Euchanhead Renewable Energy Development

Pre-Application Consultation (PAC) Report

SCOTTISHPOWER RENEWABLES

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Pre-Application Consultation (PAC) Report

1 Introduction

1.1 Overview

1. This report constitutes a Pre-application Consultation (PAC) Report which describes the consultation requirements for the Euchanhead Renewable Energy Development (the proposed Development), the consultation measures undertaken by the applicant ScottishPower Renewables (UK) Ltd (SPR), the feedback received and any resultant modifications to the proposed Development.

2. SPR recognises that it is very important to ensure that communities in the vicinity of any development are afforded appropriate and meaningful opportunities to comment on the proposals before they are finalised in accordance with regulations and good practice guidance.

1.2 The proposed Development

3. The proposed Development would be located approximately 9.8 kilometres (km) south west of Sanquhar and 6.8 km south west of Kirckonnel / Kelloholm in Dumfries and Galloway (the Site), as measured to the nearest turbine location. The location of the Site is shown on **Figure 1.1** in the Environmental Impact Assessment Report.

4. The main body of the Site is located within the Dumfries and Galloway Council (DGC) administrative area. One of the two proposed access routes runs through East Ayrshire Council's (EAC) administrative area. The two proposed entrances to the Site are shown on **Figure 1.2**. Access Route A uses the existing Hare Hill Windfarm access junction and access tracks, along with a new section of access track to the Site, and Access Route B uses the Blackaddie Road and the unnamed, unclassified road, U432n, to access the Site near the Glenglass substation.

5. The proposed Development would comprise the optimum renewable technologies available at the time and comprises 21 three-bladed horizontal axis wind turbines, up to 230 m tip height, with a combined rated output of around 126 megawatts (MW). An energy storage facility of around 31.5 MW in capacity would also be installed to store generated renewable energy and provide flexible management of energy delivery and ancillary support services to the national grid.

6. As the proposed Development will have an installed capacity of greater than 50 megawatts (MW), the application for consent and deemed planning permission is made to Scottish Ministers under section 36 of the Electricity Act 1989. The final layout is shown on **Figure 3.1.**

1.3 The Applicant

7. The proposed Development is being proposed by SPR. SPR is part of the ScottishPower group of companies operating in the UK under the Iberdrola Group, one of the world's largest integrated utility companies and a world leader in wind energy. ScottishPower now only produces 100% green electricity – focusing on wind energy, smart grids and driving the change to a cleaner, electric future. The company is investing over £4m every working day[1] to make this happen and is committed to speeding up the transition to cleaner electric transport, improving air quality and over time, driving down bills to deliver a better future, quicker for everyone.

8. SPR is helping to drive the Iberdrola Group's ambition of being the Utility of the Future and is at the forefront of the development of the renewables industry through pioneering ideas, forward thinking and outstanding innovation which, in turn, drives economic success.

[1] Between 2018-2022

9. SPR is already well established in south west Scotland and currently owns and operates seven onshore windfarms in the Dumfries and Galloway / East Ayrshire region (Harestanes, Ewe Hill, Wether Hill, Killgallioch, Hare Hill, Hare Hill Extension and Whitelee) as well as a number of others in the wider region such as Glen App and Dersalloch. SPR currently operates in excess of 1.7 gigawatt (GW) of windfarm generating capacity in Scotland.

10. Through SPR's established presence in Dumfries and Galloway and south west Scotland, it has to-date contributed around £15m of community benefits directly within Dumfries and Galloway and East Ayrshire, contributing to a variety of groups and organisations. It is expected that the proposed Development would establish a community benefit arrangement with local communities.

11. SPR recognises the importance of the economic benefits to Scotland and the rest of the UK from investing in onshore wind generation and other renewable energy technologies. SPR constructed 8 onshore windfarms in south west Scotland between 2016-17 with a combined capacity of 474 MW. It is estimated that this £1.6 billion investment would have 51% Scottish expenditure content over the lifetime of the projects, provide 31,118 UK Full Time Equivalent (FTE) job years, including 7,768 local FTE years (within SW Scotland), provide £297 million local value-added and £59 million in community benefit funding. It is expected that the proposed Development would further enhance the economic opportunities within the region and would contribute significant local income through business rates.

1.4 Consultation guidance and legislation

12. Proposals for renewable energy developments such as the subject application, with a potential electrical capacity greater than 50 MW are subject to the consenting procedures set out in Section 36 of the Electricity Act 1989 (the Electricity Act) and applications are made directly to the Scottish Ministers.

13. There is no statutory obligation to consult the public under the terms of the Electricity Act application process. Nevertheless, SPR has applied the principles of the consultation process recommended for 'major' planning applications as set out in The Town and Country Planning (Development Management Procedure) (Scotland) Regulations 2013 and circular 3:2013-Development Management Procedures. This enables the local community and all those with an interest in the proposals a clear opportunity to provide comment and feedback on the proposals.

1.5 Report structure

14. Following this introductory section, the remainder of this report comprises the following Sections:

- Section 2.0: Consultation Measures
  - Describes the various types of consultation undertaken for the proposed Development;
- Section 3.0: Public Information Days February 2020
  - Describes the consultation process undertaken for the Public Information Events in February 2020 and provides results of the feedback received;
- Section 4.0: Public Information Event – July / August 2020
  - Describes the consultation process undertaken online during July and August 2020 and provides results of the feedback received;
- Section 6.0: Response to public consultation
  - Describes how public comment and consultation has been included in the EIA Report.
- Section 5.0: Conclusions
  - Describes how the consultation process has influenced the design of the proposed Development;
- Section 6.0: Appendices
  - Provides copies of the press adverts, posters, leaflets and other information provided for the Public Information Events in February 2020 and July / August 2020.

2 Consultation measures

15. **Table 2.1** provides an overview of the stages of consultation undertaken for the proposed Development.

Table 2.1: Consultation measures

Consultation activity	Details	Steps undertaken by SPR
Pre-application Consultation (Regulation 7[2])	Regulation 7 (2.17) states that: "*The prospective applicant must consult every community council any part of whose area is within or adjoins the land on which the proposed development is situated.*"	In accordance with Regulation 7 the following Community Councils were consulted during the pre-application stages of the proposed Development: • Carsphairn Community Council; • Glencairn Community Council; • Kirkconnel and Kelloholm Community Council; • New Cumnock Community Council; • Penpoint Community Council; • Royal Burgh of Sanquhar and District Community Council; and • Tynron Community Council.
Public Event (Regulation 7)	Regulation 7 (2.19) states: *"The prospective applicant is required to hold at least one event for members of the public where they can make comments to the prospective applicant on the proposals."*	Two consultation events were held during the Environmental Impact Assessment (EIA) process. SPR held a round of Public Information Days in February 2020 in Tynron and Sanquhar to allow the public to: (i) view a draft design layout and make any comments or provide information in relation to the layout and the EIA; and ii) view visualisations and use a 3D model to view the proposed Development from their preferred location within the model space. A second event was held online during July and August 2020, using a virtual exhibition along with a consultation and call back system. It was not possible to hold a traditional public information day due to Covid-19 restrictions.
Newspaper Advertisement – Public Event (Regulation 7)	Regulation 7 (2.19 states: *"Notice of this 'public event' must be published at least 7 days in advance in a newspaper circulating in the locality of the proposed development."*	The Public Information Days were advertised in the Galloway Gazette, published on the 31 January 2020 and 17 July 2020, and online via a homepage takeover on the paper's website. Examples of the adverts are provided in **Appendix 1**.

[2] Regulation 7 of the Town and Country Planning (Development Management Procedure) (Scotland) Regulations 2013

Consultation activity	Details	Steps undertaken by SPR
Other activity (not prescribed in Regulation 7)		Posters were displayed in local shops and village halls in Tynron and Sanquhar for the February public event. Posters were a direct copy of the newspaper advert as shown in **Appendix 2,** and were displayed in Sanquhar, New Cumnock, Moniaive and Penpont. A total of 2,650 leaflets were distributed before each event to residents within 5 km of the Site, as well as in Sanquhar, Kirkconnel, Kelloholm, Penpont and Tynron. An example of the leaflet is provided in **Appendix 3**. The leaflets were sent out for delivery on the 31 January 2020, and on the 17 July 2020. An email with attached letter informing community councils of the Public Information Days was issued on 6 February 2020. A sample copy of this email is provided in **Appendix 4**. Emails were also sent to local Community Councils on 25 June and 24 July 2020 informing them of the online information day in July 2020. Outline information about the proposed Development was also provided on the SPR project website: https://www.scottishpowerrenewables.com/pages/euchanhead_renewable_energy_development.aspx

2.1 Pre-Application meetings with Energy Consents Unit

16. An initial meeting where SPR introduced the proposed Development was held between SPR and the Scottish Government Energy Consents Unit (ECU), who will administer this application for consent on behalf of Scottish Ministers, was held on 17 December 2019. Key issues discussed at the meeting included:

- the proposed scale of the proposed Development including plans for hybrid technologies such as energy storage;
- likely turbine tip heights;
- recent and proposed site investigations and surveys;
- public consultation;
- concept of a bespoke scoping exercise whereby SPR would scope directly with consultees, and the extent of the consultee list (to limit to statutory consultees or not);
- pre-application enquiry service offered by Dumfries and Galloway Council;
- consent in perpetuity and the issues that this raises;
- the potential economic benefits to the local communities via community benefit packages and/or community ownership;
- the possibility of sourcing from local suppliers; and
- plans and likely programme for Public Information Days (PIDs).

2.2 Pre-Application meeting with Dumfries and Galloway Council

17. SPR opted to engage with DGC via their major applications pre-application enquiry service, which would include a meeting with the planning officer(s). The pre-application enquiry was lodged with the Council on the 14 February 2020. The UK-wide lockdown came into force in March 2020, and the Council was unable to undertake the meeting via video conferencing facilities, nor able to facilitate meetings with their internal stakeholders.

18. DGC have not responded formally to the pre-application enquiry, although some internal team responses have been sent from officers, including the roads officer, the access officer and a partial response from the landscape officer.

2.3 Scoping

19. SPR previously submitted a scoping opinion request to Scottish Ministers for a windfarm development on a similar site to the proposed Development in 2013. This request was made under regulation 7 of The Electricity Works (Environmental Impact Assessment) (Scotland) Regulations 2000. The Scottish Ministers scoping opinion was subsequently received in October 2013.

20. The 2013 scoping opinion specifically related to a proposed 31 turbine windfarm of 145 metre maximum height, with a generating capacity of up to 93 megawatts (MW). Scottish Government advice provides that if the proposal changes substantially prior to application submission, the applicant may wish to consider the need to request a new scoping opinion.

21. Despite the wealth of scoping and EIA baseline information available from the 2013 scoping opinion and recent scoping exercises undertaken for neighbouring developments, SPR deemed it prudent to request new scoping opinion advice on the proposed development in February 2020. In acknowledgement of the amount of information already known about the Site, this request was made directly to consultees rather than to Scottish Ministers. The ECU were consulted and confirmed the acceptability of this direct scoping approach.

