



Rigged Hill Windfarm Repowering

Design and Access Statement

July 2019

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Rigged Hill Windfarm Repowering Design and Access Statement

1 Introduction

1.1 Purpose of the Design and Access Statement

1. This Design and Access Statement (DAS) has been prepared in order to accompany a full planning application under The Planning Act (Northern Ireland) 2011, and deemed planning permission under section 36 of the Electricity Act (1989) for the Repowering of the Operational Rigged Hill Windfarm ('the Development').
2. A DAS is a report which accompanies and supports a planning application and enables the applicant to describe how a proposed development has been designed in order to suit the chosen site and surroundings while also demonstrating that the development can be accessed adequately by users. A DAS is required to accompany all applications classed as major developments in Northern Ireland.
3. This DAS has been prepared in accordance with the Planning (General Development Procedure) Order (Northern Ireland) 2015, Section 6, Design and Access Statements. In addition, the structure has been informed by Development Management Practice Note 12: Design and Access Statements, published by the Department of Environment (DOE) for Northern Ireland in April 2015. This note is part of a series of guidance documents stemming from The Planning Act (Northern Ireland) 2011, and aims to guide interested users through the key requirements of a DAS, primarily dealing with key procedures in addition to encouraging good practice.
4. This DAS explains the background to the proposed Repowering of the Operational Rigged Hill Windfarm, giving background to development on the Site, its nature and surroundings, the detailed design iteration process that has taken place in order to reach the final proposed layout and any site-specific access issues.
5. This DAS should be read in conjunction with the Environmental Statement (ES) prepared for the Development application.
6. A glossary of defined terms which are commonly used consistently throughout the ES can be found in **Section 8: Glossary** of this DAS.

2 Application Background

2.1 The Applicant

7. ScottishPower Renewables is part of the ScottishPower group of companies, operating in the UK under the Iberdrola Group, one of the world's largest integrated utility companies and a world leader in wind energy. ScottishPower now only produces 100% green electricity – focusing on wind energy, smart grids and driving the change to a cleaner, electric future. The company is investing £4m every working day in 2019 to make this happen and is committed to speeding up the transition to cleaner electric transport, improving air quality and over time, driving down bills to deliver a better future, quicker for everyone.
8. ScottishPower Renewables, is at the forefront of the development of the renewables industry through pioneering ideas, forward thinking and outstanding innovation. Its ambitious growth plans include the expansion of its existing onshore wind portfolio, investment in new large scale solar deployment and innovative grid storage systems. The company is

also delivering the Iberdrola Group's offshore windfarms in the Southern North Sea off East Anglia as part of an international pipeline of projects across Europe and the USA.

9. With over 40 operational windfarms, all sites are managed through the world leading Control Centre at Whitelee Windfarm, located outside of Glasgow in Scotland.
10. The Applicant has a long history of investment in Northern Ireland and currently owns and operates five onshore windfarms which include Rigged Hill, Corkey, Callagheen, Elliots Hill and Wolf Bog Windfarms, together with Barnesmore Windfarm in the Republic of Ireland. Through their long-term presence in Northern Ireland, the Applicant has contributed over £200,000 of community benefits, contributing to an assortment of groups and organisations including donations made to and managed by the Fermanagh Trust and funding local primary schools. This has supported a range of projects, such as improving community centre accessibility, sponsoring local youth group activities and creating a sensory garden for a playgroup.
11. The development of its West of Duddon Sands Offshore Windfarm, in the Irish Sea (operational since 2014), enabled the construction of the c. £50 million bespoke facility at Belfast Harbour which began in early 2012, creating the first purpose built offshore wind installation and pre-assembly harbour in the UK and Ireland, supporting up to 300 jobs in the process.
12. Through the construction of East Anglia ONE Offshore Windfarm in the North Sea, Lamprell (in partnership with Harland and Wolff) in 2017, were also awarded a significant foundation contract. The value of this contract was c. £30 million, with an average labour force of 200 people across the duration of the project.
13. To date, the Applicant has experience of developing, constructing and operating repowered onshore windfarm projects throughout the UK, including Carland Cross Windfarm in Cornwall, Coal Clough Windfarm near Burnley, and the consented repowering project at Llandinam Windfarm in Wales.
14. As one of the UK's principal onshore wind developers, the Applicant seeks to maximise the local benefits that can be created in the communities where they operate and continue to be a good neighbour. To date, the Applicant has enabled communities surrounding onshore windfarms to deliver initiatives across the UK by contributing over £20 million in community benefits.

