low
1394	SLR	281036.29	950337.83	2.5	GRANULAR	1.14	Thick Peat	3	1	1	3	Negligible
1395	SLR	281066.42	950332.46	2.4	GRANULAR	1.14	Thick Peat	3	1	1	3	Negligible
1396	SLR	280636.38	950364.83	0.6	GRANULAR	4.63	Thin Peat	2	4	1	8	Low
1397	SLR	280660.19	950337.55	0.2	ROCK	4.65	Peaty soil	1	4	2	8	Low
1398	SLR	280692.08	950351.62	0.4	ROCK	5.35	Peaty soil	1	4	2	8	Low
1399	SLR	280737.82	950363.04	0.3	GRANULAR	5.33	Peaty soil	1	4	1	4	Negligible
1400	SLR	280757.55	950364.67	0.3	GRANULAR	2.20	Peaty soil	1	2	1	2	Negligible
1401	SLR	280725.53	950324.05	0.0	ROCK	6.42	No Peat	0	4	2	0	None
1402	SLR	280734.54	950312.64	0.2	ROCK	1.56	Peaty soil	1	1	2	2	Negligible
1403	SLR	280748.95	950306.26	0.2	ROCK	1.96	Peaty soil	1	1	2	2	Negligible
1404	SLR	280739.29	950286.31	0.4	ROCK	1.90	Peaty soil	1	1	2	2	Negligible
1405	SLR	278842.22	950295.98	1.7	ROCK	3.37	Thick Peat	3	2	2	12	Low
1406	SLR	278865.46	950303.99	1.3	GRANULAR	3.38	Thin Peat	2	2	1	4	Negligible
1407	SLR	280680.40	950351.79	0.6	ROCK	5.02	Thin Peat	2	4	2	16	Medium
1408	SLR	280707.46	950322.19	0.0	ROCK	7.68	No Peat	0	4	2	0	None
1409	SLR	280895.92	950311.82	1.1	GRANULAR	0.60	Thin Peat	2	1	1	2	Negligible
1410	SLR	280914.32	950359.54	0.6	ROCK	3.16	Thin Peat	2	2	2	8	Low

SSE Generation Ltd
Strathy South Wind Farm
Peat Landslide Hazard and Risk Assessment
Technical Appendix 10.1

Appendix A - Peat Slide Risk Data

SLR Ref: 428.00660.00070
April 2020

ID	Source	Easting	Northing	Peat Depth (m)	Substrate	Slope (Degrees)	Ground Condition Coefficient	Peat Coefficient	Slope Coefficient	Substrate Coefficient	Risk Coefficient	Potential Instability
1411	SLR	280384.88	950307.50	0.8	ROCK	2.53	Thin Peat	2	2	2	8	Low
1412	SLR	280056.36	950337.58	2.7	DEPTH NOT PROVEN	0.87	Thick Peat	3	1	3	9	Low
1413	SLR	280039.89	950292.78	2.7	DEPTH NOT PROVEN	0.87	Thick Peat	3	1	3	9	Low
1414	SLR	278228.53	950359.17	2.7	ROCK	0.99	Thick Peat	3	1	2	6	Low
1415	SLR	278278.44	950347.78	2.8	ROCK	3.14	Thick Peat	3	2	2	12	Low
1416	SLR	278320.47	950320.85	2.7	ROCK	2.45	Thick Peat	3	2	2	12	Low
1417	SLR	278371.19	950300.90	1.1	GRANULAR	2.69	Thin Peat	2	2	1	4	Negligible
1418	SLR	278416.53	950333.85	2.9	ROCK	7.56	Thick Peat	3	4	2	24	Medium
1419	SLR	278383.58	950345.45	2.9	GRANULAR	2.10	Thick Peat	3	2	1	6	Low
1420	MOUCHEL	278304.00	950319.00	1.7	GRANULAR	1.76	Thick Peat	3	1	1	3	Negligible
1421	SLR	280290.11	950228.13	1.8	ROCK	3.55	Thick Peat	3	2	2	12	Low
1422	SLR	280223.74	950233.50	1.8	GRANULAR	4.25	Thick Peat	3	4	1	12	Low
1423	SLR	280198.71	950255.99	1.8	GRANULAR	6.90	Thick Peat	3	4	1	12	Low
1424	SLR	280146.70	950272.06	1.6	ROCK	0.81	Thick Peat	3	1	2	6	Low
1425	SLR	280330.41	950265.52	0.9	GRANULAR	4.46	Thin Peat	2	4	1	8	Low
1426	SLR	280352.43	950211.19	0.6	GRANULAR	1.83	Thin Peat	2	1	1	2	Negligible
1427	SLR	280749.71	950257.40	0.3	GRANULAR	2.25	Peaty soil	1	2	1	2	Negligible
1428	SLR	280726.30	950240.47	0.2	GRANULAR	3.61	Peaty soil	1	2	1	2	Negligible
1429	SLR	280704.60	950253.94	0.3	ROCK	5.65	Peaty soil	1	4	2	8	Low
1430	SLR	280687.66	950279.90	0.2	GRANULAR	4.21	Peaty soil	1	4	1	4	Negligible
1431	SLR	280675.74	950285.09	0.3	GRANULAR	5.48	Peaty soil	1	4	1	4	Negligible
1432	SLR	278763.60	950264.05	0.3	GRANULAR	1.81	Peaty soil	1	1	1	1	Negligible
1433	SLR	278791.59	950274.70	0.3	GRANULAR	1.46	Peaty soil	1	1	1	1	Negligible
1434	SLR	278904.14	950269.74	1.9	GRANULAR	3.92	Thick Peat	3	2	1	6	Low
1435	SLR	278915.00	950223.91	1.9	GRANULAR	5.23	Thick Peat	3	4	1	12	Low
1436	SLR	278426.56	950258.14	0.2	GRANULAR	3.86	Peaty soil	1	2	1	2	Negligible
1437	SLR	280721.42	950281.65	0.4	ROCK	5.57	Peaty soil	1	4	2	8	Low
1438	SLR	280733.68	950226.69	0.0	ROCK	3.52	No Peat	0	2	2	0	None
1439	SLR	280854.23	950212.63	0.4	ROCK	2.06	Peaty soil	1	2	2	4	Negligible
1440	SLR	280879.91	950262.73	0.4	ROCK	1.02	Peaty soil	1	1	2	2	Negligible
1441	SLR	280324.63	950225.96	0.5	ROCK	10.07	Peaty soil	1	6	2	12	Low
1442	SLR	278690.94	950248.66	0.7	ROCK	1.95	Thin Peat	2	1	2	4	Negligible
1443	SLR	280027.95	950249.69	1.8	ROCK	0.61	Thick Peat	3	1	2	6	Low
1444	SLR	280377.66	950172.91	1.0	GRANULAR	3.48	Thin Peat	2	2	1	4	Negligible
1445	SLR	280401.52	950160.11	1.0	ROCK	1.78	Thin Peat	2	1	2	4	Negligible
1446	SLR	280431.07	950167.57	0.8	GRANULAR	1.76	Thin Peat	2	1	1	2	Negligible
1447	SLR	278932.32	950172.68	1.0	GRANULAR	4.40	Thin Peat	2	4	1	8	Low
1448	SLR	280742.20	950164.22	0.4	ROCK	3.54	Peaty soil	1	2	2	4	Negligible
1449	SLR	280751.12	950134.06	1.0	ROCK	3.48	Thin Peat	2	2	2	8	Low
1450	SLR	280778.44	950145.11	0.8	ROCK	3.10	Thin Peat	2	2	2	8	Low
1451	SLR	280814.88	950174.27	0.3	ROCK	3.02	Peaty soil	1	2	2	4	Negligible
1452	SLR	280263.67	950143.71	1.6	ROCK	4.58	Thick Peat	3	4	2	24	Medium
1453	SLR	278673.92	950202.39	1.1	ROCK	2.00	Thin Peat	2	2	2	8	Low
1454	SLR	278651.00	950160.58	2.5	ROCK	2.09	Thick Peat	3	2	2	12	Low
1455	SLR	280022.06	950200.11	2.3	ROCK	1.06	Thick Peat	3	1	2	6	Low
1456	SLR	280012.50	950174.41	2.5	ROCK	1.06	Thick Peat	3	1	2	6	Low
1457	SLR	280014.90	950150.94	2.5	ROCK	1.16	Thick Peat	3	1	2	6	Low
1458	SLR	277931.78	950134.30	0.0	GRANULAR	3.41	No Peat	0	2	1	0	None
1459	SLR	280020.51	950191.06	2.4	ROCK	1.06	Thick Peat	3	1	2	6	Low
1460	MOUCHEL	280010.00	950200.00	1.5	GRANULAR	0.78	Thin Peat	2	1	1	2	Negligible
1461	SLR	278935.26	950100.73	0.8	GRANULAR	2.03	Thin Peat	2	2	1	4	Negligible
1462	SLR	278995.79	950089.21	2.0	GRANULAR	2.61	Thick Peat	3	2	1	6	Low
1463	SLR	278843.05	950092.62	1.2	GRANULAR	1.46	Thin Peat	2	1	1	2	Negligible
1464	SLR	280751.75	950074.43	0.8	ROCK	2.72	Thin Peat	2	2	2	8	Low
1465	SLR	280204.87	950065.28	0.8	ROCK	8.95	Thin Peat	2	6	2	24	Medium
1466	SLR	280381.53	950053.95	2.8	DEPTH NOT PROVEN	2.33	Thick Peat	3	2	3	18	Medium
1467	SLR	280424.59	950054.12	2.8	ROCK	1.42	Thick Peat	3	1	2	6	Low
1468	SLR	280456.66	950070.60	1.5	ROCK	1.10	Thin Peat	2	1	2	4	Negligible
1469	SLR	280668.77	950049.47	1.3	ROCK	3.44	Thin Peat	2	2	2	8	Low
1470	SLR	280704.75	950085.89	0.5	ROCK	3.64	Peaty soil	1	2	2	4	Negligible
1471	SLR	280741.17	950114.12	1.1	GRANULAR	3.84	Thin Peat	2	2	1	4	Negligible
1472	SLR	278964.80	950047.82	0.1	ROCK	2.72	Peaty soil	1	2	2	4	Negligible
1473	SLR	278925.16	950082.66	0.7	ROCK	2.50	Thin Peat	2	2	2	8	Low
1474	SLR	278890.42	950087.07	1.2	ROCK	1.07	Thin Peat	2	1	2	4	Negligible
1475	SLR	278841.65	950101.02	1.3	ROCK	1.48	Thin Peat	2	1	2	4	Negligible
1476	SLR	278775.42	950114.02	1.8	ROCK	1.82	Thick Peat	3	1	2	6	Low
1477	SLR	278737.88	950122.24	2.4	ROCK	1.69	Thick Peat	3	1	2	6	Low
1478	SLR	278700.92	950117.81	2.2	ROCK	2.45	Thick Peat	3	2	2	12	Low
1479	SLR	278649.70	950106.02	2.4	ROCK	1.17	Thick Peat	3	1	2	6	Low
1480	SLR	278638.78	950111.93	2.0	ROCK	1.09	Thick Peat	3	1	2	6	Low
1481	SLR	278627.02	950059.19	1.2	ROCK	2.04	Thin Peat	2	2	2	8	Low
1482	SLR	280009.24	950096.52	2.4	ROCK	1.13	Thick Peat	3	1	2	6	Low
1483	SLR	280009.58	950053.43	1.0	ROCK	3.26	Thin Peat	2	2	2	8	Low
1484	SLR	280100.32	950048.61	1.0	ROCK	2.19	Thin Peat	2	2	2	8	Low
1485	SLR	277474.50	950076.48	0.0	GRANULAR	3.04	No Peat	0	2	1	0	None
1486	SLR	277626.97	950079.71	2.8	GRANULAR	2.39	Thick Peat	3	2	1	6	Low
1487	SLR	277637.41	950089.00	2.7	GRANULAR	2.41	Thick Peat	3	2	1	6	Low
1488	SLR	277643.21	950065.79	0.0	GRANULAR	2.39	No Peat	0	2	1	0	None
1489	SLR	277770.89	950092.47	1.7	ROCK	2.58	Thick Peat	3	2	2	12	Low
1490	MOUCHEL	279195.00	950116.00	0.4	GRANULAR	0.70	Peaty soil	1	1	1	1	Negligible
1491	MOUCHEL	279149.00	950087.00	1.6	GRANULAR	1.35	Thick Peat	3	1	1	3	Negligible
1492	MOUCHEL	279116.00	950064.00	2.5	GRANULAR	1.25	Thick Peat	3	1	1	3	Negligible
1493	MOUCHEL	278780.00	950113.00	1.7	GRANULAR	1.82	Thick Peat	3	1	1	3	Negligible

ID	Source	Easting	Northing	Peat Depth (m)	Substrate	Slope (Degrees)	Ground Condition Coefficient	Peat Coefficient	Slope Coefficient	Substrate Coefficient	Risk Coefficient	Potential Instability
1494	SLR	278326.86	949989.75	2.7	ROCK	1.37	Thick Peat	3	1	2	6	Low
1495	SLR	278347.22	950043.16	3.5	GRANULAR	1.10	Thick Peat	3	1	1	3	Negligible
1496	SLR	277455.55	950034.51	1.0	GRANULAR	2.50	Thin Peat	2	2	1	4	Negligible
1497	SLR	277397.66	950024.44	0.2	ROCK	7.47	Peaty soil	1	4	2	8	Low
1498	SLR	277404.15	949973.17	0.7	GRANULAR	4.18	Thin Peat	2	4	1	8	Low
1499	SLR	280764.11	950022.81	1.7	ROCK	1.42	Thick Peat	3	1	2	6	Low
1500	SLR	280773.68	949972.38	1.6	ROCK	1.43	Thick Peat	3	1	2	6	Low
1501	SLR	280157.94	949982.97	0.5	ROCK	2.72	Peaty soil	1	2	2	4	Negligible
1502	SLR	280190.83	949988.10	0.3	ROCK	3.88	Peaty soil	1	2	2	4	Negligible
1503	SLR	280384.61	950001.49	2.7	GRANULAR	2.05	Thick Peat	3	2	1	6	Low
1504	SLR	280396.85	950019.69	2.8	ROCK	1.55	Thick Peat	3	1	2	6	Low
1505	SLR	280488.74	950033.42	1.5	ROCK	1.08	Thin Peat	2	1	2	4	Negligible
1506	SLR	280518.99	949996.66	2.0	GRANULAR	2.66	Thick Peat	3	2	1	6	Low
1507	SLR	280597.85	949975.69	0.4	ROCK	2.45	Peaty soil	1	2	2	4	Negligible
1508	SLR	280634.25	950013.20	0.4	ROCK	4.02	Peaty soil	1	4	2	8	Low
1509	SLR	278610.95	950012.15	2.0	ROCK	2.12	Thick Peat	3	2	2	12	Low
1510	SLR	280004.21	950040.22	2.3	ROCK	2.88	Thick Peat	3	2	2	12	Low
1511	SLR	279982.19	950014.71	2.5	ROCK	3.60	Thick Peat	3	2	2	12	Low
1512	SLR	279960.61	950003.30	2.6	GRANULAR	2.04	Thick Peat	3	2	1	6	Low
1513	SLR	279927.49	950003.39	1.6	ROCK	1.80	Thick Peat	3	1	2	6	Low
1514	SLR	279876.50	949995.66	1.0	ROCK	1.92	Thin Peat	2	1	2	4	Negligible
1515	SLR	279822.39	950006.98	1.0	ROCK	1.49	Thin Peat	2	1	2	4	Negligible
1516	SLR	279793.68	949985.95	2.3	GRANULAR	2.07	Thick Peat	3	2	1	6	Low
1517	SLR	279766.06	949980.85	0.7	ROCK	5.26	Thin Peat	2	4	2	16	Medium
1518	SLR	279989.59	949985.89	2.5	ROCK	2.41	Thick Peat	3	2	2	12	Low
1519	SLR	280145.89	950031.99	0.7	ROCK	3.99	Thin Peat	2	2	2	8	Low
1520	SLR	280064.08	950042.10	1.5	GRANULAR	3.29	Thin Peat	2	2	1	4	Negligible
1521	SLR	278973.94	950005.95	0.3	ROCK	2.49	Peaty soil	1	2	2	4	Negligible
1522	SLR	279239.56	949982.54	2.6	ROCK	1.80	Thick Peat	3	1	2	6	Low
1523	SLR	279280.10	950011.37	1.8	ROCK	1.82	Thick Peat	3	1	2	6	Low
1524	SLR	279328.61	950033.65	1.9	ROCK	1.64	Thick Peat	3	1	2	6	Low
1525	SLR	279358.89	950042.37	2.6	ROCK	0.35	Thick Peat	3	1	2	6	Low
1526	SLR	279390.30	950008.91	2.6	ROCK	0.37	Thick Peat	3	1	2	6	Low
1527	SLR	279435.60	949970.94	2.2	ROCK	0.46	Thick Peat	3	1	2	6	Low
1528	SLR	277594.81	949970.19	0.9	GRANULAR	2.54	Thin Peat	2	2	1	4	Negligible
1529	SLR	277614.35	950009.50	0.7	GRANULAR	2.81	Thin Peat	2	2	1	4	Negligible
1530	SLR	277654.38	949990.61	1.0	GRANULAR	3.30	Thin Peat	2	2	1	4	Negligible
1531	SLR	277692.75	949968.06	1.6	GRANULAR	1.51	Thick Peat	3	1	1	3	Negligible
1532	SLR	277928.84	950003.60	1.8	ROCK	4.40	Thick Peat	3	4	2	24	Medium
1533	MOUCHEL	279080.00	950038.00	1.5	GRANULAR	2.18	Thin Peat	2	2	1	4	Negligible
1534	MOUCHEL	279042.00	950012.00	0.7	GRANULAR	2.21	Thin Peat	2	2	1	4	Negligible
1535	MOUCHEL	279003.00	949983.00	0.3	GRANULAR	1.90	Peaty soil	1	1	1	1	Negligible
1536	MOUCHEL	279219.00	950019.00	3.0	GRANULAR	2.51	Thick Peat	3	2	1	6	Low
1537	MOUCHEL	277678.00	949983.00	1.5	GRANULAR	3.06	Thin Peat	2	2	1	4	Negligible
1538	SLR	278261.17	949894.86	1.7	ROCK	1.24	Thick Peat	3	1	2	6	Low
1539	SLR	278294.72	949933.56	1.6	ROCK	1.40	Thick Peat	3	1	2	6	Low
1540	SLR	277391.31	949920.83	0.6	GRANULAR	4.61	Thin Peat	2	4	1	8	Low
1541	SLR	280540.22	949909.85	2.7	ROCK	1.39	Thick Peat	3	1	2	6	Low
1542	SLR	280609.16	949924.84	0.9	ROCK	4.00	Thin Peat	2	2	2	8	Low
1543	SLR	280663.29	949914.09	0.2	ROCK	4.20	Peaty soil	1	4	2	8	Low
1544	SLR	280713.16	949904.40	0.3	ROCK	3.32	Peaty soil	1	2	2	4	Negligible
1545	SLR	280762.05	949897.53	0.3	ROCK	3.38	Peaty soil	1	2	2	4	Negligible
1546	SLR	280786.74	949927.79	0.8	ROCK	1.93	Thin Peat	2	1	2	4	Negligible
1547	SLR	280359.13	949894.39	2.2	ROCK	2.88	Thick Peat	3	2	2	12	Low
1548	SLR	280330.92	949918.09	2.0	ROCK	4.80	Thick Peat	3	4	2	24	Medium
1549	SLR	280232.22	949962.32	0.5	GRANULAR	4.30	Peaty soil	1	4	1	4	Negligible
1550	SLR	280280.26	949940.43	1.2	ROCK	3.54	Thin Peat	2	2	2	8	Low
1551	SLR	280329.35	949920.92	2.2	ROCK	4.80	Thick Peat	3	4	2	24	Medium
1552	SLR	280353.50	949955.65	2.3	GRANULAR	2.42	Thick Peat	3	2	1	6	Low
1553	SLR	280553.35	949960.51	1.5	ROCK	2.91	Thin Peat	2	2	2	8	Low
1554	SLR	279491.40	949900.33	2.2	ROCK	1.13	Thick Peat	3	1	2	6	Low
1555	SLR	279481.44	949925.15	2.3	ROCK	1.13	Thick Peat	3	1	2	6	Low
1556	SLR	279454.46	949890.51	1.6	ROCK	1.11	Thick Peat	3	1	2	6	Low
1557	SLR	278771.35	949890.76	1.2	ROCK	2.02	Thin Peat	2	2	2	8	Low
1558	SLR	278918.73	949896.42	0.6	ROCK	2.08	Thin Peat	2	2	2	8	Low
1559	SLR	278958.07	949936.80	0.7	GRANULAR	1.67	Thin Peat	2	1	1	2	Negligible
1560	SLR	278592.65	949959.05	2.6	ROCK	2.19	Thick Peat	3	2	2	12	Low
1561	SLR	278582.13	949918.15	2.0	ROCK	1.83	Thick Peat	3	1	2	6	Low
1562	SLR	279797.22	949926.42	3.0	ROCK	2.91	Thick Peat	3	2	2	12	Low
1563	SLR	279968.09	949945.32	2.6	ROCK	1.03	Thick Peat	3	1	2	6	Low
1564	SLR	279948.74	949914.91	2.6	ROCK	0.69	Thick Peat	3	1	2	6	Low
1565	SLR	280118.45	949934.23	0.2	ROCK	1.14	Peaty soil	1	1	2	2	Negligible
1566	SLR	279002.19	949904.80	0.7	ROCK	2.01	Thin Peat	2	2	2	8	Low
1567	SLR	278997.46	949919.06	0.6	ROCK	2.03	Thin Peat	2	2	2	8	Low
1568	SLR	278990.97	949958.07	0.6	ROCK	2.03	Thin Peat	2	2	2	8	Low
1569	SLR	279056.15	949888.84	0.3	ROCK	2.07	Peaty soil	1	2	2	4	Negligible
1570	SLR	279112.48	949905.30	0.6	ROCK	2.07	Thin Peat	2	2	2	8	Low
1571	SLR	279145.60	949921.00	1.1	ROCK	1.49	Thin Peat	2	1	2	4	Negligible
1572	SLR	279170.22	949942.33	2.6	ROCK	1.58	Thick Peat	3	1	2	6	Low
1573	SLR	279164.18	949948.65	2.4	ROCK	1.51	Thick Peat	3	1	2	6	Low
1574	SLR	279200.58	949963.12	2.6	ROCK	1.82	Thick Peat	3	1	2	6	Low
1575	SLR	279207.87	949965.69	2.6	ROCK	1.83	Thick Peat	3	1	2	6	Low
1576	SLR	279465.20	949948.30	2.2	GRANULAR	0.79	Thick Peat	3	1	1	3	Negligible

SSE Generation Ltd
Strathy South Wind Farm
Peat Landslide Hazard and Risk Assessment
Technical Appendix 10.1

