

## 2 Site Selection and Design Iteration

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## 2 Site Selection and Design Iteration

### 2.1 Introduction

- 2.1.1 The Town and Country Planning (Environmental Impact Assessment) (Scotland) Regulations 2017 state that the EIA Report must include “*A description of the reasonable alternatives (for example in terms of development design, technology, location, size and scale) studied by the developer, which are relevant to the proposed project and its specific characteristics, and an indication of the main reasons for selecting the chosen option, including a comparison of the environmental effects*” (Schedule 5.2 (d)) (Scottish Government, 2017).
- 2.1.2 This chapter provides a description of the site selection process and design iterations that were undertaken prior to arriving at the final design of the Proposed Development, which is described in detail in Chapter 3 (Proposed Development).
- 2.1.3 Throughout the process the Applicant has considered key environmental receptors and has aimed to avoid, prevent or reduce environmental effects through design.

### 2.2 Site Selection

- 2.2.1 The Applicant was approached by the landowner regarding developing the Proposed Development site as a wind farm. The Applicant then undertook initial feasibility work to determine whether the site is appropriate. Key issues considered included:
- cumulative developments (i.e. the proximity of the site to other wind farm developments and the potential for significant cumulative effects arising between them);
  - grid connection (i.e. the proximity to a substation with sufficient capacity to export the power generated);
  - access (i.e. an access route to the site which has the capacity to take the abnormal loads require for construction of a wind farm); and
  - environmental designations (i.e. international and national designations for ecology, landscape and cultural heritage).
- 2.2.2 Having determined that the site would be appropriate for a wind farm development based on the above factors, further feasibility work was undertaken which included:
- identifying the closest residential receptors and consideration of potential noise, shadow flicker and residential visual amenity impacts;
  - consideration of aviation receptors and potential impacts;
  - consideration of potential visual receptors including the A836, Ben Klibreck and scheduled monuments;
  - consideration of wind speeds and the installation of a meteorological mast;
  - consideration of local and national planning policies;
  - determining an indicative layout that could be supported by the site; and
  - positive discussions with THC and the local community.
- 2.2.3 The above process identified the Proposed Development site (refer to Figure 1.1) as a site with good potential for wind development and with the minimal environmental constraints.

## 2.3 Opportunities and Constraints

2.3.1 All potential wind farm sites have a range of environmental opportunities and constraints which need to be taken into consideration through the design process. At times receptors may be both an opportunity and a constraint depending on their location.

### **Opportunities**

2.3.2 The Proposed Development site has a number of attributes providing a good opportunity for a wind farm site, including:

- planning policy (current local planning policy conditionally allows onshore wind development in the area);
- wind resource and topography;
- no ecological, ornithological or geological designations within the site boundary;
- no cultural heritage designations within the site boundary and limited non-designated cultural heritage resource;
- sufficient distance from residential receptors;
- contained landscape and visual effects;
- few watercourses within the site boundary;
- few areas of deep peat within the site boundary;
- significant distance from aviation receptors;
- connectivity to the local electrical distribution system; and
- good access directly from the primary route network (A836).

### **Planning Policy**

2.3.3 The Proposed Development site falls within Group 2, an 'Area of significant protection' as defined by The Highland Council Local Development Plan Onshore Wind Energy Supplementary Guidance (The Highland Council, 2016) (refer to Figure 5.1). Group 2 areas "*may be appropriate in some circumstances. Further consideration will be required to demonstrate that any significant effects on the qualities of these areas can be substantially overcome by siting, design or other mitigation.*"

2.3.4 The Proposed Development is not within any Group 1 areas that have been defined within the Spatial Strategy Framework as "*Areas where wind farms are not acceptable*".

2.3.5 As detailed below the Applicant has undertaken a number of surveys and design iterations to demonstrate that the Proposed Development site is appropriate and the reasons for the allocation of the site in Group 2 can be substantially overcome by siting, design and mitigation.

### **Wind Resource and Topography**

2.3.6 Wind data has been obtained from a 70 metre tall mast installed on the site in autumn 2015. Over three years of data was subsequently collected and while the data is commercially sensitive, it demonstrates that the site has a commercially viable wind resource.

2.3.7 The topography of the site is fairly flat, raising gradually from 130 metres Above Ordnance Datum (mAOD) in the south-west corner to 155 mAOD in the centre of the site. To the west and north of the site the topography is similarly flat and low lying. To the south and east are Cnoc' a' Bhreac-Leathaid and Cnoc a Fuarlachd which respectively summit at 216 and 230 mAOD.