2.2 Site History

15. The Operational Rigged Hill Windfarm was developed and constructed by RES and B9 Energy Services in 1995, and then acquired by ScottishPower Renewables UK Limited ('the Applicant') who now own and operate the Site. The Operational Rigged Hill Windfarm is located approximately 6 kilometres (km) southwest of Limavady in County Derry/Londonderry, Northern Ireland and consists of ten Nordtank 500 kiloWatt (kW) wind turbines, which can produce up to a total of 5 MW of clean renewable energy. To date, Rigged Hill Windfarm has made an important contribution to Northern Ireland's Renewable targets and low carbon objectives, and the Applicant is seeking to secure and build on this contribution by proposing to 're-power' the Operational Rigged Hill Windfarm.

2.3 Need for the Development

16. The repowering of a windfarm involves the removal of existing wind turbines from a site and replacing them with new and more efficient turbines. This process normally results in an increased overall site generating capacity and output as well as generally reducing the total number of turbines within the Site.
17. Repowering a windfarm site supports an ongoing use of the land at the Operational Rigged Hill Windfarm by a renewables asset, which is vital to Northern Ireland maintaining and building upon its renewable energy and climate change targets, as outlined in the Strategic Framework for Northern Ireland¹.
18. Repowering also presents an opportunity to sustain and create additional jobs, and to encourage continued investment in the renewable energy industry in Northern Ireland. The repowering of a windfarm differs from that of developing a greenfield site as the area has previously been developed, has demonstrated its suitability for use as a windfarm site, and will continue to be used for the same activity.

¹ Department for the Economy (2010) Strategic Framework for Northern Ireland. [Online] Available at: <https://www.economy-ni.gov.uk/publications/energy-strategic-framework-northern-ireland> (Accessed 11/06/2019)

19. As well as the inherent benefits of creating and expanding upon the existing mix of renewables in Northern Ireland's electricity system, repowering offers a number of major opportunities:
- Increased site generation;
 - Reduces dependency on fossil fuels resulting in lower carbon dioxide (CO₂) emissions and output;
 - Reduced number of turbines, utilising the latest turbine technology, sustaining and growing the level of renewable energy in Northern Ireland;
 - Sustains existing development and construction jobs, and creates opportunities for new supply chain jobs;
 - With a supportive planning framework, it can help create a long-term, stable investment platform for a clear pipeline of repowering projects, easing pressure on consenting authorities; and
 - Utilises over two decades of industry knowledge to inform and improve the siting, design and construction techniques to create more efficient projects.
20. The Operational Rigged Hill Windfarm is consented in perpetuity, and the repowering of the windfarm with more efficient machines will maximise the benefits of re-using an existing site whilst minimising new environmental effects. Operating for a longer period enables the Applicant to continue to drive down the overall cost of energy with benefits to the Northern Irish consumer, and provides opportunities to incorporate emerging technologies such as Energy Storage.
21. The proposed repowering project has the potential to result in an increase in the installed capacity of the Site from five MW to around 28- 29 MW, nearly six times the existing installed capacity. The proposed larger generator size, coupled with greater wind yields from the use of taller turbines with bigger rotors, and the improved efficiency of the latest turbine models will result in a major increase to total power generated at the Site, over five times the power output of the existing Site.
22. **Table 2.1** below provides a comparison between the Operational Rigged Hill Windfarm and the Development.

Table 2.1: Comparison of Operational Rigged Hill Windfarm with the Development

Characteristic	Operational Rigged Hill Windfarm	The Development
Number of Wind Turbines	10	7
Maximum Tip Height	57 m	137 m
Turbine Max Power	0.5 MW	c. 4MW
Overall Wind Farm Capacity	5 MW	c. 28-29 MW
Energy Storage	No	Yes

2.4 Overview of the Development

23. The Development is described in further detail in **Chapter 3: Development Description** of the Environmental Statement (ES). In summary, however, the Development will comprise of the following phases:
- Decommissioning of the Operational Rigged Hill Windfarm (initial phase of the Development);
 - Construction of the Development (likely to occur in tandem with the above phase);
 - Operation of the Development; and
 - Decommissioning of the Development (final phase).
24. The Development will comprise of the following main components:
- Decommissioning of the existing 10 turbines, removal and reinstatement of the redundant infrastructure;
 - The erection of seven three bladed horizontal axis wind turbines of up to 137 metres (m) tip height;
 - Turbine foundations;
 - Construction of approximately 4.82 km of new access tracks;
 - Upgrade of approximately 1.75 km of existing access tracks;
 - Construction of temporary and permanent hardstanding areas for each turbine to accommodate turbine component laydown areas, crane hardstanding areas and external transformers and/or switchgears;
 - Temporary construction compound/laydown areas (some areas may be reinstated temporarily if required for future operational and decommissioning purposes);
 - Turning heads and passing places incorporated within the site access infrastructure;

- New road junction with Terrydoo Road;
- Five new water crossings;
- Meteorological Mast;
- Buried underground electrical and communication cables;
- Substation with roof mounted solar panels, and associated compound, including windfarm and grid connection operating equipment;
- Energy Storage Unit;
- Removal of self-seeded trees in east of the Site;
- Associated ancillary works; and
- Micrositing allowance of 50 m deviation from the indicative design footprint up to planning application red line boundary.