Appendix A - Peat Slide Risk Data

SLR Ref: 428.00660.00070
April 2020

ID	Source	Easting	Northing	Peat Depth (m)	Substrate	Slope (Degrees)	Ground Condition Coefficient	Peat Coefficient	Slope Coefficient	Substrate Coefficient	Risk Coefficient	Potential Instability
1577	SLR	279492.51	949920.91	2.6	ROCK	1.13	Thick Peat	3	1	2	6	Low
1578	SLR	279511.59	949939.26	2.6	ROCK	0.88	Thick Peat	3	1	2	6	Low
1579	SLR	279555.83	949911.17	2.3	ROCK	0.94	Thick Peat	3	1	2	6	Low
1580	SLR	279592.88	949931.01	2.0	GRANULAR	2.48	Thick Peat	3	2	1	6	Low
1581	SLR	279628.88	949945.50	1.8	ROCK	1.47	Thick Peat	3	1	2	6	Low
1582	SLR	279680.13	949933.16	2.1	ROCK	1.34	Thick Peat	3	1	2	6	Low
1583	SLR	279727.38	949926.89	1.9	GRANULAR	1.10	Thick Peat	3	1	1	3	Negligible
1584	SLR	277570.62	949900.75	0.8	GRANULAR	3.49	Thin Peat	2	2	1	4	Negligible
1585	SLR	277579.38	949929.74	0.8	GRANULAR	3.42	Thin Peat	2	2	1	4	Negligible
1586	SLR	277709.44	949962.90	1.6	ROCK	0.66	Thick Peat	3	1	2	6	Low
1587	SLR	277745.56	949962.14	3.0	GRANULAR	0.67	Thick Peat	3	1	1	3	Negligible
1588	SLR	277977.96	949929.28	1.1	GRANULAR	1.86	Thin Peat	2	1	1	2	Negligible
1589	MOUCHEL	278970.00	949950.00	0.5	GRANULAR	1.99	Peaty soil	1	1	1	1	Negligible
1590	MOUCHEL	278934.00	949918.00	0.6	GRANULAR	1.69	Thin Peat	2	1	1	2	Negligible
1591	MOUCHEL	279938.00	949918.00	3.0	GRANULAR	0.99	Thick Peat	3	1	1	3	Negligible
1592	MOUCHEL	279170.00	949940.00	2.5	GRANULAR	1.65	Thick Peat	3	1	1	3	Negligible
1593	SLR	278367.84	949815.97	0.9	GRANULAR	1.80	Thin Peat	2	1	1	2	Negligible
1594	SLR	278340.50	949867.33	1.0	GRANULAR	1.40	Thin Peat	2	1	1	2	Negligible
1595	SLR	277766.18	949848.41	2.6	GRANULAR	0.74	Thick Peat	3	1	1	3	Negligible
1596	SLR	277370.63	949864.10	0.6	ROCK	4.87	Thin Peat	2	4	2	16	Medium
1597	SLR	277372.09	949814.10	0.8	GRANULAR	4.13	Thin Peat	2	4	1	8	Low
1598	SLR	279731.03	949826.50	1.7	ROCK	15.15	Thick Peat	3	8	2	48	High
1599	SLR	280434.64	949811.50	3.3	GRANULAR	0.29	Thick Peat	3	1	1	3	Negligible
1600	SLR	280468.71	949845.92	2.9	ROCK	2.31	Thick Peat	3	2	2	12	Low
1601	SLR	280501.46	949878.54	2.5	ROCK	1.97	Thick Peat	3	1	2	6	Low
1602	SLR	280004.59	949845.61	0.5	ROCK	7.86	Peaty soil	1	4	2	8	Low
1603	SLR	280008.34	949812.07	0.9	GRANULAR	5.21	Thin Peat	2	4	1	8	Low
1604	SLR	280804.10	949880.10	0.6	ROCK	3.23	Thin Peat	2	2	2	8	Low
1605	SLR	280821.31	949830.93	0.8	ROCK	3.56	Thin Peat	2	2	2	8	Low
1606	SLR	280394.49	949808.08	2.3	ROCK	3.21	Thick Peat	3	2	2	12	Low
1607	SLR	280375.71	949859.71	2.3	ROCK	3.49	Thick Peat	3	2	2	12	Low
1608	SLR	279416.63	949854.53	1.2	ROCK	1.15	Thin Peat	2	1	2	4	Negligible
1609	SLR	279384.47	949825.81	0.6	ROCK	1.43	Thin Peat	2	1	2	4	Negligible
1610	SLR	278711.58	949829.29	1.4	ROCK	1.49	Thin Peat	2	1	2	4	Negligible
1611	SLR	278735.40	949874.97	1.1	ROCK	1.60	Thin Peat	2	1	2	4	Negligible
1612	SLR	278792.18	949855.39	1.6	GRANULAR	1.49	Thick Peat	3	1	1	3	Negligible
1613	SLR	278822.83	949813.22	1.9	ROCK	1.45	Thick Peat	3	1	2	6	Low
1614	SLR	278902.01	949844.02	0.4	GRANULAR	2.16	Peaty soil	1	2	1	2	Negligible
1615	SLR	278567.54	949868.84	1.1	ROCK	1.71	Thin Peat	2	1	2	4	Negligible
1616	SLR	278555.52	949817.22	0.8	ROCK	1.87	Thin Peat	2	1	2	4	Negligible
1617	SLR	278512.27	949820.41	0.7	ROCK	1.87	Thin Peat	2	1	2	4	Negligible
1618	SLR	278470.91	949837.66	1.5	ROCK	1.85	Thin Peat	2	1	2	4	Negligible
1619	SLR	278424.33	949853.22	1.9	ROCK	1.84	Thick Peat	3	1	2	6	Low
1620	SLR	278373.75	949858.69	0.7	ROCK	1.65	Thin Peat	2	1	2	4	Negligible
1621	SLR	278321.87	949863.45	1.1	ROCK	1.64	Thin Peat	2	1	2	4	Negligible
1622	SLR	278271.38	949859.63	1.8	ROCK	1.62	Thick Peat	3	1	2	6	Low
1623	SLR	278225.09	949856.05	1.0	ROCK	1.56	Thin Peat	2	1	2	4	Negligible
1624	SLR	278251.79	949840.37	1.4	ROCK	1.56	Thin Peat	2	1	2	4	Negligible
1625	SLR	278195.24	949857.91	0.8	ROCK	1.30	Thin Peat	2	1	2	4	Negligible
1626	SLR	278188.37	949824.88	1.2	ROCK	1.56	Thin Peat	2	1	2	4	Negligible
1627	SLR	278166.30	949864.01	1.7	ROCK	1.00	Thick Peat	3	1	2	6	Low
1628	SLR	278123.61	949866.63	2.3	ROCK	1.30	Thick Peat	3	1	2	6	Low
1629	SLR	278073.82	949860.01	0.8	ROCK	1.46	Thin Peat	2	1	2	4	Negligible
1630	SLR	278026.49	949851.27	0.7	ROCK	1.46	Thin Peat	2	1	2	4	Negligible
1631	SLR	279782.63	949882.67	2.3	ROCK	3.29	Thick Peat	3	2	2	12	Low
1632	SLR	279788.80	949826.40	1.2	ROCK	1.34	Thin Peat	2	1	2	4	Negligible
1633	SLR	279926.18	949874.75	2.6	ROCK	0.35	Thick Peat	3	1	2	6	Low
1634	SLR	279912.26	949821.14	2.6	ROCK	1.12	Thick Peat	3	1	2	6	Low
1635	SLR	280057.64	949815.57	0.4	ROCK	3.42	Peaty soil	1	2	2	4	Negligible
1636	SLR	279076.42	949828.80	0.8	ROCK	2.08	Thin Peat	2	2	2	8	Low
1637	SLR	279047.70	949861.06	0.4	ROCK	2.11	Peaty soil	1	2	2	4	Negligible
1638	SLR	277557.88	949829.65	1.2	GRANULAR	3.55	Thin Peat	2	2	1	4	Negligible
1639	SLR	277971.03	949881.78	2.2	GRANULAR	1.86	Thick Peat	3	1	1	3	Negligible
1640	SLR	277966.58	949832.70	2.3	ROCK	0.99	Thick Peat	3	1	2	6	Low
1641	SLR	277960.05	949813.78	2.3	GRANULAR	1.62	Thick Peat	3	1	1	3	Negligible
1642	MOUCHEL	278911.00	949874.00	0.5	GRANULAR	2.08	Peaty soil	1	2	1	2	Negligible
1643	MOUCHEL	278895.00	949825.00	0.4	GRANULAR	2.16	Peaty soil	1	2	1	2	Negligible
1644	MOUCHEL	278022.00	949844.00	0.8	GRANULAR	1.46	Thin Peat	2	1	1	2	Negligible
1645	MOUCHEL	279502.00	949817.00	2.0	GRANULAR	1.15	Thick Peat	3	1	1	3	Negligible
1646	SLR	279120.82	949730.13	0.4	GRANULAR	2.36	Peaty soil	1	2	1	2	Negligible
1647	SLR	278983.14	949732.51	0.5	GRANULAR	2.64	Peaty soil	1	2	1	2	Negligible
1648	SLR	278931.83	949740.22	0.2	GRANULAR	1.61	Peaty soil	1	1	1	1	Negligible
1649	SLR	278354.47	949764.95	3.8	GRANULAR	1.80	Thick Peat	3	1	1	3	Negligible
1650	SLR	278172.68	949755.55	0.4	GRANULAR	1.38	Peaty soil	1	1	1	1	Negligible
1651	SLR	277369.58	949761.81	0.7	ROCK	4.82	Thin Peat	2	4	2	16	Medium
1652	SLR	277404.76	949777.80	0.7	GRANULAR	3.67	Thin Peat	2	2	1	4	Negligible
1653	SLR	277443.21	949792.20	0.9	ROCK	3.67	Thin Peat	2	2	2	8	Low
1654	SLR	277479.68	949799.41	1.4	GRANULAR	3.22	Thin Peat	2	2	1	4	Negligible
1655	SLR	279716.69	949775.13	0.9	GRANULAR	5.93	Thin Peat	2	4	1	8	Low
1656	SLR	280407.73	949775.74	0.8	GRANULAR	2.36	Thin Peat	2	2	1	4	Negligible
1657	SLR	280837.16	949772.51	0.7	ROCK	4.36	Thin Peat	2	4	2	16	Medium
1658	SLR	280478.01	949735.53	3.6	ROCK	2.72	Thick Peat	3	2	2	12	Low
1659	SLR	280442.41	949743.85	3.4	ROCK	3.59	Thick Peat	3	2	2	12	Low

ID	Source	Easting	Northing	Peat Depth (m)	Substrate	Slope (Degrees)	Ground Condition Coefficient	Peat Coefficient	Slope Coefficient	Substrate Coefficient	Risk Coefficient	Potential Instability
1660	SLR	279974.10	949762.98	1.8	ROCK	5.05	Thick Peat	3	4	2	24	Medium
1661	SLR	279756.80	949745.49	1.5	GRANULAR	3.53	Thin Peat	2	2	1	4	Negligible
1662	SLR	280800.83	949785.31	0.3	ROCK	3.50	Peaty soil	1	2	2	4	Negligible
1663	SLR	280783.17	949739.61	1.8	ROCK	2.85	Thick Peat	3	2	2	12	Low
1664	SLR	280365.39	949744.90	1.7	ROCK	1.13	Thick Peat	3	1	2	6	Low
1665	SLR	280403.37	949773.45	1.9	ROCK	2.84	Thick Peat	3	2	2	12	Low
1666	SLR	279498.10	949757.14	1.8	ROCK	1.40	Thick Peat	3	1	2	6	Low
1667	SLR	279503.51	949803.21	2.0	ROCK	1.15	Thick Peat	3	1	2	6	Low
1668	SLR	279347.56	949787.95	1.1	GRANULAR	1.40	Thin Peat	2	1	1	2	Negligible
1669	SLR	279306.07	949747.26	0.9	GRANULAR	1.41	Thin Peat	2	1	1	2	Negligible
1670	SLR	278663.13	949743.14	2.4	ROCK	1.76	Thick Peat	3	1	2	6	Low
1671	SLR	278693.15	949800.33	1.8	GRANULAR	1.40	Thick Peat	3	1	1	3	Negligible
1672	SLR	278841.69	949793.14	0.5	ROCK	1.46	Peaty soil	1	1	2	2	Negligible
1673	SLR	278869.27	949764.81	0.5	GRANULAR	1.47	Peaty soil	1	1	1	1	Negligible
1674	SLR	278885.58	949797.92	0.6	GRANULAR	1.45	Thin Peat	2	1	1	2	Negligible
1675	SLR	278180.44	949795.42	1.1	ROCK	1.62	Thin Peat	2	1	2	4	Negligible
1676	SLR	278175.51	949777.75	0.0	GRANULAR	1.53	No Peat	0	1	1	0	None
1677	SLR	278037.59	949800.79	2.4	ROCK	1.62	Thick Peat	3	1	2	6	Low
1678	SLR	278056.81	949757.85	1.1	GRANULAR	1.80	Thin Peat	2	1	1	2	Negligible
1679	SLR	278533.70	949741.76	0.6	ROCK	1.85	Thin Peat	2	1	2	4	Negligible
1680	SLR	278541.28	949772.72	0.4	ROCK	1.85	Peaty soil	1	1	2	2	Negligible
1681	SLR	278601.30	949731.68	1.6	ROCK	1.60	Thick Peat	3	1	2	6	Low
1682	SLR	279903.04	949774.44	2.6	ROCK	1.10	Thick Peat	3	1	2	6	Low
1683	SLR	279898.17	949726.87	1.3	ROCK	2.09	Thin Peat	2	2	2	8	Low
1684	SLR	279976.72	949743.59	1.2	ROCK	1.79	Thin Peat	2	1	2	4	Negligible
1685	SLR	280683.77	949732.42	2.3	ROCK	2.79	Thick Peat	3	2	2	12	Low
1686	SLR	279152.65	949738.62	0.5	ROCK	2.35	Peaty soil	1	2	2	4	Negligible
1687	SLR	279168.39	949731.07	0.9	ROCK	2.15	Thin Peat	2	2	2	8	Low
1688	SLR	279154.61	949754.71	0.8	ROCK	2.38	Thin Peat	2	2	2	8	Low
1689	SLR	279114.96	949792.70	0.6	ROCK	2.15	Thin Peat	2	2	2	8	Low
1690	SLR	277552.51	949788.60	1.3	GRANULAR	3.58	Thin Peat	2	2	1	4	Negligible
1691	SLR	277924.29	949763.46	2.3	GRANULAR	2.11	Thick Peat	3	2	1	6	Low
1692	MOUCHEL	278878.00	949778.00	0.5	GRANULAR	1.47	Peaty soil	1	1	1	1	Negligible
1693	MOUCHEL	278904.00	949741.00	0.3	GRANULAR	1.65	Peaty soil	1	1	1	1	Negligible
1694	MOUCHEL	278067.00	949741.00	0.8	GRANULAR	1.80	Thin Peat	2	1	1	2	Negligible
1695	MOUCHEL	278046.00	949787.00	2.3	GRANULAR	1.80	Thick Peat	3	1	1	3	Negligible
1696	MOUCHEL	278347.00	949787.00	1.8	GRANULAR	1.81	Thick Peat	3	1	1	3	Negligible
1697	SLR	279077.43	949722.74	0.6	GRANULAR	2.62	Thin Peat	2	2	1	4	Negligible
1698	SLR	279033.14	949717.42	0.6	ROCK	2.66	Thin Peat	2	2	2	8	Low
1699	SLR	278321.64	949651.77	1.6	ROCK	1.84	Thick Peat	3	1	2	6	Low
1700	SLR	278336.64	949704.97	1.8	ROCK	1.66	Thick Peat	3	1	2	6	Low
1701	SLR	278159.40	949723.28	0.4	ROCK	1.65	Peaty soil	1	1	2	2	Negligible
1702	SLR	278147.48	949678.34	0.8	ROCK	1.70	Thin Peat	2	1	2	4	Negligible
1703	SLR	277824.26	949664.25	1.7	GRANULAR	2.53	Thick Peat	3	2	1	6	Low
1704	SLR	277790.26	949689.27	2.7	GRANULAR	0.41	Thick Peat	3	1	1	3	Negligible
1705	SLR	277373.17	949714.54	0.7	GRANULAR	4.50	Thin Peat	2	4	1	8	Low
1706	SLR	277372.03	949662.58	0.4	GRANULAR	5.09	Peaty soil	1	4	1	4	Negligible
1707	SLR	277474.82	949653.05	1.8	GRANULAR	2.91	Thick Peat	3	2	1	6	Low
1708	SLR	277523.28	949663.80	1.0	GRANULAR	2.87	Thin Peat	2	2	1	4	Negligible
1709	SLR	278715.02	949679.14	2.0	ROCK	1.44	Thick Peat	3	1	2	6	Low
1710	SLR	279469.98	949653.65	1.0	GRANULAR	1.49	Thin Peat	2	1	1	2	Negligible
1711	SLR	279527.21	949667.49	2.0	ROCK	1.51	Thick Peat	3	1	2	6	Low
1712	SLR	279581.33	949656.36	3.0	GRANULAR	2.40	Thick Peat	3	2	1	6	Low
1713	SLR	279665.06	949673.47	1.5	GRANULAR	8.84	Thin Peat	2	6	1	12	Low
1714	SLR	279693.92	949725.32	1.6	GRANULAR	2.05	Thick Peat	3	2	1	6	Low
1715	SLR	280403.02	949701.05	1.4	GRANULAR	1.63	Thin Peat	2	1	1	2	Negligible
1716	SLR	280854.93	949712.55	1.5	ROCK	2.28	Thin Peat	2	2	2	8	Low
1717	SLR	280868.62	949682.24	0.3	GRANULAR	3.64	Peaty soil	1	2	1	2	Negligible
1718	SLR	280842.36	949670.97	0.9	GRANULAR	3.83	Thin Peat	2	2	1	4	Negligible
1719	SLR	280806.47	949676.14	1.6	GRANULAR	3.64	Thick Peat	3	2	1	6	Low
1720	SLR	280638.73	949708.91	4.5	ROCK	1.73	Thick Peat	3	1	2	6	Low
1721	SLR	280588.34	949717.87	4.7	DEPTH NOT PROVEN	1.44	Thick Peat	3	1	3	9	Low
1722	SLR	280542.31	949725.77	4.7	ROCK	1.50	Thick Peat	3	1	2	6	Low
1723	SLR	279948.81	949716.40	1.1	GRANULAR	2.30	Thin Peat	2	2	1	4	Negligible
1724	SLR	279932.88	949676.78	0.8	GRANULAR	1.65	Thin Peat	2	1	1	2	Negligible
1725	SLR	279739.44	949691.06	1.8	ROCK	1.43	Thick Peat	3	1	2	6	Low
1726	SLR	279740.46	949695.49	2.1	ROCK	1.43	Thick Peat	3	1	2	6	Low
1727	SLR	279754.09	949720.69	2.7	GRANULAR	0.79	Thick Peat	3	1	1	3	Negligible
1728	SLR	280767.10	949694.79	2.6	ROCK	2.89	Thick Peat	3	2	2	12	Low
1729	SLR	280748.98	949646.88	2.0	ROCK	7.69	Thick Peat	3	4	2	24	Medium
1730	SLR	280228.22	949649.37	0.4	ROCK	1.22	Peaty soil	1	1	2	2	Negligible
1731	SLR	280270.43	949685.41	0.5	ROCK	1.24	Peaty soil	1	1	2	2	Negligible
1732	SLR	280316.10	949713.17	1.9	GRANULAR	1.22	Thick Peat	3	1	1	3	Negligible
1733	SLR	279480.05	949664.11	0.8	ROCK	1.52	Thin Peat	2	1	2	4	Negligible
1734	SLR	279488.47	949709.90	1.2	ROCK	1.49	Thin Peat	2	1	2	4	Negligible
1735	SLR	279268.83	949708.49	0.7	GRANULAR	1.60	Thin Peat	2	1	1	2	Negligible
1736	SLR	279238.20	949678.79	1.0	ROCK	1.60	Thin Peat	2	1	2	4	Negligible
1737	SLR	278610.03	949664.56	2.0	ROCK	1.81	Thick Peat	3	1	2	6	Low
1738	SLR	278678.00	949698.11	2.1	ROCK	1.48	Thick Peat	3	1	2	6	Low
1739	SLR	278656.38	949720.32	2.6	ROCK	1.58	Thick Peat	3	1	2	6	Low
1740	SLR	278077.94	949710.59	0.9	ROCK	1.80	Thin Peat	2	1	2	4	Negligible
1741	SLR	278100.94	949657.32	0.4	ROCK	1.70	Peaty soil	1	1	2	2	Negligible
1742	SLR	278510.41	949647.03	0.4	ROCK	2.04	Peaty soil	1	2	2	4	Negligible

SSE Generation Ltd
Strathy South Wind Farm
Peat Landslide Hazard and Risk Assessment
Technical Appendix 10.1