### **Ecological, Ornithological and Geological Designations**

2.3.8 There are no ecological, ornithological, or geological designated sites within the Proposed Development site boundary (refer to Figure 2.1).

2.3.9 The closest designations are as follows:

- Caithness and Sutherland Ramsar site (5.9 km to the south-west of the site) – designated for blanket bog, plants, mosses and insects.
- Grudie Peatlands Site of Special Scientific Interest (SSSI) (5.9 km to the south-west of the site) – designated for blanket bog.
- Lairg and Strath Brora Lochs Special Protection Area (SPA) (1.7 km to the south-west of the site) – designated for greylag goose, black-throated diver, merlin and Scottish crossbill.

### **Cultural Heritage Resource**

2.3.10 There are no designated cultural heritage receptors within the Proposed Development site boundary (refer to Figure 2.1).

2.3.11 The Feith Osdail Bridge, C-Listed building is nearest cultural heritage designation to the site and is located immediately north of the proposed site access. The access strategy has been designed such that the Feith Osdail Bridge is not impacted by the Proposed Development.

### **Residential Receptors**

2.3.12 There are no residential properties within the site boundary. The closest dwelling is Dalmichy which is 891 m south of the site boundary (refer to Figure 2.1).

### **Landscape Sensitivity**

2.3.13 There are no confirmed landscape designations within the Proposed Development site boundary. There are, however, designated areas within the study area that have been considered as they may be affected due to potential visibility of the Proposed Development (refer to Chapter 6 Landscape and Visual for further details).

### **Peat, Private Water Supplies and Watercourses**

2.3.14 The Proposed Development site contains areas of peat at varying depths, from shallow peat of less than 1 m to pockets of deep peat over 2 m deep. Detailed peat probing across the site has mapped the peat depths (refer to Figure 2.2).

2.3.15 There are no private water supplies located within 1 km of the site.

2.3.16 Feith Osdail is the only watercourse within the site flowing westward from the centre of the eastern boundary downslope to the south western corner of the site. The watercourse ranges between 5 m and 8 m in width and is turbulent and meandering in nature. There are also a number of drainage ditches across the site which flow into the Feith Osdail.

### **Aviation Receptors**

2.3.17 A wind farm at the Proposed Development site would not impact upon aviation or radar receptors. The closest receptor is an unlicensed aerodrome at Rovie Farm, 17 km to the south-east. Detailed examination of low flying charts covering the immediate area show there are no flow arrows or restrictions in the vicinity of the Proposed Development site and a low flying objection is therefore unlikely.

### **Grid Connectivity**

2.3.18 The Proposed Development has secured a grid connection from Scottish Hydro Electric power Distribution plc. The point at which the wind farm would connect in to existing electrical

infrastructure is the Lairg Grid Supply Point, located in Lairg Muir, approximately 1km north-east from the centre of Lairg.

### **Transport Connectivity**

- 2.3.19 Access to the Proposed Development site can be taken directly from the A836, with vehicles travelling from the south. This route, for both Heavy Goods Vehicles (HGVs), Light Good Vehicles (LGVs) and abnormal indivisible loads has been used by other wind farm developers and agreed with THC.

### **Constraints**

- 2.3.20 Like any potential wind farm site, the Proposed Development site has some environmental constraints which have been taken into consideration during the design iteration process. These are principally:

- Cultural Heritage;
- Landscape and Visual;
- Noise, Shadow Flicker and Residential Visual Amenity;
- Traffic and Transport;
- Watercourses and Peat;
- Forestry;
- Land ownership; and
- Telecommunications.

### **Cultural Heritage**

- 2.3.21 There are seven non-designated archaeological sites within the site boundary which have been considered during the design (refer to Figure 2.2).

### **Landscape**

- 2.3.22 The turbine layout has been optimised to minimise landscape and visual effects, where possible, including on Wild Land Areas and key receptors such as the A836.

### **Noise, Shadow Flicker and Residential Visual Amenity**

- 2.3.23 The remote location of the Proposed Development site means that the number of residential receptors that would be impacted, visually or acoustically, is limited (refer to Figure 2.1). Minimising the impacts upon residential properties and maximising the distance between the turbines and the properties has been a key design consideration.

