

2. Design Evolution and Alternative Layouts

Contents

2.1	Introduction	2-1
2.2	Site Selection	2-1
2.3	Identified Opportunities and Constraints	2-1
2.4	Design Process for Turbines	2-3
2.5	On-site Infrastructure Layout Iterations	2-9
2.6	Do Nothing Scenario	2-11
2.7	Summary	2-12
2.8	References	2-13

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2. Design Evolution and Alternative Layouts

2.1 Introduction

2.1.1 This chapter provides a description of the site selection process and design iterations that were undertaken prior to arriving at the final design, which is described in Chapter 3.

2.2 Site Selection

2.2.1 The location of the Proposed Development site was selected as part of a nationwide search for potential wind farm sites by the Applicant.

2.2.2 The Applicant considered over 120 potential sites throughout the UK to establish the most appropriate sites for wind farm development. The site screening methodology included the following requirements:

- initial assessment using the NOABL database to ensure wind speeds greater than 7 m/s at 45 m height;
- acceptable separation distance from residential receptors (generally buffered at 600 m but for smaller sites a reduced buffer of 400 m was considered subject to further study);
- no immediate proximity to sensitive ecological sites that could preclude wind farm development;
- reasonable proximity to a potential grid connection point; and
- preliminary site walkover to establish ground conditions suitable for wind farm development.

2.2.3 Of the initial sites investigated, the Applicant elected to progress with more detailed feasibility studies for approximately 20 sites, of which the Proposed Development site was one.

2.3 Identified Opportunities and Constraints

Opportunities

Landscape and Visual

2.3.2 The Proposed Development site is mainly located in The Upper Dale Valley landscape character type which is predominantly characterised by improved pastures, grazed by sheep and cattle with an extensive pattern of shelterbelts and farm woodland. The history of coal mining in the area provides a suitable context for wind farms, as the area has a history of industrial development.

2.3.3 The south-western part of the site is located within the Southern Uplands with Forest character type and is characterised by large smooth dome-shaped hills with large scale plantations on slopes and over low summits. This landscape character holds greater

potential for visually accommodating wind turbines due to the large-scale topography of the landscape, provided wind turbines are sited below ridge and summit lines. Additionally, the Dumfries and Galloway Council Local Development Plan (LDP) 2014 does not characterise the site as being within a Regional Scenic Area or other landscape designation.

- 2.3.4 Kirkconnel and Kelloholm settlements are located approximately 2.6 km north-east of the closest turbine.
- 2.3.5 Specific opportunities and constraints defined by the landscape and visual resource were assessed to identify the most appropriate design principles for the turbine layout. The current Proposed Development layout then followed the below design principles, involving the turbine reduction.

Ecology

- 2.3.6 The Proposed Development is not located within or near a site designated for ecology and no sensitive ecological receptors have been identified in the immediate vicinity of the site.

Ornithology

- 2.3.7 The North Lowther Uplands and Muirkirk Uplands are both designated Sites of Special Scientific Interest (SSSI) and Special Protection Areas (SPA), and are situated 3.6 km north-east and 4.7 km north-west of the nearest site boundary respectively. The SSSI is designated for, its blanket bog habitat, birds and geological importance and the SPA for important bird life. No evidence was recorded linking observations of golden plover recorded within the Proposed Development site with the SPA population.

Cultural Heritage

- 2.3.8 There are no Scheduled Monuments, Listed Buildings or Gardens and Designed Landscapes within the site boundary therefore the Proposed Development will not have direct effects upon these designated sites.
- 2.3.9 The design of the Proposed Development has taken into consideration the setting effects of local heritage assets such as Sanquhar Castle and St Connel's Chapel located approximately 7.6 km and 4.6 km from the closest turbine.

Forestry

- 2.3.10 The Proposed Development has aimed to minimise forestry loss whilst maintaining the level of planting proposed in previous applications.

Constraints

- 2.3.11 The main constraints described below are shown on Figure 2.1.

General

- 2.3.12 To ensure public safety a buffer was applied to the roads and paths within the site boundary and the surrounding area. This buffer was defined as the topple distance which is set as the turbine tip height plus 10 %. With the proposed turbines having a tip height up to 125 m, this equated to 137.5 m topple distance.