22. As agreed with ECU, a copy of the bespoke EIA Scoping documents was issued to the following consultees:

- Arqiva
- Atkins
- Ayrshire Roads Alliance
- Association of Salmon Fishery Board
- BT
- British Horse Society
- CAA
- Cairnhead Community Forest Trust
- Defence Infrastructure Organisation (DIO/MOD)
- Dumfries and Galloway Council (DGC)
- East Ayrshire Council (EAC)
- Fisheries Management Scotland (FMS)
- Galloway Fisheries Trust
- Galloway and Southern Ayrshire Biosphere
- Glasgow Prestwick Airport (GPA)
- Historic Environment Scotland
- John Muir Trust
- Joint Radio Company (JRC)
- Marine Scotland
- Met Office
- Mountaineering Council of Scotland
- Nith District Salmon Fisheries Board
- National Air Traffic Services (NATS) Safeguarding
- Ofcom
- Royal Society for the Protection of Birds Scotland (RSPB Scotland)
- Scottish Environment Protection Agency (SEPA)
- Scottish Forestry
- Scottish Natural Heritage (SNH)3
- Scottish Rights of Way and Access Society (Scotways)
- Scottish Water
- Transport Scotland
- VisitScotland

23. Consultation responses received as part of the Scoping process have been considered in the EIA and the issues raised are reported in **Chapter 6** of the EIA Report (EIAR), and in the individual technical Chapters.

2.4 Community Council consultation

24. SPR has kept the seven Community Councils whose administrative areas intersect or are adjacent to the proposed Development informed of project progress. As well as engagement with local community councils regarding community benefits from other SPR windfarms in the area, SPR also sent emails to invite the Community Councils to the public consultation events in early February 2020 followed by emails to confirm the dates of the online public Information event held

[3] SNH were renamed NatureScot on 24 August 2020

in July / August 2020 (see an example email to the Community Councils, and general update emails in **Appendix 4**). The seven Community Councils that have been contacted are:

- Carsphairn Community Council;
- Glencairn Community Council;
- Kirkconnel and Kelloholm Community Council;
- New Cumnock Community Council;
- Penpoint Community Council;
- Royal Burgh of Sanquhar and District Community Council; and
- Tynron Community Council.

25. SPR also offered to present information about the proposed Development directly to each of the community councils, but these meetings were subsequently cancelled due to Covid-19 restrictions.

26. Tynron Community Council responded to the scoping exercise, and their comments are reported in **Chapter 6** of the EIAR. A number of representatives from the community councils attended the public information days in February 2020, and any feedback received via this medium has been incorporated into **Table 4.1** and **Chapter 5** of the PAC.

2.5 Consultation with other organisations

27. In addition to the ECU, DGC, EAC and local Community Councils, the following organisations were consulted with to inform them of the PIDs, progress to date and obtain their views and input on the proposed Development:

- consultation response from the Southern Upland Way Ranger Team for Dumfries and Galloway on 12 March 2020; and
- meeting with Southern Upland Way Ranger Team for Dumfries and Galloway on 12 May 2020.

28. The consultation response from the Southern Upland Way Rangers on the 12 March 2020 identified the need to address effects on the Southern Upland Way, the Polskeoch Bothy and other local features such as Allan's Cairn and the Colt Hill Striding Arch.

29. A web-based meeting with the Southern Upland Way Ranger team took place on the 12 May 2020. The Rangers were keen to ensure that the route of the Southern Upland Way is not blocked during construction, and enhancement measures for the Southern Upland Way during the operational phase were discussed.

30. Further discussions have also taken place with the SUW Ranger team which have resulted in agreement for the provision of alternative routing for the SUW during construction, which would also be retained during the operation of the proposed Development.

2.6 Public Information Days (PID)

31. In February 2020, two PIDs were undertaken to establish dialogue with local communities regarding the proposed Development, in Tyrnon on the 17 February 2020, and Sanquhar on the 18 February 2020. The PIDs took the form of an exhibition at the local community halls in which members of the SPR project team and EIA consultants were available to explain the proposals and answer questions.

32. Each PID included a range of plans, figures and visual displays, and allowed local residents to view the initial wind turbine layout and ask any questions specific to the proposed Development. Further information on the PIDs is presented in section 3 of this report.

2.7 Online Public Information Event

33. Due to the Covid-19 pandemic, restrictions on public gatherings meant that holding a face to face event was not possible. An online event was instead held to update the community on the development's progress and design.

34. The online event contained a 'virtual' exhibition with figures and visualisations available for viewing and download, along with a feedback and comment page. Interested parties were able to request one-to-one conversations.

35. The online event was hosted at:
https://www.scottishpowerrenewables.com/pages/euchanhead_red_public_information_day.aspx

2.8 Website and email

36. SPR hosts a page dedicated to the proposed Development on its website to allow people to view details about the Development and contact the project team for further information:

www.scottishpower.com/EuchanheadRED

37. SPR can also be contacted about the proposed Development by emailing: euchanheadrenewables@scottishpower.com.

3 Public Information Days February 2020

3.1 Location

39. The PIDs were held at Tynron Village Hall and Sanquhar Town Hall over two days as detailed in **Table 3.1**. These locations were chosen because of the proximity of the halls to the proposed Development and as accessible and central locations relative to the communities being consulted. The events were open from the mid-afternoon to evening to try to maximise opportunities for people to attend.

Table 3.1 February 2020 Public Information Days

Venue	Day	Date	Time
Tynron Village Hall, Main Street, Tynron, Dumfries and Galloway, DG3 4JZ	Monday	17th February 2020	3 – 7pm
Sanquhar Town Hall, Church Rd, Sanquhar DG4 6DF	Tuesday	18th February 2020	2.45 – 6.45pm

3.2 Notification

40. In keeping with the spirit of Regulation 7 of the Town and Country Planning (Development Management Procedure) (Scotland) Regulations 2008, SPR advertised that a pre-application public event was being arranged to publicise the forthcoming planning application within the area. The PIDs were advertised in several ways to help ensure as many local residents as possible were made aware of the proposed Development.

3.3 Newspaper adverts

41. A public notice was placed in the Galloway Gazette. The public notice set out the purpose of the public events and provided details (dates, times and locations) of the events.

42. The notices were provided more than seven days prior to the event with the notice published on Friday 31 January 2020. The online version of the newspaper website also contained adverts for the event via a home page takeover. Copies of the notices are contained in this document as **Appendix 1.**

3.4 Posters

43. Posters advertising the PIDs were placed in local shops and notice boards in the surrounding areas including New Cumnock, Sanquhar, Moniaive, Tynron and Penpont. The poster was a copy of the newspaper advert and is shown in **Appendix 2.**

3.5 Leaflets

44. There are only limited number of residential properties located within 5 km of the proposed Development, and so the 5 km distance was extended by SPR to ensure all residents of Sanquhar, Kirkconnel, Kelloholm, Penpont and Tynron were included in the distribution area.

45. In advance of the PIDs, SPR distributed 2,650 leaflets to households close to the proposed Development. The leaflets set out the purpose of the public events, provided details of the event and provided contact details for further information from the SPR website. Leaflets were also available to the public at the Public Information Days. A copy of the leaflet is provided in **Appendix 3**.

3.6 Information available at the PIDs

46. Copies of the Drawings and Plans that were available and on display at the PIDs are contained within **Appendix 5**. The information presented included: A3 and A0 (provided as reduced size in the Appendix) drawings showing Site Location, proposed Site Layout and Zone of Theoretical Visibility (ZTV) for the proposed Development. The Location Plan included the proposed transport routes to Site for the wind turbine components. Copies of the Scoping exercise technical topic reports (sent to consultees on 14 February 2020) were provided, which included details about the EIA process and survey work; and information and facts about wind energy in general.

47. An interactive, 3D computer modelling tool was also available for the public to view and assess the likely visual effect from different locations e.g. personalised views from their own property. The computer model was a 'bare earth model' i.e. containing no intervening buildings or trees/vegetation between the viewpoint location and the proposed Development and is therefore considered to afford a worst-case view of the proposed turbine layout.

3.7 Consultation feedback

48. Scottish Planning Policy (SPP) (paragraph 6) notes that throughout the planning system, opportunities exist for everyone to engage in the development decisions which may affect them. Engagement should be early, meaningful and proportionate. Expressions of support and concern should be taken into account in developing proposals.

49. Attendees to the February 2020 PIDs were invited to complete a feedback form (reproduced in **Appendix 6**) about the proposed Development. 71 people attended the exhibitions over the two days (45 at Tynron and 26 in Sanquhar) and in total 5 feedback forms were returned (7%). This good level of attendance but low level of feedback response is considered to be due to the local community's prior experience of wind energy consultation events, coupled with their interest in influencing the effects/benefits of the renewable energy development. However, the presence of a knowledgeable development team who was able to answer many queries and stimulate discussion, together with the 3D computer modelling tool that helped to address many other immediate questions, may explain the low level of feedback forms returned.

50. The geographical spread of attendees that completed the feedback forms were as follows:

- Sanqhahr (and surrounding area) - 2;
- Kelloholm - 1;
- Penpont – 1; and
- Nith Bridge – 1.

51. Comments suggest that out of the 5 respondents, 3 had expressed some degree of negative comments or were opposed to it. 2 made no expression of opinion with regards to the development but were interested in whether Blackaddie road would be used for access or not.

52. Comments regarding the proposed Development were also made directly to SPR representatives present at the PID. A number of comments were received regarding community benefits, and comments received from the Tynron PID are shown in **Plate 3.1,** and comments from Sanquhar PID in **Plate 3.2**.

53. The community benefit suggestions included:

- affordable housing;
- community electric car;
- cash;
- community small scale electricity generation;
- support in making housing more energy efficient;
- alternative district energies:
  - microhydro;
  - geothermal;
  - insulation;
  - ground source heat pump.
- village hall maintenance and improvement; and
- help individuals/groups who need assistance.

54. Two additional suggestions from the Sanquhar PID on community benefit were also received, which were:

- endowment funds; and
- townscape schemes.