3 Site Location and Description

3.1 Description of the Development Site and Surrounding Land

25. The Site is located within the Causeway Coast and Glens Borough Council (CCGBC) administrative area. The location of the Site is shown on **Figure 3.1** of the ES and is approximately 6 km south-east of Limavady in County Derry/Londonderry. The Operational Rigged Hill Windfarm is located within the Site as detailed in the following section and shown in **Figure 3.2** of the ES. A comparison with the Operational Rigged Hill Windfarm layout is shown in **Figure 3.3** of the ES.
26. The Site is located on the summit of Rigged Hill, 377 m above ordnance datum (AOD), which takes the form of a north-south running ridge set between Temain Hill to the south of the Site (376 m AOD) and Boyd's Mountain (329 m AOD) to the north. Elevations of the Site range from approximately 110 m AOD in the west of the Site, to 377 m AOD at the summit of Rigged Hill. The Site is characterised by moorland cover and the steep upper slopes of Rigged Hill, which lead to an elevated plateau, where the Operation Rigged Hill Windfarm is located.
27. The upper areas of the Site are predominantly moorland cover, the main land use, in conjunction with the Operational Rigged Hill Windfarm, is agricultural grazing. There are a number of small unnamed watercourses and man-made open field drains within the Site, most of which drain in a westerly direction into the Castle River 3 km west of the Site, before discharging into the River Roe north of Limavady.
28. The historical land ownership pattern of this area is based on the land being divided into small plots. This has led to a dispersed settlement pattern, whereby individual dwellings occur frequently across the landscape, accessed by a network of rural roads. The closest settlements to the Site include the small village of Drumsurn located approximately 3.6 km south-west of turbine 4 and the town of Limavady 6 km to the north-west of turbine 7.
29. A commercial coniferous plantation is located immediately north and west of the Site and three telecommunications masts are located on Temain Hill approximately 900 m to the south of the Site Boundary.
30. The Ulster Way Walking Route currently passes through the Site, utilising the Operational Rigged Hill Windfarm access track, as it passes from Temain Hill in the south towards Boyd's Mountain. The route originally ran through the Cam Forest to the east of the Site, however, it was rerouted to make use of the windfarm access tracks.
31. Domestic scale and single wind turbines are a frequent feature in the valley landscape often associated with farmsteads or domestic dwellings. Larger commercial windfarms are also a feature, typically seen on the elevated upland areas broadly to the north and south of the Site. The closest operational wind farm is the Dunbeg / Dunmore cluster 5 km to the north, while the consented Craiggore Windfarm is 2 km to the south.

3.2 Site Selection Process

32. The Site was considered appropriate for a number of reasons:
- The Site already contains the Operational Rigged Hill Windfarm which was constructed 1995 and is one of the first windfarms developed in the UK. From the wind data collated to date, the Site has proven to have good average wind speeds and generation capacity;

- The existing technology is no longer state-of-the-art, and modern wind turbines are capable of producing more power from a fewer number of turbines (e.g. the Operational Rigged Hill Windfarm has ten turbines with a total installed capacity of 5 MegaWatts (MW), compared to the Development's proposed seven turbines and a total installed capacity of around 28-29 MW);
- Repowering the Operational Rigged Hill Windfarm increases renewable energy generation installed capacity (by around 23 MW in this case), and with a focus on utilising as much of the existing infrastructure as possible. This results in a development with fewer environmental effects compared to a similar development on a new, greenfield site, particularly considering effects on landscape/visual receptors and peat;
- It is a location in which a development can accord with the principles set out in Energy Policy in relation to the need for renewable energy, as described in **Chapter 1: Introduction** of the ES.
- There are no statutory nature conservation designations within, or in close proximity to the Site Boundary;
- The Applicant has collated an extensive database of information in relation to the Site and its environs through their experience of managing the Operational Rigged Hill Windfarm. This existing information has been utilised during the Development design process. The information collected has allowed the Applicant to consider the use of alternative compatible technologies to improve the overall power output of the site, such as the energy storage aspect of the Development;
- Alongside the generation of renewable energy, agriculture such as sheep farming is the other principal land use, the use of the Site as a windfarm is and will continue to be a compatible use;
- The Site is accessible, as assessed in **Chapter 12: Traffic and Transport** of the ES;
- The Site can positively contribute towards regional and national renewable energy targets; and
- The Site can provide a series of significant social and economic benefits for the local and regional area as assessed in **Chapter 13: Tourism, Recreation, Land-Use and Socio-Economics** of the ES.