Appendix A - Peat Slide Risk Data

SLR Ref: 428.00660.00070
April 2020

ID	Source	Easting	Northing	Peat Depth (m)	Substrate	Slope (Degrees)	Ground Condition Coefficient	Peat Coefficient	Slope Coefficient	Substrate Coefficient	Risk Coefficient	Potential Instability
1743	SLR	278522.21	949694.76	0.7	ROCK	1.93	Thin Peat	2	1	2	4	Negligible
1744	SLR	278630.32	949712.40	2.0	ROCK	1.57	Thick Peat	3	1	2	6	Low
1745	SLR	278731.28	949663.04	1.9	ROCK	1.70	Thick Peat	3	1	2	6	Low
1746	SLR	279900.46	949664.59	1.6	ROCK	3.80	Thick Peat	3	2	2	12	Low
1747	SLR	279943.19	949666.44	0.2	GRANULAR	1.25	Peaty soil	1	1	1	1	Negligible
1748	SLR	280688.38	949717.24	2.4	ROCK	2.09	Thick Peat	3	2	2	12	Low
1749	SLR	280674.82	949710.41	2.6	ROCK	1.71	Thick Peat	3	1	2	6	Low
1750	SLR	279112.88	949665.19	1.0	ROCK	2.38	Thin Peat	2	2	2	8	Low
1751	SLR	279128.26	949702.79	0.4	ROCK	2.35	Peaty soil	1	2	2	4	Negligible
1752	SLR	279196.17	949712.39	1.0	ROCK	1.72	Thin Peat	2	1	2	4	Negligible
1753	SLR	277557.04	949715.29	1.3	GRANULAR	2.34	Thin Peat	2	2	1	4	Negligible
1754	SLR	277885.12	949725.68	1.9	ROCK	2.31	Thick Peat	3	2	2	12	Low
1755	SLR	277832.39	949700.21	1.9	ROCK	3.00	Thick Peat	3	2	2	12	Low
1756	SLR	277777.66	949682.05	3.0	ROCK	0.29	Thick Peat	3	1	2	6	Low
1757	MOUCHEL	279715.00	949652.00	0.6	GRANULAR	6.60	Thin Peat	2	4	1	8	Low
1758	MOUCHEL	278890.00	949681.00	0.4	GRANULAR	1.60	Peaty soil	1	1	1	1	Negligible
1759	MOUCHEL	278087.00	949695.00	0.9	GRANULAR	1.76	Thin Peat	2	1	1	2	Negligible
1760	MOUCHEL	280294.00	949702.00	0.9	GRANULAR	1.19	Thin Peat	2	1	1	2	Negligible
1761	MOUCHEL	280688.00	949702.00	3.0	GRANULAR	3.00	Thick Peat	3	2	1	6	Low
1762	MOUCHEL	278680.00	949690.00	1.9	GRANULAR	1.42	Thick Peat	3	1	1	3	Negligible
1763	SLR	278508.15	949608.85	0.9	GRANULAR	1.99	Thin Peat	2	1	1	2	Negligible
1764	SLR	278289.76	949588.32	1.9	GRANULAR	1.60	Thick Peat	3	1	1	3	Negligible
1765	SLR	278308.09	949626.56	1.8	ROCK	1.98	Thick Peat	3	1	2	6	Low
1766	SLR	278139.52	949638.48	0.6	GRANULAR	1.72	Thin Peat	2	1	1	2	Negligible
1767	SLR	278130.25	949587.89	0.6	GRANULAR	1.72	Thin Peat	2	1	1	2	Negligible
1768	SLR	277919.72	949588.49	1.9	GRANULAR	1.80	Thick Peat	3	1	1	3	Negligible
1769	SLR	277888.37	949614.16	1.9	GRANULAR	2.15	Thick Peat	3	2	1	6	Low
1770	SLR	277854.96	949645.84	1.0	GRANULAR	3.05	Thin Peat	2	2	1	4	Negligible
1771	SLR	277379.33	949618.53	0.5	GRANULAR	3.54	Peaty soil	1	2	1	2	Negligible
1772	SLR	277426.63	949632.46	1.5	GRANULAR	3.62	Thin Peat	2	2	1	4	Negligible
1773	SLR	277529.15	949617.75	1.5	GRANULAR	3.14	Thin Peat	2	2	1	4	Negligible
1774	SLR	277522.67	949572.45	0.9	ROCK	2.88	Thin Peat	2	2	2	8	Low
1775	SLR	278717.00	949632.84	1.7	ROCK	1.76	Thick Peat	3	1	2	6	Low
1776	SLR	278700.99	949587.47	1.8	GRANULAR	1.91	Thick Peat	3	1	1	3	Negligible
1777	SLR	278749.09	949637.05	1.2	ROCK	1.70	Thin Peat	2	1	2	4	Negligible
1778	SLR	278783.40	949602.94	1.7	ROCK	1.76	Thick Peat	3	1	2	6	Low
1779	SLR	278827.66	949568.89	1.1	GRANULAR	1.78	Thin Peat	2	1	1	2	Negligible
1780	SLR	279635.11	949640.60	1.8	GRANULAR	2.75	Thick Peat	3	2	1	6	Low
1781	SLR	280429.26	949615.76	2.5	GRANULAR	2.19	Thick Peat	3	2	1	6	Low
1782	SLR	280729.11	949598.83	1.0	ROCK	3.90	Thin Peat	2	2	2	8	Low
1783	SLR	280233.04	949606.15	0.6	ROCK	0.99	Thin Peat	2	1	2	4	Negligible
1784	SLR	279449.62	949568.12	1.2	ROCK	1.75	Thin Peat	2	1	2	4	Negligible
1785	SLR	279461.44	949613.25	1.4	ROCK	1.70	Thin Peat	2	1	2	4	Negligible
1786	SLR	278526.65	949567.43	1.1	ROCK	2.01	Thin Peat	2	2	2	8	Low
1787	SLR	278555.04	949600.34	0.8	ROCK	2.01	Thin Peat	2	2	2	8	Low
1788	SLR	278584.44	949631.00	2.0	ROCK	1.99	Thick Peat	3	1	2	6	Low
1789	SLR	278121.05	949614.91	0.1	ROCK	1.72	Peaty soil	1	1	2	2	Negligible
1790	SLR	278264.59	949568.31	2.4	ROCK	1.59	Thick Peat	3	1	2	6	Low
1791	SLR	278498.54	949594.29	1.4	GRANULAR	2.01	Thin Peat	2	2	1	4	Negligible
1792	SLR	278715.69	949612.27	1.9	ROCK	1.80	Thick Peat	3	1	2	6	Low
1793	SLR	279918.46	949631.92	0.9	ROCK	1.70	Thin Peat	2	1	2	4	Negligible
1794	SLR	279897.66	949576.47	2.0	ROCK	9.04	Thick Peat	3	6	2	36	High
1795	SLR	279209.23	949639.76	1.2	ROCK	1.65	Thin Peat	2	1	2	4	Negligible
1796	SLR	279170.68	949606.03	2.3	ROCK	1.50	Thick Peat	3	1	2	6	Low
1797	SLR	279106.18	949618.42	0.5	ROCK	2.35	Peaty soil	1	2	2	4	Negligible
1798	SLR	279090.38	949633.76	0.6	ROCK	2.35	Thin Peat	2	2	2	8	Low
1799	SLR	277541.48	949635.00	1.5	GRANULAR	2.85	Thin Peat	2	2	1	4	Negligible
1800	SLR	277764.15	949633.07	3.0	ROCK	0.60	Thick Peat	3	1	2	6	Low
1801	SLR	277756.69	949587.62	3.0	ROCK	0.53	Thick Peat	3	1	2	6	Low
1802	MOUCHEL	280250.00	949572.00	1.0	GRANULAR	1.93	Thin Peat	2	1	1	2	Negligible
1803	MOUCHEL	280201.00	949578.00	0.8	GRANULAR	4.18	Thin Peat	2	4	1	8	Low
1804	MOUCHEL	280143.00	949585.00	0.4	GRANULAR	4.91	Peaty soil	1	4	1	4	Negligible
1805	MOUCHEL	280119.00	949586.00	0.3	GRANULAR	5.07	Peaty soil	1	4	1	4	Negligible
1806	MOUCHEL	280064.00	949590.00	0.4	GRANULAR	3.33	Peaty soil	1	2	1	2	Negligible
1807	MOUCHEL	280017.00	949598.00	0.8	GRANULAR	3.69	Thin Peat	2	2	1	4	Negligible
1808	MOUCHEL	279965.00	949605.00	0.9	GRANULAR	2.59	Thin Peat	2	2	1	4	Negligible
1809	MOUCHEL	279917.00	949613.00	0.8	GRANULAR	10.58	Thin Peat	2	6	1	12	Low
1810	MOUCHEL	279869.00	949612.00	1.5	GRANULAR	1.29	Thin Peat	2	1	1	2	Negligible
1811	MOUCHEL	279814.00	949581.00	3.0	GRANULAR	0.70	Thick Peat	3	1	1	3	Negligible
1812	MOUCHEL	279776.00	949609.00	2.1	GRANULAR	0.89	Thick Peat	3	1	1	3	Negligible
1813	MOUCHEL	278892.00	949640.00	0.7	GRANULAR	1.82	Thin Peat	2	1	1	2	Negligible
1814	MOUCHEL	278887.00	949593.00	1.0	GRANULAR	1.74	Thin Peat	2	1	1	2	Negligible
1815	MOUCHEL	278131.00	949598.00	1.5	GRANULAR	1.72	Thin Peat	2	1	1	2	Negligible
1816	MOUCHEL	278105.00	949646.00	0.4	GRANULAR	1.68	Peaty soil	1	1	1	1	Negligible
1817	SLR	279106.79	949502.34	1.7	GRANULAR	2.02	Thick Peat	3	2	1	6	Low
1818	SLR	279127.24	949530.50	1.6	ROCK	1.93	Thick Peat	3	1	2	6	Low
1819	SLR	277952.34	949559.62	2.1	GRANULAR	1.74	Thick Peat	3	1	1	3	Negligible
1820	SLR	278869.88	949535.46	0.7	GRANULAR	1.78	Thin Peat	2	1	1	2	Negligible
1821	SLR	278906.96	949508.69	0.4	GRANULAR	1.76	Peaty soil	1	1	1	1	Negligible
1822	SLR	279313.67	949490.78	1.5	ROCK	1.57	Thin Peat	2	1	2	4	Negligible
1823	SLR	280424.98	949545.70	2.4	ROCK	1.45	Thick Peat	3	1	2	6	Low
1824	SLR	280434.19	949493.05	1.4	GRANULAR	3.82	Thin Peat	2	2	1	4	Negligible
1825	SLR	280714.65	949552.67	0.7	ROCK	4.07	Thin Peat	2	4	2	16	Medium

ID	Source	Easting	Northing	Peat Depth (m)	Substrate	Slope (Degrees)	Ground Condition Coefficient	Peat Coefficient	Slope Coefficient	Substrate Coefficient	Risk Coefficient	Potential Instability
1826	SLR	280692.49	949503.20	0.5	ROCK	4.60	Peaty soil	1	4	2	8	Low
1827	SLR	280244.27	949498.66	0.6	ROCK	8.53	Thin Peat	2	6	2	24	Medium
1828	SLR	280238.87	949548.40	0.5	ROCK	2.44	Peaty soil	1	2	2	4	Negligible
1829	SLR	279420.72	949521.65	1.9	ROCK	1.74	Thick Peat	3	1	2	6	Low
1830	SLR	278514.32	949493.53	0.8	ROCK	1.73	Thin Peat	2	1	2	4	Negligible
1831	SLR	278499.76	949535.95	2.2	ROCK	1.99	Thick Peat	3	1	2	6	Low
1832	SLR	278066.90	949559.03	2.5	ROCK	2.41	Thick Peat	3	2	2	12	Low
1833	SLR	278117.26	949558.77	0.7	ROCK	1.98	Thin Peat	2	1	2	4	Negligible
1834	SLR	278167.67	949559.80	2.2	ROCK	1.72	Thick Peat	3	1	2	6	Low
1835	SLR	278216.54	949555.50	1.4	ROCK	1.59	Thin Peat	2	1	2	4	Negligible
1836	SLR	278316.12	949561.69	2.2	ROCK	1.60	Thick Peat	3	1	2	6	Low
1837	SLR	278361.65	949553.23	1.5	ROCK	1.82	Thin Peat	2	1	2	4	Negligible
1838	SLR	278410.75	949540.56	0.6	ROCK	2.13	Thin Peat	2	2	2	8	Low
1839	SLR	278472.68	949526.76	0.7	ROCK	2.25	Thin Peat	2	2	2	8	Low
1840	SLR	278486.36	949553.26	0.4	ROCK	1.99	Peaty soil	1	1	2	2	Negligible
1841	SLR	278697.74	949558.05	1.7	ROCK	1.89	Thick Peat	3	1	2	6	Low
1842	SLR	279899.49	949496.20	0.2	GRANULAR	1.32	Peaty soil	1	1	1	1	Negligible
1843	SLR	279144.03	949560.06	2.1	ROCK	1.91	Thick Peat	3	1	2	6	Low
1844	SLR	279115.36	949562.43	0.6	ROCK	1.92	Thin Peat	2	1	2	4	Negligible
1845	SLR	278052.71	949500.42	0.4	GRANULAR	4.31	Peaty soil	1	4	1	4	Negligible
1846	SLR	278014.02	949541.18	2.4	ROCK	2.60	Thick Peat	3	2	2	12	Low
1847	SLR	277975.48	949536.06	0.3	ROCK	2.60	Peaty soil	1	2	2	4	Negligible
1848	SLR	277919.03	949509.78	0.6	GRANULAR	3.36	Thin Peat	2	2	1	4	Negligible
1849	SLR	277887.55	949503.33	0.4	ROCK	2.67	Peaty soil	1	2	2	4	Negligible
1850	SLR	277524.01	949543.44	0.8	GRANULAR	3.00	Thin Peat	2	2	1	4	Negligible
1851	SLR	277769.84	949537.45	3.0	ROCK	1.22	Thick Peat	3	1	2	6	Low
1852	MOUCHEL	280889.00	949499.00	1.2	GRANULAR	2.01	Thin Peat	2	2	1	4	Negligible
1853	MOUCHEL	280842.00	949504.00	0.7	GRANULAR	4.58	Thin Peat	2	4	1	8	Low
1854	MOUCHEL	280784.00	949513.00	0.4	GRANULAR	4.58	Peaty soil	1	4	1	4	Negligible
1855	MOUCHEL	280734.00	949519.00	0.6	GRANULAR	4.34	Thin Peat	2	4	1	8	Low
1856	MOUCHEL	280688.00	949525.00	0.8	GRANULAR	4.98	Thin Peat	2	4	1	8	Low
1857	MOUCHEL	280637.00	949530.00	1.5	GRANULAR	3.71	Thin Peat	2	2	1	4	Negligible
1858	MOUCHEL	280586.00	949536.00	0.4	GRANULAR	2.56	Peaty soil	1	2	1	2	Negligible
1859	MOUCHEL	280531.00	949543.00	1.5	GRANULAR	2.11	Thin Peat	2	2	1	4	Negligible
1860	MOUCHEL	280482.00	949546.00	0.4	GRANULAR	2.08	Peaty soil	1	2	1	2	Negligible
1861	MOUCHEL	280434.00	949552.00	1.5	GRANULAR	4.17	Thin Peat	2	4	1	8	Low
1862	MOUCHEL	280398.00	949559.00	2.5	GRANULAR	1.19	Thick Peat	3	1	1	3	Negligible
1863	MOUCHEL	280347.00	949562.00	2.6	GRANULAR	2.71	Thick Peat	3	2	1	6	Low
1864	MOUCHEL	280295.00	949566.00	2.0	GRANULAR	2.84	Thick Peat	3	2	1	6	Low
1865	MOUCHEL	278872.00	949550.00	1.2	GRANULAR	1.78	Thin Peat	2	1	1	2	Negligible
1866	MOUCHEL	278846.00	949510.00	0.4	GRANULAR	1.89	Peaty soil	1	1	1	1	Negligible
1867	MOUCHEL	278172.00	949524.00	3.0	GRANULAR	1.65	Thick Peat	3	1	1	3	Negligible
1868	MOUCHEL	278146.00	949557.00	1.9	GRANULAR	1.94	Thick Peat	3	1	1	3	Negligible
1869	MOUCHEL	277516.00	949557.00	1.4	GRANULAR	2.98	Thin Peat	2	2	1	4	Negligible
1870	MOUCHEL	277890.00	949507.00	0.2	GRANULAR	2.67	Peaty soil	1	2	1	2	Negligible
1871	SLR	279073.80	949449.88	0.9	ROCK	1.75	Thin Peat	2	1	2	4	Negligible
1872	SLR	277502.68	949409.67	1.7	ROCK	1.37	Thick Peat	3	1	2	6	Low
1873	SLR	278426.01	949416.61	1.0	GRANULAR	1.50	Thin Peat	2	1	1	2	Negligible
1874	SLR	278459.12	949472.96	1.0	GRANULAR	1.50	Thin Peat	2	1	1	2	Negligible
1875	SLR	278966.05	949475.49	0.9	GRANULAR	4.72	Thin Peat	2	4	1	8	Low
1876	SLR	279001.09	949461.78	0.5	GRANULAR	5.99	Peaty soil	1	4	1	4	Negligible
1877	SLR	279030.45	949450.10	0.7	GRANULAR	6.02	Thin Peat	2	4	1	8	Low
1878	SLR	279127.89	949431.32	1.7	ROCK	1.85	Thick Peat	3	1	2	6	Low
1879	SLR	279182.46	949422.02	2.7	ROCK	1.56	Thick Peat	3	1	2	6	Low
1880	SLR	279239.56	949419.15	1.6	ROCK	1.47	Thick Peat	3	1	2	6	Low
1881	SLR	279293.23	949412.12	0.9	GRANULAR	1.59	Thin Peat	2	1	1	2	Negligible
1882	SLR	279388.60	949449.85	2.0	ROCK	1.15	Thick Peat	3	1	2	6	Low
1883	SLR	279362.61	949479.06	1.7	GRANULAR	1.59	Thick Peat	3	1	1	3	Negligible
1884	SLR	280427.77	949468.00	1.8	GRANULAR	0.77	Thick Peat	3	1	1	3	Negligible
1885	SLR	280430.14	949424.10	2.6	ROCK	5.11	Thick Peat	3	4	2	24	Medium
1886	SLR	280675.22	949457.68	0.7	ROCK	4.55	Thin Peat	2	4	2	16	Medium
1887	SLR	280662.90	949427.23	0.3	ROCK	4.67	Peaty soil	1	4	2	8	Low
1888	SLR	280251.66	949437.53	0.6	ROCK	6.95	Thin Peat	2	4	2	16	Medium
1889	SLR	279416.30	949412.60	2.3	ROCK	2.18	Thick Peat	3	2	2	12	Low
1890	SLR	279452.27	949416.51	3.0	ROCK	2.16	Thick Peat	3	2	2	12	Low
1891	SLR	279396.78	949468.54	2.1	ROCK	2.26	Thick Peat	3	2	2	12	Low
1892	SLR	278543.43	949445.46	1.8	ROCK	1.36	Thick Peat	3	1	2	6	Low
1893	SLR	278669.54	949477.96	2.3	ROCK	1.17	Thick Peat	3	1	2	6	Low
1894	SLR	279898.36	949459.10	0.2	GRANULAR	3.65	Peaty soil	1	2	1	2	Negligible
1895	SLR	279910.55	949459.65	0.5	GRANULAR	4.86	Peaty soil	1	4	1	4	Negligible
1896	SLR	278056.20	949446.83	0.4	GRANULAR	0.79	Peaty soil	1	1	1	1	Negligible
1897	SLR	277848.02	949485.62	0.2	ROCK	2.96	Peaty soil	1	2	2	4	Negligible
1898	SLR	277808.34	949466.06	0.4	GRANULAR	2.97	Peaty soil	1	2	1	2	Negligible
1899	SLR	277762.83	949459.30	3.5	GRANULAR	1.88	Thick Peat	3	1	1	3	Negligible
1900	SLR	277730.22	949432.28	2.6	ROCK	1.57	Thick Peat	3	1	2	6	Low
1901	SLR	277538.34	949446.81	1.1	GRANULAR	2.98	Thin Peat	2	2	1	4	Negligible
1902	SLR	277791.04	949479.78	3.0	ROCK	2.96	Thick Peat	3	2	2	12	Low
1903	SLR	277846.42	949456.14	0.9	GRANULAR	3.00	Thin Peat	2	2	1	4	Negligible
1904	SLR	277895.01	949433.28	0.4	ROCK	3.49	Peaty soil	1	2	2	4	Negligible
1905	SLR	277943.76	949412.08	0.3	GRANULAR	3.51	Peaty soil	1	2	1	2	Negligible
1906	MOUCHEL	278836.00	949457.00	0.8	GRANULAR	2.38	Thin Peat	2	2	1	4	Negligible
1907	MOUCHEL	278840.00	949412.00	0.9	GRANULAR	1.11	Thin Peat	2	1	1	2	Negligible
1908	MOUCHEL	278164.00	949426.00	1.3	GRANULAR	1.45	Thin Peat	2	1	1	2	Negligible

SSE Generation Ltd
Strathy South Wind Farm
Peat Landslide Hazard and Risk Assessment
Technical Appendix 10.1