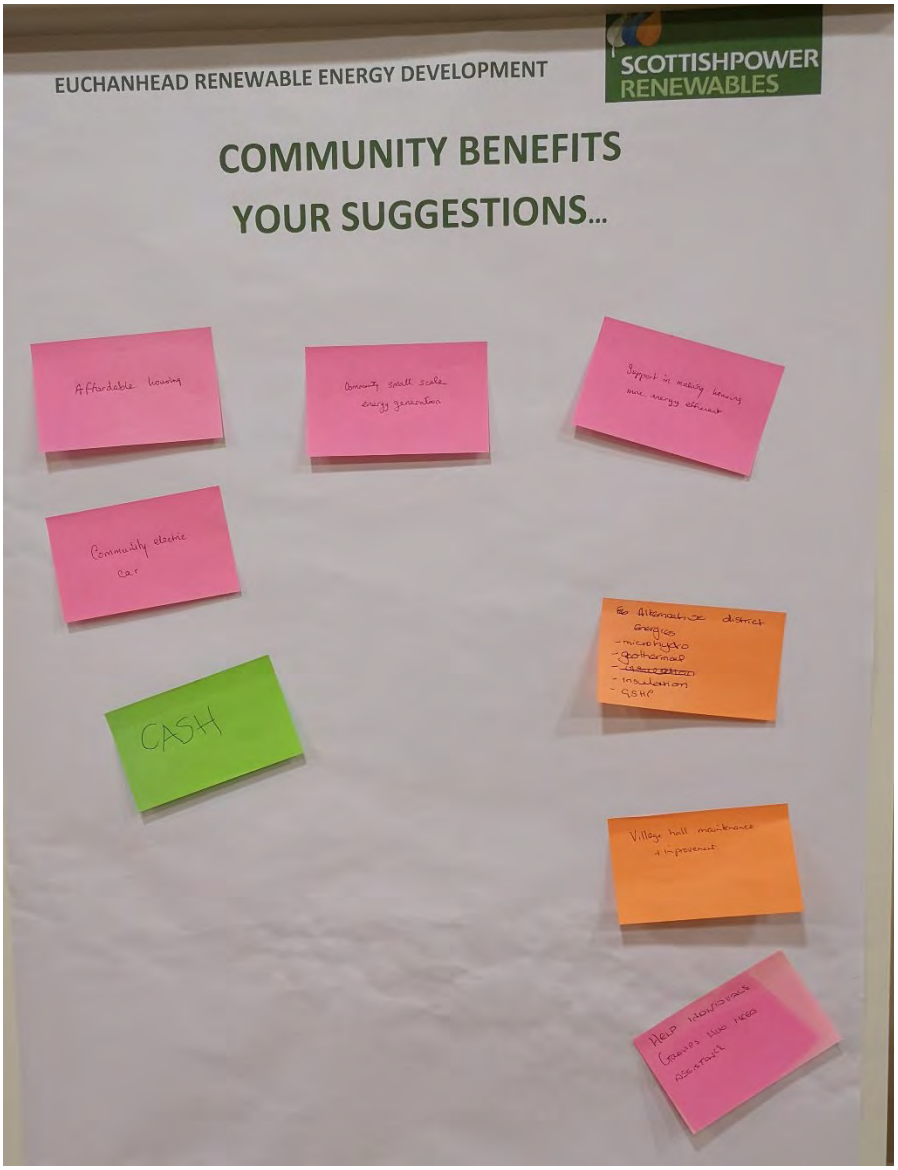


Plate 3.1 – Community Benefit suggestions from Tynron PID

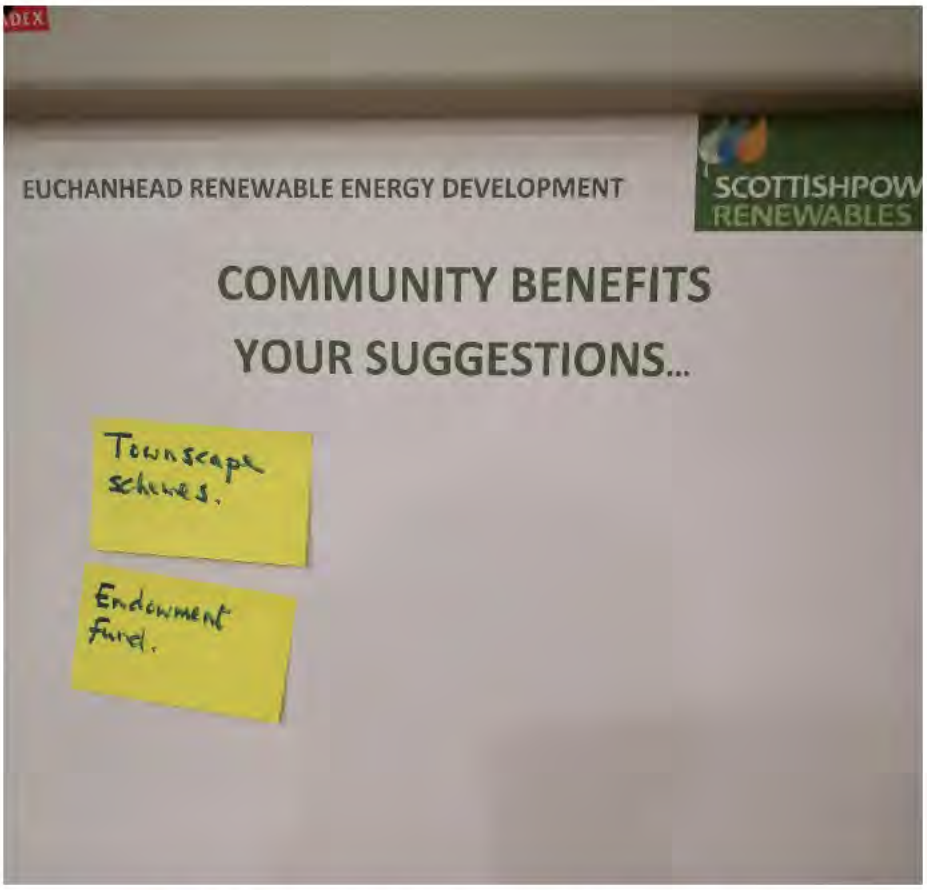


Plate 3.2 – Community Benefit suggestions from Sanquhar PID

55. A summary of comments received, and verbal feedback made is presented in **Table 3.2**.

Table 3.2 Feedback Received from the February 2020 Public Information Days

Topic	Comment
General	• acknowledgement that SPR had provided a very informative and professional presentation and that all the staff were very patient and helpful. • additional requests for visualisations from specific residential properties. • support for the proposed Development and windfarms as fossil fuels are running out and Dumfries and Galloway is a good location for wind power. • support for other types of renewable energy e.g. hydro power, geothermal and solar. • suggestions for community benefit spending for district energy schemes. • support for energy use reducing schemes such as insulation, double/triple glazing. • acknowledgement that green energy is needed • enquiry about how much renewable energy will be needed to replace the UK fossil fuel power fleet and if progress is being made fast enough. • a perception that the planning application will be consented by the Scottish Government, despite local opinion. • a perception that big business is taking advantage of small communities for financial benefit. • preference for Windfarms to be located offshore. • questions around how community benefits are allocated and spent.
Environment & Access	• the environment and landscape should be accessible for people and wildlife to co-exist in a respectful way. • consideration of the impact during construction on the Southern Upland Way, and the need to respect the route.

Topic	Comment
Cumulative	• concern that the area may have reached its capacity for further wind energy projects. • concerns about the cumulative effects and number of turbines in this area both operational and in planning. • concern that too much wind energy could detract from the Dumfries and Galloway landscape and harm tourism. • concern that this part of Dumfries and Galloway is becoming full of turbines and that this is detrimental to visitors and is spoiling the scenery and tranquillity of the area. • support for renewable energy in general, but feel that this part of Dumfries and Galloway has done their fair share already.
Landscape and Visual	• turbines in the south of the Site would dominate the Shinnel Valley. • concern around the proximity of turbines to properties, roads and viewpoints from a visual perspective. • a suggestion that the turbines could be painted a different colour to blend in with the sky/landscape more. • concern about the height of the wind turbines considered disproportionate to the landscape. • concern about effects on the landscape.
Ecology & Ornithology	• there is concern for the safety of wildlife such as birds and particularly birds of prey.
Hydrology	• concerns were raised about the impact of windfarm construction on the quality of local watercourses and the impacts on flooding.
Noise	• turbines are spoiling the tranquillity of the existing area.
Socio-economic	• Dumfries and Galloway is a draw for tourists and the beautiful landscape should be preserved. • request for detail of any Community Benefits which would be forthcoming from SPR if the windfarm is consented. • consideration of the Southern Upland Way during construction and improving access. • there is support for Community Benefit Funds to support local initiatives and buildings. • request raised by community councils as to whether the funding mechanisms could be reassessed so that the CCs can look at long term investments and opportunities, rather than short term, annual projects. • community funds could be used to support affordable housing for local people.
Transportation	• concerns were expressed in relation to vehicle access, timing of access, speed of vehicles, dirt, dust and noise pollution. • concern expressed in relation to the use of Blackaddie road as a transport route for the turbines and other materials.

4 Public Information Event – July / August 2020

56. SPR had hoped to hold a second exhibition in July to inform local residents of updates to the design of the proposed Development.

57. Due to the Covid-19 pandemic, and restrictions on public gatherings, it was not possible to hold a traditional face to face public exhibition. Instead, a virtual information event was held online. This consisted of a virtual exhibition, including details of the updated proposals, updated figures and information sheets, and a feedback and comments system, which included the option of a call with the SPR development team, if requested.

58. The online event was hosted on a dedicated website: https://www.scottishpowerrenewables.com/pages/euchanhead_red_public_information_day.aspx

59. The event ran from the 27 July to the 3 August 2020, with the comment period running for 2 weeks beyond this.

4.1 Notification

60. In keeping with the spirit of Regulation 7 of the Town and Country Planning (Development Management Procedure) (Scotland) Regulations 2008, SPR advertised that the public information event was being arranged to publicise the forthcoming planning application within the area. The event was advertised in several ways (subject to Covid-19 restrictions) to help ensure as many local residents as possible were made aware of the proposed Development.

4.2 Newspaper adverts

61. Public notices were placed in the Galloway Gazette. The public notices set out the purpose of the public events and provided details of the event such as the website address and duration of the event.

62. The notices were provided more than 7 days prior to the event with the notice published on Friday 17 July 2020. The online version of the newspaper website also contained adverts for the event via a home page takeover. A copy of the notices is contained in this document as **Appendix 1.**

4.3 Leaflets

63. As with the first PID, SPR distributed 2,650 leaflets to households within a 5 km radius of the proposed Development, extended to ensure all residents Sanquhar, Kirkconnel, Kelloholm, Penpont and Tynron were included in the distribution area. The leaflets set out the purpose of the public events, provided details of the event and provided contact details for further information from the SPR. A copy of the leaflet is provided in **Appendix 3**.

64. SPR also offered to provide a hard copy of the consultation materials by request for anyone who could not access the online content.

4.4 Information available at the Public Information Event

65. The event comprised a virtual exhibition room, with five information banners and one feedback banner. The information banners included the following:

- Introduction;
- Site overview, key facts and development process;
- Landscape and Visual Considerations;
- Environmental Impact Assessment; and
- Benefits of proposed Development.

66. Each banner linked to a web page which contained detailed information on the topic and the proposed Development, as well as figures and visualisations where appropriate. The figures and visualisations were also provided as downloadable files, and all information within the web page could be printed off as a hard copy. **Plate 4.1** shows the online exhibition home page.

