

15. Forestry

15.1 Non-Technical Summary

- 15.1.1 An assessment of the effects on forestry due to the Proposed Development has been within the Forestry study area of some 296.97 hectares.
- 15.1.2 The baseline survey identifies Scots pine planted in 1985 which contains failed woodland and open ground.
- 15.1.3 The woodland is part of a Long-Term Forest Plan and is managed as Long-Term Retention.
- 15.1.4 The resultant loss of woodland required for the construction and operation of the Proposed Development is 3.70 hectares.
- 15.1.5 The Applicant is committed to providing the equivalent area as compensatory planting.

15.2 Introduction

Purpose of this Environmental Impact Assessment Report (EIA Report)

- 15.2.1 This EIA Report has been prepared to accompany the application by Bluebell Wind Farm Limited (the 'Applicant') to construct, operate and decommission five wind turbines north-west of Dingwall in The Highland Council ('THC') area to be known as the Lochluichart Wind Farm Extension II (hereafter referred to as the 'Proposed Development').
- 15.2.2 This EIA Report describes the likely significant effects on the environment of constructing, operating and decommissioning the Proposed Development in line with the Electricity Works (Environmental Impact Assessment) (Scotland) Regulations 2017.

15.3 The Applicant

- 15.3.1 Bluebell Wind Farm Limited, the joint venture between Infinergy Limited and Loch Luichart Estate.
- 15.3.2 Infinergy Limited is a UK based renewable energy company with a strong focus on the Development of onshore wind energy in Scotland, England and Wales. Infinergy develops wind energy projects from inception through to construction and operation has offices in Wimborne (England), and in Edinburgh (Scotland). For more information visit <http://www.infinergy.co.uk>.
- 15.3.3 The Applicant received a planning permission for Lochluichart Wind Farm Extension II, a 5-turbine scheme, together with associated infrastructure, on 1st July 2020 from THC (hereafter referred to as the 'Consented Development' (THC Ref: REF: 19/01284/FUL).

15.3.4 The Applicant submitted the application for the Consented Development in April 2019, supported by an EIA Report (Infinergy, 2019), for a 9-turbine scheme. Following feedback from statutory consultees, the Applicant subsequently submitted Supplementary Information (hereafter known as 'SI' (Infinergy, 2019) in November 2019 to amend to scheme. The changes included reducing the number of turbines from 9 to 5 (by removing turbines T2, T3, T9 & T10, along with associated access tracks and infrastructure) and micro-siting turbine T4 to avoid deep peat.

15.4 Legislation, Policy and Guidance

Summary of Relevant Planning Policy

15.4.1 Relevant overarching planning policies for the Proposed Development are detailed in Chapter 5: Planning Policy and within the Planning Statement that supports the application. A desktop study was undertaken drawing upon published National, Regional and local level publications, assessments and guidance to establish the broad planning and forestry context within which the Proposed Development is located. Forestry related policies and documents listed below have been considered within the forestry assessment. The following section provides an outline of those planning policies which are relevant to the Proposed Development and in particular to forestry.

National Legislation and Policy

Scotland's Forestry Strategy 2019-2029

15.4.2 Scotland's Forestry Objectives for the next ten years:

- Increase the contribution of forests and woodland to Scotland's sustainable and economic growth
- Improve the resilience of Scotland's forests and woodlands and increase their contribution to a health and high-quality environment
- Increase the use of Scotland's forest and woodland resources to enable more people to improve their health, well-being and life chances
- Increase forest and woodland cover to 21% total area by 2032;
 - 12,000 ha per year from 2020/21;
 - 14,000 ha per year from 2022/23;
 - 15,000 ha per year from 2024/25.

A Land Use Strategy for Scotland 2016-2021

15.4.3 Forestry has a key role to play in terms of delivering the Vision, Objectives and Principles of the Land Use Strategy in rural and urban Scotland. The sustainable management of Scotland's woodlands and forests makes an important contribution

to Scotland's economy; it delivers health and well-being benefits for people and a range of other critical ecosystem services including climate change mitigation and adaptation. Woodland and forests have a part to play in reducing the risk from climate change for the people and biodiversity of Scotland; the forestry sector saw a 3.0MtCO₂e (42%) increase in its carbon sink between 1990 and 2013.