Appendix A - Peat Slide Risk Data

SLR Ref: 428.00660.00070
April 2020

ID	Source	Easting	Northing	Peat Depth (m)	Substrate	Slope (Degrees)	Ground Condition Coefficient	Peat Coefficient	Slope Coefficient	Substrate Coefficient	Risk Coefficient	Potential Instability
1909	MOUCHEL	278166.00	949475.00	1.2	GRANULAR	1.34	Thin Peat	2	1	1	2	Negligible
1910	MOUCHEL	279398.00	949418.00	1.9	GRANULAR	1.86	Thick Peat	3	1	1	3	Negligible
1911	SLR	279025.45	949360.76	0.7	GRANULAR	3.76	Thin Peat	2	2	1	4	Negligible
1912	SLR	279052.16	949405.43	1.0	GRANULAR	2.61	Thin Peat	2	2	1	4	Negligible
1913	SLR	277461.74	949377.89	1.8	GRANULAR	1.37	Thick Peat	3	1	1	3	Negligible
1914	SLR	277423.87	949357.16	2.0	GRANULAR	0.29	Thick Peat	3	1	1	3	Negligible
1915	SLR	277362.97	949335.11	1.8	GRANULAR	0.81	Thick Peat	3	1	1	3	Negligible
1916	SLR	277730.28	949371.74	2.5	ROCK	2.35	Thick Peat	3	2	2	12	Low
1917	SLR	278384.95	949352.70	1.0	GRANULAR	1.85	Thin Peat	2	1	1	2	Negligible
1918	SLR	279341.46	949402.65	0.7	GRANULAR	1.38	Thin Peat	2	1	1	2	Negligible
1919	SLR	279372.85	949393.70	0.9	GRANULAR	1.34	Thin Peat	2	1	1	2	Negligible
1920	SLR	280430.28	949374.52	1.8	ROCK	2.63	Thick Peat	3	2	2	12	Low
1921	SLR	280646.60	949384.83	0.9	GRANULAR	4.27	Thin Peat	2	4	1	8	Low
1922	SLR	280631.87	949348.88	0.4	ROCK	4.31	Peaty soil	1	4	2	8	Low
1923	SLR	280608.19	949326.39	1.1	ROCK	3.93	Thin Peat	2	2	2	8	Low
1924	SLR	280562.61	949330.01	2.1	ROCK	2.51	Thick Peat	3	2	2	12	Low
1925	SLR	280510.79	949340.13	2.6	DEPTH NOT PROVEN	1.78	Thick Peat	3	1	3	9	Low
1926	SLR	280456.09	949345.14	2.8	ROCK	1.90	Thick Peat	3	1	2	6	Low
1927	SLR	280415.36	949342.11	1.8	ROCK	2.12	Thick Peat	3	2	2	12	Low
1928	SLR	280362.30	949346.51	1.2	ROCK	1.75	Thin Peat	2	1	2	4	Negligible
1929	SLR	280311.85	949350.28	0.4	ROCK	3.02	Peaty soil	1	2	2	4	Negligible
1930	SLR	280261.44	949355.53	0.5	ROCK	3.56	Peaty soil	1	2	2	4	Negligible
1931	SLR	280226.09	949356.05	0.1	ROCK	3.24	Peaty soil	1	2	2	4	Negligible
1932	SLR	280182.05	949362.59	0.3	ROCK	3.22	Peaty soil	1	2	2	4	Negligible
1933	SLR	280132.61	949367.45	0.3	ROCK	2.80	Peaty soil	1	2	2	4	Negligible
1934	SLR	280085.30	949372.23	0.3	ROCK	5.55	Peaty soil	1	4	2	8	Low
1935	SLR	280029.55	949374.68	0.4	ROCK	5.56	Peaty soil	1	4	2	8	Low
1936	SLR	279980.60	949379.71	0.3	GRANULAR	4.61	Peaty soil	1	4	1	4	Negligible
1937	SLR	279926.89	949382.28	0.5	ROCK	4.24	Peaty soil	1	4	2	8	Low
1938	SLR	279898.22	949381.48	0.8	ROCK	7.96	Thin Peat	2	4	2	16	Medium
1939	SLR	279895.22	949353.35	0.8	GRANULAR	1.38	Thin Peat	2	1	1	2	Negligible
1940	SLR	280256.24	949389.67	0.5	ROCK	4.90	Peaty soil	1	4	2	8	Low
1941	SLR	279381.52	949355.74	0.9	ROCK	1.84	Thin Peat	2	1	2	4	Negligible
1942	SLR	279386.16	949405.36	1.5	ROCK	1.64	Thin Peat	2	1	2	4	Negligible
1943	SLR	278592.42	949353.33	1.1	ROCK	1.21	Thin Peat	2	1	2	4	Negligible
1944	SLR	278533.56	949356.27	0.5	ROCK	1.34	Peaty soil	1	1	2	2	Negligible
1945	SLR	278566.55	949395.91	0.8	ROCK	1.30	Thin Peat	2	1	2	4	Negligible
1946	SLR	278737.25	949379.86	2.6	DEPTH NOT PROVEN	0.58	Thick Peat	3	1	3	9	Low
1947	SLR	278062.71	949339.49	0.6	GRANULAR	1.12	Thin Peat	2	1	1	2	Negligible
1948	SLR	278062.66	949397.43	0.5	ROCK	2.62	Peaty soil	1	2	2	4	Negligible
1949	SLR	277706.47	949404.98	1.6	ROCK	2.05	Thick Peat	3	2	2	12	Low
1950	SLR	277668.22	949384.45	1.6	GRANULAR	3.12	Thick Peat	3	2	1	6	Low
1951	SLR	277619.71	949369.06	3.0	GRANULAR	1.93	Thick Peat	3	1	1	3	Negligible
1952	SLR	277591.74	949356.56	2.3	ROCK	3.14	Thick Peat	3	2	2	12	Low
1953	SLR	277552.02	949345.18	0.3	GRANULAR	3.89	Peaty soil	1	2	1	2	Negligible
1954	SLR	277538.19	949392.22	0.6	ROCK	2.90	Thin Peat	2	2	2	8	Low
1955	SLR	277985.80	949388.49	0.7	GRANULAR	3.05	Thin Peat	2	2	1	4	Negligible
1956	SLR	278019.61	949366.82	0.6	GRANULAR	3.56	Thin Peat	2	2	1	4	Negligible
1957	SLR	278049.00	949349.94	0.4	GRANULAR	1.40	Peaty soil	1	1	1	1	Negligible
1958	MOUCHEL	278830.00	949364.00	0.8	GRANULAR	3.15	Thin Peat	2	2	1	4	Negligible
1959	MOUCHEL	278160.00	949327.00	0.6	GRANULAR	1.42	Thin Peat	2	1	1	2	Negligible
1960	MOUCHEL	278161.00	949377.00	0.7	GRANULAR	1.44	Thin Peat	2	1	1	2	Negligible
1961	SLR	279222.79	949260.35	3.5	ROCK	1.82	Thick Peat	3	1	2	6	Low
1962	SLR	279176.32	949273.29	3.3	GRANULAR	1.56	Thick Peat	3	1	1	3	Negligible
1963	SLR	279128.03	949287.22	1.4	GRANULAR	1.53	Thin Peat	2	1	1	2	Negligible
1964	SLR	279081.94	949302.94	1.2	GRANULAR	2.17	Thin Peat	2	2	1	4	Negligible
1965	SLR	279037.30	949290.01	1.2	GRANULAR	2.80	Thin Peat	2	2	1	4	Negligible
1966	SLR	278998.52	949274.13	0.9	GRANULAR	2.70	Thin Peat	2	2	1	4	Negligible
1967	SLR	278954.15	949285.52	1.6	GRANULAR	2.68	Thick Peat	3	2	1	6	Low
1968	SLR	278991.41	949318.54	0.9	GRANULAR	3.28	Thin Peat	2	2	1	4	Negligible
1969	SLR	277349.60	949281.49	2.0	ROCK	1.28	Thick Peat	3	1	2	6	Low
1970	SLR	277757.70	949325.95	1.7	GRANULAR	4.86	Thick Peat	3	4	1	12	Low
1971	SLR	277803.33	949292.41	1.8	GRANULAR	3.49	Thick Peat	3	2	1	6	Low
1972	SLR	277849.40	949266.83	1.0	GRANULAR	3.73	Thin Peat	2	2	1	4	Negligible
1973	SLR	278352.80	949290.00	0.5	ROCK	1.50	Peaty soil	1	1	2	2	Negligible
1974	SLR	279359.04	949302.58	0.5	GRANULAR	1.77	Peaty soil	1	1	1	1	Negligible
1975	SLR	279313.92	949277.04	2.0	ROCK	2.08	Thick Peat	3	2	2	12	Low
1976	SLR	279274.49	949256.16	2.7	GRANULAR	1.91	Thick Peat	3	1	1	3	Negligible
1977	SLR	279826.49	949250.35	1.0	GRANULAR	1.74	Thin Peat	2	1	1	2	Negligible
1978	SLR	280271.19	949269.44	0.5	ROCK	4.47	Peaty soil	1	4	2	8	Low
1979	SLR	280266.04	949314.72	0.7	ROCK	4.57	Thin Peat	2	4	2	16	Medium
1980	SLR	279379.62	949255.71	0.5	ROCK	2.41	Peaty soil	1	2	2	4	Negligible
1981	SLR	279379.36	949310.68	0.5	ROCK	2.88	Peaty soil	1	2	2	4	Negligible
1982	SLR	278644.77	949278.74	2.0	ROCK	1.00	Thick Peat	3	1	2	6	Low
1983	SLR	278619.47	949311.46	0.5	ROCK	0.99	Peaty soil	1	1	2	2	Negligible
1984	SLR	278835.41	949292.90	1.0	ROCK	1.96	Thin Peat	2	1	2	4	Negligible
1985	SLR	278045.31	949290.63	0.4	ROCK	1.22	Peaty soil	1	1	2	2	Negligible
1986	SLR	277543.60	949318.89	0.3	GRANULAR	3.11	Peaty soil	1	2	1	2	Negligible
1987	SLR	277530.57	949282.34	0.4	GRANULAR	0.81	Peaty soil	1	1	1	1	Negligible
1988	SLR	278074.22	949324.27	0.4	GRANULAR	1.24	Peaty soil	1	1	1	1	Negligible
1989	SLR	278116.26	949316.28	0.5	GRANULAR	1.44	Peaty soil	1	1	1	1	Negligible
1990	SLR	278154.92	949306.17	0.4	ROCK	1.44	Peaty soil	1	1	2	2	Negligible
1991	SLR	278191.21	949297.99	1.6	ROCK	1.21	Thick Peat	3	1	2	6	Low

ID	Source	Easting	Northing	Peat Depth (m)	Substrate	Slope (Degrees)	Ground Condition Coefficient	Peat Coefficient	Slope Coefficient	Substrate Coefficient	Risk Coefficient	Potential Instability
1992	SLR	278249.17	949297.49	2.4	ROCK	1.23	Thick Peat	3	1	2	6	Low
1993	SLR	278282.38	949306.30	1.8	GRANULAR	1.29	Thick Peat	3	1	1	3	Negligible
1994	SLR	278335.86	949309.10	0.9	ROCK	1.26	Thin Peat	2	1	2	4	Negligible
1995	SLR	278393.39	949282.25	0.5	ROCK	2.06	Peaty soil	1	2	2	4	Negligible
1996	SLR	278427.83	949252.21	0.7	GRANULAR	1.88	Thin Peat	2	1	1	2	Negligible
1997	MOUCHEL	278834.00	949313.00	0.9	GRANULAR	1.89	Thin Peat	2	1	1	2	Negligible
1998	MOUCHEL	278858.00	949268.00	1.7	GRANULAR	2.28	Thick Peat	3	2	1	6	Low
1999	MOUCHEL	278150.00	949278.00	0.4	GRANULAR	1.42	Peaty soil	1	1	1	1	Negligible
2000	SLR	279209.27	949185.37	4.0	GRANULAR	2.46	Thick Peat	3	2	1	6	Low
2001	SLR	279226.74	949198.76	3.7	ROCK	2.26	Thick Peat	3	2	2	12	Low
2002	SLR	279249.94	949240.38	3.5	GRANULAR	2.01	Thick Peat	3	2	1	6	Low
2003	SLR	277348.38	949230.09	0.8	GRANULAR	1.59	Thin Peat	2	1	1	2	Negligible
2004	SLR	277355.03	949184.02	0.3	GRANULAR	2.27	Peaty soil	1	2	1	2	Negligible
2005	SLR	277904.17	949239.13	0.2	GRANULAR	3.94	Peaty soil	1	2	1	2	Negligible
2006	SLR	277963.62	949204.78	0.3	GRANULAR	6.45	Peaty soil	1	4	1	4	Negligible
2007	SLR	278103.70	949166.08	0.7	GRANULAR	1.67	Thin Peat	2	1	1	2	Negligible
2008	SLR	278295.62	949177.39	0.9	ROCK	1.28	Thin Peat	2	1	2	4	Negligible
2009	SLR	278321.57	949231.55	0.4	GRANULAR	1.26	Peaty soil	1	1	1	1	Negligible
2010	SLR	279761.53	949203.51	1.0	ROCK	0.86	Thin Peat	2	1	2	4	Negligible
2011	SLR	279737.61	949192.36	0.8	ROCK	1.07	Thin Peat	2	1	2	4	Negligible
2012	SLR	279799.19	949186.20	0.7	GRANULAR	1.19	Thin Peat	2	1	1	2	Negligible
2013	SLR	279852.50	949180.11	1.1	ROCK	2.69	Thin Peat	2	2	2	8	Low
2014	SLR	279913.25	949175.28	1.1	ROCK	2.65	Thin Peat	2	2	2	8	Low
2015	SLR	279963.52	949171.70	0.4	ROCK	3.63	Peaty soil	1	2	2	4	Negligible
2016	SLR	280010.07	949170.83	0.5	ROCK	5.46	Peaty soil	1	4	2	8	Low
2017	SLR	280267.11	949199.75	0.8	ROCK	1.17	Thin Peat	2	1	2	4	Negligible
2018	SLR	280274.80	949231.27	0.0	ROCK	1.87	No Peat	0	1	2	0	None
2019	SLR	279372.34	949199.67	0.1	ROCK	0.87	Peaty soil	1	1	2	2	Negligible
2020	SLR	279375.57	949215.91	0.4	ROCK	9.20	Peaty soil	1	6	2	12	Low
2021	SLR	278731.03	949166.14	2.6	DEPTH NOT PROVEN	1.28	Thick Peat	3	1	3	9	Low
2022	SLR	278701.68	949206.60	2.5	ROCK	1.06	Thick Peat	3	1	2	6	Low
2023	SLR	278670.25	949242.48	2.6	DEPTH NOT PROVEN	0.99	Thick Peat	3	1	3	9	Low
2024	SLR	278945.32	949179.39	1.9	ROCK	2.05	Thick Peat	3	2	2	12	Low
2025	SLR	277989.19	949168.52	0.4	ROCK	3.79	Peaty soil	1	2	2	4	Negligible
2026	SLR	278009.82	949208.55	0.4	ROCK	1.60	Peaty soil	1	1	2	2	Negligible
2027	SLR	278027.01	949241.25	0.3	ROCK	1.37	Peaty soil	1	1	2	2	Negligible
2028	SLR	277517.94	949227.21	0.4	GRANULAR	1.26	Peaty soil	1	1	1	1	Negligible
2029	SLR	277503.42	949180.50	0.5	GRANULAR	1.93	Peaty soil	1	1	1	1	Negligible
2030	SLR	278460.37	949223.72	0.6	GRANULAR	1.74	Thin Peat	2	1	1	2	Negligible
2031	SLR	278490.62	949193.82	0.9	GRANULAR	1.67	Thin Peat	2	1	1	2	Negligible
2032	SLR	278524.21	949167.52	1.0	ROCK	1.30	Thin Peat	2	1	2	4	Negligible
2033	MOUCHEL	278890.00	949227.00	2.8	GRANULAR	2.09	Thick Peat	3	2	1	6	Low
2034	MOUCHEL	278923.00	949189.00	1.6	GRANULAR	2.09	Thick Peat	3	2	1	6	Low
2035	MOUCHEL	278118.00	949185.00	0.9	GRANULAR	1.55	Thin Peat	2	1	1	2	Negligible
2036	MOUCHEL	278134.00	949232.00	1.1	GRANULAR	1.53	Thin Peat	2	1	1	2	Negligible
2037	SLR	279171.77	949106.49	1.3	GRANULAR	2.31	Thin Peat	2	2	1	4	Negligible
2038	SLR	279193.83	949145.92	3.7	GRANULAR	2.56	Thick Peat	3	2	1	6	Low
2039	SLR	277384.48	949137.97	0.9	ROCK	1.59	Thin Peat	2	1	2	4	Negligible
2040	SLR	277424.66	949098.47	1.8	GRANULAR	1.45	Thick Peat	3	1	1	3	Negligible
2041	SLR	278047.00	949153.73	0.4	GRANULAR	2.12	Peaty soil	1	2	1	2	Negligible
2042	SLR	279860.08	949141.26	1.0	GRANULAR	2.72	Thin Peat	2	2	1	4	Negligible
2043	SLR	279839.32	949099.74	1.1	ROCK	2.28	Thin Peat	2	2	2	8	Low
2044	SLR	279802.99	949106.61	0.9	GRANULAR	1.48	Thin Peat	2	1	1	2	Negligible
2045	SLR	280071.10	949165.63	0.4	ROCK	6.01	Peaty soil	1	4	2	8	Low
2046	SLR	280112.66	949161.01	0.5	ROCK	6.56	Peaty soil	1	4	2	8	Low
2047	SLR	280167.39	949156.93	0.4	ROCK	4.64	Peaty soil	1	4	2	8	Low
2048	SLR	280221.20	949151.38	0.4	ROCK	4.63	Peaty soil	1	4	2	8	Low
2049	SLR	280247.63	949158.56	0.5	ROCK	3.57	Peaty soil	1	2	2	4	Negligible
2050	SLR	279690.05	949128.64	0.1	ROCK	5.38	Peaty soil	1	4	2	8	Low
2051	SLR	279343.66	949109.93	1.2	GRANULAR	2.86	Thin Peat	2	2	1	4	Negligible
2052	SLR	279358.18	949154.24	2.0	ROCK	2.61	Thick Peat	3	2	2	12	Low
2053	SLR	278791.40	949092.23	2.6	DEPTH NOT PROVEN	2.07	Thick Peat	3	2	3	18	Medium
2054	SLR	278758.33	949125.74	2.6	DEPTH NOT PROVEN	1.28	Thick Peat	3	1	3	9	Low
2055	SLR	279713.71	949134.41	1.6	ROCK	0.72	Thick Peat	3	1	2	6	Low
2056	SLR	278296.50	949101.79	0.4	GRANULAR	1.43	Peaty soil	1	1	1	1	Negligible
2057	SLR	278271.76	949139.88	0.9	GRANULAR	1.39	Thin Peat	2	1	1	2	Negligible
2058	SLR	278231.50	949148.74	0.8	GRANULAR	1.26	Thin Peat	2	1	1	2	Negligible
2059	SLR	278178.01	949136.66	0.8	GRANULAR	1.55	Thin Peat	2	1	1	2	Negligible
2060	SLR	278141.77	949130.54	0.5	ROCK	1.89	Peaty soil	1	1	2	2	Negligible
2061	SLR	278101.88	949135.49	0.4	GRANULAR	2.09	Peaty soil	1	2	1	2	Negligible
2062	SLR	278081.12	949110.33	0.6	GRANULAR	1.90	Thin Peat	2	1	1	2	Negligible
2063	SLR	277949.07	949091.04	0.2	ROCK	0.84	Peaty soil	1	1	2	2	Negligible
2064	SLR	277965.45	949132.12	0.3	ROCK	1.34	Peaty soil	1	1	2	2	Negligible
2065	SLR	277489.54	949132.28	0.5	GRANULAR	2.03	Peaty soil	1	2	1	2	Negligible
2066	SLR	278560.35	949132.79	1.2	ROCK	1.32	Thin Peat	2	1	2	4	Negligible
2067	SLR	278580.66	949093.17	1.1	GRANULAR	1.03	Thin Peat	2	1	1	2	Negligible
2068	MOUCHEL	278958.00	949153.00	2.4	GRANULAR	1.71	Thick Peat	3	1	1	3	Negligible
2069	MOUCHEL	278990.00	949117.00	2.8	GRANULAR	1.28	Thick Peat	3	1	1	3	Negligible
2070	MOUCHEL	278071.00	949103.00	0.3	GRANULAR	1.96	Peaty soil	1	1	1	1	Negligible
2071	MOUCHEL	278099.00	949142.00	0.5	GRANULAR	2.03	Peaty soil	1	2	1	2	Negligible
2072	MOUCHEL	279203.00	949110.00	3.0	GRANULAR	2.61	Thick Peat	3	2	1	6	Low
2073	MOUCHEL	278092.00	949125.00	0.3	GRANULAR	2.15	Peaty soil	1	2	1	2	Negligible
2074	SLR	279151.68	949064.96	2.0	GRANULAR	2.00	Thick Peat	3	2	1	6	Low

SSE Generation Ltd
Strathy South Wind Farm
Peat Landslide Hazard and Risk Assessment
Technical Appendix 10.1

