

2 Design Iteration

Contents

2.1	Executive Summary	2-1
2.2	Introduction	2-1
2.3	Background and Needs Case Considerations	2-1
2.4	Site Selection	2-2
2.5	Opportunities and Constraints	2-3
2.6	Design Principles	2-6
2.7	Proposed Development Design Iterations	2-7
2.8	Do-Nothing Scenario	2-10
2.9	Summary	2-10
2.10	References	2-10

This page is intentionally blank.

2 Design Iteration

2.1 Executive Summary

- 2.1.1 This chapter describes the site identification and design iteration process which has been undertaken by the Applicant to determine both the location of the site and the design of the Proposed Development.
- 2.1.2 Throughout the process the Applicant has considered key environmental receptors and has aimed to remove and reduce environmental effects through design.

2.2 Introduction

- 2.2.1 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 4.2) (Scottish Government, 2017). This requirement is similarly stated under Regulation 6 of the Marine Works (Environmental Impact Assessment) (Scotland) Regulations 2017 (as amended).
- 2.2.2 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).
- 2.2.3 It should be noted that different potential wind farm sites are not alternatives in the context of a policy position which is not capped and that key alternatives (as set out within this Chapter) relate to the options for developing the site.

2.3 Background and Needs Case Considerations

- 2.3.1 The Proposed Development is one of three under development by the Applicant under Orkney’s Community Wind Farm Project. The aims of this project are threefold:
- to generate income to be used for the benefit of the people of Orkney;
 - to aid towards a meaningful response to the Climate Emergency and the urgent need to further decarbonise; and
 - to build the case for a new transmission connection for Orkney and unlocking wider benefits to the energy sector in Orkney.
- 2.3.2 In addressing these aims the scale of development is a critical issue. At present, Orkney is not served by a transmission grid connection and the distribution network is at capacity such that there has been a moratorium on new grid connections since 2012 and many operational wind energy projects are experiencing substantial constraint through an Active Network Management system. Whilst the moratorium was technically lifted in September 2020 there is no material change to the overall level of constraint in Orkney and it is not considered that any substantial project will be able to secure a grid connection with acceptable curtailment levels. The lack of grid capacity has driven some innovation locally, but the overall impact has been to heavily impede development of the energy industry.
- 2.3.3 In September 2019 the electricity market regulator Ofgem published its final decision on the Needs Case for a transmission connection linking Orkney to the Scottish Mainland. It determined that there is a need for a cable. To justify the required spending on a new cable, there is a requirement for Scottish Hydro Electric Transmission (SHE-T) to demonstrate that there will be sufficient generation capacity to connect to the new cable, once operational. Ofgem agreed that in order to trigger a new

220 MW connection, 135 MW of new generation is required to have obtained planning permission, signed up to a grid connection agreement, and passed a financial audit before the end of 2021. Currently less than 40 MW of new wind has gained planning permission. Noting that there are a number of other private projects at different stages of development, it is clear that, without the Proposed Development and the other two wind farms within 'Orkney's Community Wind Farm Project', it is unlikely that the threshold will be met, and a new interconnector will not be built.

2.3.4 Furthermore, there is a need to increase the proportion of energy generated through renewable sources in order to meet the Orkney Sustainable Energy Strategy 2017 – 2025 which strives for 'a secure, sustainable, low carbon economy'. The provision of a minimum level of power generation in order to trigger the new 220 MW connection will allow for greater flexibility to further develop renewable energy technologies within Orkney, including the world leading marine energy sector.

2.3.5 Developing all available renewable energy generation sites with a realistic chance of contributing towards the Needs Case for a new cable to their realistic maximum capacity is viewed as the best way of ensuring that the aims outlined above are achieved.