Ecology

- 2.3.13 The main effect on habitats and flora will be through direct habitat loss during construction, operation and decommissioning of the Proposed Development which has been minimised through design layout incorporating a 10 m buffer around all infrastructure and 10 m buffer around all turbine locations.
- 2.3.14 A 70 m bat pass buffer has been applied in areas identified where bat species have been found flying, particularly along watercourses and woodland edges which will minimise effects on bat populations.
- 2.3.15 Although the site has areas of Groundwater Dependent Terrestrial Ecosystems (GWDTE), the turbine and track design has aimed to avoid these where possible.

Ornithology

- 2.3.16 Black grouse have previously been identified on the site (refer to Chapter 8). The lekking sites have been avoided as part of the design process where possible and during the construction phase a temporal exclusion of works will also be established whereby no works will be undertaken from one hour before sunset to one hour after sunrise within a 750 m exclusion zone from April to mid-May inclusive.

Cultural Heritage

- 2.3.17 A number of locally designated archaeological sites are located within the Proposed Development site boundary and there are nationally designated Listed Buildings within 1 km of the Proposed Development site boundary.

Geology, Hydrology and Hydrogeology

- 2.3.18 To ensure that watercourses are not adversely affected, 50 m buffers have been applied to all watercourses on site and within the surrounding area.
- 2.3.19 To avoid construction on areas of deep peat, indicative areas of deep peat were identified through desk studies. Further into the assessment process, a peat depth survey was undertaken with the results of this plotted to refine the understanding of peat constraints across the site.
- 2.3.20 A crossing of the Polneul Burn and Polhote and Polneute Burns SSSI would be required for construction, operation and decommission of the Proposed Development.

2.4 Design Process for Turbines

Turbine Layout Iterations

- 2.4.2 As a consequence of the EIA process, there have been six key design iterations to the layout of the Proposed Development in order to avoid, reduce or offset the potential environmental effects associated with the Proposed Development and increase the output achieved. The design iterations have also been undertaken in the context of maintaining a viable development proposal.

- 2.4.3 The initial layout that accompanied the 2011 EIA Scoping Request was used for the purposes of initial consultations. This was further developed through the Section 36 Application and Section 36 Addendum, before the design of 2015 planning application was finalised. In 2017 DGC granted a non-material variation to planning permission to allow the rotor diameter to be increased by 1 m (the Consented Development).
- 1.1.1 The Proposed Development is the same physical development as the Consented Development, except for the capacity of the generator proposed to be housed within the turbine nacelle.
- 2.4.4 Figures 2.2a and b, 2.3a and b, and 2.4a and b illustrate how the design iterations have reduced the potential visual impact of the turbines from three viewpoints considered to be representative of high sensitivity receptor groups. Wirelines showing the 2012 Section 36 Application, 2013 Section 36 Addendum, 2015 Planning Application, and the 2017 Consented Development/2018 Proposed Development have been provided.
- 2.4.5 A summary of the turbine layout iterations that led to the Proposed Development is provided in Table 2.1 below and illustrated in Figure 2.5.
- 2.4.6 A micro-siting allowance of up to 100 m in all directions is being sought in respect of each turbine and its associated infrastructure in order to address any potential difficulties which may arise in the event that preconstruction surveys identify unsuitable ground conditions or environmental constraints that could be avoided. Any variation of between 50 m and 100 m shall only be permitted following prior written approval of the Planning Authority in consultation with the MOD, NATS, Glasgow Prestwick Airport and where relevant SEPA and/or SNH, as per the planning conditions for the Consented Development.

EIA Scoping

- 2.4.7 A 27 turbine layout informed the Scoping Report which was submitted in April 2012 to the ECU. This initial design was identified through the consideration of the following constraints:
- residential properties location;
 - statutory designated sites (including their qualifying features) such as: Site of Special Scientific Interest (SSSI), Special Area of Conservation (SAC) and Special Protection Area (SPA);
 - european and UK protected mammal species;
 - 50 m watercourse buffer – to ensure that construction of turbines would not adversely affect watercourses;
 - visibility potential including the zone of theoretical visibility (ZTV);
 - landscape Character Type;
 - historic Gardens & Designed Landscapes;
 - Ayrshire Sensitive Landscape Areas;
 - the historic settlement of Wanlockhead and the Regional Scenic Areas of the Galloway Hills and Thornhill Uplands;

- National Monuments Record of Scotland (NMRS) and Scheduled Monument (SM);
- listed Buildings;
- conservation Areas; and
- an assumed predominant south-westerly wind direction.