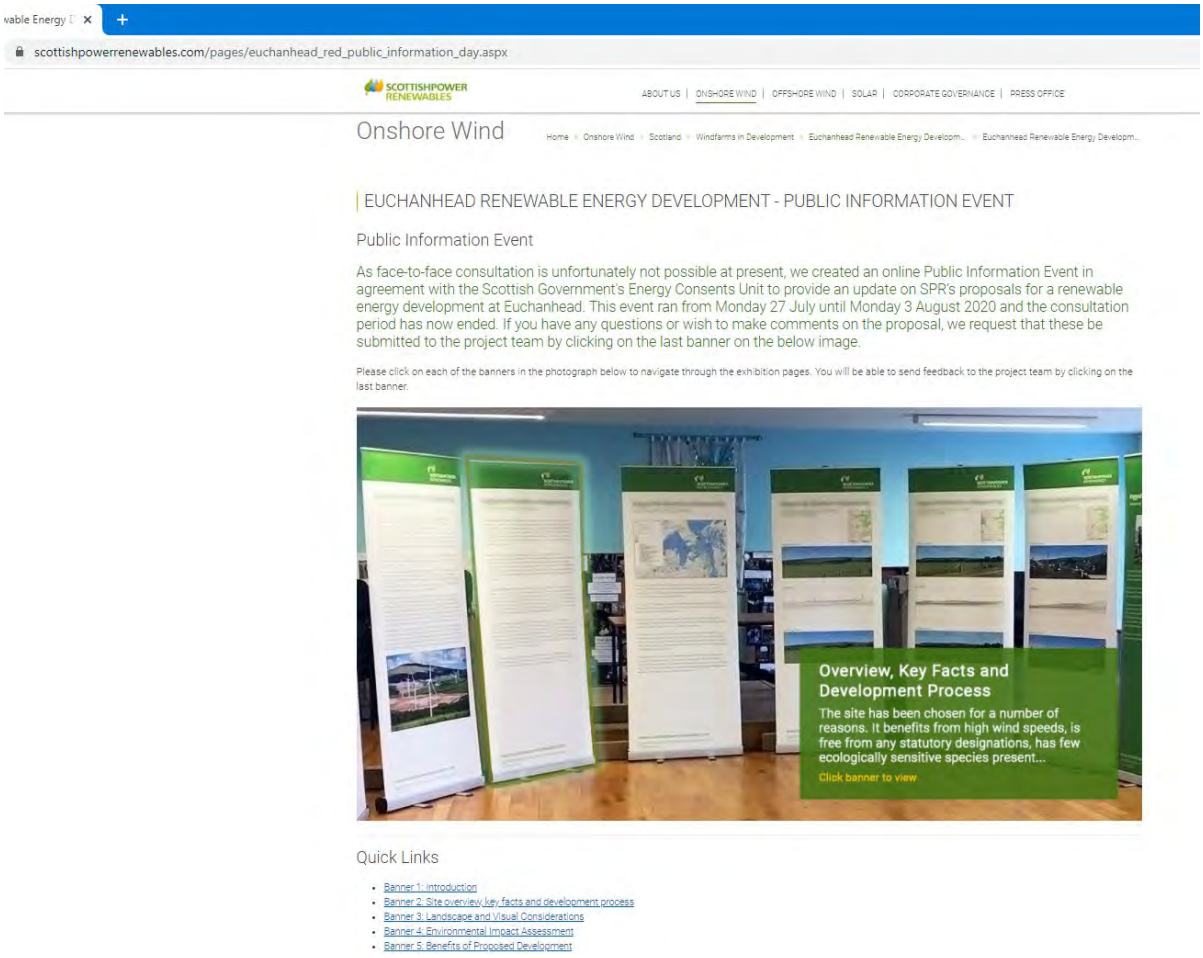


Plate 4.1 – Online PIE website

4.5 Consultation feedback

67. The analytics of the event website show that from July 27 to August 12, 2020, the website recorded 301 visitors, of whom 259 were new, or unique, users. This is a much larger number of visitors than might typically attend a traditional PID, and demonstrates that the online event was a successful way of engaging with the local community.

68. Visitors to the website were invited to email the project team with any questions, comments or feedback on the proposals. 21 responses were received (8% of unique visitors). SPR responded in the first instance to any questions or comments with an emailed response to each enquiry, with the offer of a phone call if required. Four respondents replied and requested a call back from the SPR development team to discuss specific issues. In some cases additional information in the form of wirelines was provided, or a technical specialist was able to provide specific information relating to a specific concern such as flooding, or address concerns about the proposed Development.

69. The geographical spread of attendees that completed the feedback forms was as follows:

- Tyrnon / Scaur Valley / Dunreggan – 7;
- Sanquhar (and surrounding area) - 5;
- Thornhill - 3;
- New Cumnock / Afton Valley – 3;
- Dumfries – 1; and
- Address not given – 2.

70. Comments suggest that out of the 21 respondents, one indicated support for renewable energy and the proposed Development, two indicated support for renewable energy in general, but were concerned about the impact in this area, 15 were opposed to the development, and two expressed no opinion but asked for more information. Overall, eight of the 21

respondents were supportive of renewable energy generation, 4 were not supportive of renewable energy, and 8 made no comment in relation to support of renewable energy.

71. A number of respondees expressed their dissatisfaction with the event not being held face to face.

72. A summary of comments received is presented in **Table 4.1**.

Table 4.1 Feedback Received from the July/August 2020 Public Information Event.

Topic	Comment
General	• why have the number of turbines increased? • suggest SPR consider other forms of renewable energy. • renewable energy is needed to address the climate issue, but should not be built in a destructive way. • comments relating to lack of energy storage for energy generated from wind turbines. • concerns relating to windfarms receiving constraint payments. • how much of the project content will be manufactured in Scotland / UK rather than imported? • what are SPR doing in areas of technology to directly and mechanically remove and store carbon from the atmosphere from its previous fossil fuel power generation operations. • concern about windfarms impacting the landscape • concern about windfarms having a short lifespan. • concern that the Scottish Government ignore any objection from Dumfries and Galloway Council. • impacts on Southern Upland Way from the proposed Development and cumulative impact. • comments on accessibility of online event for older residents or residents with poor broadband connections, and for those who aren't able to comment online to engage via other means.
Environment & Access	• impacts on users of the Southern Upland Way, other paths and use of the area by walkers, cyclists, kayakers, bird watchers and holiday makers. • impacts on Southern Upland Way from the proposed Development and cumulative impact. • request that turbines 7,8 and 9 are removed to remove impact on walkers.
Landscape and Visual	• concern about Impact on Allan's Cairn. • list of visual receptors has not been updated to take into account new layout. • height and lighting impact of turbines.
Ecology	• biodiversity Impacts
Hydrology	• concerns of impact of proposed Development on flood risk in Nithsdale. • flood impact on Dumfries.
Shadow Flicker	• impacts of shadow flicker.
Socio-economic	• impact on tourism jobs and value to Dumfries and Galloway economy. Will a Tourism Impact Assessment be included?
Transportation	• request for additional information about how turbines will be transported through New Cumnock.

5 Response to public consultation

73. All of the topics and questions raised through the consultation have been addressed in the EIA Report for the proposed Development. For example, many of the viewpoint comments were addressed at the time by SPR / SLR use of a 3D computer modelling tool which provided attendees with an accurate depiction of how the proposal would look from their personalised viewpoints.

74. In response to traffic concerns the potential for two access points has been considered as well as investigating other options for the delivery of the larger components (passing places & night time deliveries). Additional detail has been provided in relation to how the blades are proposed to be transported to the Site along the public highway.

75. A number of comments were received in relation to private water supplies, flooding and flood risk. An assessment of private water supplies, flooding and flood risk has been included in the EIA Report.

76. In addition, and specifically in response to the suggestions for open and enhanced recreational access, SPR has committed to include the following:

- temporary diversion to the Southern Upland Way during construction;
- permanent alternative / additional route to the Southern Upland Way to provide an alternative to walking on the forestry roads; and
- improved access, signage and information boards in respect of local history associated with Allan's Cairn.

77. SPR responded to all feedback forms submitted and provided follow up information and query responses where requested. Concerns and questions raised by consultees and members of the public at the PIDs have been addressed through the assessments presented in the EIA Report.

5.1 Publication of the EIA Report

78. SPR has a duty to undertake statutory publication of the EIA Report in accordance with Part 5 of the 2017 EIA Regulations and the Electricity (Applications for Consent) Regulations 1990. Due to the ongoing Covid-19 situation and the provisions of the Coronavirus Act 2020, Government advice is that hard copies of the application and EIA Report should not be placed on public display. The application documents are being made available online via the ECU website as normal, and hard copies are being made available to specific statutory consultees,

79. A notice will be published as follows:

- on the SPR project website;
- in the Scotsman;
- in the Edinburgh Gazette;
- in the Galloway Gazette; and
- in the Dumfries Courier.

80. In addition to the formal notifications of the application SPR has:

- made available a Non-Technical Summary of the EIA Report and USB of the entire application submission to the local community councils on request;
- made available free of charge further copies of the Non-Technical Summary of the EIA Report;
- made available hard copies of the application documents on request (at a cost to cover printing);
- maintained a dedicated email address (euchanheadrenewables@scottishpower.com) to receive comments relating to the proposed Development; and
- maintained ongoing contact, through email and telephone conversations with local residents and Community Councils.

APPENDICES

APPENDIX 1

Copy of Public Information Day Press Adverts February 2020 and July / August 2020

proposals for the Euchanhead Renewable Energy Development.

ScottishPower Renewables is proposing to develop Euchanhead Renewable Energy Development, located in the northern part of Dumfries and Galloway on land on the National Forest Estate at Euchanhead, approximately 10km (from the nearest proposed turbine location) to the south west of Sanquhar. The Site predominantly comprises three commercial forest block areas separated by a narrow stretch of land. The northern part of the site comprises approximately 680 hectares of commercial forestry known as Euchanhead Forest. The southern part of the site encompasses two forest blocks known as Polskeoch Forest, and Shinnelhead Forest, and combined extend to approximately 1600 hectares.

The proposed Development is anticipated to consist of approximately 20 wind turbines with tip heights of up to 225m (with blade lengths of up to 75m) and an energy storage facility.

Early consultation is key to developing our projects and throughout the development process we will ensure local communities and stakeholders are given the opportunity to provide feedback and are kept informed of project progress.

We are holding public information days to provide details of the proposed Development, the progress to date, to introduce the project team and to answer any questions you may have. The public information days will be held as follows:

Monday 17 February 2020
3pm until 7pm
Tynron Village Hall
Main Street
Tynron
DG3 4JZ

Tuesday 18 February 2020
2:30pm until 6:45pm
Sanquhar Town Hall
Church Road
Sanquhar
DG4 6DE

The project team can be contacted directly by emailing:
euchanheadrenewables@scottishpower.com

www.scottishpowerrenewables.com

@SPRenewables

SCOTTISHPOWER RENEWABLES

ELECTRICITY ACT 1989

TOWN AND COUNTRY PLANNING (SCOTLAND) ACT 1997

PRE-APPLICATION PUBLIC CONSULTATION FOR PROPOSED EUCHANHEAD RENEWABLE ENERGY DEVELOPMENT NEAR SANQUHAR, DUMFRIES AND GALLOWAY

ScottishPower Renewables (SPR) intends to apply to the Scottish Ministers for consent under section 36 of the Electricity Act 1989 to construct and operate a renewable energy development. The proposed Development is anticipated to comprise of 21 wind turbines with blade tip heights of up to 230 metres and an associated energy storage facility.

Following the initial public consultation activities undertaken earlier this year, a public information event on the proposals will be available online from Monday 27 July 2020 on the project website at: www.scottishpower.com/EuchanheadRED

The public information event will identify how the design of the proposals has been amended to take on board public and consultee feedback as well as the findings of the environmental studies and assessments that have now been completed.

The event will include a link to a feedback form where comments and questions, as well as any requests for further information, can be submitted directly to the Project Team. Alternatively, you may contact the Project Team by emailing: euchanheadrenewables@scottishpower.com or writing to:

ScottishPower Renewables
Euchanhead Renewable Energy Development Team
9th Floor ScottishPower Headquarters
320 St Vincent Street
Glasgow
G2 5AD

If you have any questions or wish to make comments on the proposal, we request that these be submitted via the feedback form by 5pm on Monday 3 August 2020. Alternatively, you may do so by emailing or writing to the Project Team at the above address.

Please note that this notice does not relate to an application and that any comments made on the proposals to SPR at this stage are not representations to the Scottish Ministers. If an application is subsequently submitted, normal publicity will be undertaken at that time and you will have the opportunity to make formal representations then.