To increase its role in addressing the challenge Scotland faces from climate change, a target of 100,000 ha of new woodland creation between 2012 - 2022 has been established. Within the UK, Scotland is leading the way in terms of areas of new woodland creation, however it is recognised that more needs to be done to achieve the planting target. Forestry Commission Scotland is working closely with stakeholders, following the introduction of a new streamlined Forestry Grants Scheme, to help increase the number of good quality woodland creation proposals.

Third National Planning Framework (NPF3)

- 15.4.4 Scotland's NPF3 recognises woodlands and forestry are an economic resource, as well as an environmental asset (NPF3 Paragraph 4.2). It further supports the continued expansion of Scotland's woodland and forestry resource (NPF3 Paragraph 4.23). A key action of NPF3 (NPF3 Paragraph 6.10) is a commitment to create on average 10,000 ha per annum of new woodland from 2015. These targets have now been increased in Scotland's Forestry Strategy 2019-2029 above.

Control of Woodland Removal Policy (CoWRP)

- 15.4.5 In parallel with the SFS and other national policies on woodland expansion, there is a strong presumption against permanent deforestation unless it addresses other environmental concerns. In Scotland, such deforestation is dealt with under the Scottish Government's CoWRP. The guidance relating to the implementation of the policy was revised and updated in February 2019.
- 15.4.6 The purpose of the policy is to provide direction for decisions on woodland removal in Scotland. The policy document lays out the background to the policy, places it into the current policy and regulatory context, and discusses the principles, criteria and process for managing the policy implementation. The following paragraphs summarise the policy relative to the Proposed Development.
- 15.4.7 The principal aims of the policy include:
- to provide a strategic framework for appropriate woodland removal; and
 - to support climate change mitigation and adaptation in Scotland.
- 15.4.8 The guiding principles behind the policy include:
- There is a strong presumption in favour of protecting Scotland's woodland resources; and

- Woodland removal should be allowed only where it would achieve significant and clearly defined additional public benefits. In appropriate cases a proposal for compensatory planting (CP) may form part of this balance.

15.4.9 Woodland removal, without a requirement for CP, is most likely to be appropriate where it would contribute significantly to:

- enhancing priority habitats and their connectivity;
- enhancing populations of priority species;
- enhancing nationally important landscapes, designated historic environments and geological Sites of Special Scientific Interest (SSSI);
- improving conservation of water or soil resources; or
- public safety.

15.4.10 Woodland removal, with CP, is most likely to be appropriate where it would contribute significantly to:

- helping Scotland mitigate and adapt to climate change;
- enhancing sustainable economic growth or rural/community Development;
- supporting Scotland as a tourist destination;
- encouraging recreational activities and public enjoyment of the outdoor environment;
- reducing natural threats to forests or other land; or
- increasing the social, economic or environmental quality of Scotland's woodland cover.

15.4.11 The consequences of the policy are stated as:

- minimising the inappropriate loss of woodland cover in Scotland;
- enabling appropriate woodland removal to proceed with no net loss of woodland -related public benefits other than in those circumstances detailed in the policy; and
- facilitating achievement of the Scottish Government's woodland expansion ambition in a way that integrates with other policy drivers (such as increasing sustainable economic growth, tackling climate change, rural/development, renewable energy and biodiversity objectives).

15.4.12 Addressing the policy requirements can be met through changes to forest design, increasing designed open space, changing the woodland type, changing the management intensity, or completing off-site compensation planting.