Orkney Islands Council as a Developer of Onshore Wind Farms in Orkney

2.3.6 Orkney Islands Council (OIC) has therefore taken a number of choices leading to the decision to become a developer of onshore wind farms in Orkney:

- As early as September 2013 OIC endorsed the principle of the council itself establishing, developing or investing in an onshore wind farm project.
- At the OIC Policy and Resources committee meeting of 21st June 2016 OIC approved the principle of the council assuming the role of a project developer of onshore wind farm projects in Orkney.
- At the general meeting on 4th July 2017 OIC resolved that a process should be undertaken to identify property owners in Orkney with large sites able to accommodate scale wind generation who would wish to sell or lease land for the purpose of a wind development.
- At the OIC Policy and Resources committee meeting of 28th November 2017 it was recommended that OIC proceed to planning consent stage with development of a project on Hoy, at a maximum scale of approximately 108 MW. However, following further assessment, it was considered that a single development of that scale was unlikely to be achievable in Orkney.
- At the general meeting of the OIC of 5th March 2019 it was agreed that OIC should focus on developing all sites which have a realistic chance of contributing to the Needs Case for a new grid connection to Orkney, namely Hoy, Faray, and Quanterness.

2.3.7 In terms of delivering community benefit to the people of Orkney there are currently substantial challenges around funding service provision in the area which Orkney's Community Wind Farm Project may be able to address provided income from the Project is of the scale required.

2.3.8 In order to maximise the local benefit from the proposed 220 MW cable, it is also considered desirable to ensure that as much of the generation as possible is taken into local or public ownership, thereby ensuring that profits stay within Orkney.

2.4 Site Selection

Broad Site Identification and Selection

2.4.1 In response to the OIC decision to seek landowners with an interest in selling or renting land for wind farm development, an Expressions of Interest (EoI) process was undertaken in August and September 2017 requesting landowners to get in touch with OIC. A number of responses were received, and each was assessed against defined criteria and compared against other sites received, and sites within OIC ownership.

- 2.4.2 The outcome of this process was the decision to focus on development of a project of up to 108 MW on Hoy.
- 2.4.3 Initial baseline survey work at a potential large-scale site which would potentially deliver the entire 108 MW capacity was undertaken in 2018 however based on preliminary findings it was considered that a single development of that scale was unlikely to be achievable in Orkney. A process was therefore undertaken in late 2018 to assess the whole of Orkney for the potential for onshore wind farm development at a smaller scale, which could, in combination, provide the required capacity to support the Needs Case.
- 2.4.4 This was done by buffering address point data and plotting international designated sites on a map and identifying those areas which were of sufficient size to host a wind farm and were not constrained by either of those limitations. Each site was then investigated in further detail to identify any additional potential constraints. A short list of sites was drawn up and a full assessment of suitability was undertaken, the results of which were used to inform a report to OIC.

Faray Specific Site Identification

- 2.4.5 The island of Faray (refer to Figure 1.1) was identified as a potentially suitable development site, and further work was undertaken to establish feasibility of development and the potential scale and capacity of potential wind energy generation at the site.
- 2.4.6 The Faray site was therefore considered alongside responses from the 2017 EoI process (refer to paragraph 2.4.1) and subsequent wider work was undertaken in 2018 to identify suitable sites for development.
- 2.4.7 In conjunction with the OIC decision on 5th March 2019, to focus on developing all projects which have a realistic chance of contributing to the Needs Case for a new grid connection to Orkney, Faray was selected for progression towards an application for planning permission, alongside sites at Quanterness and Hoy.
- 2.4.8 Numerous surveys were undertaken on-site which have contributed to the various design iterations presented below culminating in the design detailed in Chapter 3 (Proposed Development).

2.5 Opportunities and Constraints

- 2.5.1 All 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

- 2.5.2 The Proposed Development site has a number of attributes providing a good opportunity for a wind farm site, as discussed below under the following headings:
- planning policy;
 - wind resource and topography;
 - geological designations;
 - ecological and ornithological statutory designations;
 - cultural heritage;
 - residential receptors;
 - landscape sensitivity;
 - land ownership and use; and
 - peat, private water supplies and watercourses.

Planning Policy

- 2.5.3 The majority of the Proposed Development site falls within Group 3, an 'Area with Potential for Wind Farm Development' as defined by the Orkney Local Development Plan 2017 (OIC, 2017). Small parts of the site lie within Group 2 'Area of Significant Protection' which relates to the Faray and Holm Special Area of Conservation (SAC) and Site of Special Scientific Interest (SSSI). 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."*
- 2.5.4 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 and 3 can be substantially overcome by siting, design and mitigation.
- 2.5.5 The Proposed Development is **not** within any areas that have been defined within the Spatial Strategy Framework as *"Areas where wind farms are not acceptable"*.