SCOTTISHPOWER RENEWABLES

APPENDIX 2

Copy of Leaflets for Public Information Day February 2020, and Online Public Information Event July / August 2020

Euchanhead Renewable Energy Development

Public Information Days

ScottishPower Renewables invites you to attend a Public Information Day on the draft proposals for the Euchanhead Renewable Energy Development.

ScottishPower Renewables is proposing to develop Euchanhead Renewable Energy Development, located in the northern part of Dumfries and Galloway on land on the National Forest Estate at Euchanhead, approximately 10km (from the nearest proposed turbine location) to the south west of Sanquhar. The Site predominantly comprises three commercial forest block areas separated by a narrow stretch of land. The northern part of the site comprises approximately 680 hectares of commercial forestry known as Euchanhead Forest. The southern part of the site encompasses two forest blocks known as Polskeoch Forest, and Shinnelhead Forest, and combined extend to approximately 1600 hectares.

The proposed Development is anticipated to consist of approximately 20 wind turbines with tip heights of up to 225m (with blade lengths of up to 75m) and an energy storage facility.

Early consultation is key to developing our projects and throughout the development process we will ensure local communities and stakeholders are given the opportunity to provide feedback and are kept informed of project progress.

We are holding public information days to provide details of the proposed Development, the progress to date, to introduce the project team and to answer any questions you may have. The public information days will be held as follows:

Monday 17 February 2020
3pm until 7pm
Tynron Village Hall
Main Street
Tynron
DG3 4JZ

Tuesday 18 February 2020
2:30pm until 6:45pm
Sanquhar Town Hall
Church Road
Sanquhar
DG4 6DE

The project team can be contacted directly by emailing:
euchanheadrenewables@scottishpower.com

www.scottishpowerrenewables.com
@SPRenewables

SCOTTISHPOWER RENEWABLES

APPENDIX 3

Copy of Public Information Day Poster February 2020

SCOTTISHPOWER RENEWABLES

Tynron Village Hall
Main Street
Tynron DG3 4JZ
17th February 2020 from 3pm until 7pm

Sanquhar Town Hall
Church Road
Sanquhar DG4 6DE
18th February 2020 from 2:30pm until 6:45pm

Euchanhead Renewable Energy Development

Public Information Days

Why are we contacting you?

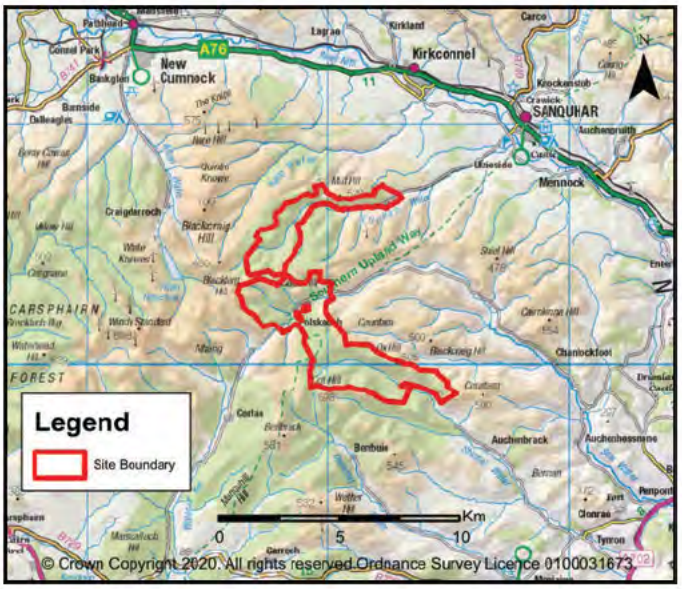
ScottishPower Renewables (SPR) invites you to attend information days to introduce proposals to develop Euchanhead Renewable Energy Development, located in the northern part of Dumfries and Galloway on land on the National Forest Estate at Euchanhead, approximately 10km (from the nearest proposed turbine location) to the south west of Sanquhar.

The proposed Development is anticipated to consist of approximately 20 wind turbines with tip heights of up to 225m (with blade lengths of up to 75m), with an associated energy storage facility.

Early consultation is key to developing our projects and throughout the development process we will ensure local communities and stakeholders are given the opportunity to provide feedback and are kept informed of project progress.

This Public Information Day is a great opportunity for SPR to hear the thoughts of the local community on this project. It is also a chance for you to meet the project team, learn more about the renewable energy project development process, to find out about the survey work we have undertaken and to ask any questions you may have about the project.

Development Location



www.scottishpowerrenewables.com
@SPRenewables

Next Steps

After meeting with your community and gathering feedback on our proposals, we will continue to update the design of the project ahead of submitting an application to the Scottish Government Energy Consents Unit, which we are anticipating to be in autumn 2020.

Who are we?

ScottishPower Renewables is part of the ScottishPower group of companies operating in the UK under the Iberdrola Group, one of the world's largest integrated utility companies and a world leader in wind energy. ScottishPower now only produces 100% green electricity – focusing on wind energy, smart grids and driving the change to a cleaner, electric future. The company is investing over £4m every working day to make this happen and is committed to speeding up the transition to cleaner electric transport, improving air quality and over time, driving down bills to deliver a better future, quicker for everyone. With over 40 operational windfarms, SPR manages all its sites through its world leading Control Centre at Whitelee Windfarm, near Glasgow.

ScottishPower Renewables is at the forefront of the development of the renewables industry through pioneering ideas, forward thinking and outstanding innovation. Our ambitious growth plans include expansion of our existing onshore wind portfolio, investment in new large scale solar deployment and innovative grid storage systems including batteries. The company is also delivering the Iberdrola Group's offshore windfarms in the Southern North Sea off East Anglia as part of an international pipeline of projects across Europe and the USA.

SPR strives to be a good neighbour in all aspects of our work. We are committed to Dumfries and Galloway and to maximising the opportunities for local communities to benefit from our projects.

Did you know?

To date, SPR's operational windfarms have contributed more than £32 million of support towards community initiatives across the UK, with our existing local windfarms (Ewe Hill, Harestanes, Wether Hill and Kilgallioch) contributing over £6.9m of support to Dumfries and Galloway communities.

With established sites nearby, SPR has a history of working positively with local communities within the region. We are keen to further encourage opportunities for local employment and harnessing local skills required to maximise economic benefits delivered locally and ensure those who live near our sites benefit.

Responsible Design

We believe in open consultation and welcome your feedback to inform the design process. Our proposals have been shaped by the results of ongoing environmental and technical studies we have undertaken at the Site. We also give careful consideration to how this proposal fits within the existing landscape, considering its visibility from key viewpoints in the surrounding area and how it 'fits' with surrounding windfarms in the area.

Photograph taken at Whitelee Windfarm, turbine height 110meters: the turbines proposed for this development would be up to 225 meters

Powering your community

We encourage as many people as possible to get involved in and to learn more about our projects, particularly in understanding the local economic and social benefits our developments can create.

As the development of Euchanhead Renewable Energy Development progresses we will engage with communities, stakeholders and the local council to determine how benefits could be delivered to best meet the needs of the local area, should the project be consented.

Drivers for renewable energy

The UK Government and the Scottish Government have both declared a 'climate emergency' and are committed to ensuring that an increased proportion of electricity is generated from renewable energy sources in order to meet carbon emission targets. The Scottish Climate Change Bill (2018) introduces a target of net-zero gas emissions by 2045 at the latest, with Scotland becoming carbon neutral by 2040. Scotland will also have to reduce emissions by 56% by 2020, 70% by 2030 and 90% by 2040. These are currently the most ambitious statutory targets in the world.

Contact us

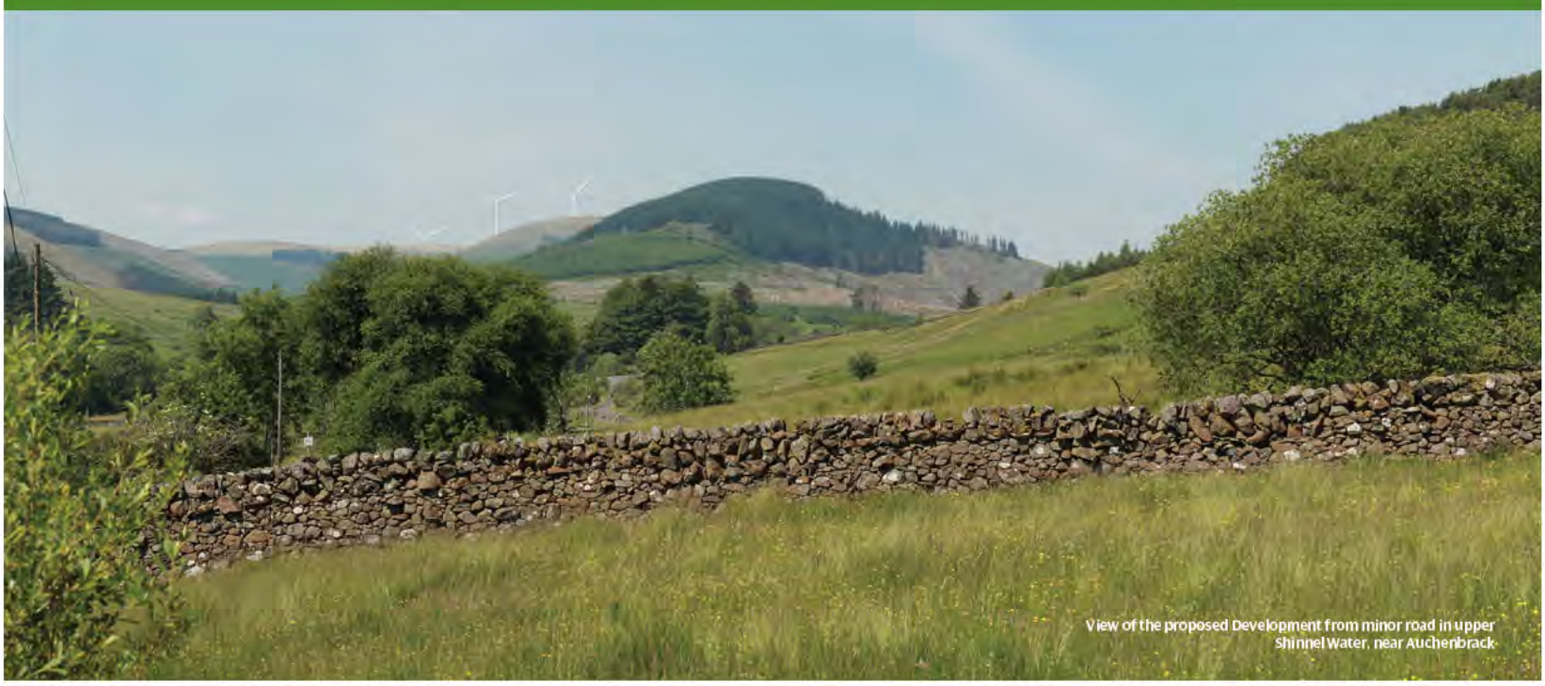
The project team can be contacted directly by writing to:

ScottishPower Renewables
9th Floor ScottishPower Headquarters
320 St Vincent Street
Glasgow
G2 5AD

or emailing:

euchanheadrenewables@scottishpower.com

SCOTTISHPOWER RENEWABLES



View of the proposed Development from minor road in upper Shinnel Water, near Auchenbrack

Euchanhead Renewable Energy Development

Online Public Information Event 27 July - 3 August 2020

Why are we contacting you?
ScottishPower Renewables (SPR) is undertaking further public consultation on our proposals for the Euchanhead Renewable Energy Development. This leaflet provides details on the consultation format and timings, advises how you can engage in the process, and identifies where further information on the proposals may be obtained.