### **Traffic and Transport**

- 2.3.24 The A836 crosses the Feith Osdail by way of a bridge which is designated as a listed building and is un-suitable as a crossing for abnormal loads. Therefore, access to the site is required to the south of the bridge.

- 2.3.25 The location of the turbines also takes into consideration the topple distance, i.e. providing sufficient separation between the A836 and the turbines so that the road would not be impacted in the highly unlikely event that a turbine was to fall over in the direction of the road.

### **Habitat, Watercourses & Peat**

- 2.3.26 No statutory designated nature conservation sites for ecological features occur within the site boundary of the Proposed Development.

- 2.3.27 No areas of ancient woodland or woodland on the semi-natural woodland inventory (NS, 2018) occur where works are proposed. No other non-statutory designated nature conservation sites occur in the desk study area.
- 2.3.28 A number of surveys have been undertaken to inform the design and establish the presence of habitats and faunal species within the site. The Proposed Development design aims to minimise any potential impacts upon habitats and faunal species.
- 2.3.29 A crossing of the Feith Osdail is required to connect the southern and northern sections of the site since the existing bridge on the A836 is inadequate for some of the larger loads associated with the construction of the Proposed Development. As per paragraph 2.3.14 there are pockets of deep peat which have been avoided where possible through the design process.

#### **Forestry**

- 2.3.30 The majority of the site is covered in coniferous plantation forestry with small areas of broadleaf. Where possible the design minimises the tree felling required to construct and operate the wind farm.

#### **Land Ownership**

- 2.3.31 The land outwith the Proposed Development site boundary is third party and therefore all turbines are sufficiently offset from the boundary to ensure that the turbine blades do not over-sail the site boundary.

#### **Telecommunications**

- 2.3.32 A telecommunication link crosses the north-eastern corner of the Proposed Development site and therefore sufficient separation between the turbines and the link is required to ensure that no impacts upon the link can occur.

## **2.4 Design Principles**

- 2.4.1 Taking into consideration the above constraints and opportunities, the following principles were adopted during the design iterations undertaken by the Applicant to ensure that the final design of the Proposed Development was the most suitable for the site:
- maximising wind yield and maintaining adequate spacing between turbines;
  - avoiding inconsistent turbine spacing, such as relatively large gaps, outliers or excessive overlapping turbines to minimise visual confusion and ensure a balance / compact array from key views;
  - avoiding areas of deep peat;
  - maintaining where possible a suitable separation distance between the Feith Osdail and the Proposed Development infrastructure;
  - maximising the separation distance between the turbines and residential properties;
  - minimising impacts on the non-designated cultural heritage assets;
  - avoiding the use of the A836 Feith Osdail bridge for abnormal loads;
  - ensuring appropriate separation distance between the turbines and the site boundary, and between the turbines and the A836;
  - minimising tree felling where possible; and
  - ensuring appropriate separation distance between turbines and the telecommunications link.

## 2.5 Proposed Development Design Iterations

- 2.5.1 The Applicant has undertaken multiple design iterations of all aspects of the Proposed Development including the turbine layout and the infrastructure layout. This Section describes the principal design iterations that have been undertaken as the Applicant has sought to maximise the number of turbines on the site (and thus the contribution of the Proposed Development to legally-binding targets to reduce greenhouse gas emissions), whilst minimising the environmental effects as identified above.
- 2.5.2 In order to illustrate the iterative design process, a series of wireline views that show three key iterations has been produced for four of the LVIA viewpoints (Figures 2.8 to 2.11). The viewpoints included are:
- Viewpoint 3: A836 south of Dalmichy;
  - Viewpoint 5: A836 north of Rhian Bridge;
  - Viewpoint 7: Blarbuie; and
  - Viewpoint 9: Saval.
- 2.5.3 These viewpoints have been selected as they represent key sensitive locations and provide a comprehensive set of views towards the Proposed Development from different directions, thereby illustrating various aspects of the Proposed Development.
- 2.5.4 Wireline views for these viewpoints have been run for three of the key design iterations of the Proposed Development. These have been chosen to represent key stages in the design development of the Proposed Development, and are:
- Layout B;
  - Layout D; and
  - Layout F (the application layout).