Wind Resource and Topography

- 2.5.6 The Orkney Islands are one of the windiest places in the United Kingdom (Met Office, 2019). The average wind speed across the development footprint is c.8.5 m/s¹ at 45 m elevation (DECC, undated). This is substantially above the UK average of 6.8 m/s (DECC, undated).
- 2.5.7 The site is flat, raising gradually from 0 m Above Ordinance Datum (AOD) on the shore to two small summits of 31 m AOD and 32 m AOD respectively.

Geological Designations

- 2.5.8 There are no geological designations within the development footprint (refer to Figure 2.1).
- 2.5.9 The closest designations are as follows:
- Greenan Nev Coast site of Geological Conservation Review (GCR) (approximately 1.4 km east of the development footprint); and
 - South Fersness Bay site of GCR (approximately 1.2 km south of the development footprint).

Ecological and Ornithological Statutory Designations (including Marine)

- 2.5.10 There are no terrestrial ecological designations within the site boundary.
- 2.5.11 The closest ornithological designation is the Calf of Eday Special Protection Area (SPA), approximately 2.7 km to the north-east and designated for breeding seabirds. The closest Marine Protection Area (MPA) is Wyre and Rousay Sounds MPA approximately 6.3 km to the south-west. This MPA is designated for seaweed communities and marine geomorphology (refer to Figure 2.1).

Cultural Heritage

- 2.5.12 The site is outwith the Heart of Neolithic Orkney World Heritage Site Sensitive Area and Buffer Zone (refer to Figures 6.3).
- 2.5.13 There are no listed buildings, battlefields or Conservation Areas within the Proposed Development site boundary (refer to Figure 2.1). There are however listed buildings on the neighbouring islands of Westray, Eday and Rusk Holm.
- 2.5.14 The closest Garden and Designed Landscape is Balfour Castle on the island of Shapinsay.

¹ The DECC dataset has been used for ease of comparison. The average mean wind speed onsite based on 6 months of monitoring is 9.7 m/s at 79 m.

Residential Receptors

- 2.5.15 There are no residential properties within the site boundary, or indeed on the island of Faray. The closest dwelling is North Guith c.1.6 km east of the nearest proposed turbine on the island of Eday. (refer to Figure 2.2).
- 2.5.16 All residential properties are outwith the standard study area for shadow flicker of ten times the turbine rotor diameter.

Landscape Sensitivity

- 2.5.17 There are no landscape designations within the Proposed Development site boundary. The closest designations are the Hoy and West Mainland National Scenic Area (NSA) (c.29 km) and the Hoy Wild Land Area (WLA) (c.44 km) (refer to Figure 6.3).

Land Ownership and Use

- 2.5.18 The Proposed Development site is owned by the Applicant and currently used for sheep farming by a tenant farmer. The loss of land to the Proposed Development footprint would not impact upon the agricultural requirements of the landowner or tenant and the new extended slipway would provide improved access.

Peat, Private Water Supplies and Watercourses

- 2.5.19 The Proposed Development site contains no areas of peat.
- 2.5.20 Although there are a number of private water supplies marked on the Ordnance Survey (OS) mapping within the site boundary none of these are operational (refer to Figure 2.2).
- 2.5.21 There are no major surface watercourses within the site boundary (as classified by SEPA).

Constraints

- 2.5.22 It is important to note that the identification of a constraint does not necessarily result in the exclusion of that area from the potential development envelope; rather it means that careful thought and attention was paid to the constraint and the design altered appropriately. The key constraints which were considered during the design process included:
- cultural heritage;
 - landscape and visual;
 - marine ecology;
 - ornithology;
 - noise and residential amenity;
 - transport; and
 - hydrology.