4 Design Principles

4.1 Landscape and Visual

33. Landscape and visual effects have been a key consideration in the design of the Development taking account of both turbine positioning and scale. This has been achieved through the identification of a number of key visual receptors / viewpoints.

4.1.1 Design Viewpoints

34. In order to achieve this, a number of the key viewpoints were selected as design viewpoints, against which to test wirelines for each turbine layout option. Design viewpoints have been selected based on an understanding of where the Development would be visible from, where static views will be gained, such as popular hilltops, or where there is a particular concentration of residential properties. The design viewpoints that were selected are as follows:

- ES Viewpoint 1 Terrydoo Road;
- ES Viewpoint 2 Temain Road to Aghansillagh and Temain Hill;
- ES Viewpoint 3 Edenmore Road, Limavady;
- ES Viewpoint 4 Roe Park Resort driveway, Limavady;
- ES Viewpoint 5 Drumsum, Beech Road;
- ES Viewpoint 6 Ringsend;
- ES Viewpoint 7 Glenullin Bog Viewpoint, Glenullin Resource Centre;
- ES Viewpoint 11 Polly's Brae Road junction with B192; and
- ES Viewpoint 19 B66, west of Ringsend, north of Site.

4.1.1.1 Design Principles

35. In order to minimise the effects on landscape and visual receptors, a number of design principles have been considered. These principles have sought to reduce significant effects through alterations to layout, design and siting (insofar as was possible given the other technical and environmental constraints), management practices and mitigation. The landscape and visual design principles are as follows:

- To consider the latest wind turbine technology available, larger rotor sizes and turbine hub heights to arrive at a turbine tip height and parameters considered appropriate for the Site;

- To create a visually legible design, insofar as was possible on a Site which is constrained by other environmental and technical issues, and create a simple, positive layout, viewed consistently from different positions;
- To ensure that the views of the Development from the Binevenagh Area of Outstanding Natural Beauty (AONB), in particular those from Viewpoint:13: Binevenagh Mountain, minor road and National Cycle Route (NCR), appear legible and the turbines relate well to a single landform and each other;
- To create as compact a scheme as the technical aspects of the larger turbine spacing allows, which relates to the underlying landform, with turbines laid out to extend along the simple ridgeline created by Rigged Hill;
- To reuse, where possible, areas within the Site that have been altered by the Operational Rigged Hill Windfarm infrastructure, in particular existing tracks and the hard standing/previously disturbed area at the existing control building;
- To ensure that the requirements for cut and fill are minimised when siting the infrastructure, in particular the new access road;
- Designing the new access road so that the existing landform provides some screening and so that it follows the existing contours and natural breaks in the slope/vegetation cover as far as possible;
- To group turbines to create a balanced and coherent image, avoiding where possible 'stacking' or overlapping of turbine rotors in lines, favouring an evenly spaced and elevated group, that reflects the nature of the undulating landscape;
- To Site buildings within low lying areas that are on the less visible north-east side of Rigged Hill; and
- To group the infrastructure in order to limit the number of areas affected.

4.2 Hydrology, Hydrogeology, Geology, Soils and Peat

36. As part of the EIA process, a desktop and site-based survey was carried out to inspect and identify all water features with the potential to be substantially affected. The aim of the design process was to achieve a layout that avoids effects on hydrological sensitive receptors. During design the following hydrological design principles were applied where possible:
- Avoid areas of peat;
 - Minimise watercourse crossings;
 - Aim to achieve a separation distance of 50 m between construction activity and watercourses (natural) mapped at a 1:50,000 scale, and a separation distance of 20 m for anthropogenic drains and smaller natural watercourses not featured on published mapping;
 - Avoid more hydrologically sensitive parts of the Site; and
 - Utilise existing infrastructure such as access tracks where possible.

4.3 Peat Depth and Stability

37. Peat has been considered to be the key design constraint within the Site, both from an ecological and the closely linked hydrological design objectives. Peat is present at varying depths in various locations within the Site. Peat represents a store of carbon, and can support (and be supported by) bog vegetation on its surface; these are valued habitats, as described in **Section 4.6.4** of the ES. Where possible, areas of active peat have been avoided and where this has not been possible, the area has been minimised to for example focusing on the localised widening of the existing track and hard stands to enable the delivery and erection of the larger turbine components. There has been continuous engagement with Northern Ireland Environment Agency (NIEA), throughout the design process.
38. Peat slide is not a substantial risk at the Site at the locations considered for Development components, and hence peat slide risk was not a major factor in the design of the Development layout.