The Proposals
SPR intends to apply to The Scottish Ministers for consent under Section 36 of the Electricity Act 1989 in September 2020 to construct and operate a renewable energy development. This is anticipated to comprise of 21 wind turbines with blade tip heights of up to 230 metres and an associated energy storage facility. The Development has potential to deliver over 120 MWs of renewable power, and over 30 MWs of energy storage.

Two site access options have been assessed as suitable to accommodate delivery of turbine components and construction traffic. Only one route will ultimately be used however, both options will be included in the planning application to allow flexibility in the approach taken.

Each option accesses the site via the A76, either through the existing Hare Hill Windfarm, or via Blackaddie Road from the A76 at Sanquhar.

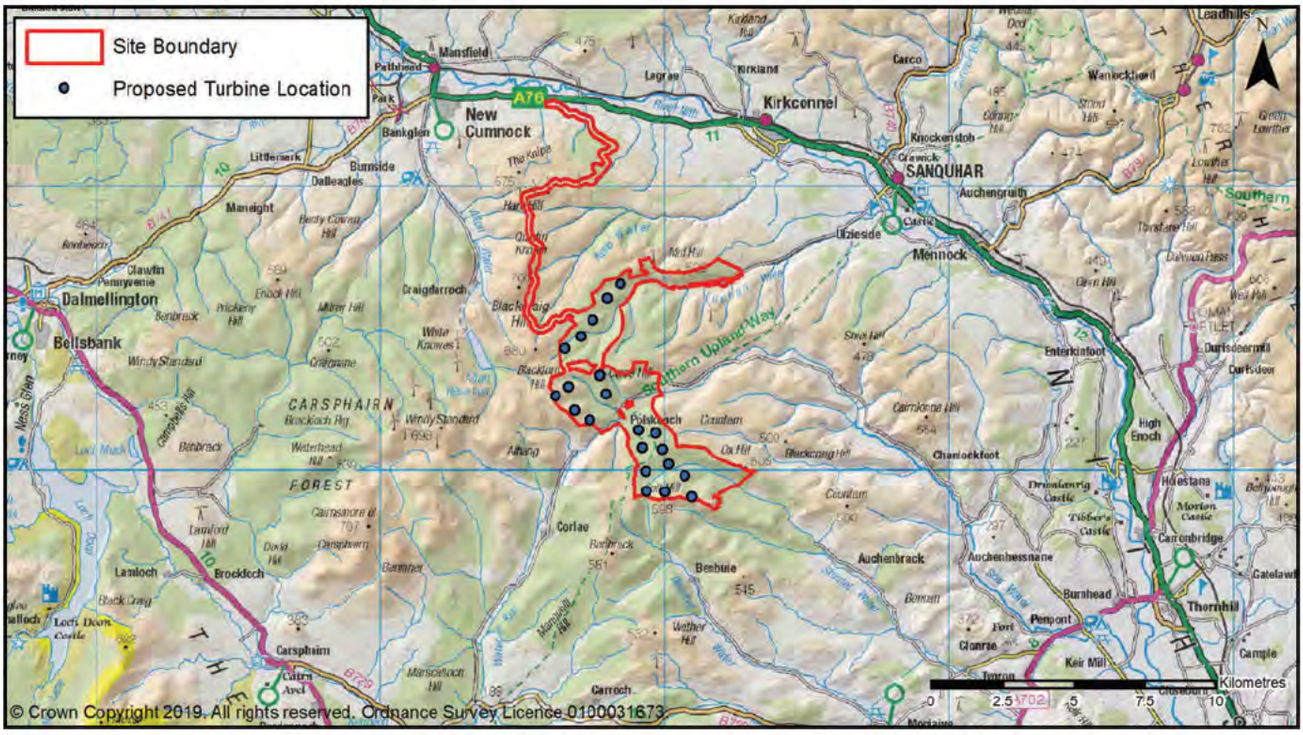
Previous consultation to date
We held our first public information days on the Euchanhead project in February 2020 in Sanquhar and Tynron. These events were well attended and provided valuable feedback on the proposals. A direct scoping exercise was also undertaken in February 2020, with a range of local and statutory stakeholders.

Since then, we have been reviewing feedback received from the public and other consultees, and undertaking additional environmental and technical studies and assessments.
As a result of these activities, we have updated the design of the Euchanhead proposal and now wish to share this updated project design with you.

Project changes since previous public information day
The following changes have been made to the layout:

- The layout design has been improved to increase separation between turbines and residential properties;
- Turbines have been moved further away from Tynron in the southern part of the site, reducing the potential for noise and visual impacts;
- Locally appreciated cultural heritage assets such as Allen's Cairn have been identified and turbines moved further away from this asset;
- An additional turbine has been incorporated into the centre of the layout, increasing the clean energy that the site could potentially produce.

www.scottishpowerrenewables.com
@SPRenewables



Community Benefits

As a responsible Developer SPR strives to be good neighbours in all aspects of our work. We are committed to Dumfries and Galloway and East Ayrshire, in particular, to maximising opportunites for local communities to benefit from our projects.

SPR is proud to support local communties, helping them, to deliver long term aspirations. Our community benefit funds across the UK total more than £37 million to date, with over £13.8 million invested in communities near our developments in Dumfries and Galloway and East Ayrshire.

What further consultation / is taking place?

Due to the Government guidance issued as a result of the COVID-19 pandemic, face-to-face consultation is unfortunately not possible at present.

We will therefore be hosting a Public Information Event online to provide more information on our proposed Development. This will contain all of the information that would have been presented in a traditional information day. This can be accessed via the Euchanhead project website page or by entering Euchanhead Renewable Energy Development in your internet browser's search bar.

www.scottishpower.com/EuchanheadRED

The following information will be made available on the website to view and download from 27 July:

- Information covering the benefits, design, and environmental impact assessment of the project;
- Visualisations of how the turbines will look in the landscape from key viewpoints;
- A map showing the areas where the turbines may potentially visible from (Zone of Theoretical Visibility or ZTV);
- A section with answers to Frequently Asked Questions (FAQs).

How can I get involved and make comments?

The Public Information Event website will include a feedback form where comments and questions, or requests for further information, can be sent directly to the project team.

The event will be live from the 27 July and we ask that you send any questions or comments on the event materials by 3 August 2020. We will respond to any enquires sent. If you have concerns about the proposals, or would like to speak with the Project Team directly, we can make arrangements do this via a one-to-one telephone or video call.

Please note that any comments made on the proposals to SPR at this stage are not representations to the Scottish Ministers. When the application is subsequently submitted, normal publicity will be undertaken at that time and you will have the opportunity then to make formal representations at the end of September 2020.

Project Team Contact Details

If you require to have any of the documents contained within the Public Information Event emailed or posted to you then please contact the Project Team by email or in writing at the contact details below. These contacts can also be used for requests for any further information, submitting comments or asking questions on the proposed Development at any time.

Email:

euchanheadrenewables@scottishpower.com

Post:

ScottishPower Renewables
Euchanhead Renewable Energy Development Team
9th Floor ScottishPower Headquarters
320 St Vincent Street
Glasgow
G2 5AD

www.scottishpowerrenewables.com
@SPRenewables

APPENDIX 4
Letters to Local Councillors

14 February 2020

[redacted]

Our Ref: 405.00481.00052

Dear [redacted] Community Councillors,

SECTION 36 ELECTRICITY ACT 1989 – REQUEST FOR PRE-APPLICATION ADVICE AND EIA SCOPING RESPONSE FOR PROPOSED EUCHANHEAD RENEWABLE ENERGY DEVELOPMENT, NEAR SANQUHAR, DUMFRIES & GALLOWAY

SLR is writing on behalf of ScottishPower Renewables (SPR) who intends to apply for consent under section 36 of the Electricity Act 1989 for the construction and operation of a renewable energy development on land at Euchanhead, approximately 10 km (from the nearest turbine location) to the south west of Sanquhar, in Dumfries and Galloway.

SPR is part of the ScottishPower group of companies operating in the UK under the Iberdrola Group, one of the world's largest integrated utility companies and a world leader in wind energy. ScottishPower now only produces 100% green electricity – focusing on wind energy, smart grids and driving the change to a cleaner, electric future. The company is investing over £4 million every working day to make this happen and is committed to speeding up the transition to cleaner electric transport, improving air quality and over time, driving down bills to deliver a better future, quicker for everyone. With over 40 operational windfarms, SPR manages all its sites through its world leading Control Centre at Whitelee Windfarm, near Glasgow.

The proposed Development will comprise of approximately 20 wind turbines of up to 225 metres to blade tip and an energy storage facility with a total installed capacity of greater than 50 megawatts (MW).

SPR first introduced proposals on the Euchanhead site to local communities and consultees in summer 2013. This included obtaining an Environmental Impact Assessment (EIA) scoping opinion from Scottish Ministers, albeit for a smaller scale development with no energy storage facility included. The location of the proposed Development is within an area with numerous windfarm developments and proposals, several of which have been subject to recent EIA scoping opinions.

Given that the key issues relating to developing within this area, and on this site, are already known and understood, SPR is scoping the project directly with consultees to seek their opinions on the current proposals; to discuss and agree the matters that may be subject to significant environmental effects as a result of the proposed Development and therefore require to be assessed; and to agree the methodologies required for undertaking and reporting these assessments.

Experience of undertaking similar direct pre-application and scoping exercises on other projects has demonstrated the success of this approach in enabling consultees to influence the final project design, achieve a more focused EIA and maximise the value of the process for all parties. This approach has

been discussed and agreed with the Scottish Government Energy Consents Unit (ECU) on behalf of Scottish Ministers.

The purpose of this letter is to introduce the new scheme to you and request direct scoping comments from your community council on the current proposals. Although we are at a very early stage with the proposed Development we would like to understand your initial thoughts on the proposals (including any potential environmental concerns on the project you may have) in order that we can seek to try and address these in the final layout and design of the project.

We include with the letter a project summary factsheet which provides further information on the proposed Development and also include a suite of EIA scoping topic factsheets which we believe are relevant to you. Each factsheet identifies the potentially significant environment effects that may occur as a result of the proposed Development proceeding and therefore require further study in the EIA, and also sets out the proposed methodologies and approach for undertaking the required studies. All of the EIA scoping topic factsheets are available on the project website which can be found here:
www.scottishpowerrenewables.com/pages/euchanhead_renewable_energy_development.

The following EIA scoping topic factsheets have been prepared to support this scoping request:

- SCO1: Landscape and Visual
- SCO2: Ecology and Biodiversity
- SCO3: Ornithology
- SCO4: Hydrology, Hydrogeology, Geology & Soils
- SCO5: Noise
- SCO6: Cultural Heritage
- SCO7: Traffic and Transport
- SCO8: Forestry
- SCO9: Other Considerations

In addition, as you will see in the enclosed project factsheet we are proposing to hold public information days on the proposals on Monday 17th February at Tynron Village Hall from 3pm to 7pm, and at Sanquhar Town Hall on Tuesday 18th February from 2.30 pm to 6.45pm. We would be delighted if yourself and other members of the community council could attend at one of these events.

We would also be pleased to meet with representatives of the community council regarding the proposals if this would be considered to be of interest.