Section 36 Application (2012)

- 2.4.8 The evolution of the design from the scoping layout, including the associated infrastructure, is described in the Section 36 Environmental Statement (Sandy Knowe Wind Farm Limited, 2012).
- 2.4.9 Following consultation with the local community the final layout submitted in the Section 36 Application in 2012 was for the construction of a 30 turbine wind farm with an output of approximately 90 MW. Turbines were proposed across a wider area compared to the Proposed Development and Consented Development. Following wind monitoring from the installed met mast, the predominant wind direction was determined to be west-north-westerly which allowed for an increase in the number of turbines from the scoping layout. The turbines were sited to avoid identified constraints such as maintaining the distance from the A76, residential properties and visual appearance of the overall layout from key viewpoints. The track layout was designed to avoid constraints such as deep peat and to minimise the requirement for watercourse crossings. The borrow pit was located to the south of the site. The proposed substation and secondary construction compound were situated in the south-western corner of the site. The primary construction compound was located at the site entrance to reduce traffic volumes within the site during construction and decommissioning.
- 2.4.10 Key matters arising from the consultation on the Section 36 Application related to military low flying, safeguarding concern at Glasgow Prestwick Airport and NATS radar, lack of clarity regarding forestry removal, details on engineering activities near the water environment, bird interests of the site and landscape and visual effects including cumulative effects on the A76 valley, particularly the settlements of Sanquhar and Kirkconnel.

Section 36 Addendum (2013)

- 2.4.1 The evolution of the Section 36 Addendum design, which was submitted in 2013, is described in the Section 36 Addendum (Sandy Knowe Wind Farm Limited, 2013).
- 2.4.2 The following changes were made to the design of the Section 36 Application site layout in response to the consultee comments and subsequent dialogue, and review by the Applicant and project team and submitted to the ECU as a formal amendment supported by an ES Addendum:
- a reduction of coniferous plantation woodland felling within New Libry Moor Plantation;
 - turbines T1, T28, T29 and T30 and associated track were realigned, to move them away from an area of military low flying;

- the tracks and hardstanding areas between T1, T2,T3, T4, T6, T13 and T21 were realigned to reduce impacts on sensitive Groundwater Dependent Terrestrial Ecosystems (GWDTE); and
 - the removal of the borrow pit.
- 2.4.3 All objections to the Section 36 Application regarding the low flying area and radar, bird interests of the site, activities in the water environment and forestry removal, were lifted on submission of the EIA Addendum.
- 2.4.4 The key reasons for refusal of the Section 36 Application were due to perceived landscape and visual effects, in particular on the residents of Kirkconnel and Kelloholm and on the receptor Corserig.

Planning Application

- 2.4.5 Following refusal of the Section 36 Application the Applicant amended the design to respond to the landscape and visual constraints and other environmental factors identified in the decision letter. A development comprising 24 wind turbines was then submitted for planning permission to DGC.

Consented Development

- 2.4.6 Following planning permission being granted in 2016, DGC granted a non-material variation to the planning permission in 2017 allowing a 101 m rotor to be implemented within the permitted 125 m tip height (refer to Appendix 1.2), as opposed to a 100 m rotor described in the ES.

The Proposed Development

- 2.4.7 The Proposed Development does not propose any changes to the turbine locations to those within the Consented Development layout. The Proposed Development proposes an increase in the installed capacity of each turbine from around 2 MW to around 3.4 MW. This increase (around 70%) in capacity allows the site to be more productive with no change to the impacts of the development when the Proposed development is compared with the Consented Development.

Table 2.1 – Summary of Design Layout Iterations

Design Iteration	Description	Design Principles / Reasons for Change from Previous Iteration
1	EIA Scoping Layout (2011): 27 turbines, 125 m tip height	For the EIA Scoping layout, the following environmental constraint was introduced: 50 m watercourse buffer – to ensure that construction of turbines would not adversely affect watercourses. These constraints are illustrated in Figure 2.1. Based on the same assumed predominant south-westerly wind direction, inclusion of these constraints reduced the number of turbines that could be placed within the site to 27.