4.4 Ecology and Fisheries

39. In recognition of the high importance afforded to active peatland in the Department of the Environment's 'Planning Policy Statement 18: Renewable Energy' (2012) and the 'Strategic Planning Policy Statement for Northern Ireland: Planning for Sustainable Development' (2015, under review), additional assessments were undertaken for any habitats that may qualify as 'active peat'.
40. It is acknowledged that the classification of active peat habitats can be quite complex, particularly in disturbed habitats and around the margins of peatland bodies, so a bespoke classification system has been developed for this Development, in order to provide a systematic and transparent approach as described in **Chapter 8: Ecology and Fisheries** of the ES. As discussed in **Section 4.6.3** of the ES the Applicant worked closely with NIEA, to avoid the

areas of active peat and where this was not possible to consider areas of the Site where turbines and tracks could be located in areas of previously disturbed ground and where the peat has been historically cut over and the peat has degraded. Avoidance of these sensitive habitats was a key influence on selecting turbine locations and the alignment of access tracks.

4.4.1 Bats

41. The Site is used by Leisler's bats on a regular basis during the mid-summer period. Activity levels of this species appear to follow certain temporal patterns, both for months of the year, and for times of the night, and appear to be strongly influenced by weather conditions. However, there does not appear to be a consistent spatial pattern in its use of the Indicative Developable Area, so it is assumed to forage relatively evenly over all areas. Common pipistrelle and soprano pipistrelle bats were rarely recorded on the Site in significant numbers, and there did not appear to be a consistent temporal or spatial pattern in their activity. No other species were recorded in significant numbers.
42. As there is no spatial pattern to the use of the Site by bats this was not a factor in the design evolution of the Site, with mitigation for any effects on bats being provided through a Bat Mitigation Strategy (**Technical Appendix A8.4** of the ES) which provides for temporal periods when turbines would be shut down during peak times of bat activity.

4.4.2 Ornithology

43. Potential ornithological constraints to the design of the Development were identified from the baseline surveys and assessment and the objective in the design process was to avoid or minimise these effects:
 - Disturbance and displacement to breeding birds; and
 - Collision risk during operation.
44. The key ornithological receptors are defined as species occurring within the zone of influence of the development upon which likely significant effects may arise (500 m, 800 m, 2 km and 5 km survey areas were used). Baseline field surveys were carried out between March 2014 and April 2019 and consisted of site walkovers and vantage point surveys during both breeding and non-breeding seasons.
45. The majority of key target breeding species as described in **Chapter 9: Ornithology**, have been avoided by applying appropriate buffers informed by baseline survey findings and informed by a qualified ornithologist. It was interesting to note that several priority species were identified in close proximity to the Operational Rigged Hill Windfarm showing a level of habituation, with locations changing over the several years of survey. These species include for snipe, hen harrier, long-eared owl, merlin, kestrel, buzzard, sparrowhawk and raven).
46. Key potential effects on birds that were specifically taken into account relate to the positioning of turbines T3 and T7. In order to avoid disturbance to a number of the priority species identified, appropriate buffers were applied around nest locations, as agreed with NIEA. This resulted in a minor relocation of T7 producing Layout 3 (see **Section 4.7.1** for layout details).
47. Habitat management measures are proposed for the restoration and reinstatement of priority habitats (**Technical Appendix A3.2 Draft HMP**). The Draft HMP aims to improve the condition of the grassland, bog and peatland habitat with further measures outlined to mitigate and benefit species such as snipe, hen harrier, kestrel, meadow pipit, and a range of other species and small passerines.

4.4.3 Noise

48. A key factor in the initial selection of the Site was the distance that could be achieved between properties, turbines and the Energy Storage Unit to minimise the effects of noise from the Development. Four properties were identified as potential receptors, while all other properties lie beyond the predicted 35 dB noise contour plot and are unlikely to incur significant effects by noise from the Development.
49. It is of critical importance that the layout of turbines, using a turbine model within the range of sizes under consideration for the Development, can meet the noise limit requirements of ETSU-R-97 and the Good Practice Guide, published by the Institute of Acoustics at every residential property. Noise was therefore an important consideration in each design iteration to ensure that the identified noise limits are met.

4.5 Archaeology and Cultural Heritage

50. A desk-based assessment and archaeological walkover was undertaken as part of the EIA. There are no designated cultural heritage features within the Site, while there are a number of undesignated archaeological remains within the Site, which the design has sought to avoid. The assessment found that no significant direct and indirect effects are

likely upon known features in the surrounding historic environment from the Development, as such, cultural heritage features formed little constraint in terms of layout evolution.