Appendix A - Peat Slide Risk Data

SLR Ref: 428.00660.00070
April 2020

ID	Source	Easting	Northing	Peat Depth (m)	Substrate	Slope (Degrees)	Ground Condition Coefficient	Peat Coefficient	Slope Coefficient	Substrate Coefficient	Risk Coefficient	Potential Instability
2075	SLR	279791.74	949079.84	0.7	ROCK	2.05	Thin Peat	2	2	2	8	Low
2076	SLR	279622.58	949070.17	1.4	ROCK	5.41	Thin Peat	2	4	2	16	Medium
2077	SLR	279554.40	949007.46	1.1	ROCK	2.74	Thin Peat	2	2	2	8	Low
2078	SLR	279087.78	949024.41	2.8	DEPTH NOT PROVEN	1.95	Thick Peat	3	1	3	9	Low
2079	SLR	279080.09	949037.46	2.5	DEPTH NOT PROVEN	1.88	Thick Peat	3	1	3	9	Low
2080	SLR	279134.31	949007.00	1.9	ROCK	2.03	Thick Peat	3	2	2	12	Low
2081	SLR	279145.64	949036.37	1.9	ROCK	1.95	Thick Peat	3	1	2	6	Low
2082	SLR	279311.15	949022.36	0.4	ROCK	3.15	Peaty soil	1	2	2	4	Negligible
2083	SLR	279326.20	949064.98	0.6	ROCK	3.07	Thin Peat	2	2	2	8	Low
2084	SLR	278838.68	949007.58	2.4	ROCK	2.21	Thick Peat	3	2	2	12	Low
2085	SLR	278811.33	949037.02	2.5	GRANULAR	2.14	Thick Peat	3	2	1	6	Low
2086	SLR	279052.82	949063.18	2.6	DEPTH NOT PROVEN	2.61	Thick Peat	3	2	3	18	Medium
2087	SLR	279727.68	949078.46	1.7	ROCK	2.49	Thick Peat	3	2	2	12	Low
2088	SLR	279747.42	949035.52	1.9	ROCK	1.94	Thick Peat	3	1	2	6	Low
2089	SLR	279833.97	949026.74	0.0	ROCK	2.51	No Peat	0	2	2	0	None
2090	SLR	279849.57	949039.82	0.7	ROCK	2.53	Thin Peat	2	2	2	8	Low
2091	SLR	279842.02	949047.85	1.2	ROCK	2.47	Thin Peat	2	2	2	8	Low
2092	SLR	278322.40	949019.46	1.0	GRANULAR	1.53	Thin Peat	2	1	1	2	Negligible
2093	SLR	278320.17	949060.94	0.5	GRANULAR	1.52	Peaty soil	1	1	1	1	Negligible
2094	SLR	278043.71	949063.58	0.5	GRANULAR	2.14	Peaty soil	1	2	1	2	Negligible
2095	SLR	278034.21	949027.67	0.6	GRANULAR	0.96	Thin Peat	2	1	1	2	Negligible
2096	SLR	277871.84	949023.43	1.9	GRANULAR	2.66	Thick Peat	3	2	1	6	Low
2097	SLR	277894.93	949061.15	0.6	GRANULAR	4.09	Thin Peat	2	4	1	8	Low
2098	SLR	277478.87	949080.80	0.0	ROCK	2.17	No Peat	0	2	2	0	None
2099	SLR	277502.55	949030.67	0.8	GRANULAR	2.42	Thin Peat	2	2	1	4	Negligible
2100	SLR	277531.26	949007.86	0.5	GRANULAR	2.08	Peaty soil	1	2	1	2	Negligible
2101	SLR	277543.45	949020.48	0.1	GRANULAR	2.08	Peaty soil	1	2	1	2	Negligible
2102	SLR	278601.01	949048.53	1.3	ROCK	0.98	Thin Peat	2	1	2	4	Negligible
2103	MOUCHEL	279027.00	949083.00	3.3	GRANULAR	1.70	Thick Peat	3	1	1	3	Negligible
2104	MOUCHEL	279054.00	949048.00	4.4	GRANULAR	2.16	Thick Peat	3	2	1	6	Low
2105	MOUCHEL	278035.00	949014.00	0.9	GRANULAR	0.35	Thin Peat	2	1	1	2	Negligible
2106	MOUCHEL	278042.00	949063.00	0.5	GRANULAR	2.12	Peaty soil	1	2	1	2	Negligible
2107	MOUCHEL	279140.00	949030.00	1.7	GRANULAR	1.95	Thick Peat	3	1	1	3	Negligible
2108	MOUCHEL	277477.00	949077.00	0.0	GRANULAR	2.17	No Peat	0	2	1	0	None
2109	SLR	279477.65	948948.35	0.8	GRANULAR	2.00	Thin Peat	2	2	1	4	Negligible
2110	SLR	279334.43	948952.38	0.1	ROCK	2.75	Peaty soil	1	2	2	4	Negligible
2111	SLR	279100.79	948931.16	1.2	GRANULAR	2.34	Thin Peat	2	2	1	4	Negligible
2112	SLR	279118.01	948968.14	1.6	ROCK	2.07	Thick Peat	3	2	2	12	Low
2113	SLR	279111.45	948995.64	2.8	DEPTH NOT PROVEN	2.00	Thick Peat	3	2	3	18	Medium
2114	SLR	279180.33	948995.19	1.3	ROCK	2.51	Thin Peat	2	2	2	8	Low
2115	SLR	279228.71	948980.89	0.4	GRANULAR	2.52	Peaty soil	1	2	1	2	Negligible
2116	SLR	279305.83	948998.38	0.2	ROCK	2.96	Peaty soil	1	2	2	4	Negligible
2117	SLR	278896.29	948951.39	1.2	ROCK	2.37	Thin Peat	2	2	2	8	Low
2118	SLR	278918.46	948968.91	1.4	ROCK	2.37	Thin Peat	2	2	2	8	Low
2119	SLR	278979.93	948977.59	1.5	GRANULAR	1.91	Thin Peat	2	1	1	2	Negligible
2120	SLR	278996.66	948995.65	1.7	ROCK	1.66	Thick Peat	3	1	2	6	Low
2121	SLR	278962.67	948993.17	2.1	ROCK	2.36	Thick Peat	3	2	2	12	Low
2122	SLR	278903.48	948982.37	1.3	ROCK	2.34	Thin Peat	2	2	2	8	Low
2123	SLR	278860.45	948977.38	2.1	ROCK	2.17	Thick Peat	3	2	2	12	Low
2124	SLR	279771.89	948994.66	1.6	ROCK	1.73	Thick Peat	3	1	2	6	Low
2125	SLR	279807.10	948967.22	1.3	ROCK	0.68	Thin Peat	2	1	2	4	Negligible
2126	SLR	279851.30	948937.27	1.3	ROCK	2.77	Thin Peat	2	2	2	8	Low
2127	SLR	278878.58	948930.21	0.4	GRANULAR	2.22	Peaty soil	1	2	1	2	Negligible
2128	SLR	278852.35	948942.35	1.7	ROCK	2.22	Thick Peat	3	2	2	12	Low
2129	SLR	278796.34	948933.31	2.3	ROCK	2.14	Thick Peat	3	2	2	12	Low
2130	SLR	278646.45	948942.21	1.8	ROCK	1.15	Thick Peat	3	1	2	6	Low
2131	SLR	278632.58	948966.41	1.5	GRANULAR	1.15	Thin Peat	2	1	1	2	Negligible
2132	SLR	278326.96	948953.03	0.7	GRANULAR	1.54	Thin Peat	2	1	1	2	Negligible
2133	SLR	278312.70	948983.37	0.9	GRANULAR	1.53	Thin Peat	2	1	1	2	Negligible
2134	SLR	278357.36	948996.84	0.5	ROCK	1.54	Peaty soil	1	1	2	2	Negligible
2135	SLR	278050.11	948984.09	0.6	GRANULAR	0.76	Thin Peat	2	1	1	2	Negligible
2136	SLR	277994.18	948937.37	1.1	GRANULAR	0.80	Thin Peat	2	1	1	2	Negligible
2137	SLR	277960.13	948973.71	1.1	GRANULAR	1.21	Thin Peat	2	1	1	2	Negligible
2138	SLR	277914.29	948972.16	0.4	GRANULAR	1.90	Peaty soil	1	1	1	1	Negligible
2139	SLR	277868.14	948982.88	0.4	GRANULAR	2.06	Peaty soil	1	2	1	2	Negligible
2140	SLR	278620.86	948997.22	1.4	GRANULAR	1.10	Thin Peat	2	1	1	2	Negligible
2141	MOUCHEL	279098.00	949003.00	4.6	GRANULAR	2.06	Thick Peat	3	2	1	6	Low
2142	MOUCHEL	279095.00	948949.00	2.0	GRANULAR	2.05	Thick Peat	3	2	1	6	Low
2143	MOUCHEL	278058.00	948963.00	0.7	GRANULAR	0.76	Thin Peat	2	1	1	2	Negligible
2144	MOUCHEL	279857.00	948937.00	1.5	GRANULAR	4.67	Thin Peat	2	4	1	8	Low
2145	MOUCHEL	278837.00	948940.00	2.3	GRANULAR	2.13	Thick Peat	3	2	1	6	Low
2146	SLR	279438.78	948923.18	0.5	ROCK	3.30	Peaty soil	1	2	2	4	Negligible
2147	SLR	279329.97	948899.04	0.2	ROCK	3.80	Peaty soil	1	2	2	4	Negligible
2148	SLR	279347.92	948906.29	0.4	ROCK	4.55	Peaty soil	1	4	2	8	Low
2149	SLR	279217.27	948878.55	0.8	ROCK	2.48	Thin Peat	2	2	2	8	Low
2150	SLR	279174.16	948880.25	0.4	ROCK	2.46	Peaty soil	1	2	2	4	Negligible
2151	SLR	279091.41	948901.92	0.8	ROCK	2.42	Thin Peat	2	2	2	8	Low
2152	SLR	279252.07	948885.28	0.7	ROCK	2.48	Thin Peat	2	2	2	8	Low
2153	SLR	279065.11	948905.33	2.7	ROCK	1.95	Thick Peat	3	1	2	6	Low
2154	SLR	279009.09	948909.10	1.5	GRANULAR	1.94	Thin Peat	2	1	1	2	Negligible
2155	SLR	278946.15	948921.81	0.7	GRANULAR	2.44	Thin Peat	2	2	1	4	Negligible
2156	SLR	278736.43	948908.79	2.5	GRANULAR	1.17	Thick Peat	3	1	1	3	Negligible
2157	SLR	278693.25	948896.01	2.4	ROCK	1.11	Thick Peat	3	1	2	6	Low

ID	Source	Easting	Northing	Peat Depth (m)	Substrate	Slope (Degrees)	Ground Condition Coefficient	Peat Coefficient	Slope Coefficient	Substrate Coefficient	Risk Coefficient	Potential Instability
2158	SLR	278666.05	948905.02	2.1	GRANULAR	1.17	Thick Peat	3	1	1	3	Negligible
2159	SLR	278634.98	948870.70	1.9	ROCK	1.21	Thick Peat	3	1	2	6	Low
2160	SLR	278584.99	948848.67	2.2	GRANULAR	1.19	Thick Peat	3	1	1	3	Negligible
2161	SLR	278348.93	948888.47	0.7	ROCK	1.52	Thin Peat	2	1	2	4	Negligible
2162	SLR	278337.36	948923.74	0.9	ROCK	1.54	Thin Peat	2	1	2	4	Negligible
2163	SLR	278770.60	948895.11	2.0	ROCK	1.19	Thick Peat	3	1	2	6	Low
2164	SLR	278821.74	948878.67	1.5	GRANULAR	2.20	Thin Peat	2	2	1	4	Negligible
2165	SLR	278872.78	948862.24	1.4	GRANULAR	2.28	Thin Peat	2	2	1	4	Negligible
2166	SLR	278917.73	948850.46	1.0	GRANULAR	2.56	Thin Peat	2	2	1	4	Negligible
2167	SLR	278952.19	948883.93	1.1	GRANULAR	2.44	Thin Peat	2	2	1	4	Negligible
2168	MOUCHEL	279100.00	948895.00	0.7	GRANULAR	2.44	Thin Peat	2	2	1	4	Negligible
2169	MOUCHEL	279146.00	948878.00	0.2	GRANULAR	2.46	Peaty soil	1	2	1	2	Negligible
2170	MOUCHEL	279197.00	948881.00	0.4	GRANULAR	2.51	Peaty soil	1	2	1	2	Negligible
2171	MOUCHEL	279261.00	948881.00	0.6	GRANULAR	1.65	Thin Peat	2	1	1	2	Negligible
2172	MOUCHEL	278343.00	948925.00	1.0	GRANULAR	1.53	Thin Peat	2	1	1	2	Negligible
2173	SLR	278536.67	948842.92	1.7	ROCK	1.39	Thick Peat	3	1	2	6	Low
2174	SLR	278482.02	948834.21	2.2	GRANULAR	1.38	Thick Peat	3	1	1	3	Negligible
2175	SLR	278429.11	948818.58	1.7	GRANULAR	1.59	Thick Peat	3	1	1	3	Negligible
2176	SLR	278377.47	948818.88	1.3	GRANULAR	1.35	Thin Peat	2	1	1	2	Negligible
2177	SLR	278346.07	948830.81	0.4	ROCK	1.19	Peaty soil	1	1	2	2	Negligible
P_01	RPS	279020.00	952620.00	0.1	GRANULAR	5.46	Peaty soil	1	4	1	4	Negligible
P_02	RPS	279060.00	952620.00	0.5	GRANULAR	8.17	Peaty soil	1	6	1	6	Low
P_03	RPS	279100.00	952620.00	0.2	GRANULAR	8.98	Peaty soil	1	6	1	6	Low
P_04	RPS	279020.00	952580.00	0.7	GRANULAR	5.37	Thin Peat	2	4	1	8	Low
P_05	RPS	279060.00	952580.00	0.5	GRANULAR	7.10	Peaty soil	1	4	1	4	Negligible
P_06	RPS	279100.00	952580.00	0.2	GRANULAR	8.19	Peaty soil	1	6	1	6	Low
P_07	RPS	279140.00	952580.00	0.4	GRANULAR	5.54	Peaty soil	1	4	1	4	Negligible
P_08	RPS	279020.00	952540.00	0.2	GRANULAR	5.46	Peaty soil	1	4	1	4	Negligible
P_09	RPS	279060.00	952540.00	0.1	GRANULAR	6.53	Peaty soil	1	4	1	4	Negligible
P_10	RPS	279100.00	952540.00	0.4	GRANULAR	7.76	Peaty soil	1	4	1	4	Negligible
P_11	RPS	279140.00	952540.00	0.1	GRANULAR	6.93	Peaty soil	1	4	1	4	Negligible
P_12	RPS	279020.00	952500.00	0.2	GRANULAR	6.25	Peaty soil	1	4	1	4	Negligible
P_13	RPS	279060.00	952500.00	1.4	GRANULAR	6.22	Thin Peat	2	4	1	8	Low
P_14	RPS	279100.00	952500.00	0.4	GRANULAR	7.86	Peaty soil	1	4	1	4	Negligible
P_15	RPS	279140.00	952500.00	0.1	GRANULAR	7.62	Peaty soil	1	4	1	4	Negligible
P_16	RPS	278980.00	952260.00	0.2	GRANULAR	16.74	Peaty soil	1	8	1	8	Low
P_17	RPS	279020.00	952260.00	2.1	GRANULAR	3.18	Thick Peat	3	2	1	6	Low
P_18	RPS	278980.00	952220.00	0.2	GRANULAR	19.92	Peaty soil	1	8	1	8	Low
P_19	RPS	279020.00	952220.00	0.4	GRANULAR	5.00	Peaty soil	1	4	1	4	Negligible
P_20	RPS	278940.00	952180.00	0.0	GRANULAR	7.43	No Peat	0	4	1	0	None
P_21	RPS	278980.00	952180.00	1.0	GRANULAR	15.84	Thin Peat	2	8	1	16	Medium
P_22	RPS	279020.00	952180.00	0.3	GRANULAR	6.11	Peaty soil	1	4	1	4	Negligible
P_23	RPS	278940.00	952140.00	0.0	GRANULAR	4.63	Peaty soil	1	4	1	4	Negligible
P_24	RPS	278980.00	952140.00	0.0	GRANULAR	13.56	Peaty soil	1	8	1	8	Low
P_25	RPS	278980.00	952100.00	0.1	GRANULAR	11.46	Peaty soil	1	6	1	6	Low
P_26	RPS	278740.00	952620.00	0.2	GRANULAR	3.62	Peaty soil	1	2	1	2	Negligible
P_27	RPS	278780.00	952620.00	0.2	GRANULAR	9.44	Peaty soil	1	6	1	6	Low
P_28	RPS	278755.00	952655.00	0.1	GRANULAR	5.99	Peaty soil	1	4	1	4	Negligible
P_29	RPS	278780.00	952580.00	0.1	GRANULAR	3.81	Peaty soil	1	2	1	2	Negligible
P_30	RPS	278820.00	952580.00	0.3	GRANULAR	7.75	Peaty soil	1	4	1	4	Negligible
P_31	RPS	278780.00	952545.00	0.1	GRANULAR	4.60	Peaty soil	1	4	1	4	Negligible

APPENDIX B

Peat Laboratory Data

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Gogar
Edinburgh
EH12 9DB
For the attention of Alan Huntridge

Report No: T10000
Issue No 01

LABORATORY TEST REPORT

Project Name	**STRATHY SOUTH PEAT ANALYSIS**		
Project Number	**T10000**	Date samples received	23/05/2012
Your Ref	T10000	Date written instructions received	23/05/2012
Purchase Order		Date testing commenced	24/05/2012

Please find enclosed the results as summarised below

Figure / Table	Test Quantity	Description	ISO 17025 Accredited
1	23	Summary of Geotechnical Tests	See
2	23	Results of Chemical Contamination Tests - Soil Notes on Laboratory Procedures	Sheets
3	~		s/c
			n/a

Remarks : TOC carried out by UKAS accredited subcontracted lab no. 1977

Issued by : D McGiff Date of Issue : 12/06/2012

Approved Signatories : 12/06/2012

G Wilson (JMD/Laboratories Director), J Murray (Laboratory Manager) , D McGiff (Assistant Laboratory Manager)

Key to symbols used in this report

S/C : Testing was sub-contracted

Unless we are notified to the contrary, samples will be disposed after a period of one month from this date.
The results reported relate to samples received in the laboratory only.
All results contained in this report are provisional unless signed by an approved signatory This report should not be reproduced except in full without the written approval of the laboratory.
Under multisite accreditation the testing contained in this report may have been performed at another Terra Tek laboratory.
The enclosed results remain the property of Terra Tek Limited and we reserve the right to withdraw our report if we have not received cleared funds in accordance with our standard terms and conditions
Only those results indicated in this report are UKAS accredited and any opinions or interpretations expressed are outside the scope of UKAS accreditation.
Feedback on the this report may be left via our website terratek.co.uk/feedback

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TERRA TEK SITE INVESTIGATION AND LABORATORY SERVICES

Site: STRATHY SOUTH PEAT ANALYSIS

Client: SLR Consulting

Engineer:

Contract No T10000

~ Indicates test not carried out

Sample Identification				Lab Sample ID	Non Engineering Sample Description	Moisture Content	Atterberg limits					Particle Density	Density		Total Stress			Other Tests
Exploratory Hole	Depth m	Sample Ref	Sample Type				Liquid Limit	Plastic Limit	Plasticity Index	Percentage retained 425µm	Atterberg Classification		Bulk	Dry	Shear Strength	Apparent Cohesion C	Angle of Shearing Resistance Phi	
						%	%	%		%		Mg/m³	Mg/m³	Mg/m³	kPa	kPa		
TB3	0.00-0.40			106067	Brown fibrous PEAT	1,271		~	~	~		~	~	~	~	~	~	TOC
TB3	1.00-1.50			106068	Brown fibrous PEAT	1183		~	~	~		~	~	~	~	~	~	TOC
TB3	1.50-2.00			106069	Brown fibrous PEAT	1151		~	~	~		~	~	~	~	~	~	TOC
TB3	2.00-2.50			106070	Brown fibrous PEAT	1028		~	~	~		~	~	~	~	~	~	TOC
TB3	2.50-3.00			106071	Brown fibrous PEAT	1136		~	~	~		~	~	~	~	~	~	TOC
Notes	Opinions and interpretations are outside the scope of UKAS accreditation				UKAS Accredited Test Y/N	Y	Y	Y	Y	Y	-	Y	Y	Y	Y	Y	Y	See individual report sheets

Test details are given on the 'Notes on Laboratory Procedures' sheet

Originator	Checked & Approved
SB	12/06/2012

SUMMARY OF GEOTECHNICAL TESTS

Figure 1

TERRA TEK SITE INVESTIGATION AND LABORATORY SERVICES

Site: STRATHY SOUTH PEAT ANALYSIS

Client: SLR Consulting

Engineer:

Contract No T10000

~ Indicates test not carried out

Sample Identification				Lab Sample ID	Non Engineering Sample Description	Moisture Content	Atterberg limits					Particle Density	Density		Total Stress			Other Tests
Exploratory Hole	Depth m	Sample Ref	Sample Type				Liquid Limit	Plastic Limit	Plasticity Index	Percentage retained 425µm	Atterberg Classification		Bulk	Dry	Shear Strength	Apparent Cohesion C	Angle of Shearing Resistance Phi	
						%	%	%		%		Mg/m³	Mg/m³	Mg/m³	kPa	kPa		
TB16	0.00-1.00			106087	Brown fibrous PEAT	1,539		~	~	~		~	~	~	~	~	~	TOC
TB16	1.00-2.00			106088	Brown fibrous PEAT	1119		~	~	~		~	~	~	~	~	~	TOC
TB17	0.00-1.00			106066	Brown fibrous PEAT	917		~	~	~		~	~	~	~	~	~	TOC
TB34	0.00-1.00			106085	Brown fibrous PEAT	1149		~	~	~		~	~	~	~	~	~	TOC
TB34	1.00-2.00			106086	Brown fibrous PEAT	1036		~	~	~		~	~	~	~	~	~	TOC
Notes	Opinions and interpretations are outside the scope of UKAS accreditation				UKAS Accredited Test Y/N		Test details are given on the 'Notes on Laboratory Procedures' sheet											See individual report sheets
						Y	Y	Y	Y	Y	-	Y	Y	Y	Y	Y	Y	

Originator	Checked & Approved
SB	12/06/2012

SUMMARY OF GEOTECHNICAL TESTS

Figure 1

TERRA TEK SITE INVESTIGATION AND LABORATORY SERVICES

Site: STRATHY SOUTH PEAT ANALYSIS

Client: SLR Consulting

Engineer:

Contract No T10000

~ Indicates test not carried out

Sample Identification				Lab Sample ID	Non Engineering Sample Description	Moisture Content	Atterberg limits					Particle Density	Density		Total Stress			Other Tests
Exploratory Hole	Depth m	Sample Ref	Sample Type				Liquid Limit	Plastic Limit	Plasticity Index	Percentage retained 425µm	Atterberg Classification		Bulk	Dry	Shear Strength	Apparent Cohesion C	Angle of Shearing Resistance Phi	
						%	%	%		%		Mg/m³	Mg/m³	Mg/m³	kPa	kPa		
TB52	0.00-1.00			106081	Brown fibrous PEAT	1,281		~	~	~		~	~	~	~	~	~	TOC
TB52	1.00-2.00			106082	Brown fibrous PEAT	1026		~	~	~		~	~	~	~	~	~	TOC
TB60	0.00-1.00			106083	Brown fibrous PEAT	953		~	~	~		~	~	~	~	~	~	TOC
TB60	1.00-1.70			106084	Brown fibrous PEAT	979		~	~	~		~	~	~	~	~	~	TOC
TB77	0.00-0.50			106072	Brown fibrous PEAT	1202		~	~	~		~	~	~	~	~	~	TOC
Notes	Opinions and interpretations are outside the scope of UKAS accreditation				UKAS Accredited Test Y/N	Y	Y	Y	Y	Y	-	Y	Y	Y	Y	Y	Y	See individual report sheets

Test details are given on the 'Notes on Laboratory Procedures' sheet

Originator	Checked & Approved
SB	12/06/2012

SUMMARY OF GEOTECHNICAL TESTS

Figure 1

TERRA TEK SITE INVESTIGATION AND LABORATORY SERVICES

Site: STRATHY SOUTH PEAT ANALYSIS

Client: SLR Consulting

Engineer:

Contract No T10000

~ Indicates test not carried out

Sample Identification				Lab Sample ID	Non Engineering Sample Description	Moisture Content	Atterberg limits					Particle Density	Density		Total Stress			Other Tests
Exploratory Hole	Depth m	Sample Ref	Sample Type				Liquid Limit	Plastic Limit	Plasticity Index	Percentage retained 425µm	Atterberg Classification		Bulk	Dry	Shear Strength	Apparent Cohesion C	Angle of Shearing Resistance Phi	
						%	%	%		%		Mg/m³	Mg/m³	Mg/m³	kPa	kPa		
TB77	0.50-1.00			106073	Brown fibrous PEAT	1,495		~	~	~		~	1.30	0.08	~	~	~	TOC
TB77	1.00-1.50			106074	Brown fibrous PEAT	1574		~	~	~		~	~	~	~	~	~	TOC
TB77	1.50-2.00			106075	Brown fibrous PEAT	1202		~	~	~		~	~	~	~	~	~	TOC
TB77	2.00-2.50			106076	Brown fibrous PEAT	1406		~	~	~		~	~	~	~	~	~	TOC
TB77	2.50-3.00			106077	Brown fibrous PEAT	1181		~	~	~		~	~	~	~	~	~	TOC
Notes	Opinions and interpretations are outside the scope of UKAS accreditation				UKAS Accredited Test Y/N	Y	Y	Y	Y	Y	-	Y	Y	Y	Y	Y	Y	See individual report sheets

Test details are given on the 'Notes on Laboratory Procedures' sheet

Originator	Checked & Approved
SB	12/06/2012

SUMMARY OF GEOTECHNICAL TESTS

Figure 1

TERRA TEK SITE INVESTIGATION AND LABORATORY SERVICES

Site: STRATHY SOUTH PEAT ANALYSIS

Client: SLR Consulting

Engineer:

Contract No T10000

~ Indicates test not carried out

Sample Identification							Atterberg limits						Density		Total Stress			
Exploratory Hole	Depth m	Sample Ref	Sample Type	Lab Sample ID	Non Engineering Sample Description	Moisture Content %	Liquid Limit %	Plastic Limit %	Plasticity Index	Percentage retained 425µm %	Atterberg Classification	Particle Density Mg/m³	Bulk Mg/m³	Dry Mg/m³	Shear Strength kPa	Apparent Cohesion C kPa	Angle of Shearing Resistance Phi	Other Tests
TB77	3.00-3.50			106078	Brown fibrous PEAT	1,182		~	~	~		~	1.30	0.10	~	~	~	TOC
Y139	0.00-1.00			106079	Brown fibrous PEAT	1329		~	~	~		~	~	~	~	~	~	TOC
Y139	1.00-2.00			106080	Brown fibrous PEAT	1271		~	~	~		~	~	~	~	~	~	TOC
Notes: Opinions and interpretations are outside the scope of UKAS accreditation					UKAS Accredited Test Y/N		Test details are given on the 'Notes on Laboratory Procedures' sheet											See individual report sheets
							Y	Y	Y	Y	Y	-	Y	Y	Y	Y	Y	Y

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SUMMARY OF GEOTECHNICAL TESTS

Figure 1

TERRA TEK
SITE INVESTIGATION AND LABORATORY SERVICES

Site	STRATHY SOUTH PEAT ANALYSIS	Contract No **T10000**
Client	SLR Consulting	
Engineer		

Sample Identification				Lab Sample ID	Total organic carbon %
Hole	Depth m	Sample Ref	Sample Type		
TB3	0.00-0.40			106067	49.0
TB3	1.00-1.50			106068	50.0
TB3	1.50-2.00			106069	53.0
TB3	2.00-2.50			106070	47.0
TB3	2.50-3.00			106071	48.0
TB16	0.00-1.00			106087	36.0
TB16	1.00-2.00			106088	50.0
TB17	0.00-1.00			106066	43.0
TB34	0.00-1.00			106085	48.0
TB34	1.00-2.00			106086	56.0
			Limits of Detection		0.1
			Terra Tek Analysis Method		S/C
			Accreditation M=Mcerts U=UKAS N=No accreditation		N

Originator	Checked & Approved
SG	12/06/2012

RESULTS OF CHEMICAL CONTAMINATION TESTS - SOIL

Figure 2

TERRA TEK
SITE INVESTIGATION AND LABORATORY SERVICES

Site	STRATHY SOUTH PEAT ANALYSIS	Contract No **T10000**
Client	SLR Consulting	
Engineer		

Sample Identification				Lab Sample ID	Total organic carbon
Hole	Depth m	Sample Ref	Sample Type		%
TB52	0.00-1.00			106081	32.0
TB52	1.00-2.00			106082	47.0
TB60	0.00-1.00			106083	47.0
TB60	1.00-1.70			106084	52.0
TB77	0.00-0.50			106072	35.0
TB77	0.50-1.00			106073	40.0
TB77	1.00-1.50			106074	50.0
TB77	1.50-2.00			106075	38.0
TB77	2.00-2.50			106076	40.0
TB77	2.50-3.00			106077	53.0
			Limits of Detection		0.1
			Terra Tek Analysis Method		S/C
			Accreditation M=Mcerts U=UKAS N=No accreditation		N

Originator	Checked & Approved
SG	12/06/2012

RESULTS OF CHEMICAL CONTAMINATION TESTS - SOIL

Figure 2

TERRA TEK
SITE INVESTIGATION AND LABORATORY SERVICES

Site: STRATHY SOUTH PEAT ANALYSIS

Client: SLR Consulting

Engineer:

Contract No T10000

Sample Identification				Lab Sample ID	Total organic carbon
Hole	Depth m	Sample Ref	Sample Type		%
TB77	3.00-3.50			106078	42.0
Y139	0.00-1.00			106079	45.0
Y139	1.00-2.00			106080	46.0
			Limits of Detection		0.1
			Terra Tek Analysis Method		S/C
			Accreditation M=Mcerts U=UKAS N=No accreditation		N

Originator	Checked & Approved
SG	12/06/2012

RESULTS OF CHEMICAL CONTAMINATION TESTS - SOIL

Figure 2

TERRA TEK
Site Investigation & Laboratory Services

NOTES ON LABORATORY PROCEDURES

Samples of soil and rock taken during the site works are examined in the laboratory and assessments of their characteristics used to supplement field observations, and in-situ and laboratory test results, in the preparation of the borehole records. Preparation and testing is carried out to the requirements of British or other international Standards where applicable, or otherwise in accordance with good practice. UKAS accredited tests are indicated thus : (U). All other tests reported or opinions and interpretations expressed herein are outside the scope of UKAS accreditation.