Design Iteration	Description	Design Principles / Reasons for Change from Previous Iteration
2	Section 36 Application (2012): 30 turbines, 125 m tip height	<p>Following the ECU Scoping Opinion, the turbine layout was amended to the Section 36 Application design. The following design principles were used in developing the application layout:</p> <p>Predominant wind direction – after six months of onsite measurement and wind modelling, the actual wind predominant direction was determined to be west-north-westerly, at a bearing of 290°. Reorientation of turbines within the site to accommodate for this change allowed 30 turbines to be placed within the site once again.</p> <p>Public consultation response (refer to Chapter 3 of the Section 36 Application ES for details) – in order to take into account feedback from the public, turbine 1, the most northerly turbine closest to the A76 and residential properties, was moved south approximately 340 m further away from these receptors.</p> <p>Input from landscape architects – Brindley Associates Ltd (refer to Chapter 5 of the Section 36 Application ES for details) provided expert input into the final layout by setting out turbines in order to produce a less scattered layout, using wireframe illustrations each time a turbine was repositioned to examine the visual appearance of the overall layout from a number of viewpoints. The main design principles applied by the landscape architects were to prevent any individual turbines appearing as outliers, and to prevent the eastern and western sides of the site from being split by the Polneul Burn into appearing as two separate wind farms.</p> <p>Additionally, the following environmental constraints were added as indicated in Figure 2.1:</p> <p>137.5 m road and right of way buffer – turbines are set back from the Heads of the Valley Road by turbine tip height (125 m) plus 10 % in order to ensure public safety;</p> <p>residential buffers – the 400 m and 600 m buffers shown in Figure 2.3 are indicative constraints as wind farms can vary greatly in their visual and noise impacts upon residential receptors; these were used as guidelines together with the design principles above;</p> <p>70 m bat pass buffer – ecological surveys of the site (refer to Chapter 6 of the Section 36 Application ES for details) identified areas where bat species have been found flying, particularly along watercourses and woodland edges; these are buffered appropriately to minimise impacts on bat populations;</p> <p>peat depth – a peat survey (refer to Chapter 8 of the Section 36 Application ES for details) identified the depth of peat across the site; areas where peat is greater than 1.5 m depth have been avoided in order to minimise the amount of peat required to be excavated;</p> <p>peatslide risk – the peat survey also identified areas of moderate susceptibility to peatslide (refer to Chapter 8 of the Section 36 Application ES for details); these areas have been avoided where possible in order to minimise the risk of peatslide affecting the development and downstream receptors; and</p>

Design Iteration	Description	Design Principles / Reasons for Change from Previous Iteration
		<p>geological constraints (refer to Chapter 8 of the Section 36 Application ES for details) – coal sub-crops, geological faults and an area of mineral instability were identified through a desk study; these were avoided due to difficulty of constructing turbine foundations at these locations.</p> <p>Inclusion of the above constraints and design principles led to the final turbine layout design of 30 turbines, as illustrated in Figure 2.1.</p> <p>NB: the position of turbine 29 within a 50 m watercourse buffer is permitted, as the watercourse in question is an artificial drain for an existing track, rather than a natural watercourse. The drainage in this area will be redesigned to accommodate the proposed turbine and access track.</p>
3	<p>Section 36 Addendum (2013):</p> <p>30 turbines, 125 m tip height</p>	<p>The following changes were made to the design of the Section 36 Addendum layout in response to the consultee comments and subsequent dialogue, and review by the Applicant and project team:</p> <p>a reduction of coniferous plantation woodland felling from 78 hectares (ha) of plantation in the Section 36 Application to 27.2ha within New Libry Moor Plantation and 27.2 ha of broadleaf woodland would be planted elsewhere within the site boundary;</p> <p>turbines T1, T28 and T29 and associated track have been realigned or relocated , to move them away from an area of military low flying;</p> <p>the tracks and hardstanding areas between T1, T2 ,T3, T4, T6, T13 and T21 have been realigned or relocated to reduce impacts on sensitive Groundwater Dependent Terrestrial Ecosystems (GWDTE); and</p> <p>the Section 36 Addendum layout no longer includes the borrow pit.</p> <p>These changes are illustrated on Figure 2.1 and 3.1 of the Section 36 Addendum.</p>
4	<p>Planning Application (2015):</p> <p>24 turbines, 125 m tip height</p>	<p>The Following changes were made to the design of the Proposed Development layout:</p> <p>loss of six turbines and associated infrastructures previously located in the eastern part of the site within the Libry Moor Plantation; and</p> <p>relocation of the AIL vehicles entrance location via the north western junction at Nethern Cairn which had for consequence to extend the internal access track to T02 and to realign the track to T01, T09 and T17.</p> <p>These changes are illustrated on Figure 2.5 and decreased the developable area of the site, decreased the felling of forestry required and increased the distance of turbines from the settlement edge of Kirkconnel and Kelloholm from 1.9 km to 2.6 km.</p>
5	<p>Consented Development – non-material variation (2017):</p>	<p>A non-material variation was agreed with Dumfries and Galloway Council to increase the rotor diameter from 100 m to 101 m allowing a greater variety of turbine models to be considered.</p> <p>Through the approval of the non-material variation Dumfries and Galloway Council agreed that the increase in rotor diameter by 1 m would</p>