### ***Turbine Layout***

#### **Layout A**

- 2.5.5 Layout A aimed to maximise the number of turbines on site. The layout considered a 137.5 m buffer from the A836 and a 49.5 m buffer from the site boundary. It also took into consideration the Feith Osdail and placed a 45 m buffer either side of the river (refer to Figure 2.3).
- 2.5.6 This layout achieved seven turbines with a tip height of 125 m.
- 2.5.7 In visual terms, this layout displayed issues of gapping and overlapping of turbines. The overall number of turbines on the site gave a clustered and crowded appearance due to the relatively close spacing that was used, and resulted in a wide horizontal field of view being affected at each viewpoint.

#### **Layout B**

- 2.5.8 Layout B followed from Layout A, maintaining a tip height of 125 m, but considered a greater spacing between turbines. It also moved turbine 5 north to increase the distance between the turbine and the Feith Osdail river, and turbine 2 north-east to increase the distance between the turbine and the site boundary.
- 2.5.9 In visual terms, this layout was an improvement on Layout A due to the reduced number of turbines and resultant reduced crowding on the site. Gapping and clustering was still apparent, although reduced, and there was little reduction in the horizontal field of view affected by the Proposed Development. The appearance of the Proposed Development at the four key viewpoints was poor, as can be seen in the wireline views, with eye-catching, unbalanced spacing and composition. This

was particularly apparent when turbines were seen across the skyline in front of Ben Klibreck, which can, in clear weather, form a focal point in northwards views (see wirelines for Viewpoints 3 and 9).

#### **Layout C (2018 EIA Scoping Report Layout)**

- 2.5.10 To improve the spatial layout the number of turbines was further reduced in Layout C to four and moved eastwards (refer to Figure 2.4). This also increased the distance between the turbines and the residential properties, both to the south and to the west. The turbine tip height was increased to 135 m, reflecting improvements in turbine technology and mitigating to some degree the removal of the fifth turbine in terms of the output of the Proposed Development.
- 2.5.11 Following stage 1 peat probing it was identified that there were pockets of deep peat in the north-eastern corner and along the western site boundary. In layout B turbines 1 and 5 were located within this peat. The Applicant also increased the buffer around the Feith Osdail to 50 m compared to 45 m which meant that turbine 1 of Layout B was on the edge of this buffer. The Applicant therefore removed turbine 5 entirely, and moved turbine 1 north into an area with no peat (refer to Figure 2.4).
- 2.5.12 The Applicant also decided to increase the buffer provided between the A836 to 150 m and to also apply this buffer to the private Dalnessie access track to the south of the site boundary. This meant that turbines 2 and 3 from Layout B were within this buffer and so needed to be moved further towards the centre of the site (refer to Figure 2.4).
- 2.5.13 In visual terms, this layout was beneficial in further reducing clustering due to the smaller number of turbines on the site, and the horizontal field of view affected by the Proposed Development was reduced as a result of the eastwards movement of the turbines. The appearance of the Proposed Development in relation to the Ben Klibreck skyline was also improved by the eastwards move. However, the composition of the turbines remained eye-catching and unbalanced at some locations, notably Viewpoints 5 and 9, where overlapping.

#### **Layout D**

- 2.5.14 Following Layout C, the Applicant became aware of a telecommunication link which passes through the north-eastern corner of the site. This is a 'hard' constraint that cannot be mitigated. A minimum offset of 100 m was added to the constraints mapping to ensure that the turbines did not impact upon the link. This pushed turbines 1 and 2 westwards which had the additional benefit of moving turbine 2 away from areas of peat (refer to Figure 2.4).
- 2.5.15 The turbine tip height was increased slightly to 135 m and therefore the oversail buffer (the distance between the turbines and the site boundary) was also increased at this point to 75 m (compared 49.5 m) which meant a slight movement of turbine 4 to the south-west so that it is outwith this buffer (refer to Figure 2.4).
- 2.5.16 To accommodate the movement of turbines 1, 2 and 4, turbine 3 also moved westwards to ensure appropriate spacing between the turbines (refer to Figure 2.4). The turbine blade tip height remained at 135 m.
- 2.5.17 In visual terms, the movement of turbines back to the western part of the site increased the affected horizontal field of view again, as seen in Viewpoints 3, 7 and 9 (see wireline views in Figures 2.8 and 2.10). The increased horizontal field of view lead to an increased effect on the Ben Klibreck skyline in some views (see Viewpoints 3 and 9). The turbines also appeared in pairs in some views (see Viewpoints 5 and 9), with increased gapping between turbines. However, Viewpoints 3 and 7 show a balanced layout with a good composition.