LABORATORY TESTING (SOILS)	STANDARD
CLASSIFICATION TESTS	
Determination of moisture content (U)	BS 1377 : Part 2 : 1990, Section 3.2
Determination of liquid limit (U)	BS 1377 : Part 2 : 1990, Section 4.2 and 4.3
Determination of plastic limit and plasticity index (U)	BS 1377 : Part 2 : 1990, Section 5
Determination of bulk density (U)	BS 1377 : Part 2 : 1990, Section 7.2
Determination of particle density (U)	BS 1377 : Part 2 : 1990, Section 8.2 and 8.3
Sieve analysis (wet or dry sieving) (U)	BS 1377 : Part 2 : 1990, Section 9.2 and 9.3
Sedimentation analysis (pipette or hydrometer) (U)	BS 1377 : Part 2 : 1990, Section 9.4 and 9.5
CHEMICAL TESTS	
Determination of organic matter content (U)	BS 1377 : Part 3 : 1990, Section 3
Determination of mass loss-on-ignition (U)	BS 1377 : Part 3 : 1990, Section 4
Determination of sulphate content (U)	BS 1377 : Part 3 : 1990, Section 5
Determination of chloride content (U)	BS 1377 : Part 3 : 1990, Section 7
Determination of pH value (U)	BS 1377 : Part 3 : 1990, Section 9
COMPACTION RELATED TESTS	
Determination of dry density/moisture content relationship (U)	BS 1377 : Part 4 : 1990, Section 3
Determination of moisture condition value (MCV) (U)	BS 1377 : Part 4 : 1990, Section 5
Determination of MCV/moisture content relationship (U)	BS 1377 : Part 4 : 1990, Section 5
Determination of California Bearing Ratio (U)	BS 1377 : Part 4 : 1990, Section 7
CONSOLIDATION AND STRENGTH TESTS	
Determination of one-dimensional consolidation properties (U) and 9 Determination of shear strength with pore water pressure measurements (U)	BS 1377 : Part 5 : 1990, Section 3 Determination of shear strength by direct shear (small shearbox) (U) BS 1377 : Part 7 : 1990, Section 4 Determination of undrained shear strength in triaxial compression (U) BS 1377 : Part 7 : 1990, Section 8 BS 1377 : Part 8 : 1990
AGGREGATE TESTS	
Particle size distribution (U)	BS 812 : Part 103 : 1985, Section 103.1
Particle size distribution (U)	BS EN 933-3 : 1997
Ten percent fines value (dry and soaked) (U)	BS 812 : Part 111 : 1990
Resistance to fragmentation by Los Angeles method (U)	BS EN 1097-2 : 1998

LABORATORY TESTING (CONTAMINANTS)

An extensive range of test procedures is available for the identification and quantification of levels of contamination in the ground. Selection of the test methodology and suite of contaminants to be determined is based upon site history, conditions revealed in the course of the investigation, and intended future use. Procedures are described and referenced as appropriate in the text of this report.

LABORATORY TESTING (ROCKS)

The laboratory testing of rock specimens has not reached the degree of standardisation achieved for soils testing. A wide range of test procedures are described in the relevant literature. All these methods are to a greater or lesser degree unique to particular contexts (ie, relative to a specific rock type or individual project design requirements).

TEST	STANDARD
Determination of point load strength (U)	ISRM Commission on Testing Methods, 1985
Determination of unconfined compressive strength (U)	ASTM Testing method, 1995
Determination of dry density and porosity (U)	ISRM Commission on Testing Methods, 1985
Determination of water content (U)	ISRM Commission on Testing Methods, 1985

SOIL DESCRIPTION

Laboratory (non-engineering) soil descriptions are generally given in accordance with Clause 41 of BS 5930 : 1999

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www.slrconsulting.com

TA10.2: Draft Peat Management Plan

STRATHY SOUTH WIND FARM

Technical Appendix 10.2

Draft Peat Management Plan

Prepared for: **SSE Generation Ltd**

SLR Ref: 428.00660.00070
Technical Appendix: 10.2
Version No: Rev 2
August 2020

BASIS OF REPORT

CONTENTS

DOCUMENT REFERENCES

TABLES

FIGURES

APPENDICES

1.0 INTRODUCTION

SLR Consulting Ltd (SLR) was commissioned by SSE Generation Ltd (the Applicant) to undertake a draft peat management plan (PMP) for the proposed Strathy South Wind Farm ('the site'). The site location is detailed in Figure 10.2.1.

The Applicant currently has development consent granted under section 36 of the Electricity Act 1989 and section 57 of the Town and Country Planning (Scotland) Act 1997 to construct and operate 39 wind turbines with associated infrastructure ('the Consented Scheme'), 12 km south of the village of Strathy in Sutherland. The Applicant proposes to submit an application to vary the section 36 consent for the Consented Scheme by varying the description of the proposed wind farm development, (the 'Proposed Varied Development'). It is the Proposed Varied Development which is assessed within this technical appendix.

The layout of the Proposed Varied Development is shown in Figure 10.2.2. For a full description of the Proposed Varied Development refer to Chapter 2: Description of Development (EIAR Volume 2: Main Report).

1.1 Scope of Assessment

A comprehensive programme of soils and peat probing has been completed at the site to inform the previous consenting process for the Consented Scheme. Revisions to the associated infrastructure for the Proposed Varied Development have been minimal and turbine locations are unchanged from the Consented Scheme. This Technical Appendix uses information from the previous environmental impact assessments[1,2,3,4] for the Consented Scheme for the purposes of providing indicative volumes for peat extraction, and, it also outlines recommendations for the handling, re-use and storage of peat during construction and operation of the site. Areas of the site where soils are less than 0.5 m thick are considered to be too thin to be classified as peat and are therefore classified as soils. Figure 10.2.3 and Figure 10.2.4 show the results of peat probing surveys undertaken at the site between 2007 and 2020. Areas within the site that are not impacted by the infrastructure for the Proposed Varied Development, or which have been proven to have soil depths of <0.5 m, are not within the scope of the PMP.

The purpose of this report is to ensure that there has been systematic consideration of peat management and a quantitative assessment throughout the development process.

1.2 Methodology

Scottish Planning Policy states that *"Where peat and other carbon rich soils are present, applicants should assess the likely effects of development on carbon dioxide (CO_2) emissions. Where peatland is drained or otherwise disturbed, there is liable to be release of CO_2 to the atmosphere. Developments should aim to minimise this release."*

The draft PMP considers the excavation of peat and soil across the site as a result of construction of the Proposed Varied Development. It considers the potential for minimising excavation and disturbance in order to reduce any unnecessary surplus of soils and peat.

[1] Mouchel Parkman., (March 2007). *Peat Stability Risk Assessment.* Appendix 14.1 Strathy South Windfarm, EIA Volume 4: Technical Appendices, 2007 Environmental Statement.

[2] SLR Consulting Ltd., (May 2013) *Strathy South Wind Farm, Peat Landslide and Hazard Risk Assessment* Appendix A14.1 Strathy South Wind Farm, ES Addendum Volume 4: Technical Appendices.

[3] ENVIRON (July 2013)., *Strathy South Wind Farm Peat Management Plan.* Technical Appendix A4.3, Strathy South Wind Farm, ES Addendum Volume 4: Technical Appendices.

[4] ENVIRON,. (2014) *Peat Management Plan for the T39 Layout.* Technical Appendix 4.1. Further Information Report 2014, Strathy South.

SEPA has provided a hierarchy of management approaches through which the effectiveness of the approach to peat management is optimised at development sites, as summarised below (SEPA 2017[5], Scottish Government, SNH and SEPA[6] SR and SEPA 2012[7]):

The objectives have been achieved by completion of the following:

- **Prevent Creation of Waste Peat –** avoiding generating excess peat during construction (e.g. by avoiding peat areas or by using construction methods that do not require excavation such as floating tracks);
- **Re-use on-site or off-side for peatland restoration –** use of peat produced on-site in restoration or landscaping, providing that its use is fully justified and suitable;
- **Recycling/Recovery/Treatment –** modify peat produced on site for agricultural benefit; use as fuel, or as a compost/soil conditioner, or dewater peat to improve its mechanical properties in support to re-use; and
- **Storage –** storage of peat up to a depth of 2 m is not classified as a waste and does not require authorisation from SEPA, however care must be taken to ensure that it does not cause environmental pollution, create an unnatural habitat or a safety risk.

In line with the guidance detailed above, a final PMP would be prepared post-consent, in advance of construction and would be informed by detailed peat probing around infrastructure locations (following tree removal) and by detailed ground investigation.

This report presents site-specific data and proposals to address the requirements of SEPA's guidance and proposes that **prevention** and **re-use** are the most appropriate means of managing peat excavated during construction at this site.

This report details the methodologies required to assess all potential surplus materials and presents preliminary estimates of the expected volume of excavated materials and required re-use volumes for reinstatement and restoration purposes.

In particular, this report considers the construction of access tracks, site compounds, turbine foundations and all other associated infrastructure which would result in the excavation of peat and sub-soils potentially resulting in surplus materials.

Many of the issues associated with peat on a wind farm site can be accommodated by modifying the development layout to avoid potentially difficult or sensitive areas. Such areas would include:

- Areas of deep peat, requiring potentially large volumes of excavation;
- Areas of very wet peat (such as flushes, pool and hummock complexes and gullied peatland);
- Areas of moderate to steep slopes (where site infrastructure might increase the chance of peat instability); and
- Areas of sensitive habitat.

[5] SEPA (May 2017)., *SEPA Regulatory Position Statement – Developments on Peat and Off-site Uses of Waste Peat*) SEPA Guidance, WST-G-052. Version 1.

[6] Scottish Government, SNH, SEPA (2017)., *Peatland Survey. Guidance on Developments on Peatland*, on-line version only.

[7] Scottish Renewables, Scottish Environmental Protection Agency (2012) *Developments on Peatland: Guidance on the Assessment of Peat Volumes, Reuse of Excavated Peat and the Minimisation of Waste*, Version 1.

Whilst the turbine locations remain unchanged from the Consented Scheme, the location of other elements of infrastructure for the Proposed Varied Development has been reviewed and, undergone several design iterations to ensure that areas of deep peat have been avoided, where possible. Floated roads are proposed on all areas of peat (>0.5 m), where reasonably practicable.

This report estimates the extent of materials generated during the construction phase and identifies potential areas where peat can be re-used through the following:

- The avoidance of creating surplus materials, and
- Re-use of materials on site.

1.3 Legislation, Guidance and Good Practice

Legislation relevant to the management of peat includes the following:

- The UK Climate Change Act 2008 (c27);
- Environmental Protection Act 1990 (as amended);
- Landfill (Scotland) Regulations 2003 (as amended);
- The Waste Management Licensing (Scotland) Regulations 2011; and
- Scottish Planning Policy (2014).

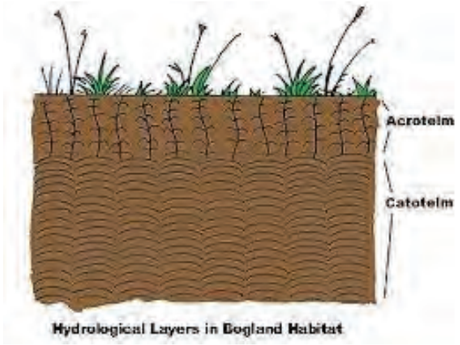
There are a number of guidance documents appropriate to the activities planned on site which have been used to guide this assessment, as follows:

- Scottish Government, Scottish Natural Heritage, SEPA (2017) Peatland Survey. Guidance on Developments on Peatland, on-line version only, Guidance on the assessment of peat volumes, re-use of excavated peat and the minimisation of waste (SR, SEPA);
- SEPA Regulatory Position Statement – Developments on Peat (SEPA, February 2010);
- Good practice during wind farm construction (SR, SNH, SEPA, FCS, HES, Marine Scotland Science, 4th Edition 2019);
- Floating roads on peat (SNH, FCS; August 2010);
- Constructed tracks in the Scottish Uplands (SNH, September 2015); and
- Restoration techniques using peat spoil from construction works (SEPA 2011).

1.4 Definitions of Peat

Peat is defined as a sedimentary material consisting of the partially decomposed remains of plant material and organic matter preserved over a period of time in a waterlogged environment resulting in anaerobic conditions, and is considered to be of depths > 0.5 m.
Peat can be classed as two principal types, the acrotelm layer, and the catotelm layer as shown on Plate 1 and described in the following paragraphs.

Plate 1-1
Hydrological Layers in Bogland Habitat



The acrotelm layer is found in the upper layer of peat where conditions are relatively dry and comprises living vegetation and partially decomposed plant material. Hydraulic conductivity in this layer tends to be higher in relation to distance from the water table.

The thickness of the acrotelm layer varies depending on topography such as steepness of slope, peat hags, and hummocks. In particular, the acrotelm layer can be affected during periods of drought or as a consequence of drainage. Fibrous in texture, the acrotelm layer has some tensile strength and is generally considered to be stable for storage and re-use.

The catotelm layer is found under the acrotelm layer and comprises decayed plant material and organisms and is denser and with a very low hydraulic conductivity. The catotelm layer sits below the water table resulting in permanent anaerobic conditions. The catotelm layer is amorphous and has very low tensile strength making it less suitable for storage and re-use.

2.0 Occurrence of Peat

2.1 Peat Conditions

Peat depth surveys have been undertaken across three phases, initially by Mouchel Parkman[1] as part of the 2007 Environmental Statement (ES)[8] with additional probing and sampling undertaken by SLR[2] as part of the 2013 ES Addendum[9] and 2014 Further Information Report[10] for the Consented Scheme.

An additional site visit was undertaken by SLR in September 2019 to provide supplementary probing where data gaps were identified. Further probing was undertaken by RPS in February 2020 at a number of the proposed borrow pit locations. Consultation with SEPA has been carried out throughout the development process, and whilst it is accepted that the current survey date is not in line with current guidance, SEPA has confirmed that for the purposes of the Section 36C application, no further peat probing is required. Full details on consultation can be found in Table 10.2 of Chapter 10: Soils and Water (EIAR Volume 2). Peat is generally defined as an organic soil in excess of 0.5 m, if the soil is less than 0.5 m, then it is considered peaty soil. The peat was found to vary across the site in terms of thickness and coverage.

Thin peat was classed as being 0.5 m to 1.5 m thick, with deposits in excess of this being classed as thick peat. The thickness ranges used were intended to reflect the probability of instability associated with both peat slides (in thin peat) and bog slides. Where the probing recorded less than 0.5 m thick, this has been considered to be an organic/peaty soil rather than peat.

The results of the probing survey are detailed within Figure 10.2.3 and Figure 10.2.4 with a summary of peat depths included within Table 2-1 below.

Table 2-1
Peat Probing Data

Peat Thickness (m)	No. of Probes	Percentage (of total probes undertaken on-site)
0 (no peat)	39	<2
0.01 – 0.49 (peaty soil)	458	20.7
0.50 – 1.49	955	43.2
1.50 – 1.99	278	12.6
2.00 – 2.49	192	8.7
2.50 – 2.99	165	7.5
3.00 – 3.99	103	4.7
> 4.0	19	<1

In summary the peat depth probing has shown that:

[8] SSE (2007). *Strathy South Wind Farm, Environmental Statement.*
[9] SSE Renewables (2013). *Strathy South Wind Farm, Environmental Statement Addendum*
[10] ENVIRON, on behalf of SSE Generation Ltd (2014). *Strathy South Wind Farm, Further Information Report (T39 Layout) (FIR)*

- The peat was found to vary across the site in terms of thickness, surface slopes and apparent characteristics;
- Peat thickness varies from 0.5 m to 5.0 m in the site; and
- The geomorphology of the peat areas varies between large, flat expanses of apparently thick peat with high moisture content and smaller areas of thinner drier deposits blanketing the moderate undulating slopes.

The probing surveys and sampling undertaken by SLR[2] identified the following profiles within the peat:

- Soft to firm from surface to base of peat;
- Relatively firmer, vegetative root system at surface to approximately 0.5 m, underlain by slightly softer, partially waterlogged peat to base; and
- Vegetation still present to base of peat and clearly identifiable.

Based on field descriptions, most of the shallow peat would be classified as between H_3 and H_4 in the von Post classification[11], showing slight decomposition with some amorphous material. The deeper peat generally in excess of 1.5 m is more decomposed and would be in the range of H_5 to H_7.

Where possible, the deeper areas of peat have been avoided. Where peat (>0.5 m) could not be avoided, floated tracks have been proposed to limit the excavation of peat, where possible. Figure 2.7: On-Site Access Track (cut, floating and Upgrades (EIAR Volume 3) provides details of proposed access tracks . Table 2-2 below shows the peat thickness at each proposed turbine location.

Table 2-2
Ground Conditions at Proposed Turbine Locations

Turbine No.	Peat Thickness (m)	Peat Conditions	Slope (°)
T1	0.3	Peaty Soil	10.4
T2	0.7	Thin Peat	2.5
T4	0.5	Thin Peat	5.1
T6	0.4	Peaty Soil	2.3
T8	0.4	Peaty Soil	2.3
T9	3.0	Thick Peat	0.9
T10	1.7	Thick Peat	2.9
T11	0.5	Thin Peat	2.9
T13	0.5	Thin Peat	2.3
T15	0.7	Thin Peat	1.8
T17	1.5	Thick Peat	2.4

[11] von Post, L. and Grunland, E., (1926), '*Sodra Sveriges torvillganger 1*' Sverges Geol. Unders. Avh., C335, 1-127.

T18	2.5	Thick Peat	1.2
T19	2.7	Thick Peat	0.5
T20	0.9	Thin Peat	1.8
T22	1.5	Thick Peat	4.7
T24	0.4	Peaty Soil	3.0
T26	0.5	Thin Peat	1.8
T28	0.8	Thin Peat	1.6
T29	2.3	Thick Peat	0.7
T30	1.0	Thin Peat	1.4
T33	3.2	Thick Peat	2.3
T35	1.3	Thin Peat	1.5
T36	1.4	Thin Peat	1.2
T39	1.2	Thin Peat	3.1
T41	0.9	Thin Peat	3.9
T42	2.3	Thick Peat	1.1
T43	1.6	Thick Peat	1.8
T45	1.1	Thin Peat	2.8
T46	1.6	Thick Peat	1.8
T47	0.8	Thin Peat	3.8
T49	2.8	Thick Peat	1.2
T50	1.0	Thin Peat	1.0
T52	3.3	Thick Peat	1.9
T56	1.5	Thick Peat	0.4
T57	2.4	Thick Peat	1.2
T61	0.2	Peaty Soil	4.7
T69	2.1	Thick Peat	1.6
T70	0.6	Thin Peat	1.5
T72	2.7	Thick Peat	0.8

3.0 Potential Impacts on Peat from Construction Activities

3.1 Wind Turbines

Wind turbine foundations in peatlands would normally require full and permanent excavation of peat to competent strata, with temporary excavation of peat from a wider diameter to enable safe access to the base of the excavation.

The resulting peat generated could be considered as a permanent loss, unless satisfactory re-use could be achieved within the development site. The peat would normally be used to reinstate track shoulders, around crane hardstandings and turbine bases.

3.2 Crane Hardstanding

In order to assemble the wind turbine and enable servicing during operation, crane pads are constructed adjacent to each wind turbine. These must be sufficient to take the weight of both the crane and turbine components, and therefore excavation to underlying competent strata is required. Without adequate drainage controls, permanent excavation may disrupt natural hydrological pathways.

Crane pads must remain in place for the life of the Proposed Varied Development to enable routine inspection and maintenance. Peat generated from these excavations would be considered a permanent loss, unless satisfactory re-use could be achieved within the development site.

3.3 Construction Compound

Temporary compounds are provided during the construction phase to enable storage of construction materials, turbine components and fuel, concrete batching plant, siting of welfare facilities and site offices.

Due to their temporary nature, peat excavated for compounds would normally be stored and reinstated, and therefore re-use is required.

3.4 Borrow Pits

Where access track and hardstanding construction materials are required, it is intended to source the material from borrow pits on-site.

Peat overlying Glacial Till, weathered rock and bedrock is normally excavated and temporarily stored for the duration of construction, and then re-used for borrow pit restoration and landscaping post construction, and therefore re-use is required. Peat is not anticipated at any of the proposed borrow pit options for the Proposed Varied Development.