Design Iteration	Description	Design Principles / Reasons for Change from Previous Iteration
	24 turbines, 125 m tip height	have no additional environmental effects to those identified in the 2015 ES.
6	Proposed Development	No physical changes proposed to the turbine layout or dimensions from Design Iteration 5. An increase in the installed capacity of each turbine proposed, from around 2 MW to around 3.4 MW.

2.5 On-site Infrastructure Layout Iterations

2.5.1 Following the evolution of the turbine layout design, the design of the access tracks, construction compounds and substation was undertaken. The infrastructure required on the site was designed and arranged in such a way as to avoid the on-site environmental constraints identified.

Access Tracks

2.5.2 Access track routes were designed to:

- minimise water crossings;
- avoid loss of more sensitive and intact bog habitats;
- integrate into the existing landform;
- avoid highly dependent Groundwater Dependent Terrestrial Ecosystems (GWDTE) (where possible);
- avoid deeper peat areas;
- avoid felling of woodland (where possible); and
- avoid cultural and archaeologically designated features.

2.5.3 As summarised in Table 2.2 there were four design iterations of the access tracks following the finalisation of the turbine locations.

Table 2.2 – Summary of On-site Infrastructure Layout Iterations

Design Iteration	Description	Design Principles / Reasons for Change from Previous Iteration
1	EIA Scoping Layout (2011): 27 turbines, 125 m tip height	The initial design avoided major environmental constraints and provided a preliminary plan for linking the turbines.
2	Section 36 Application (2012): 30 turbines,	The second design took into consideration engineering constraints and was designed to ensure that construction machinery and abnormal loads would be able to travel along all access tracks.

Design Iteration	Description	Design Principles / Reasons for Change from Previous Iteration
	125 m tip height	
3	Section 36 Addendum (2013): 30 turbines, 125 m tip height	The third design reduced the length of access track as a result of the removal of the borrow pit, between Turbines 21 and 22, and associated temporary access tracks. The relocation of turbines T1, T2, T3, T4, T5, T6, T13, T21 to reduce impacts on sensitive Groundwater Dependent Terrestrial Ecosystems (GWDTE) had for consequence a realignment of all associated internal tracks.
4	Planning Application (2015)/ Consented Development (2017)/ Proposed Development (2018):	The fourth design iterations further refined the turbine layout which resulted with the loss of six turbines (T30, T29, T28, T27, T26 and T25) which resulted in approximately 200 m less access track when compared to the Section 36 Addendum layout. In addition, the tracks were extended to be suitable for AIL from T02 to access turbine from A76 (western access). Track to T01, T09 and T17 was also realigned. The current layout also significantly reduces the forestry felled and not re-planted.

- 2.5.4 Following the fourth design, detailed peat probing and analysis was undertaken along the length of the access track to ensure that the track did not pass through areas of deep peat (refer to Chapter 9 for further details). The assessment highlighted that no changes to the fourth design were required.

Substation

- 2.5.5 The substation location was designed to avoid watercourses and areas of highly or moderately GWDTE. The substation location has not changed through the design iteration process and is proposed in the south-western corner of the site, as this is the closest point within the site to the most likely grid connection point at Black Hill substation.
- 2.5.6 A micro-siting allowance of up to 100 m in all directions is being sought in respect to the substation and its associated infrastructure in order to address any potential difficulties which may arise in the event that preconstruction surveys identify unsuitable ground conditions or environmental constraints that could be avoided. Any variation of between 50 m and 100 m shall only be permitted following prior written approval of the Planning Authority in consultation with the MOD, NATS, Glasgow Prestwick Airport and where relevant SEPA and/or SNH. It is proposed that the final positioning of all infrastructure will be agreed through an appropriately worded planning condition.

Construction Compounds

- 2.5.7 The final Proposed Development layout (refer to Figure 1.2) includes the two construction compounds required during the construction period that will provide welfare facilities as well an area for the storage and assembly of turbine components (refer to Chapter 3).