Cultural Heritage

- 2.5.23 The setting of a number of Scheduled Monuments and Listed Buildings on Eday and Westray may be impacted by the Proposed Development (refer to Figure 2.1).
- 2.5.24 There is one scheduled monument within the site boundary at the northern end of Faray, a Chambered Cairn, 280m NW of Quoy (hereafter 'Quoy Chambered Cairn') (refer to Figure 2.2). There are also numerous non-designated archaeological sites across the island of Faray (refer to Figure 2.2).
- 2.5.25 The Proposed Development has been designed where possible to avoid direct impacts upon known heritage assets through careful siting of infrastructure. Where possible, impacts upon the setting of heritage assets have been avoided or minimised during the iterative design process.

2.5.26 A full assessment of cultural heritage effects is presented in Chapter 10.

Landscape and Visual

2.5.27 Due to the open nature of the Proposed Development site there is potential for landscape and visual effects on a number of landscape and visual receptors on the surrounding islands and intervening seascape.

2.5.28 The incremental measure of the movements to the turbines during the iterative design process has meant that changes in the appearance of the Proposed Development from the key landscape and visual receptors surrounding the site, have also been incremental. In the development of each layout, consideration has been given to keeping the proposed turbines sufficiently inset so as not to encroach on the coastal edge and appear contained on the island. The iterative design process has ensured that the proposed turbines have been set at consistent elevations and spaced evenly, to produce a compact and legible layout from the key viewpoints on the surrounding islands. A full assessment of landscape and visual effects is presented in Chapter 6.

Marine Ecology

2.5.29 The coastline of Faray is designated as both a Special Area of Conservation (SAC) and Site of Special Scientific Interest (SSSI) for grey seals. The Proposed Development infrastructure, with the exception of the access points have been positioned outwith these areas of designation.

2.5.30 A full assessment of underwater noise and marine water and sediment quality impacts from the marine infrastructure is presented in Chapters 16 and 17 of the EIA Report. With assessments of coastal processes and benthos presented in Chapter 18.

Ornithology

2.5.31 The island of Faray is home to a number of ground-nesting seabirds. The layout has been optimised as far as possible to minimise potential effects and provide appropriate separation and mitigation.

2.5.32 A full assessment of effects on ornithology is presented in Chapter 7.

Noise and Residential Amenity

2.5.33 The remote location of the Proposed Development site means that the number of residential receptors that would potentially be subject to impacts is limited (refer to Figure 2.2). There are no residential properties on Faray however the noise impacts on neighbouring islands has been considered in the design of the Proposed Development.

2.5.34 A full assessment of noise is presented in Chapter 9.

Transport

2.5.35 The current slipway on Faray is significantly deteriorated and a new extended slipway and landing jetty will be required to access the Proposed Development site.

2.5.36 The potential impacts of the new extended slipway and landing jetty have been factored into the design and are assessed in the technical chapters (Chapters 6-18) where relevant.

Hydrology

2.5.37 A number of drainage ditches cross the Proposed Development site, these will be buffered and avoided where possible. There are also two springs located on site (although it should be noted that these do not provide private water supplies).

2.5.38 A full assessment of hydrology is provided in Chapter 11.

2.6 Design Principles

2.6.1 Taking into consideration the above constraints and opportunities, the following principles were adopted where possible 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 of turbines to minimise visual confusion and ensure a balance / compact array from key views;
- keeping the proposed turbines sufficiently inset so as not to encroach on the coastal edge and to ensure turbines appear contained on the island;
- minimising works within the SAC and SSSI and minimising potential effects;
- maintaining a suitable distance from the Scheduled Monument;
- maintaining a suitable distance from the seabird nest buffers;
- minimising impacts in respect of noise and the visual amenity of residential properties;
- minimising impacts on the non-designated cultural heritage assets; and
- maintaining a suitable distance from the drainage ditches and springs.

2.7 Proposed Development Design Iterations

2.7.1 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, whilst minimising the environmental effects as identified above.

Turbine Layout

Layout A (EIA Scoping Report)

2.7.2 Layout A aimed to maximise the number of turbines on site. The layout aimed to ensure that all turbines were located outwith the SAC and SSSI boundaries and identified potential for eight turbines (refer to Figure 2.3).