#### **Layout E**

- 2.5.18 This layout iteration was driven largely by the visual effects arising from Layout D, as following the movement of turbines that resulted in Layout D due to "on the ground" constraints, a detailed review of the potential visual effects that might arise from Layout D was undertaken. Most notably, as described above and seen at Viewpoint 3, the horizontal field of view affected by Layout D of the Proposed Development in northwards views from the A836 resulted in increased effects on the Ben

Klibreck skyline. Elsewhere, the increased horizontal field of view seen in Layout D would not specifically affect Ben Klibreck but would increase the effect of the Proposed Development on views from sensitive locations. The pairing of turbines was also an issue in some views. The objectives of this layout were therefore to resolve and mitigate these effects as far as possible, and this was implemented through the movement of turbines to the east as far as was possible given the required turbine spacing and 'hard' constraints on the site. Turbines 1, 2 and 3 were moved eastwards (refer to Figure 2.5) while the position of turbine 4 did not change.

- 2.5.19 As a result, the affected field of view and the level of visibility of turbines in the context of the Ben Klibreck skyline was reduced. The pairing of turbines was also reduced, and a balanced, cohesive layout was achieved at the great majority of locations.

#### **Layout F**

- 2.5.20 A micro-siting allowance of up to 50 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 pre-construction surveys identify unsuitable ground conditions or environmental constraints that could be avoided. As turbines 1 and 4 of Layout E were on the boundary of the oversail buffer these turbines were moved slightly south and west respectively to allow micro-siting to occur in all directions if required during construction.
- 2.5.21 This move was undertaken with consideration given to visual effects, and some minor improvements were therefore also made to the appearance of the Proposed Development. This is notable in respect of the closing of gapping between turbines seen in Viewpoints 5 and 7, so that the final layout is balanced with a strong, cohesive composition. The westwards move of turbine 4 also reduced the affected field of view at Viewpoints 3 and 9. This is of particular importance at Viewpoint 9, where the effect on the Ben Klibreck skyline is slightly reduced.
- 2.5.22 The final layout is considered to present the best option in visual terms, within the parameters of the technical and environmental constraints that are found on the site. Overall, the Proposed Development has a balanced, compact and cohesive composition when seen from the great majority of viewpoints, and particularly those sensitive close-proximity views that may be gained from key viewpoints, including those that represent residential properties and the A836. Pairing of turbines can still be seen in some views, but these are generally mid-range views that do not represent the outlook from specific properties or key scenic viewpoints. Moreover, where pairing is inevitable in these mid-range and less-specific views due to the priority given to the more sensitive, close-proximity viewpoint locations, the turbines appear in two regular, balanced pairs and do not have the degree of separation that could lead to a perception of two main turbine groups, or two separate wind farms.
- 2.5.23 The wireline views shown in Figures 2.8 to 2.11 illustrate the appearance of this final layout in relation to the earlier, superseded, Layouts B and D.
- 2.5.24 This final Layout F is the turbine layout which is described in Chapter 3 of this EIA Report and for which the Applicant is applying for consent.

#### **Infrastructure Layout**

- 2.5.25 Following confirmation of the turbine locations in Layout F, the design of the accompanying infrastructure was considered. This included hardstandings, switching station, energy storage system, borrow pit search areas, temporary construction compound and temporary and permanent access tracks.

#### **Layout 1**

- 2.5.26 As discussed in paragraph 2.4.1 access to the Proposed Development site for abnormal loads is required to be taken south of the A836 Feith Osdail crossing due to the dimensions of the bridge and to avoid damage to the bridge which is a listed building. Access cannot be taken along the private Dalnessie access track as this lies outwith the site boundary and the control of the Applicant.

- 2.5.27 Layout 1 therefore took immediate access from the A836 to the south-western corner of the site, crossing the Feith Osdail river immediately to the north and heading to turbine 3. From turbine 3 the track headed west to turbine 2 and east to turbine 1. A branch off of the track to turbine 1 led south to turbine 4, with a second crossing of the Feith Osdail River (refer to Figure 2.6).
- 2.5.28 The access tracks across the site, and in particular to turbines 1 and 2, aimed to follow the forest rides to minimise the volume of felling required.
- 2.5.29 The construction compound and borrow pit search areas were located in the centre of the site to minimise visibility of the compound from the A836, while the switching station was located adjacent to the A836 for ease of access (refer to Figure 2.6).