For further information on proposed borrow pits, refer to Technical Appendix 2.2: Borrow Pit Appraisal (EIAR Volume 4).

3.5 Access Tracks

Access tracks are required to enable passage of construction and servicing traffic around the site. Over peatlands, the choice of access track design normally reflects the peat depths along the route, with shallow peat/organic soils <1 m deep excavated to competent strata (cut and fill tracks), and deeper peats overlain by floating tracks (with no excavation). Whilst guidance suggests that tracks should be floated on peat greater than 1 m, for the Proposed Varied Development it is proposed that to maintain and improve the mesotope hydrological connectivity, where peat stability permits, the floating road technique would be used on areas with peat depths greater than 0.5 m. In general, it is intended that the area to the south of Yellow Bog would be an area where floating road techniques would be deployed, wherever possible. In order to take account

of present site conditions the floating road design would be modified in such a way as to maintain and improve mesotope hydrological connectivity either side of the track. Detailed site investigation would identify where such methods are possible and inform the detailed design post-consent.

Access tracks are permanent infrastructure, peat excavated for cut and fill would be considered a permanent loss, unless the peat can be re-used elsewhere on site.

No excavations are undertaken for floating tracks, and therefore there is no associated peat excavation.

In excavated tracks, the surface vegetation (i.e. habitat) would be lost unless stored and reinstated elsewhere, however the intention would be to re-use excavated turves and peat on verges and track shoulders (including along the verges of floated track sections) and hardstandings for landscaping and restoration purposes.

Both types of access track have the potential to disrupt natural hydrological drainage pathways, appropriate drainage would be designed to mitigate this. For further information, see Technical Appendix 2.1: CEMP (EIAR Volume 4).

3.6 Cable Trenching

Electrical cabling is typically buried or ducted adjacent to the access track network where practicable (cable trenching), either into existing peat (requires excavation, laying and backfilling) or wherever possible ducts are laid within reinstated material at the sides of floated tracks (no excavation of in-situ peat required). Where excavation is required, peat generated from cable trenching is normally replaced at its point of origin, and therefore is not considered a volume loss and re-use is a certainty.

4.0 Proposed Mitigation During Construction

There are a number of ways in which detailed design and construction activities can be specified to minimise impacts on peatlands. The following section outlines briefly the likely mitigation required to minimise impact, based on the re-use of peat specific to key elements of the Proposed Varied Development.

Peat stability is assessed in a site specific Peat Landslide and Hazard Risk Assessment (EIAR Volume 4: Technical Appendix 10.1) and the control and management of the drainage is presented in Technical Appendix 10.4 (Flood Risk Assessment and Drainage Impact Assessment), refer to EIAR Volume 4 and Chapter 10 (Soil and Water) of the EIA (refer to EIAR Volume 2).

4.1 Wind Turbine Foundations

Wind turbine foundations represent permanent excavation and the primary mitigation measure is to locate the wind turbines to avoid the areas of deepest peat, thereby reducing excavated volumes. The majority of turbine locations for the Proposed Varied Development are located on peat, with five located on soils. The average peat depth is 1.56 m, ranging from 0.5 m to 3.3 m.

4.2 Crane Hardstandings and Temporary Compounds

In relation to crane hardstanding, guidance is to avoid their full reinstatement post-construction, given the likelihood of re-use for maintenance activities associated with the wind turbines.

In relation to temporary compounds, the following good practice guidance applies:

- Peat stripped from compound and hard standing areas would not be stored higher than 1 m and could require to be seeded in the short term to prevent drying out, if stored for long residence times;
- Stripped turves are used for final restoration, however where turves are insufficient or vegetation regeneration requires reseeding, temporary fencing may be considered around compound areas undergoing restoration in order to prevent grazing; and
- The choice of seed mix for reseeding should be appropriate to the ecological and hydrological conditions of the restored compound location and surrounding habitats and should be advised by the Ecological Clerk of works.

4.3 Borrow Pits

Peat could be re-used within borrow pits for the purpose of their restoration provided the method of re-use is consistent with the environmental reinstatement objectives of the site and presents no residual risks from pollution of the environment or harm to human health (SEPA, 2017[5]).
Key issues for borrow pit restoration are:

- Prevention of desiccation and carbon losses from peat used in the restoration;
- Development of complete vegetation cover through emplacement of peat turves or seeding with an appropriate species; and
- Fencing where required, to exclude grazing stock and to encourage vegetation establishment.

4.4 Access Tracks

In comparison to infrastructure specific to wind turbines, there is considerably more guidance[12,13] available to support access track design in peatlands. Guidance is generally focused on floating tracks and excavated tracks and is summarised below.

4.4.1 Floating Access Tracks

Over peat (>0.5 m), floating tracks would be used to remove the requirement for peat excavation and limit disruption of hydrological pathways. The success of construction requires careful planning to take account of the unique characteristics of peat soils. Specific guidance[13] is available on design, the duration and timing of construction, the sequence of construction and the re-use of peat on the shoulders of the floating access track.

Design of Floating Access Tracks

The following issues should be considered during detailed design of floating access tracks:

- Adopting conservative values for peat geotechnical properties during detailed design (post-consent);
- Applying a maximum depth rule whereby an individual layer of geogrid and aggregate should not normally exceed 450 mm without another layer of geogrid being added;
- On gently sloping ground and where the access track runs transverse to the prevailing slope, accommodating natural hydrological pathways such as flushes and peat pipes through installation of a permanent conduit within or underneath the track and allowing for as much diffuse discharge (while minimising disturbance to existing peatland) on the downslope as possible;
- Ensuring transitions between floating tracks and excavated tracks (or other forms of track not subject to long term settlement) are staged in order to minimise likelihood of track failure at the boundary between construction types;
- Scheduling access track construction to accommodate for, and reduce peat settlement characteristics; and
- Re-use of existing roads (with upgrading if required), where possible.

Duration and Timing of Construction of Floating Access Tracks

The critical factor in successful construction of floating access tracks is the timescale of construction, and the following good practice guidance is provided:

- The settlement characteristics of peat; should be accommodated by appropriate scheduling of access track construction, as follows:
    - Prior to construction works, the setting out the centreline of the proposed access track to identify any ground instability concerns or particularly wet zones;
    - Identifying 'stop' rules, i.e. weather dependent criteria for cessation of access track construction based on local meteorological data;
    - Maximising the interval between material deliveries over newly constructed access tracks that are still observed to be within the primary consolidation phase;

Additional detailed probing around infrastructure locations would be undertaken post-consent in line with relevant guidance[6], following removal of trees. These results would allow for identification and micrositing from any ground instability concerns or particularly wet zones.

[12] Scottish Renewables, Scottish Natural Heritage, Scottish Environmental Protection Agency, Forestry Commission Scotland, Historic Environment Scotland, Marine Scotland, AEECoW (2019)., *Good Practice During Wind Farm Construction.* 4th Edition.
[13] Scottish Natural Heritage, Forestry Commission (August 2010)., *Floating Roads on Peat*

Sequence of Construction

The sequence of construction is normally stipulated in guidance provided by the supplier of the geotextile or geogrid layer, and suppliers are often involved in the detailed access track design. Good practice in relation to the sequence of access track construction is as follows:

- Retaining rather than stripping the vegetation layer (i.e. the acrotelm, providing tensile strength), and laying the first geotextile/geogrid directly on the peat surface;
- Adding the first rock layer;
- Adding the second geotextile/geogrid, and add overlying graded rock fill as a running surface;
- Heavy plant and Heavy Goods Vehicles (HGV) using the access tracks during the construction period should be trafficked slowly in the centre of the track to minimise dynamic loading from cornering, breaking and accelerating;
- Ensuring wheel loads should remain at least 0.5 m from the edge of the geogrid, markers should be laid out, monitored and maintained on the access track surface to clearly emphasise these boundaries; and
- Ongoing 'toolbox' talks and subsequent feedback to construction and maintenance workers and drivers to emphasise the importance of the implementing the above measures.

Use of Peat as Trackside Shoulders

A key opportunity to re-use peat is to employ it in landscaping of constructed access tracks. Wedge-shaped reinstatement at the margins of a floating access track (which is elevated above the peat surface) is termed shoulders, and good practice guidance is as follows:

- Re-using peat excavated from elsewhere on site as shoulders adjacent to the floating track;
- Peat shoulders should taper from just below the track sides (thereby preventing over high shoulders from causing ponding on the track surface) to join the surrounding peat surface, keeping as natural a profile as possible to tie in with existing slope profiles;
- Limiting the width of peat shoulders to avoid unnecessary smothering of intact vegetation adjacent to the floating track;
- Peat must not be laid too thinly (minimum 0.5 m) to avoid drying out;
- Peat must not be compressed during reinstatement to prevent cracking; and
- Where possible these should be capped with turves or seeded as quickly as possible to prevent run off erosion and should not be left bare for excessive periods.

4.4.2 Excavated Access Tracks

Excavated tracks require complete excavation of soil/peat to a competent substrate. Excavated tracks would generally be undertaken where peat depths are less than 0.5 m. This peat/soil would require storage ahead of re-use elsewhere on site. Good practice guidance[5] relates mainly to drainage in association with excavated tracks:

- Trackside ditches should capture surface water (within the acrotelm) before it reaches the road;
- Interceptor drains should be shallow and flat bottomed (and preferably entirely within the acrotelm to limit drawdown of the water table);
- Any stripped peat turves should be placed back in the invert and sides of the ditch to assist regeneration and prevent erosion to the peat and wash out that could occur; and
- Culverts and cross drains should be installed under excavated tracks to maintain subsurface drainage pathways (such as natural soil pipes or flushes). Discharge from constructed drainage should allow for as much diffuse dispersion of clean (silt free) water as possible while minimising disturbance to existing peatland as far as possible. Silt mitigation measures will be incorporated into all constructed drainage as per the requirements of the CEMP.

Although excavation is normally undertaken in peat of minor thickness (< 1.0 m), there is a possibility of minor slippage from the cut face of the peat mass. Accordingly:

- Free faces should be inspected for evidence of instability (cracking, bulging, excessive discharge of water or sudden cessation in discharge); and
- Where significant depths of peat are to be stored adjacent to an excavation, stability analysis should be conducted to determine Factor of Safety (FoS) and an acceptable FoS adopted for loaded areas.

As with floating tracks, regular routine monitoring should be scheduled post-construction to ensure that hydrological pathways and track integrity have been suitably maintained.

4.5 Cable Trenches

Cable trenches either require peat excavation specifically for this purpose, or they could be constructed within landscaping of shoulders adjacent to floating tracks. Guidance[12] is as follows:

- Utilise peat shoulders for cable lays where possible to minimise peat excavations specifically for this purpose, in this case, peat shoulders should be 1.0 m to 1.5 m thick;
- Where cable trenching is constructed adjacent to a floating road, ensure the trench is backfilled to prevent void filling by material migration;
- Minimise time between excavation of the cable trench and peat reinstatement, preferably avoiding excavation until the electrical contractor has cables on-site ready for installation; and
- Avoid incorporating substrate materials in the excavation, to minimise contamination of the peat to be reinstated. Replace excavated materials sequentially.

4.6 Peat Excavation, Storage and Transport

Where peat is to be re-used or reinstated with the intention that its supported habitat continues to be viable, the following good practice, outlined below, applies.

4.6.1 Excavation

Excavated peat should be excavated as turves, including the acrotelm (surface vegetation) and a layer of adjoining catotelm (more humified peat) typically up to 500 mm thick in total, or as blocks of catotelm; the acrotelm should not be separated from its underlying peat;

- The turves should be as large as possible to minimise desiccation during storage, though the practicalities of handling should be considered;
- Contamination of excavated peat with substrate materials to be avoided at all times; and
- Consider timing of excavation activities to avoid very wet weather and multiple handling to minimise the likelihood of excavated peat losing structural integrity.

If possible, extract intact full depth acrotelm layers from the top surface of the peat deposit. This technique would maintain connectivity between the surface vegetation and the partially decomposed upper layers of the catotelm.

4.6.2 Storage

The following good practice applies to the storage of peaty soils/peat:

- Stripped materials should be carefully separated to keep peat and other soils apart;
- To minimised handling and haulage distances, excavated material should be stored local to the site of excavation or end point of restoration;
- Peat turves should be stored in wet conditions or irrigated in order to prevent desiccation (once dried, peat will not rewet);
- Stockpiling of peat should be in large volumes to minimise exposure to wind and sun (and desiccation), but with due consideration for slope stability, but should not exceed 1 m in height to maintain stability of stockpile;

- Stockpiles should be isolated from watercourses or drains with appropriate bunding to minimise pollution risks;
- Excavated peat and topsoil stored separately, should be stored to a maximum of 1 m thickness;
- Stores of non-turf (catotelm) peat should be bladed off to reduce the surface area and desiccation of the stored peat; and
- Peat storage areas should be monitoring during periods of very wet weather, or during snowmelt, to identify early signs of peat instability.

4.6.3 Temporary Storage

Any peaty soils/peat to be removed during construction would require a temporary storage area near to the construction works/area of re-use. Where peat cannot be transferred immediately to an appropriate restoration area, short term storage will be required. In this case, the following good practice applies:

- Peat should be stored around the turbine perimeter at sufficient distance from the cut face to prevent overburden induced failure,
- Local gullies, diffuse drainage lines (or very wet ground) and locally steep slopes should be avoided for peat storage;
- Drying of stored peat should be avoided by irrigation or by seeding (although this is unlikely to be an issue for peat materials stored less than two months).

For crane pads, borrow pits and compounds (with longer term storage requirements), the following good practice applies:

- Peat generated from crane pad locations should be transported directly to its allocated restoration location, to minimise the volume being stockpiled with the possibility of drying out;
- Stores of catotelmic peat should be bladed off to reduce their surface area and minimise desiccation;
- Where transport cannot be undertaken immediately, stored peat should be irrigated to limit drying and stored on a geotextile mat to promote stability;
- Monitoring of large areas of peat storage during wet weather or snowmelt should be undertaken to identify any early signs of peat instability.

4.6.4 Transport

- Movement of turves should be kept to a minimum once excavated, and therefore it is preferable to transport peat planned for translocation and reinstatement to its destination at the time of excavation; and;
- If HGVs/dump trucks that are used for transporting non-peat material are also to be used for peat materials, measures should be taken to minimise cross-contamination of peat soils with other materials.

4.6.5 Handling

Following refinement of the site peat model, a detailed storage and handling plan would be provided as part of the detailed PMP and should be prepared, including:

- Expected excavation volume at each infrastructure location (including peat volumes split into area/volume of 'acrotelm' or 'turf', and volume of catotelm) which would be achieved by undertaking additional probing in line with current guidance[6] following removal of trees post-consent;
- Volume to be stored locally and volume to be transferred directly on excavation to restoration areas elsewhere (e.g. disused quarries, borrow pits or forest drains) in order to minimise handling;
- Location and size of storage area relative to turbine foundation, crane hardstanding and natural peat morphology / drainage features;
- Irrigation requirements and methods to minimise desiccation of excavated peat during short term storage.

These parameters are best determined post-consent in light of detailed ground investigation with the micro-siting areas for each element of infrastructure.

4.7 Restoration

During restoration, the following best practice should be followed:

- Carefully evaluate potential restoration sites, such as borrow pits for their suitability, and agree that these sites are appropriate with the ECoW, landowners and relevant consultees;
- Undertake restoration and revegetation or reseeding work as soon as possible;
- Where required, consider exclusion of livestock from areas of the site undergoing restoration, to minimise impacts on revegetation; and
- As far as reasonably practicable, restoration should be carried out concurrently with construction rather than at its conclusion.

5.0 Site Based Peat Excavation and Management Assessment

This Draft PMP has been undertaken as part of the Environmental Impact Assessment Report for the Proposed Varied Development to ensure that there is an understanding of the extent of peat on site, the total amount of peat that might be excavated, a demonstration that the current design avoids areas of deep peat where possible and that the reuse of the excavated materials is certain and minimised where possible, and in line with updated industry good practices and guidance.

The Proposed Varied Development comprises 39 wind turbines and associated crane hardstandings, a single access point for construction traffic, on-site access tracks of both floating and cut construction (including upgrade to existing tracks), a temporary construction compound and permanent substation and operations building and underground cabling.

5.1 Peat Survey

5.1.1 Probing

Probing has been undertaken in several phases, due to the dense forestry coverage, probing could not be completed on a 100 m grid. Rides and clearings were utilised to gain coverage across the site and conditions between, where inaccessible, were inferred. The results have been used to produce a peat isopach map (Figure 10.2.3). A total of 2,209 probe locations were undertaken in areas of identified peaty soil/peat to determine the thickness thereof; and the overall conclusion regarding peat stability is that there is a low risk of peat instability over most of the site although some limited areas of medium and high risk have been identified.

An additional site visit was undertaken by SLR in September 2019 to provide supplementary probing where data gaps were identified. Further probing was undertaken by RPS in February 2020 at the proposed borrow pits E, F and G, following consultation with SEPA. SEPA confirmed that no additional probing was required around these locations as the probing undertaken showed shallow peat to be present.

The layout has been carefully designed to minimise excavating or disturbing thick peat, where possible, and where this cannot be avoided, mitigated by the use of floating roads.

5.1.2 Peat Coring

As part of the 2013 ES Addendum, peat samples were collected by SLR using a peat auger and used to inform interpretations of the peat condition and underlying substrate. The results of which are detailed within the 2013 Peat Landslide Hazard and Risk Assessment (PLHRA) report[2] submitted for the Consented Scheme.

Based on field descriptions most of the shallow peat sampled on site would be classified as between H_3 and H_4 in the von Post classification, showing slight decomposition with some amorphous material. The deeper peat generally in excess of 1.5 m is more decomposed and would be in the range of H_5 to H_7; see the more detailed discussion in Section 5.3.2 of the PLHRA.

Table 5-1
Excavation Materials Management Plan

Method	Volume of Excavated Material (m^3)	How much of this can be re-used on site (%)	Opportunity for Avoidance or Minimisation of Excavated Material	Re-use Requirements	Hierarchy Adherence	Limitations and Considerations
Site Track (Cut) Total Length of the new cut access tracks on site would be 12.3 km. The cut tracks would be located on an average peat depth of 1.04 m (where possible tracks would be floated on peat >0.5 m).	96,629 m^3 (1.04 m x ((8.6 m + (8.6 m – 2 x 1.04 m))/2) x 12,290 m)	100%	The access track route has been subject to a number of design iterations to avoid deeper peat and steep slopes. Where possible track width would be minimised. The peat along the proposed excavated tracks on the site is fibrous – pseudo fibrous and does not exhibit thick catotelmic peat. There are some areas of thick catotelmic peat on the route of the site access tracks; however, these areas would utilise floated access tracks to minimise disturbance of the peat.	Verge Restoration and visual screening, particularly along access track. Sections of the route may require cut and fill and these slopes would require restoration to minimise visual impact. 58,992 m^3 of excavated peat and peaty soil would be used along access tracks. (12,290 m x 3 m x 0.8 m x 2)	Avoidance was first level of screening to avoid areas of thicker peat. Routing has been planned on thinner peat or peaty soils where possible. The layout design has been guided by constraints which highlight ecological, hydrogeological and geomorphological - all of which identify the peat areas to avoid.	Requires detailed ground investigation to fully characterise peat. Detailed assessment may identify further lengths of floating access tracks, which would further reduce requirement for excavation.
Site Track (Floated) It is anticipated that 7.7 km of floating tracks would be required, which would generate no surplus peat.	Not applicable	Not applicable	No excavated material except where cable trenches are proposed (see below).	Verge restoration along access tracks ~ 45,900 m^3 (7,650 m x 3 m x 1 m x 2)	Looked at different cut off depths for floating access track. Based on >0.5 m depth.	Verge restoration must avoid impacting existing unexcavated peat.
Site Track	17,004 m^3	100%	Existing tracks have been	Verge restoration along	Avoidance was first	Requires detailed ground investigation

Method	Volume of Excavated Material (m^3)	How much of this can be re-used on site (%)	Opportunity for Avoidance or Minimisation of Excavated Material	Re-use Requirements	Hierarchy Adherence	Limitations and Considerations
(Existing/Upgrade) It is anticipated that 7.7 km of existing tracks on-site would be upgraded.	(7,670 m x 3 m x 0.74 m)		utilised where possible to minimise the disturbance of the peat.	access tracks 18,408 m^3 (7,670 m x 3 m x 0.8 m)	level of screening to avoid areas of thicker peat. Routing has been planned to utilise existing tracks.	to fully characterise peat and conditions of existing track.
Access Track (including alternative bridge crossing of River Strathy) (Existing/Upgrade) It is anticipated that 3.2 km of existing tracks off-site would be upgraded.	9276 m^3 (3,168 m x 3 m x 0.98 m)	100%	Existing tracks have been utilised where possible to minimise the disturbance of the peat.	Verge restoration along access tracks 4752 m^3 (3,168 m x 3 m x 0.5 m)	Avoidance was first level of screening to avoid areas of thicker peat. Routing has been planned to utilise existing tracks.	Requires detailed ground investigation to fully characterise peat and conditions of existing track.
Access Track (including alternative bridge crossing of River Strathy (Cut) It is anticipated that up to 1.9 km of new cut tracks would be required to get to the site. Where possible, tracks would be floated.	11,127 m^3 (1,886 m x 7 m x 0.98 m)	100%	Two potential routes are to be assessed for suitability. This report assumes the worst case (longer) access track.	Verge restoration along access tracks ~ 7,544 m^3 (1,886 m x 2 m x 1 m x 2)	Looked at different cut off depths for floating access track. Based on > 0.5 m depth.	Requires detailed ground investigation to fully characterise peat and conditions of existing track. Following ground investigation, it may be deemed appropriate to float sections of this track.
Tracks to LiDAR Stations It is anticipated that 0.2 km of excavated access	603 m^3 (240 m x 4 m x 0.63 m)	100%	Tracks have been subject to several design iterations, to avoid thick peat where possible. Where thick peat could not be	Verge restoration along access tracks ~ 1,568 m^3 (490 m x 2 m x 0.8 m x 2)	Avoidance was first level of screening to avoid areas of thicker peat.	Requires detailed ground investigation to fully characterise peat.