4.6 Other Topics Influencing the Design

4.6.1 Telecommunications

51. Due to the size and nature of wind turbines, they have the potential to interfere with electromagnetic signals passing above ground during operation, or existing infrastructure buried below ground during construction. Infrastructure affected can include telecommunication links, microwave links, television reception and overhead and underground utility cables.
52. Temain Hill to the south of the Site is a key location in terms of telecommunications with three masts located in close proximity to each other. From the information gathered from the telecoms providers a large number of links radiate from the masts on Temain Hill, with the majority radiating in an easterly direction.
53. It is likely that the presence of the Operational Rigged Hill Windfarm has meant that, as the telecoms industry has developed and links have been added to the masts at Temain Hill, no links have passed in close proximity to the existing turbines, with the exception of those serving the windfarm itself. The current links which serve the Operational Rigged Hill Windfarm will be decommissioned and new links will be constructed as required.
54. Buffers have been agreed with the various telecoms providers and these have constrained the positioning of the turbines in both an easterly and westerly directions.
55. No other infrastructure is likely to incur significant effects and as such did not form a significant constraint in the design evolution.

5 Access

5.1 Access to the Development

56. The Operational Rigged Hill Windfarm has historically been accessed through the Cam Forest north of the Site. This operational access is due to be replaced, independently of the Development, with a new access track entering the Site from the west, off Terrydoo Road and extending up Rigged Hill. This is currently the subject of a live planning application, which remains to be determined.
57. For the purposes of the design process, and EIA this new operational access road off Terrydoo Road, has also been treated as a new access road serving the Development, with amendments made, where for example a greater running width and a wider junction will be required in order to accommodate delivery of the larger turbine components. Elsewhere within the Site access tracks serving the Operational Rigged Hill Windfarm will be retained, utilised and upgraded wherever possible, to access the proposed turbine positions as shown in **Figure 3.3** of the ES. Existing tracks where these reused, and new tracks will be retained throughout the operational life of the Development to enable maintenance of the turbines and replacement of any turbine components. In total, approximately 4.82 km of new access tracks will be required, of which 3.02 km is made up of the operational access track route for the Operational Rigged Hill Windfarm (currently the subject of separate planning application), with approximately 1.75 km of existing Site access track requiring localised widening.
58. The access track layout has been designed taking into account a range of environmental and technical constraints, including breeding birds, active peat, sensitive habitats and steep slopes. All tracks are designed to respond to turbine supplier track requirements and will provide a 5 m wide running surface with localised widening on corners or areas of steeper slopes and will enable access to the turbine locations. The track spurs will have 'dead-ends' with turning heads provided where necessary; these turning heads will reuse areas of existing and redundant infrastructure where possible. Tracks will have passing places where necessary.
59. Access tracks will be constructed with a 'cut-track' design (as shown in **Figure 3.14** of the ES). This construction method will be used as there is less than 1.2 m depth of soft ground in all proposed track locations, and there is no potential peat instability as a consequence of surface loading of the peat. Analysis of peat-depth survey data, collected as part of the EIA process (see **Chapter 7: Hydrology, Hydrogeology, Geology and Peat**, and **Technical Appendix A7.1 Peat Slide Risk Assessment** of the ES), suggests that the entirety of the proposed new track (4.82 km) is within

topsoil or peat of depth less than 1 m (the average depth being less than 0.5 m). In the event that during the construction phase deeper peat is found in isolated pockets, floating road may be considered as an alternative option.

60. Access tracks will be constructed with graded stone aggregate won from cut activities, re-use of existing materials from redundant infrastructure or stone imported from local quarries to provide a level surface and will incorporate geosynthetic layers to strengthen the track as necessary. The running surface will be made of a durable surfacing material resistant to crushing, formed from selected crushed and compacted stone.
61. The Ulster Way passes through the Site and would be directly affected during the initial decommissioning/construction phases. During these phases there will be a requirement for the temporary diversion of the footpath to comply with construction site regulations. Consultation with the Planning Officer and Access Officer at the Council have taken place to determine the best diversion route. The Ulster Way will be diverted through forestry to the east, on what was the historical routing of the Ulster Way. The exact timescales of the decommissioning and construction phases are unknown, but it is likely that this will be for approximately eight months. Once the Development is operational, the Ulster Way will be redirected back onto windfarm tracks. In response to Scoping, the Bannside Rambling Club noted it had no objections to this temporary diversion.
62. Through discussion with consultees, and looking for the Development to build on improvements to the path network made previously, it is anticipated that the diverted route through the forestry would also be retained during the operational phase, creating a circular route and improving access. Dialogue is ongoing and any agreed plans will be implemented in conjunction with the Council who will retain responsibility for managing the route, and the wider access plans within the forest. The Applicant will continue to work with the Council to establish and agree the development of these plans.
63. An assessment of potential effects associated with the transport of materials and personnel has been undertaken in support of the application for the Development and this provides details on offsite access route options for decommissioning/construction vehicles and provides an estimate of trip generation during this period. The assessment includes a routing study to establish the feasibility of the access route for turbine delivery from either Belfast, Derry/Londonderry or Larne to the Site entrance. Details of this and an assessment of traffic impacts during the initial decommissioning/construction and operational phases of the Development are provided in **Chapter 12: Access, Traffic and Transport** of the ES.