#### **Layout 2**

- 2.5.30 Following consultation with the project ecologists and hydrologist Layout 2 revised the southern access point so that the track ran parallel to the Feith Osdail river to turbine 4. This reduced the number of crossings of the Feith Osdail from two to one, thereby reducing the impacts on aquatic ecology and the potential for flood risk (refer to Figure 2.6).
- 2.5.31 In addition, stage 2 peat probing was undertaken of Layout 1 which showed presence of deep peat along the proposed route of the access track from the southern access point to turbine 3 in Layout 1. The track running westwards from the southern access was shown to be in an area of shallow to no peat (refer to Figure 2.6).
- 2.5.32 The remainder of the infrastructure of Layout 2 stayed as per Layout 1.

#### **Layout 3**

- 2.5.33 The stage 2 peat probing also identified several pockets of deep peat (1-4 m in depth) around the hardstanding of turbine 1 in Layout 2. The hardstanding of turbine 1 was therefore rotated to the north into an area of no peat (depths of 0-0.5 m) to avoid this.
- 2.5.34 The identification of deep peat along the access track to turbine 1 and the change in location of the hardstanding of turbine 1 meant that the access track to turbine 1 also needed to change. To minimise felling the access track was designed to branch north from the access track leading to turbine 4, which then swung round to the west to meet turbine 1.
- 2.5.35 Concerns were raised regarding the visibility of the switching station and energy storage system at their location adjacent to A836 in Layout 2. The Applicant therefore moved these 600 m to the east away from the A836 so that they were located closer to turbine 4 on the southern access track and would be less visible from the A836.
- 2.5.36 The temporary construction compound was moved from the centre of the site to the southern access track to facilitate construction.
- 2.5.37 The southern access junction was moved slightly north to ensure maximum separation distance between it and the junction to the private Dalnessie access track. While the northern junction was re-designed to allow access and egress from both the north and the south of the A836.

#### **Layout 4**

- 2.5.38 To minimise land take, the Applicant re-considered the size of the turbine hardstandings required, reducing these significantly and identifying areas of the hardstanding which could be re-instated post-construction.
- 2.5.39 In order to minimise the number of vehicles required to bring aggregate to the site, the Applicant identified a third borrow pit search area adjacent to the northern access junction for use in constructing the northern access track.
- 2.5.40 Temporary access tracks to the two central borrow pits were designed, and areas of the access track which could be re-instated post-construction identified (e.g. at the junctions at the centre of the site).

- 2.5.41 To ensure the security of the site two smaller entrance compounds were placed at the northern and southern access junctions, while the construction compound was re-orientated to take advantage of the site topography and reduce the required cut and fill.
- 2.5.42 The size of the switching station and energy storage system compound was increased to ensure sufficient space between the infrastructure and space for car parking.
- 2.5.43 A location for a permanent 10 m tall meteorological mast was identified adjacent to the south-western corner of the construction compound.
- 2.5.44 The alignment of the southern access was moved south (where possible) to increase the length of track outwith the 50 m watercourse buffer and provide additional separation between the track and an un-designated cultural heritage asset (although it should be noted that the field survey found no obvious structures at or around the recorded location).
- 2.5.45 Following consultation with Scottish Environment Protection Agency (SEPA), the Applicant has made the southern access track from the A836 to the switching station and energy storage system a temporary track which will be fully re-instated post construction.
- 2.5.46 This final Layout 4 is the infrastructure layout which is described in Chapter 3 of this EIA Report and for which the Applicant is applying for consent.

### ***Conclusion***

- 2.5.47 Turbine Layout F and infrastructure Layout 4 is the layout that has been taken forward as the design for the Proposed Development within this EIA Report. Further design work may be required following the detailed ground investigations which will take place post-consent. In this regard, there will be a micro-siting allowance of up to 50 m in all directions 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 where there is a change to the ecology or ornithology baseline (i.e. detection of mobile protected species).

## **2.6 Do-Nothing Scenario**

- 2.6.1 Should the Proposed Development as described in Chapter 3 (Proposed Development) not be consented (the “do-nothing scenario”), it is anticipated that the Proposed Development site will not alter from the current baseline described above and in Chapters 6-16, until such time as the commercial forestry is felled.

## **2.7 Summary**

- 2.7.1 The final layout has been informed by a robust environmental assessment and design iteration process, taking into account potential environmental, landscape and visual 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 four turbines, and their associated infrastructure, including hardstanding, access tracks, switching station, energy storage system and met mast, as shown in Figure 1.2.
- 2.7.3 The Proposed Development layout 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

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