- 2.5.8 The location of the two temporary site compounds has not changed through the various design iteration processes. The primary compound is proposed to be located at the north-eastern corner and the secondary compound in the south-western corner of the site to allow control of construction operations west of Polneul Burn and at the adjacent substation.
- 2.5.9 A micro-siting allowance of up to 100 m in all directions is being sought in respect to the construction compounds and their associated infrastructure in order to address any potential difficulties which may arise in the event that preconstruction surveys identify unsuitable ground conditions or environmental constraints that could be avoided. Any variation of between 50 m and 100 m shall only be permitted following prior written approval of the Planning Authority in consultation with the MOD, NATS, Glasgow Prestwick Airport and where relevant SEPA and/or SNH. It is proposed that the final positioning of all infrastructure will be agreed through an appropriately worded planning condition.

Site Access

- 2.5.10 The Applicant originally intended to access the site via the A76 eastern junction to the Heads of the Valley road, however following discussions with relevant parties, consultation with local residents and a review of the roads capabilities, the access to the site was re-designed to allow abnormal loads to directly access the site from the A76, west of the junction at Nether Cairn. This reduces the disruption to local residents and ensures that no abnormal loads will be travelling along the Heads of the Valley Road.
- 2.5.11 As a consequence, an entrance to the site at the far north-western corner extremity of the site boundary will require to be provided to allow turbine component delivery vehicles to access the site. The entrance in the north-eastern part of the site boundary will not require widening of the road as was described for the Section 36 Application and Section 36 Addendum.
- 2.5.12 A micro-siting allowance of up to 100 m in all directions is being sought in respect to the access tracks and its associated infrastructure in order to address any potential difficulties which may arise in the event that preconstruction surveys identify unsuitable ground conditions or environmental constraints that could be avoided. Any variation of between 50 m and 100 m shall only be permitted following prior written approval of the Planning Authority in consultation with the MOD, NATS, Glasgow Prestwick Airport and where relevant SEPA and/or SNH. It is proposed that the final positioning of all infrastructure will be agreed through an appropriately worded planning condition.

Borrow Pit

- 2.5.13 Following discussion with consultees during the Section 36 Addendum process, the Proposed Development does not include a borrow pit (which was previously located between T21 and T22). It is proposed that rock to be used during construction will be imported from an external, yet to determined source.

2.6 Do Nothing Scenario

- 2.6.1 Should the Proposed Development not be consented, the Applicant will construct the Consented Development, which is referred to as the “do-nothing scenario”. As described in

Chapters 1 and 3, the Consented Development is the exact same physical development as the Proposed Development but with a lower power rating for each turbine. Each turbine of the Consented Development would be around 2 MW in power rating while each turbine of the Proposed Development would be around 3.4 MW in power rating. The location of the access tracks, substation and temporary construction compound, and the location, number, and dimensions of the turbines for the Proposed Development and Consented Development are identical.

- 2.6.2 Please refer to the Planning Statement for further information regarding the Applicants commitment to the construction of the Consented Development should the Proposed Development not receive consent.

2.7 Summary

- 2.7.1 The final layout has been informed by a robust EIA and design iteration process, taking into account potential environmental impacts and their effects, physical constraints, and health and safety considerations. The information used to inform the design iteration process included consultation responses received, baseline data and the impact assessment undertaken.
- 2.7.2 The final layout comprises 24 turbines of up to 125 m tip height as shown in Figures 1.2 and 1.3. The change in layout through the site's history has resulted in:
- a more visually balanced layout from key viewpoints and from close sensitive receptors;
 - reduced visual effect on Cultural Heritage Sites;
 - reduced effects on forestry;
 - reduced effects on Kirkconnel and Kelloholm;
 - a more balanced layout within similar existing or consented energy projects;
 - reduced effects on key habitats, nature conservation interests and protected species;
 - reduced effects on nearby noise sensitive receptors; and
 - greater installed capacity
- 2.7.3 The proposed increase in installed capacity of the Proposed Development results in a change to the Consented Development within the turbine nacelle only, through the inclusion of a higher capacity generator. All infrastructure locations such as turbine locations, access track locations, water crossings etc. remain as per the Consented Development.
- 2.7.4 The Proposed Development layout presented is considered to represent the most appropriate design, taking into account potential environmental impacts on their effects, physical constraints, and health and safety considerations, while maximising the generating capability of the site.

2.8 References

Sandy Knowe Wind Farm Limited (2012). Section 36 Environmental Statement.

Sandy Knowe Wind Farm Limited (2013). Section 36 Addendum.

Sandy Knowe Wind Farm Limited (2015). Planning Application Environmental Statement.

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