UK Forestry Standard (UKFS) (2017)

- 15.4.13 The UKFS is the reference standard for sustainable forest management across the UK, and applies to all woodland, regardless of who owns or manages it.
- 15.4.14 The standard ensures that international agreements and conventions on areas such as sustainable forest management, climate change, biodiversity and the protection of water resources are applied in the UK.
- 15.4.15 The UKFS outlines the context for forestry in the UK. It sets out the approach of the UK governments to sustainable forest management by defining requirements and guidelines and providing a basis for regulation and monitoring - including national and international reporting.
- 15.4.16 This document covers key different elements of sustainable forest management:
- Biodiversity;
 - climate change;
 - historic environment;
 - landscape;
 - people;
 - soil;
 - water.

Forestry and Land Management (Scotland) Act 2018

- 15.4.17 The Forestry and Land Management (Scotland) Act 2018 came into force on 1 April 2019, repealing the Forestry Act 1967. The Act made new provisions regarding Scottish Ministers' functions in relation to forestry and land management
- 15.4.18 Establishment of two agencies: Scottish Forestry and Forestry and Land Scotland
Scottish Forestry (SF) and Forestry and Land Scotland (FLS) are the two agencies that the Scottish Ministers are creating to deliver their forestry and land management functions.
- 15.4.19 SF is the Scottish Government's agency with responsibility for the regulations on exemptions and dealing with felling and restocking, provided a new regulatory regime to support the effective implementation of the Forestry and Land Management (Scotland) Act.

Use of Trees Cleared to Facilitate Development on Afforested Land – Joint Guidance from SEPA, SNH and FCS.

15.4.20 The Joint Guidance describes trees as a resource, the use of forestry material from felled trees on site and the treatment of land for ecological improvement using forestry material.

Regional Policy: Highland Forest and Woodland Strategy

15.4.21 The 2018 Highland Forest & Woodland Strategy (HFWS) is one of a series of Supplementary Guidance documents prepared by THC to support its Highland-wide Local Development Plan (2012).

15.4.22 THC's vision is that *"the forests, woodlands and trees of the Highlands will be prized elements of our economic, environmental, community and cultural fabric, fulfilling valued and sustainable roles in realising their productive potential (where relevant) and enriching the quality of life for all who live, work and visit here."*

15.4.23 HFWS Themes:

- Expanding the area of forests and woodland;
- Achieving the economic potential of forests and woodlands;
- Developing resilience to climate change;
- Encouraging community engagement and empowerment;
- Protecting and enhancing Highland's natural capital;
- Integrating with Development and tourism;
- Strengthening connections with health, access and recreation and learning; and
- Promoting business and skills Development.

15.5 Forest Study Area

15.5.1 The Forest Study Area, as shown on **Figure 15.0**, extends to approximately 296.97 hectares (ha) and comprises of one forest unit under private ownership. The forest species is Scots pine. Further information on the woodland composition within the Forestry Study Area is provided in the baseline description below.

15.6 Issues Scoped Out

15.6.1 Secondary effects resulting from forestry activities, including effects on habitats and species, ornithology, hydrology and landscape and visual effects, are considered within their respective chapters of this EIA Report and are not included within this Chapter.

15.7 Forest Plans

- 15.7.1 Scottish Forestry is the Scottish Government agency responsible for forestry policy, support and regulations. A Long-Term Forest Plan (LTFP) is a 20 year strategic management plan to UK Forestry Standards. The Forest Plan involves a scoping exercise whereby the views of Statutory Consultees, neighbours and stakeholders are sought, resulting in an agreed Scoping Report. The results of the scoping exercise are incorporated into the Forest Plan. The Forest Plan covers all aspects, such as conservation, archaeology, landscape and the local community in addition to forestry and silvicultural considerations. Restructuring of age class and species are important factors in this process to ensure proposals meet the current standards. The plan provides a ten-year approval, for felling, thinning and associated restocking.
- 15.7.2 Where a wind farm development has implications to an approved LTFP the felling and replanting plans will require amending covering the development. The revised plan must still meet the UKFS guidelines.
- 15.7.3 There is a LTFP for the wider Loch Luichart Estate woodlands Case reference number 4515368. No work is proposed in this plan for the woodlands within the Forestry Study Area.
- 15.7.4 Typically, a wind farm forest plan would be prepared along the same principles combining the needs of the wind farm with the forest management. However, in this case, due to the small proportion of the overall estate woodlands being affected by the Proposed Development, it is recommended the wind farm plans, if the Proposed Development is consented, would be included in the Lochluichart LTFP as an amendment.