Layout B

2.7.3 Layout B followed from Layout A, maintaining a tip height of 149.9 m, but considered a greater spacing between turbines following initial wind monitoring results. It moved turbines T1 and T2 slightly south and T3 slightly north. This meant that T4 moved from the east of the island to the west near Langie Geos. As T4 had moved this allowed T5 and T7 to also move further north. There was no longer space for T6 of Layout A and therefore T8 of Layout A became T6 of Layout B, and the total number of turbines reduced from eight to seven (refer to Figure 2.3).

Layout C

2.7.4 To ensure that the turbine blades did not oversail the SAC and SSSI a 68 m buffer was placed around the SAC boundary and turbines moved outwith this². A 100 m buffer was also placed around the known locations of ground-nesting protected seabirds. Details relating to protected species are provided in Confidential Appendix 7.3 and Confidential Figure 7.11.

2.7.5 The addition of these constraints meant that T2 and T3 were moved south-east and south respectively to position them outwith the SAC buffer and T1 was moved south into the space that this created.

² It should be noted that the boundary of the SSSI and SAC, although designated for the same receptor are not identical.

- 2.7.6 T4, T6 and T7 were moved slightly to ensure that they are outwith of the SAC buffer. Their movement, and that of T2 meant that T5 was required to move to the centre of the island to ensure appropriate spacing between the turbines (refer to Figure 2.4).

Layout D

- 2.7.7 In advance of detailed wind monitoring an assumption was made that the pre-dominant wind direction would be south-westerly, this resulted in the removal of an additional turbine in Layout D, decreasing the number of turbines from seven to six (refer to Figure 2.4).
- 2.7.8 In order to achieve this spacing turbine T1 moved north again, to where it had been located in Layout B, allowing T2 and T3 to move northwards (whilst still respecting the constraints outlined for Layout C). Turbine T4 moved to the centre of the island, while T5 moved to south-east coast. Turbine T6 remained in almost the same position as Layout C and T7 was removed entirely (refer to Figure 2.4).

Layout E

- 2.7.9 Following advice from the project archaeologist the Applicant placed a 500 m buffer around the Scheduled Quoy Chambered Cairn in the north of the island. This buffer meant that turbine T1 of Layout D was no longer feasible. It therefore moved south and replaced turbine T3 of Layout D. Turbine T3 moved to the central-western boundary of the site near Blue Geo, which pushed turbine T4 eastwards towards Ringie Geo. Turbine T5 moved slightly south to both increase the separation distance between it and a non-designated archaeological site and to accommodate appropriate separation distance between T5 and T4. Turbine T6 did not alter position (refer to Figure 2.5).

Layout F

- 2.7.10 Following the further analysis of wind data from the monitoring it was determined that the island of Faray does not have a pre-dominant wind direction and therefore the spacing between turbines is required to be circular rather than elliptical.
- 2.7.11 This led to minor adjustments in the layout to accommodate the correct spacing, with the movement of turbines T2, T4 and T5 to the south (refer to Figure 2.5).
- 2.7.12 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.

Terrestrial Infrastructure Layout

- 2.7.13 Following confirmation of the turbine locations in Layout F, the design of the accompanying infrastructure was considered. This included hardstandings, substation, borrow pit search areas, temporary construction compounds and access tracks.

Layout 1

- 2.7.14 The principal access track for the site was developed to follow the existing track down the centre of the island. This then had spurs leading to the existing jetty, turbines, T3, T4, T5 and T6 and then terminated in a loop connecting turbines T1 and T2.
- 2.7.15 The construction compound was placed in the centre of the site to the north of the access track spur leading to turbine T3, with the substation adjacent (refer to Figure 2.6).

Layout 2

- 2.7.16 Following advice from the project ornithologists the loop connecting T2 to the principal access track was removed. A turning head was therefore added to the hardstanding of turbine T2 to allow vehicles to return to the construction compound via turbine T1.
- 2.7.17 The access track leading to, and the orientation of the hardstanding of turbine T6 were altered to minimise impacts to ornithology and the non-designated archaeological assets at this location.

2.7.18 The temporary construction compound was moved south closer to the location of the new extended slipway and landing jetty, while the substation was moved to the land adjacent to the new extended slipway and landing jetty to improve access to the expected position of the sub-sea cable.