I look forward to hearing your initial thoughts on the proposed Development and confirming whether or not you would like to arrange a meeting with the Project Team

We would be happy to provide information in different formats such as GIS shapefiles for layouts/figures on request.

Action Required

I would be grateful if you could please respond to this scoping request by 6th March 2020. Please send your responses by email to [redacted], or by writing to:

[redacted]
SLR Consulting Limited
4/5 Lochside View
Edinburgh Park
Edinburgh
EH12 9DH

If you wish to discuss any matters contained in this request in greater detail prior to responding, please do not hesitate to contact me.

I look forward to receiving your response.

Yours sincerely
SLR Consulting Limited

[redacted]

cc: [redacted]

From: Euchanhead Renewable Energy Development <euchanheadrenewables@scottishpower.com>
Sent: 25 June 2020 15:04
Cc: Euchanhead Renewable Energy Development
Subject: Euchanhead Renewable Energy Development - Public Consultation

Dear Sir or Madam,

SPR contacted you at the beginning of the year to consult with you and invite you to Public Information Days(PIDs) as part of SPR's public consultation process for the Euchanhead Renewable Energy Development. At that time we advised that it was our intention to hold a second round of information days, when the design was further developed. Prior to submitting the planning application with the Scottish Government Energy Consents and Deployment Unit, we had also committed to meeting with a number of the local community councils to discuss the project further.

As the Scottish Government's COVID-19 guidance prevents public gatherings and restricts people's movements it is not possible for SPR to hold community events prior to the submission of the Euchanhead RED planning application. However, in order to provide further consultation, SPR is proposing to hold a virtual information day. This will be an online consultation event that will give a comprehensive update on the design and progress of the proposal, as well as an opportunity for the local community to provide feedback and have queries about the project answered.

SPR will shortly be distributing a leaflet in your area that will provide project information and also explain how to access this information online. You will also be able to book a slot to speak with the SPR project team, via telephone or video call, to discuss any aspects of the Development.

Kind rega[redacted]
[redacted]

SCOTTISHPOWER RENEWABLES
[redacted]

ScottishPower Renewables, 9th Floor ScottishPower HQ, 320 St Vincent St, Glasgow, G2 5AD,

SCOTTISHPOWER RENEWABLES
[redacted]

ScottishPower Renewables, 9th Floor ScottishPower HQ, 320 St Vincent St, Glasgow, G2 5AD,

[redacted]

From: Euchanhead Renewable Energy Development <euchanheadrenewables@scottishpower.com>
Sent: 24 July 2020 13:39
To: Euchanhead Renewable Energy Development
Subject: Euchanhead Renewable Energy Development - Public Information Event 27/07/20
Attachments: Euchanhead Leaflet for Email.pdf

Dear Sir or Madam,
I wrote to you recently to advise that ScottishPower Renewables is intending to host an online Public Information Event to provide an update on our proposal for a Renewable Energy Development at Euchanhead. The website for this event is due to go live on Monday 27th July.

The site will contain all of the information that we would typically present at an information day. Attached is a leaflet promoting the event which will be hosted at www.scottishpower.com/EuchanheadRED

There is also a feedback form on the site to allow those who attend the event to provide comments on the proposal and also ask any questions that they might have or alternatively request a meeting with members of the project team to discuss any queries or concerns in more detail. We are asking that, if possible, members of the public log on and provide feedback by the 3rd of August.

The intention is to provide the same level of engagement with the project team as would be available in a traditional format information day, and we would be interested to hear feedback on the consultation process also.

Kind regards,
[redacted]

SCOTTISHPOWER RENEWABLES
[redacted]
[redacted], 9th Floor ScottishPower HQ, 320 St Vincent St, Glasgow, G2 5AD,

APPENDIX 5

Copy of Public Information Day Drawings and Plans

SCOTTISHPOWER RENEWABLES

PROPOSED EUCHANHEAD RENEWABLE ENERGY DEVELOPMENT

ScottishPower Renewables (SPR) is proposing to develop Euchanhead Renewable Energy Development near Sanquhar in Dumfries and Galloway.

The proposed Development is anticipated to consist of approximately 20 wind turbines with blade tip heights of up to 225 metres and an associated energy storage facility.

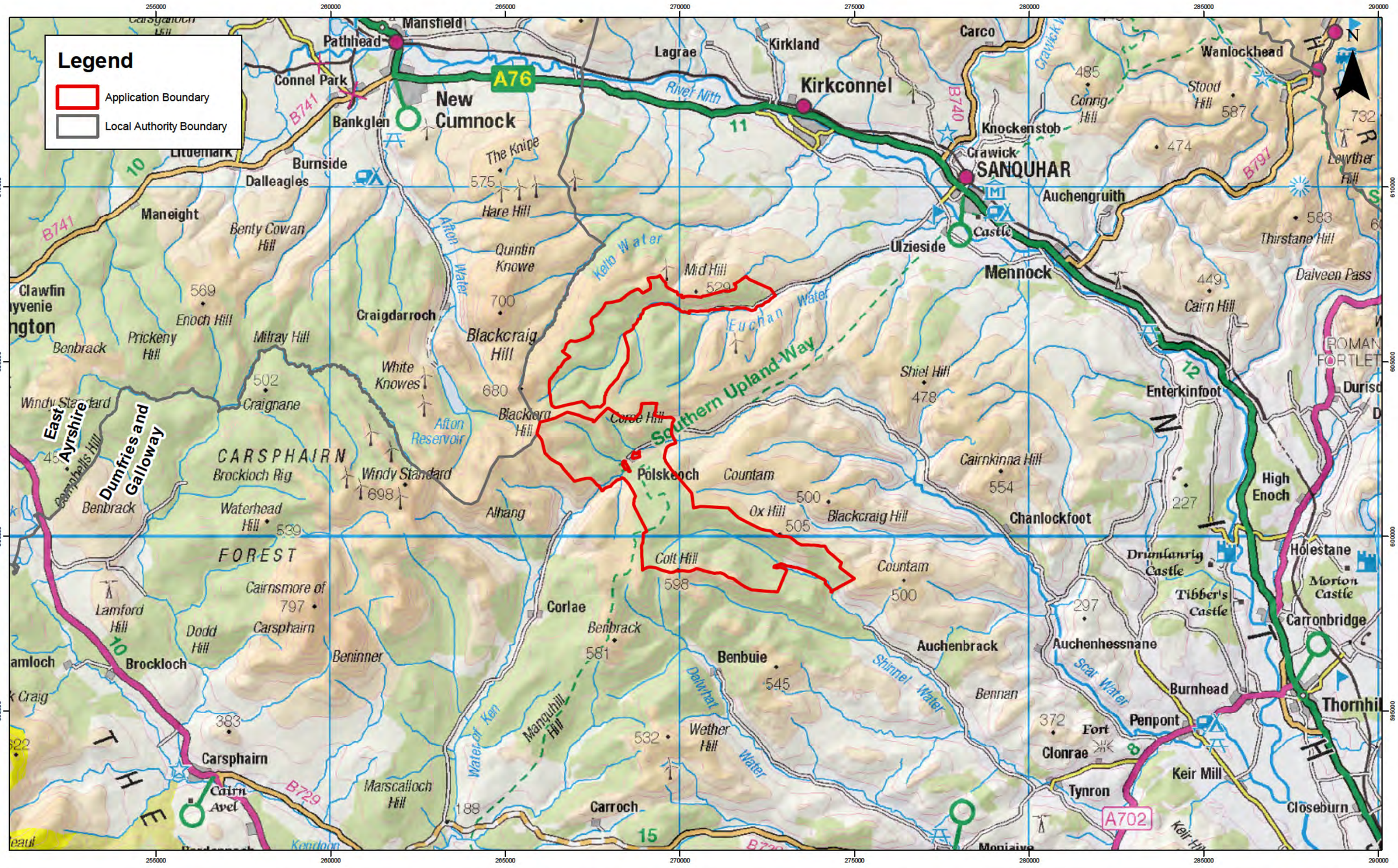
Site Location and Description

The Site of the proposed Development comprises three separate commercial forest blocks located to the south west of Kirkconnell and Sanquhar. The woodland forms part of the National Forest Estate, which is managed by Forestry and Land Scotland on behalf of Scottish Ministers.

The northern part of the Site comprises approximately 680 hectares of commercial forestry known as Euchanhead. The land is characterised by steeply sloping ground to the east and more undulating hills to the west.

The southern part of the Site encompasses two forest blocks known as Polskeoch and Shinnelhead. Extending to approximately 1660 hectares in total, the topography is undulating across the whole of the area. It incorporates the steep-sided domed shaped hills of Carnine, Polskeoch Rig, and the northeast flank of Lorg Hill to the north, Troston and Wether Hill to the south, with the valley of Polskeoch Burn between.

The location of the proposed Development is within an area which has several existing, and proposed, windfarm developments. These include the operational Sanquhar Community Windfarm and Whiteside Hill Windfarm, and the proposed Lorg and Sanquhar II windfarms.



SCOTTISHPOWER RENEWABLES					1:100,000 Scale @ A3	0 1 2 3 4 Km	**Euchanhead Renewable Energy Development** Scoping Site Location Plan
	A	03/02/20	RE	First Issue.			
	Rev	Date	By	Comment			

Drg No	00481.00052.0089.0	Datum: OSGB36 Projection: TM
Rev	A	
Date	03/02/20	
Figure	-	

Project Description

Initial feasibility and design work indicate that the site has the potential to accommodate in the region of 20 wind turbines of up to 225 metres to blade tip and it is anticipated that turbines of the scale will be required to ensure the commercial viability of the project.

Optimising the site design to achieve the best balance between highest possible energy production while minimising environmental effects will be important to maximise the contribution that the proposed Development will make towards the Scottish Government's renewable energy and climate change targets and the response to the climate emergency. These targets include the requirement for 50% of Scotland's overall energy consumption to come from renewables by 2030.