6 Planning Policy

64. This section describes the legislative, planning, and policy background to the application. The legislative basis for a decision by Causeway Coast and Glens Borough Council (the Council) is set out, and an overview of planning policy at a local level and at a regional level is provided.

6.1 Planning Legislation Context

65. Table 6.1 outlines the Northern Ireland planning legislative context (primary legislation and subordinate legislation) for the Development. Subject to the provisions of Part 25(1)(b) of the Planning Act (Northern Ireland) 2011 and the 'Schedule'-Major Threshold Developments of 'The Planning (Development Management) Regulations (Northern Ireland) 2015', the Development is considered a 'major development' but not 'regionally significant' since it falls below the 30 MW 'regionally significant' threshold.

Table 6.1 – Northern Ireland Planning Legislation Context

Northern Ireland Planning Legislation	
Primary Legislation	
The Planning Act (Northern Ireland) 2011	The Planning Act (NI) 2011 Act provides the legislative basis for the Northern Ireland planning system including the development management systems, development plan preparation, planning appeals and enforcement and the way in which these functions are delivered.
Subordinate Legislation	

Northern Ireland Planning Legislation	
The Planning (Environmental Impact Assessment) Regulations (Northern Ireland) 2017	The legislative framework for EIA is set out by the EIA Directive (European Directive 2014/52/EU ²). The requirements of the EIA Directive in NI are transposed by the Planning (Environmental Impact Assessment) Regulations (NI) 2017 (the EIA Regulations). The EIA Directive aims to ensure that a planning authority granting planning permission for a development proposal makes its decision with the full knowledge of any likely significant effects on the environment by setting out a procedure known as environmental impact assessment to assess such effects.
The Planning (General Development Procedure) Order 2015 (as amended 2016)	The main purpose of the Planning (General Development Procedure) Order 2015 (as amended 2016) is to transfer the necessary powers required to operate the planning system (previously contained within the Planning (General Development) Order 1993) to the councils in Northern Ireland. It also introduces some new provisions, namely: <ul style="list-style-type: none"> • Design and Access Statements for major applications; • Non-material changes to a previous grant of planning permission; • Publicity of applications for planning permission; and • Changes to the statutory consultation process.
The Planning (Development Management) Regulations (Northern Ireland) 2015	The Planning (Development Management) Regulations (NI) 2015 sets out the details of key elements of the development management process in relation to the new hierarchy of development, pre-application community consultation, pre-determination hearings and schemes of delegation, while also making a transitional provision.
The Planning (Fees) Regulations (Northern Ireland) 2015 (as amended)	The effect of the Planning (Fees) Regulations (NI) (as amended) is to provide for the charging of a fee for the processing of a planning application.

6.2 Northern Area Plan 2016

66. The Northern Area Plan 2016 (NAP 2016) is the current statutory Local Development Plan (LDP) for the Council area. The NAP 2016 comprises Volume 1 – the Plan Strategy & Framework and Volume 2 – Proposals. Volume 1 Plan Strategy & Framework sets out the background to the preparation of the Plan, defines its Aim, Objectives and Plan Strategy, and, with reference to the regional policy context, sets out the Strategic Plan Framework comprising allocations, policies, and designations relating to the Plan Area as a whole. The NAP 2016 does not include specific renewable energy policy provision or planning policy relating to energy storage development, however. Table 6.2 outlines the planning policy of relevance to the Development.

Table 6.2 – Relevant Policies from the Northern Area Plan 2016

The Northern Area Plan 2016	
Environment and Conservation	Policy ENV 2 - Sites of Local Nature Conservation Importance
Open Space, Sport and Outdoor Recreation	Policy OSR 1 - Public Rights of Way and Permissive Paths
Countryside and Coast	Policy COU 2 - The Giant's Causeway and Causeway Coast World Heritage Site
Countryside and Coast	Policy COU 4 - The Distinctive Landscape Setting of the Giant's Causeway and Causeway Coast World Heritage Site

67. The NAP 2016 states that transport and traffic planning policy is provided for by Planning Policy Statement 3 – Access, Movement and Parking (PPS3), and Planning Policy Statement 13 – Transportation and Land Use (PPS13). There is

no dedicated transport and traffic planning policy in the LDP. Therefore, the SPPS, PPS3 and PPS13 should inform the planning application determination as material considerations.

6.3 Material Considerations – Regional Planning Policy and Guidance

6.3.1 Regional Planning Policy and Guidance: Strategic Planning Policy Statement for Northern Ireland (SPPS)

68. The SPPS is the regional planning policy document for Northern Ireland. It contains a suite of planning policy and is a material planning consideration in the assessment of all planning applications in NI.