15.8 Development of a wind farm forest plan

- 15.8.1 Where an approved LTFP is in place the wind farm forest plan must compare the woodland before and after the Proposed Development.
- 15.8.2 Existing tree crop information has been provided by the landowners' forestry agents. This information comprised compartment schedule consisting of the existing species and planting year and felling plans. Information from aerial imagery and published datasets were incorporated including more accurate mapping of stocked woodland, open ground and management boundaries.
- 15.8.3 Details of turbine locations, new tracks, storage compounds, and substations were provided by the Applicant's project team. This data was amalgamated with the forestry data to construct the forestry proposals. The location of turbines and infrastructure is heavily influenced by site constraints and technical considerations such as wind capture and ground conditions. The final location of turbines and infrastructure takes the various site constraints into consideration. Environmental constraints, together with the land management requirements, associated with the proposed construction of the Proposed Development would also be incorporated into the forestry proposals, where appropriate.

- 15.8.4 The wind farm felling programme would largely be driven by technical constraints of the Proposed Development. Within forest habitats, areas of tree crop require to be felled for each turbine access tracks and any other infrastructure to accommodate the construction and operation of a Proposed Development
- 15.8.5 In this revised by layout, having removed turbines T2, T3, T9 & T10, along with associated access tracks and infrastructure, only T4 remains partially within the forest area with one borrow pit fully within the woodland, while one just touches the periphery. The substation/ control building/ construction compound remains within the woodland boundary. T5 is outside the woodland boundary.
- 15.8.6 The revised constraint is following the environmental guidance Bats and Onshore Wind Turbines Survey, Assessment and Mitigation, January 2019 which requires a stand-off from turbine to trees of 100 m radius.

15.9 Baseline Conditions

- 15.9.1 According to the landowner's compartment schedule these woodlands were planted in 1985 and consist entirely of Scots pine *Pinus sylvestris*. Aerial imagery and the National Forest Inventory (NFI) identify that the stocked area of woodland is as shown in **Figure 15.1** of the EIA Report and in **Table 15.1** below. Land designated as failed is classed as "ground preparation" and not tree cover under NFI. In these areas ground preparation is clearly visible but there is no evidence of an established 35-year-old crop.

Table 15.1 Baseline Stocking Summary

Species	Area (ha)	Area (%)
Scots pine	86.23	29.04
Open ground	92.86	31.27
Failed	117.88	39.69
Totals	296.97	100

Baseline Felling and Restocking Plans

- 15.9.2 There is no felling planned within the Forestry Study Area during the timeframe of the baseline LTFP. All this woodland is designated as Long Term Retention (LTR). LTR are woodland areas to be retained beyond their age of economic or silvicultural maturity for conservation and biodiversity purposes. No final felling date is given for these woodlands within the Forestry Study Area. The identification of LTRs is a requirement of UKFS and UK Woodland Assurance Scheme (UKWAS)
- 15.9.3 As an LTR no baseline restocking plan was available for the Forestry Study Area.

15.10 Felling and replanting wind farm plans

- 15.10.1 The Proposed Development wind farm felling plan is shown in **Figure 15.2**. This Plan illustrates the total area to be felled for the single turbine layout inclusive of hardstands and permanent buildings which form the infrastructure. A total of 3.70

ha of stocked woodland would be removed for the Proposed Development. The remainder of the infrastructure is located in areas classified as failed or open ground.

15.10.2 The current species plan has been amended to integrate the Proposed Development into the forest design. The wind farm species plan is shown in **Figure 15.3**.

15.10.3 There is a net reduction in the area of stocked Scots pine woodland of 3.70 ha

15.11 Forest Produce and Forestry Waste

15.11.1 The low yield class and small area of trees to be removed will however yield some forest produce either as round wood or biomass. The potential forest produce is shown in Table 15.2 below.