Method	Volume of Excavated Material (m^3)	How much of this can be re-used on site (%)	Opportunity for Avoidance or Minimisation of Excavated Material	Re-use Requirements	Hierarchy Adherence	Limitations and Considerations
track and 0.2 km of floated tracks would be required.	(excavated track) Not applicable to floated track.		avoided, floated tracks are proposed.			Detailed assessment may identify further lengths of floating access tracks, which would further reduce requirement for excavation. Verge restoration must avoid impacting existing unexcavated peat.
Passing Places (on-site) It is anticipated that 32 No. passing places are required along the access tracks.	1,868 m^3 (20 m x 3 m x 0.97 m) x 32	100%	Tracks have been subject to several design iterations, to avoid thick peat where possible.	Verge restoration along access tracks ~ 1,024 m^3 (20 m x 2 m x 0.8 m) x 32	Avoidance was first level of screening to avoid areas of thicker peat.	Requires detailed ground investigation to fully characterise peat. Detailed assessment may identify further lengths of floating access tracks, which would further reduce requirement for excavation.
Cable Routes Total Distance of Cabling ~ 25.2 km.	38,005 m^3 (25,200 m x 1.55 m x 0.97 m)	100%	Minimised disturbance to drainage by taking cable route along existing access track and around the turbines adjacent to new access tracks.	Suitable excavated materials would be re-used to backfill trenches 38,005 m^3 (25,200 m x 1.55 m x 0.97 m)	Re-use and backfill excavated materials.	Ground conditions along proposed route may require further investigation.
Cable Trenching off-	8,972 m^3	100%	Minimised disturbance by	100%	Avoidance of	Further ground

Method	Volume of Excavated Material (m^3)	How much of this can be re-used on site (%)	Opportunity for Avoidance or Minimisation of Excavated Material	Re-use Requirements	Hierarchy Adherence	Limitations and Considerations
site (removal of bund)	(calculations provided by the Applicant)		proposing trenching adjacent to existing track.	8,972 m^3 Excavated materials can be re-used on site subject to appropriate investigation to assess suitability.	excavating into thick peat with re-use and backfill excavated materials.	investigation required to assess the suitability of material for re-use. Material appears to comprise a mix of glacial soils, weathered rock and organic soil/peat.
On-site Track to be removed and restored (habitat management) A ~ 3.2 km length of track would be removed as part of the habitat management plan for the site.	Assumes no peat excavated.	100%	-	Excavated materials can be re-used to restore habitat. 14,592 m^3 (3,200 m x 6 m x 0.97 m).	Re-use	Further ground investigation required to assess the construction methods of existing track and volumes of material required to restore habitat. It is critical that peat used in the restoration process is local and handling and storage time is minimised.
Turbine Bases – formation only 39 No. turbines With average excavation of 30 m diameter x 1.36 m (average thickness of	37,473 m^3 (15 m x 15 m x 3.14 x 1.36 m) x 39	100%	Turbine locations have been subject to a number of design iterations to avoid thicker peat and steep slopes. Average thickness of peat at turbine sites is ~1.36 m	At turbine foundations topsoil would be stripped keeping top 200 mm of turf intact. This would be stored adjacent to the base working area and would be limited to 1 m height. 4,680 m^3	Avoided areas of thick peat for turbine bases where possible to minimise removal of excessive materials.	Requires detailed ground investigation to fully characterise peat.

Method	Volume of Excavated Material (m^3)	How much of this can be re-used on site (%)	Opportunity for Avoidance or Minimisation of Excavated Material	Re-use Requirements	Hierarchy Adherence	Limitations and Considerations
peat at turbines).				(60 m x 2 m x 1 m x 39)		
Crane Pads 39 No. crane hardstandings. With average excavation of 90 m x 30 m x 1.46 m with additional areas for cranes and blades.	128,115 m^3 (2,250 m x 1.36) x 39	100%	Crane hardstanding locations have been influenced by the turbine design iterations to avoid thicker peat and steep slopes. Average thickness of peat at crane hardstanding sites is ~1.46 m.	At crane hardstandings topsoil would be stripped keeping top 200 mm of turf intact. This would be stored adjacent to the base working area and would be limited to 1 m height. 33,696 m^3 could be re-used to dress the edges of the hardstanding area. (216 m x 5 m x 0.8 m x 39)	Avoided areas of thick peat for turbine bases to minimise removal of excessive materials. Orientation of crane hardstandings to be designed following detailed ground investigation, to avoid constraints and minimise requirement for peat excavation.	Requires detailed ground investigation to fully characterise peat.
Temporary Blade Laydown and ancillaries	37,296 m^3 (655 m x 1.46) x 39	100%	Crane hardstanding locations and adjacent temporary laydown areas have been influenced by the turbine design iterations to avoid thicker peat and steep slopes.	37,296 m^3 Materials would be re-used on site to reinstate working areas and for appropriate landscaping.		
Substation and Temporary Laydown	20,010 m^3 (200 m x 150 m x 0.67 m) (substation) 11,700 m^3 (200 m x 100 m x 0.59 m)	100%	The proposed substation location would largely be located on peaty/glacial soils adjacent to the proposed access tracks.	Materials would be re-used on site to reinstate working areas and for appropriate landscaping. 350 m^3 (700 m x 1 m x 0.5 m) (substation)	Avoided siting substation on thick peat areas where possible.	Requires detailed ground investigation to fully characterise ground conditions.

Method	Volume of Excavated Material (m^3)	How much of this can be re-used on site (%)	Opportunity for Avoidance or Minimisation of Excavated Material	Re-use Requirements	Hierarchy Adherence	Limitations and Considerations
	(laydown)			11,700 m^3 (200 m x 100 m x 0.59 m) (laydown)		
Concrete Batching Plant	5,760 m^3 (100 m x 100 m x 0.58 m)	100%	The proposed concrete batching plant would largely be located on peaty/glacial soils adjacent to the proposed access tracks.	Materials would be re-used on site to reinstate working areas and for appropriate landscaping. 5,760 m^3 (100 m x 100 m x 0.58 m)	Avoided siting concrete batching plant on thick peat areas where possible.	Requires detailed ground investigation to fully characterise ground conditions.
LiDAR Working Area	80 m^3 (5 m x 4 m x 1 m)	100%		Materials would be re-used on site to reinstate working areas and for appropriate landscaping. 5 m^3 (10 m x 0.5 m x 0.5 m) x 2	Avoided siting LiDAR Working Areas on thick peat areas where possible.	Requires detailed ground investigation to fully characterise peat.
Temporary Construction Compound	2,850 m^3 (150 m x 50 m x 0.38 m)	100%	The proposed construction compound would largely be located on peaty/glacial soils adjacent to the proposed access tracks.	2850 m^3 Materials would be re-used on site to reinstate working areas and for appropriate landscaping.	Avoided siting Temporary Construction Compound on thick peat areas where possible.	Requires detailed ground investigation to fully characterise ground conditions.
Temporary Laydown Areas	18,530 m^3 (100 m x 100 m x 0.93 m) x 2	100%	The proposed laydown areas would largely be located on peaty/glacial soils adjacent to the proposed access tracks.	18,530 m^3 Materials would be re-used on site to reinstate working areas and for appropriate landscaping.	Avoided siting laydown areas on thick peat areas where possible.	Requires detailed ground investigation to fully characterise ground conditions.
Borrow Pits	Borrow Pit A:	Not applicable	There is limited peaty soils/peat	Limited peaty topsoil can	Site selection avoided	Current calculations

Method	Volume of Excavated Material (m^3)	How much of this can be re-used on site (%)	Opportunity for Avoidance or Minimisation of Excavated Material	Re-use Requirements	Hierarchy Adherence	Limitations and Considerations
There are 7 No. borrow pit options, generally with limited peat cover.	35,175 m^3 (330 m x 190 m x 0.56 m) Borrow Pit B: 4,735 m^3 (135 m x 115 m x 0.31 m) Borrow Pit C: 30,190 m^3 (175m x 155m x 1.11 m) Borrow Pit D: 2574 m^3 (100 m x 90 m x 0.29 m) Borrow Pit E: 27,574 m^3 (160 m x 140 m x 1.23 m) Borrow Pit F: 7,040 m^3 (190 m x 78 m x 0.48 m) Borrow Pit G: 2,243 m^3 (120 m x 70 m x 0.27 m)		overlying the selected borrow pits.	be stockpiled and used for restoration. Peat/peaty soils from elsewhere on-site could be used to restore the proposed borrow pits with the following volumes: Borrow Pit A: 97,185 m^3 (330 m x 190 m x 1.55 m) Borrow Pit B: 24,064 m^3 (135 m x 115 m x 1.55 m) Borrow Pit C: 42,044 m^3 (175m x 155m x 1.55 m) Borrow Pit D: 13,950 m^3 (100 m x 90 m x 1.55 m) Borrow Pit E: 34,720 m^3 (160 m x 140 m x 1.55 m) Borrow Pit F: 22,971 m^3 (190 m x 78 m x 1.55 m) Borrow Pit G: 13,020 m^3 (120 m x 70 m x 1.55 m)	areas of peat for borrow pits, identified sites on bedrock or close to minimise removal of excessive materials.	are based on conservative re-use and based on the use of all seven borrow pits. Detailed ground investigation is required to assess the ground conditions at each site.
Total Excavated	554,789m^3		**Total Re-use**	562,578 m^3		

Based on the values indicated, there is a balance of materials with no a surplus peat anticipated to be generated on site – See Appendix A.

Should further ground investigation information become available, the figures would need to be re-calculated, the figures in the table are indicative only.

6.0 Peat Excavation Considerations

This section of the draft PMP includes the method for dealing with peat which could potentially be classified as waste (only if the above volumes estimate significant quantities of catotelmic peat, which cannot be re-used).

Table 6-1 below outlines where those materials that are likely to be generated on-site, they fall within the Waste Management Licensing (Scotland) Regulations 2011.

Based on the results presented in Table 6-1, it has been concluded that all of the materials to be excavated on-site would fall within the non-waste classification as most of the topsoil and peaty soils would be re-used on site. Based on a detailed probing exercise and visual inspection of the peat, it is predominantly fibrous – pseudofibrous peat which would be suitable to be re-used on site. Typically the peat was found to be fibrous and fairly dry within the top metre before becoming more amorphous with depth.

The majority of the excavated peat is therefore entirely re-useable as it is predominantly fibrous and easily re-used on-site. Areas of deep peat have been avoided by design, where possible, and by utilising floated roads on areas of peat (> 0.5 m), where possible.

Table 6-1
Excavated Materials – Assessment of Suitability

Excavated Material	Indicative Volume on Site by % of total excavated soils	Is there a suitable use for material	Is the Material required for use on Site	Material Classified as Waste	Re-use Potential	Re-use on Site
Mineral Soil	25	Yes	Yes	Not classified as waste	Yes	Would be re-used in reinstatement of floated access track verges, cut and fill verges, road verges, side slopes and check drains. Peripheral embankments of turbine bases, crane hardstandings and restoration of borrow pits
Turf (Surface layer of vegetation and fibrous matt)	35	Yes	Yes	Not classified as waste	Yes	
Acrotelmic peat	35	Yes	Yes	Not classified as waste	Yes	Would be re-used in reinstatement of floated access track verges, cut and fill verges, road verges, side slopes and check drains. Peripheral embankments of turbine bases, crane hardstandings and restoration of borrow pits.
Catotelmic Peat (amorphous material unable to stand unsupported when stockpiled >1 m)	5 Very limited as it has been avoided by design.	Potentially	Potentially *	Potentially if not required as justifiable restoration of habitat management works	Limited	If peat does not require treatment prior to re-use it could be used on-site providing adequate justification and method statements are provided and approved by SEPA. If the peat is unsuitable for use without treatment then it could be regarded as a waste. However, every attempt to avoid this type of peat has been incorporated into the design.

*Such uses for this type of material are limited, however there could be justification for use in the base of borrow pits to maintain waterlogged conditions and prevent desiccation of restored area and in some habitat management works such as gully or ditch blocking where saturated peat is required to mimic mire type habitats and encourage establishment of sphagnum.

7.0 Conclusion

The figures detailed within this report are to be considered indicative at this stage. The total peat volumes are based on a series of assumptions for the Proposed Varied Development's layout and peat depth data averaged across discrete areas of the site. Such parameters can still vary over small scale and therefore topographic changes in the bedrock profile could impact the total accuracy of the volume calculations. The accuracy of these predictions would be improved and updated with the results of further detailed peat probing data, to be carried out during refinement in accordance with 2017 guidelines[6], as part of detailed ground investigation to be undertaken post-consent. The figures shown in the tables suggest that the volumes of peat excavated on-site would be re-used without creating surplus materials which would require to be classified as waste. Post-consent, the Draft PMP and the Outline CEMP (refer to EIAR Volume 4: Technical Appendix 2.1) would be updated with information obtained during detailed ground investigations and design stage.

These plans would be developed to update the Outline CEMP, with post-construction restoration plans. This would be reviewed and monitored along with the updated PMP and CEMP to ensure compliance with method statements and to keep track of volumes.

FIGURE 10.2.1

Site Location

sse Renewables

Key

Site Boundary

Scale 1:250,000@ A3

0 5 10 Km

N

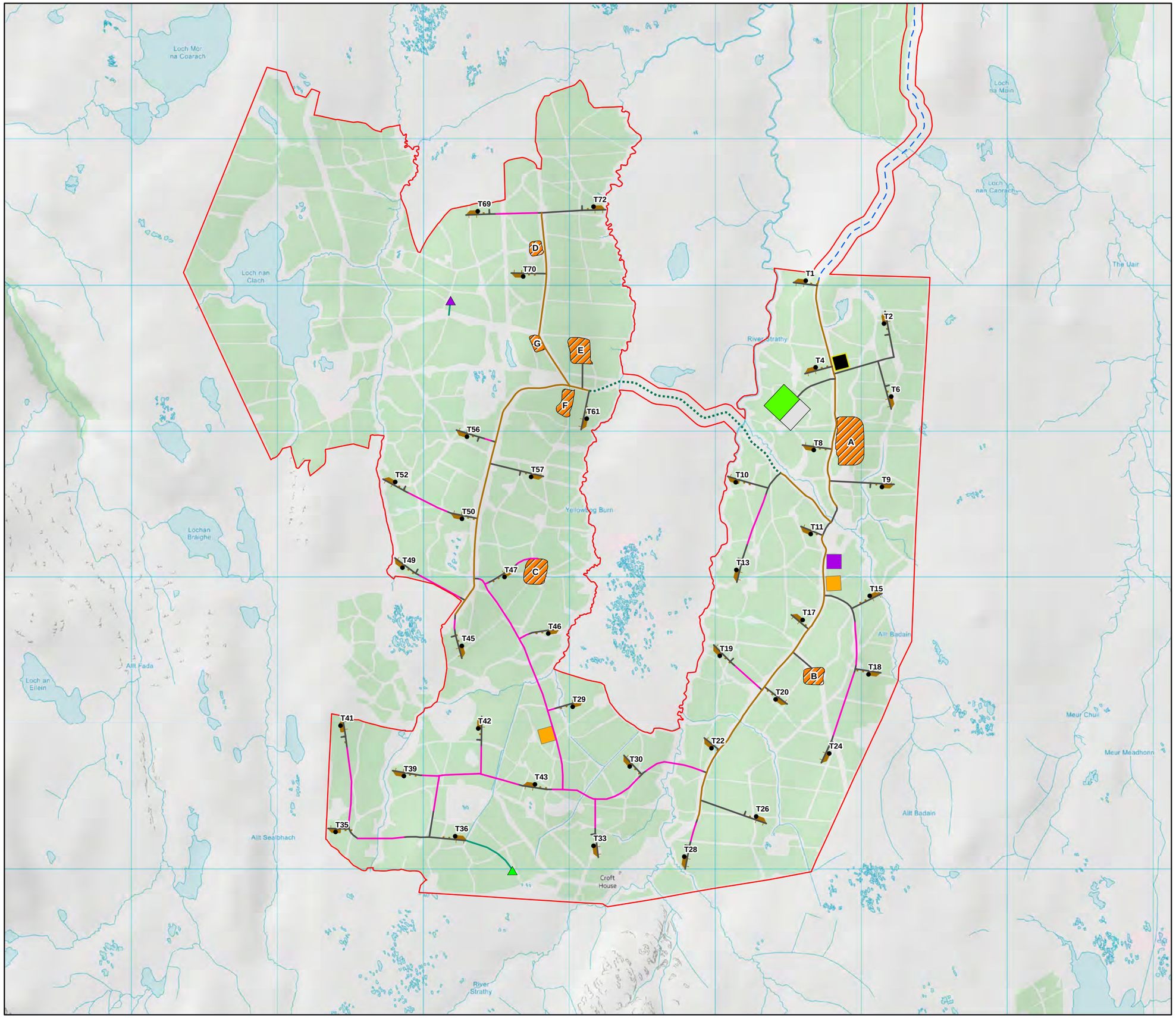
Figure 10.2.1

Site Location

Strathy South Wind Farm
EIAR 2020

FIGURE 10.2.2

Site Layout



Key

- Site Boundary
- Turbines
- LiDAR A
- LiDAR B
- Preferred Access Route
- Alternative Access Route
- Common Access Route
- Existing Yellow Bog Track, Surfacing to be Upgraded and Minor Localised Widening
- Strathy North Access Route
- LiDAR Track

Access Track

- Cut
- Floating
- Upgrade
- Borrow Pit
- Laydown Area
- Temporary Laydown Area
- Construction Compound
- Substation
- Batching Plant
- Hardstanding

Scale 1:25,000 @ A3

0 0.5 1 Km

N

Figure 10.2.2

Site Layout

Strathy South Wind Farm
EIAR 2020

FIGURE 10.2.3

Peat Depth

sse Renewables

Key

- Site Boundary
- Turbines
- LiDAR A
- LiDAR B
- Preferred Access Route
- Alternative Access Route
- Common Access Route
- Existing Yellow Bog Track, Surfacing to be Upgraded and Minor Localised Widening
- Strathy North Access
- LiDAR Track

Access Track

- Cut
- Floating
- Upgrade
- Borrow Pit
- Laydown Area
- Temporary Laydown Area
- Construction Compound
- Substation
- Batching Plant
- Hardstanding
- Peat Probe

Peat Depths (m)

- 0
- 0 - 0.5
- 0.5 - 1
- 1 - 1.5
- 1.5 - 2
- 2 - 2.5
- 2.5 - 3
- > 3

Scale 1:25,000 @ A3

0 0.5 1 Km

N

Figure 10.2.3

Peat Depths

Strathy South Wind Farm
EIAR 2020

FIGURE 10.2.4

Peat Depth >0.5m

sse Renewables

Key

- Site Boundary
- Turbines
- LiDAR A
- LiDAR B
- Preferred Access Route
- Alternative Access Route
- Common Access Route
- Existing Yellow Bog Track, Surfacing to be Upgraded and Minor Localised Widening
- Strathy North Access Route
- LiDAR Track

Access Track

- Cut
- Floating
- Upgrade
- Borrow Pit
- Laydown Area
- Temporary Laydown Area
- Construction Compound
- Substation
- Batching Plant
- Hardstanding
- Peat Probe

Peat Depths (m)

- 0.5 - 1
- 1 - 1.5
- 1.5 - 2
- 2 - 2.5
- 2.5 - 3
- > 3

Scale 1:25,000 @ A3

0 0.5 1 Km

N

Figure 10.2.4

Peat Depths > 0.5m

Strathy South Wind Farm
EIAR 2020

APPENDIX A

Excavated Materials Calculator

Infrastructure	Length (m)	Width (m)	Average Depth (m)	Number	Total Volume Excavated (m3)	Length (m)	Width (m)	Average Depth (m)	Number	Total Re-use Volume (m3)	Notes
Site Track (Cut)	12290	8.6	1.04	1	96629	12290	3	0.80	2	58992	Dimensions provided by SSE, average depth obtained from peat probing data.
Site Track (Existing/Upgrade)	7670	3	0.74	1	17004	7670	3	0.80	1	18408	Dimensions provided by SSE, average depth obtained from peat probing data.
Site Track (Floated)	7650	7	1.14	0	0	7650	3	1.00	2	45900	Dimensions provided by SSE, average depth obtained from peat probing data.
Access Track (including alternative bridge crossing of River Strathy) (Existing/Upgrade)	3168	3	0.98	1	9276	3168	3	0.50	1	4752	Dimensions provided by SSE, average depth obtained from peat probing data.
Access Track (including alternative bridge crossing of River Strathy) (Cut)	1886	7	0.98	1	11127	1886	2	1.00	2	7544	Dimensions provided by SSE, average depth obtained from peat probing data.
Access Track to LiDAR (Cut)	240	4	0.63	1	603	240	2	0.80	2	768	Dimensions provided by SSE, average depth obtained from peat probing data.
Access Track to LiDAR (Floated)	250	4	1.03	1	0	250	2	0.80	2	800	Dimensions provided by SSE, average depth obtained from peat probing data.
Passing Places	20	3	0.97	32	1868	20	2	0.80	32	1024	Dimensions provided by SSE, average depth obtained from peat probing data.
Cable Trenches (on-site)	25200	1.55	0.97	1	38005	25200	1.55	0.97	1	38005	
Cable trenching off-site (removal of bund material)	-	-	-	-	8972	-	-	-	-	8972	Detailed assessment required to assess suitability of bund material for re-use
On-site Track to be removed and restored (habitat management)	3200	6	0.76	1	0	3200	6	0.76	1	14592	Dimensions provided by SSE. Assumes no peat removed from existing track.
Turbine Bases - formation only	30	30	1.36	39	37473	60	2	1.00	39	4680	Dimensions provided by SSE, average depth obtained from peat probing data.
Crane Pads	90	30	1.46	39	128115	216	5	0.80	39	33696	Area provided by SSE, average depth obtained from peat probing data
Blade laydown and ancillaries	20	4	1.46	39	37296	20	4	1.46	39	37296	Area provided by SSE, average depth obtained from peat probing data
Substation	200	150	0.67	1	20010	700	1	0.50	1	350	Dimensions provided by SSE, average depth obtained from peat probing data.
Substation Temporary Laydown	200	100	0.59	1	11700	200	100	0.59	1	11700	Dimensions provided by SSE, average depth obtained from peat probing data.
LiDAR Working area	5	4	1.00	2	40	10	0.5	0.50	2	5	Dimensions provided by SSE, average depth obtained from peat probing data.
Concrete Batching Plant	100	100	0.58	1	5760	100	100	0.58	1	5760	Dimensions provided by SSE, average depth obtained from peat probing data.
Laydown Area	100	100	0.93	2	18530	100	100	0.93	2	18530	Dimensions provided by SSE, average depth obtained from peat probing data.
Construction Compound	150	50	0.38	1	2850	150	50	0.38	1	2850	Dimensions provided by SSE, average depth obtained from peat probing data.
Borrow Pit A	330	190	0.56	1	35175	330	190	1.55	-	97185	Average depth obtained from peat probing data.
Borrow Pit B	135	115	0.31	1	4735	135	115	1.55	-	24064	Average depth obtained from peat probing data.
Borrow Pit C	175	155	1.11	1	30190	175	155	1.55	-	42044	Average depth obtained from peat probing data.
Borrow Pit D	100	90	0.29	1	2574	100	90	1.55	-	13950	Average depth obtained from peat probing data.
Borrow Pit E	160	140	1.23	1	27574	160	140	1.55	-	34720	Average depth obtained from peat probing data.
Borrow Pit F	190	78	0.48	1	7040	190	78	1.55	-	22971	Average depth obtained from peat probing data.
Borrow Pit G	120	70	0.27	1	2243	120	70	1.55	-	13020	Average depth obtained from peat probing data.

Total Excavated Volume (m3)	554789
Total Re-use Volume (m3)	562578
Net Balance (m3)	-7789

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