2.7.19 In order to minimise the volume of aggregate required to be transported to the island a borrow pit search area was identified to the west of Hamar on the access track leading to turbine T1 (refer to Figure 2.6).

Layout 3

2.7.20 Following Layout 2 it was identified that the boundary of the borrow pit search area and the hardstanding and access track of turbine T3 entered the boundary of the SSSI. These two pieces of infrastructure were therefore slightly moved east and south respectively to avoid the SSSI (refer to Figure 2.7).

2.7.21 The substation was similarly moved to locate it outwith the SAC and SSSI boundary.

2.7.22 A second construction compound was added adjacent to the access track leading from the new extended slipway and landing jetty to the principle construction compound, to facilitate the construction of the new extended slipway and landing jetty (refer to Figure 2.7).

Layout 4

2.7.23 The northern borrow pit search area boundary was reduced to avoid some areas identified as groundwater dependent terrestrial ecosystems. While a southern borrow pit search area was added to the east of turbine T5 at the site of a previous borrow pit.

2.7.24 The construction compound for the new extended slipway and landing jetty was moved outwith the SAC and SSSI boundary to the location of the substation which would be built following the completion of the new extended slipway and landing jetty (and therefore no longer in use as a construction compound).

2.7.25 Due to changes in the design of the marine infrastructure the access track from the new extended slipway and landing jetty to both the principal construction compound and the principal access track was altered which increased the distances between this section of track and ornithological and non-designated archaeological assets (refer to Figure 2.7).

2.7.26 A permanent met mast was located near Holland at the centre of the island (although it should be noted that this location is indicative). Areas of hardstanding which could be removed and restored post-construction were identified.

Marine Infrastructure

2.7.27 The marine infrastructure consists of the new extended slipway and landing jetty and the tracks that connect to the onshore infrastructure. The layout (refer to Figure 3.3) has been optimised as far as possible to minimise works within the SAC/SSSI and to minimise potential effects. The key factors that fed into the design evolution were:

- the new extended slipway has been positioned on the footprint of the existing slipway in a location identified as preferable under typical sea conditions;
- the landing jetty was moved north (from initial design location) so as to reduce the amount of infill between the marine elements and the shore (in turn reducing the infrastructure footprint on the existing beach); and
- the orientation of the marine infrastructure was optimised to:
 - ensure the shortest practical route to deep water (in turn minimising the extent of the marine infrastructure);
 - minimise the amount of infrastructure beyond Mean Low Water Spring (MLWS) (in turn ensuring the bulk of construction works can be undertaken outwith the water); and

- minimise the extent of onshore infrastructure and avoid direct impacts on a non-designated archaeological site (Ness boat shed).

Conclusion

2.7.28 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 environmental constraints that could be avoided. No micro-siting will be undertaken that results in an increase in the significance of adverse effects.

2.8 Do-Nothing Scenario

2.8.1 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 6-17.

2.9 Summary

2.9.1 The final layout has been informed by a robust environmental assessment and design iteration process, taking into account physical constraints, potential environmental, landscape and visual impacts and their effects. The information used to inform the design iteration process included consultation responses received, baseline data and the impact assessment undertaken.

2.9.2 The final layout comprises six turbines, and their associated infrastructure, including hardstanding, access tracks, substation, met mast, temporary construction compounds, borrow pits, new extended slipway and landing jetty as shown in Figure 1.2.

2.9.3 The Proposed Development layout is considered to represent the most appropriate design, taking into account potential environmental impacts and physical constraints, while maximising the renewable energy generating capability of the site.

2.10 References

Scottish Government (2014). Scottish Planning Policy. Available at:

<https://www.gov.scot/binaries/content/documents/govscot/publications/advice-and-guidance/2014/06/scottish-planning-policy/documents/00453827-pdf/00453827-pdf/govscot%3Adocument/00453827.pdf>

Scottish Government (2017) *Town and Country Planning (Environmental Impact Assessment) (Scotland) Regulations 2017 (as amended)*. Available at:

<http://www.legislation.gov.uk/ssi/2017/102/contents/made>