Table 15.2 forest produce

Forestry Commission Booklet No. 34				
Forest management tables				
Scots pine YC 6				
Age	Volume (m3) per ha to 7cms	Area (ha)	Total volume (m3)	Equivalent lorry loads
35	103	3.70	381	15

15.11.2 The SEPA guidance document WST-G-027, "Management of Forestry Waste" (SEPA, 2013) highlights that all waste producers have a statutory duty to adopt the waste hierarchy as per the Waste (Scotland) Regulations 2012 (the Scottish Government, 2012), which amended Section 34 of the Environmental Protection Act (EPA) 1990 (duty of care) (UK Government, 1990). This places a specific duty on any person who produces, keeps or manages (controlled) waste to take all such measures available to them to apply the waste hierarchy in Article 4 (1) of the revised Waste Framework Directive (rWFD), which is:

- prevention;
- preparing for re-use;
- recycling;
- other recovery, including energy recovery; and
- disposal, in a way which delivers the best overall environmental outcome.

15.11.3 Further guidance is contained in LUPS-GU27, "Use of Trees Clear Felled to Facilitate Proposed Development on Afforested Land" (SEPA, 2014).

15.11.4 A hierarchy of uses for forestry materials is proposed, derived from the waste hierarchy contained within the regulations, summarised as follows:

- prevention via the production of timber products and associated materials for use in timber and other markets;
- the re-use of materials on site for a valid purpose, where such a use exists e.g. road construction;
- there is no valid re-cycling use for forestry residues;
- other recovery via collection and use as biomass for energy recovery or other markets, where not included above; and
- where no valid on or off-site use can be found for the material, disposal would be in a way that is considered delivers the best overall environmental outcome.

15.11.5 Where no valid on or off-site use or other disposal method can be found for the material, it should be regarded as waste and handled accordingly. Disposal of timber residues as waste in or on land requires a landfill permit or a waste exemption licence and should be considered the option of last resort.

15.11.6 Should forest material be required for the construction of floating roads, as a valid use, this will be covered in detail within the Construction Environmental Management Plan.

15.12 Peatland restoration

15.12.1 Guidance is published by Forestry Commission Scotland, *Deciding future management options for afforested deep peatland* (2015)ⁱ and earlier publications.

15.12.2 Opportunities for restoring peat greater than 50 cm deep, where tree growth is less than Yield Class 8 are described in the guidance. While there is deep peat present within the Forestry Study Area the approved LTFP has not identified this management option within the forestry study area.

15.13 Assessment of Effects, Mitigation and Residual Effects

15.13.1 As a result of the tree felling requirements for the Proposed Development there would be a permanent woodland reduction within the Forestry Study Area of 3.70 ha.

15.13.2 Compensatory planting to match the amount of woodland loss will be provided as mitigation.

15.13.3 When compensatory planting is completed there will be no residual effect.

15.14 Compensatory Planting

- 15.14.1 As a result of the construction and operation of the Proposed Development there would be a net loss of woodland area. The area of stocked woodland in the Forestry Study Area would decrease by 3.70 ha.
- 15.14.2 In order to comply with the Scottish Government's Control of Woodland Removal Policy, off-site compensatory planting would be required. The Applicant is committed to providing compensation planting. The compensatory planting will be sited on Loch Luichart Estate with the extent, location and composition of such planting to be agreed with the relevant authorities prior to the commencement of construction.

15.15 Summary

- 15.15.1 This Chapter of the EIA Report provides an assessment of the potential effects of the Proposed Development on forest areas.
- 15.15.2 The total Forestry Study Area extends to 296.97 ha and under private ownership.
- 15.15.3 The felling requirements within this Forestry Study area would reduce the woodland area by 3.70 ha. This will be mitigated against by the provision of the equivalent area of compensatory planting.
- 15.15.4 With adherence to UKFS and timely compensatory planting there is no adverse effect to forestry.

References

Forestry Commission Scotland (2015) Deciding future management options for afforested deep peatland. Edinburgh