69. Paragraph 4.23 of the SPPS states that:

“Good design can change lives, communities and neighbourhoods for the better. It can create more successful plans to live, bring communities together, and attract business investment. It can further sustainable development and encourage healthier living, promote accessibility and inclusivity; and contribute to how safe places are and feel.”

70. Paragraph 6.77 states:

“In all circumstances proposals for development in the countryside must be sited and designed to integrate sympathetically with their surroundings, must not have an adverse impact on the rural character of the area, and meet other planning and environmental considerations including those for drainage, sewerage, access and road safety.”

71. Paragraph 6.229 states:

“...proposals will also be assessed in accordance with normal planning criteria, including such considerations as: access arrangements, road safety, good design, noise and shadow flicker, separation distance, cumulative impact, communications interference, and the inter-relationship between these considerations.”

72. The pertinent SPPS planning policy is reference in respect of the relevant chapters in the ES. The Planning Statement submitted as part of this planning application provides an assessment of the Development against the relevant policy provision of the SPPS.

6.4 Planning Policy Statement 3 – Access, Movement and Parking (PPS3)

73. PPS3 sets out the planning policies for vehicular and pedestrian access, transport, assessment, the protection of transport routes and parking. It forms an important element in the integration of transport and land use planning. It embodies the Government’s commitments to the provision of a modern, safe, sustainable transport system, the improvement of mobility for those who are socially excluded or whose mobility is impaired, and the promotion of healthier living and improved road safety.

74. Table 6.3 sets out the PPS3 policies of relevance to the Development.

Table 6.3: Relevant Policies from PPS3

Planning Policy Statement 3	
Policy AMP 1	Creating and Accessible Environment
Policy AMP 2	Access to Public Roads
Policy AMP 3	Access to Protected Routes (as updated in PPS 3 Clarification)
Policy AMP 6	Transport Assessment

75. The proposed Development is considered to comply with the relevant policies outlined with regards to design and access. A full assessment of relevant planning policy is available in the Planning Statement submitted as part of the Application.

7 Conclusion

76. This DAS has been prepared in accordance with the requirements of Planning (General Development Procedure) Order (Northern Ireland) 2015, Section 6, Design and Access Statements. In addition, the structure has been informed by Development Management Practice Note 12: Design and Access Statements, published by the Department of Environment (DOE) for Northern Ireland in April 2015.
77. The DAS has established:
- The design principles and rationale that have been applied to the Development, including the various relevant environmental and technical criteria;
 - The steps taken to appraise the context of the Site, and how the design of the various relevant environmental and technical criteria, and each design component;
 - The relevant planning policies in respect of access; and
 - That all relevant issues which might affect access to the Development have been addressed.
78. The DAS has thus established that the Applicant can ably demonstrate an integrated approach that will deliver inclusive design, and address the full range of access requirements throughout the design process.

8 Glossary

79. To ensure clarity in the ES the following terms are used:

Table 8.1: Defined Terms Used Within the ES

Term	Definition
Repowering	This is the process of removal and replacement of older first-generation wind turbines with modern machines, which are generally quieter, and capable of producing more electricity, more efficiently.
The Site	Refers to all land that falls within the Site Boundary.
The Site Boundary	Refers to the red line boundary at the time of Scoping.
Operational Rigged Hill Windfarm	Refers to the existing Rigged Hill Windfarm at the Site, which has been operational since 1994.
The Development	Refers to all elements of the application for the repowering of the Operational Rigged Hill Windfarm the details of which will be set out within Chapter 3: Development Description of the ES . These elements include the wind turbines, all site infrastructure, access tracks, energy storage etc.
Survey Areas	Refers to areas within which surveys are undertaken. These are specifically defined within each technical section.
Study Areas	Refers to areas which are considered as part of the assessment process. These are specific and defined within each technical section.
Indicative Developable Area	Refers to an indicative area within the Site Boundary where turbines may be located. This does not apply to other ancillary site infrastructure or the energy storage element. This area was defined for Scoping purposes.
The Council	Refers to the Causeway Coast and Glens Borough Council.
The Applicant	Refers to ScottishPower Renewables UK Limited
EIA Regulations	Refers to The Planning (Environmental Impact Assessment) Regulations (Northern Ireland) 2017.
Scoping / Scoping Opinion	This is the process to identify key environmental issues, and to determine which elements of the Development are likely to cause significant environmental impacts and to identify elements that can be removed from the assessment.
Energy Storage / Energy Storage Unit	Refers to the Energy Storage Element, Energy Storage is defined as the capture of energy produced at one time for use at a later time.
The Onsite Substation and Control Building	Refers to the onsite substation and control building including the compound in which it is located.

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