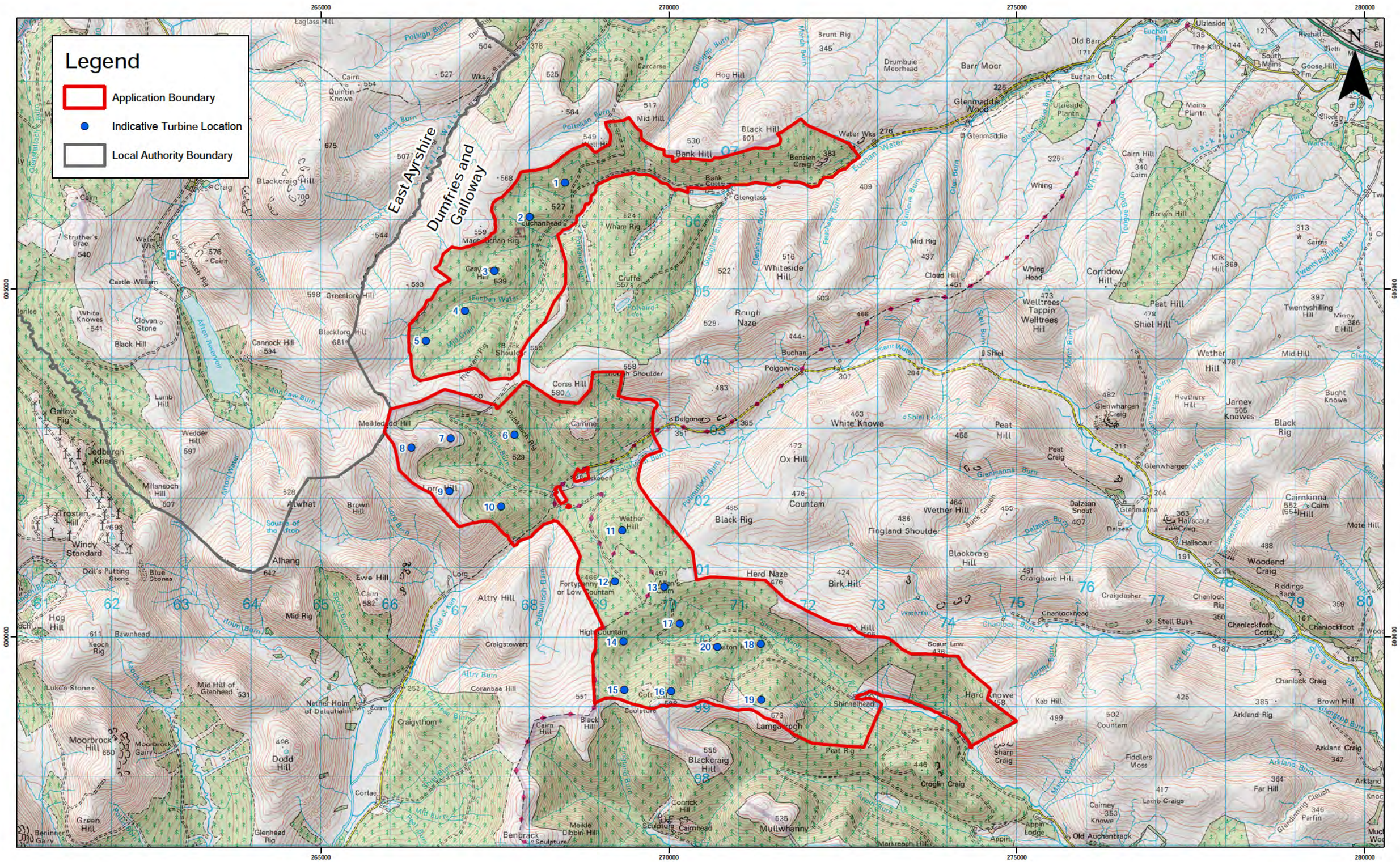
A concept layout has been prepared to illustrate how this number and scale of wind turbines could be accommodated on the Site.

In addition to the wind turbines, the proposed Development will include an energy storage facility. This will be used to store the green electricity produced by the wind turbines and could be used to smooth out variances between wind resource and electricity demand. It can also be used to provide services to help stabilise the operation of the local electricity network.

The proposed Development will also include construction of new, and upgrading of existing, onsite access tracks to provide access to all wind turbine locations, a substation control building and a construction compound. On site borrow pits may also be developed.

It is anticipated that the turbines will be delivered from a suitable port via the A76. At this time, the preferred access route to the site from the A76 has yet to be confirmed. However a range of potential site access options are being explored and the final route will be selected with regard to transport and environmental constraints and discussion with landowners.

It is estimated that construction of the proposed Development will take approximately 22 months, followed by commissioning and testing. Construction of the proposed Development is anticipated to commence in summer 2022.



SCOTTISHPOWER RENEWABLES					1:50,000 Scale @ A3	0 0.5 1 1.5 2 Km	Euchanhead Renewable Energy Development Scoping Indicative Concept Layout
	A	03/02/20	RE	First Issue.	© Crown Copyright 2019. All rights reserved. Ordnance Survey Licence 0100031673.		
	Rev	Date	By	Comment			

Drg No	00481.00052.0090.0	
Rev	A	Datum: OSGB36
Date	03/02/20	Projection: TM
Figure	-	

Environmental Impact Assessment

SPR is committed to ensuring that its operations have the minimum adverse effect on the local environment. The Environmental Impact Assessment (EIA) forms a key part of the development of the proposal and is made up of a series of technical studies that look at specific aspects of the proposed Development.

The technical subject areas that may potentially be subject to significant environmental effects as a result of the proposed Development proceeding and are therefore proposed to be scoped into the EIA are set out below.

- Landscape and visual impact
- Terrestrial ecology
- Ornithology
- Hydrology, hydrogeology and geology
- Peat and carbon balance
- Archaeology and cultural heritage
- Noise
- Traffic and transport
- Forestry

Consultation will be undertaken to agree the scope and content of the EIA and the methodologies for undertaking the required studies.

From initial baseline work and consultations, particular interest has been noted on the cumulative landscape and visual impacts of the proposed Development.

The EIA process will be used to inform the layout and design of the proposed Development. The results of the EIA will be presented in an EIA Report that will be submitted with the application for consent.

Public Consultation

We are proposing to hold two rounds of public information days in communities located close to the proposed Development.

Details of the first round of these public information days is set out below:

Tynron Village Hall	Sanquhar Town Hall
Main Street, Tynron	Church Road, Sanquhar
DG3 4JZ	DG4 6DE
Monday 17 February	Tuesday 18 February
3pm to 7pm	2.30 pm to 6.45pm

The above information days will be used to introduce the development proposals and concept design to the public and seek feedback that can then input into this design and the EIA process.

A second round of information days will be held when the majority of the environmental studies and assessments have been completed and the design of the proposed Development is nearing finalisation. These events will be used to demonstrate how public and consultee feedback has been taken on board and to provide an opportunity for further comment on the final layout design.

Section 36 Application

Due to the size of the project, an application for permission to construct and operate the proposed Development will be made to Scottish Ministers rather than to Dumfries and Galloway Council. We anticipate that this application will be submitted in late 2020.

Contact Information

We welcome your comments on the proposed Development. If you have any comments, feedback or would like to find out more information about the project, please contact the project team by emailing:

euchanheadrenewables@scottishpower.com

Landscape and Visual

Relevant Policy and Guidance

The Landscape and Visual Impact Assessment (LVIA) will be undertaken with reference to published assessment guidance including:

- Landscape Institute and Institute for Environmental Management and Assessment (2013) Guidelines for Landscape and Visual Impact Assessment 3rd Edition.
- Scottish Natural Heritage (2017) Visual Representation of Wind Farms: Version 2.2.
- Scottish Natural Heritage (2012) Assessing the Cumulative Impact of Onshore Wind Energy Developments.
- Landscape Institute (2019) Technical Guidance Note 6/19 Visual Representation of Development Proposals.
- Natural England (2014) An Approach to Landscape Character Assessment.
- Natural England (2019) An Approach to Landscape Sensitivity Assessment.
- Landscape Institute (2019) Technical Guidance Note 2/19 Residential Visual Amenity Assessment.
- Scottish Natural Heritage (2015) Spatial Planning for Onshore Wind Turbines – Natural Heritage Considerations.
- Scottish Natural Heritage (2017) Siting and Designing Wind Farms in the Landscape. Version 3.
- Forestry Commission (2017) The UK Forestry Standard.
- Dumfries and Galloway Council (2018) Draft Dumfries and Galloway Wind Farm Landscape Capacity Study.

Baseline

The Site is not covered by any international, national, regional or local landscape related planning designations, but does lie on the boundary with the Thornhill Uplands Regional Scenic Area (RSA) to the east and a Sensitive Landscape Area within East Ayrshire to the west. The Galloway Hills RSA also extends within 15 km of the Site.

The Site lies within the Southern Uplands with Forest landscape character type (LCT) as originally defined in the Dumfries and Galloway Landscape Assessment (1998) but also incorporated into the latest SNH online publication of the National Landscape Character Assessment in 2019, which will be used as a baseline document. The key characteristics of the Southern Uplands with Forest LCT were identified to be its 'large, smooth dome-shaped hills with large scale dark green plantations on slopes and over lower summits' and its 'expansive scale'. It is also identified that 'wind farms are a key characteristic in some areas'.

The draft Dumfries and Galloway Wind Farm Landscape Capacity Study Supplementary Planning Guidance (2018) provides analysis of the landscape character baseline. The study identifies that the Site falls within the Ken character unit, which is identified as having a high/medium sensitivity for the Very Large Turbine typology (defined as turbines of 150 metres plus to blade tip) with a medium/low value.

Potentially Significant Effects

The construction and operation of the proposed Development has the potential for significant effects upon:

- landscape fabric, caused by changes to the physical form of landscape elements and landscape character, caused by changes in the key characteristics and qualities of the landscape as a result of the proposed Development;
- visual amenity, caused by changes in the appearance of the landscape as a result of the proposed Development, considering receptors in settlements, motorists and other road users, core paths and other recreational receptors; and
- designated areas caused by changes to its special qualities as a result of the proposed Development.

Proposed Assessment Methodology and Approach

An LVIA will be undertaken to establish potential significant effects of the proposed Development on the landscape resource and visual amenity. An initial study area equivalent to a 45 km radius from the outermost turbines of the proposed Development would be used based on the height of the turbines, in line with SNH Guidance 'Visual Representation of Wind Farms Version 2.2, (SNH, 2017). For the purpose of identifying, mapping and assessing the likely significant effects of the proposed Development on the landscape of the Site and its immediate surroundings, a 'detailed study area' from the outer turbines will be defined. This detailed study area will be informed through on-going assessment work but is likely to be between 15 km and 20 km from the outermost turbines of the proposed Development.

The key sensitivities that will be considered in the LVIA and cumulatively will include:

- Thornhill Uplands Regional Scenic Area;
- Galloway Hills Regional Scenic Area;
- East Ayrshire Sensitive Landscape Area;
- Southern Upland Way;
- Striding Arches Sculpture Trail; and
- Sanquhar and Kirkconnel.

The assessment will be supported by a series of photomontages and wireframes from the agreed viewpoint locations. Visualisations will be prepared in accordance with SNH, Visual Representation of Windfarms: Version 2.2, 2017. Photomontages will be prepared for viewpoints with a 20 km radius. Forestry felling and ancillary elements will only be shown from close viewpoints where necessary, as it is considered that from most viewpoints the forestry felling and ancillary elements would form only a minor element of the entire development.

The list of viewpoint locations proposed to be used in the assessment of the proposed Development are detailed in the table below and illustrated on the enclosed figure. Consultation regarding viewpoints from the previous Scoping exercise on the Euchanhead Site in 2013 and those consultation responses has formed the basis for the choice of viewpoints.

Some viewpoints, particularly those more distant summits, may be illustrated with wireframes only (no baseline photography). Not all viewpoints have been 'ground truthed', so grid references are approximate, and locations may be microsited to obtain the most representative view or greatest extent of visibility.

Table 1: **Proposed Candidate Viewpoints**

Vp no.	Name	Grid Ref Approx	Distance from Nearest Turbine	Reason for inclusion
1	Colt Hill (Striding Arches sculpture)	269833, 599000	0.5 km	Tourist destination with access off Southern Upland Way (SUW)
2	Benbrack, Southern Upland Way (Striding Arches sculpture)	268050, 597060	2.6 km	Sequential on SUW Long Distance Route and tourist destination
3	Blackcraig Hill (East Ayrshire)	264818, 606484	2.8 km	East Ayrshire Sensitive Landscape Walking destination
4	Southern Upland Way along Scar Water	E272226 N604117	4.0 km	SNH requested in 2013 - Sequential on SUW east of Site on Long Distance Route
5	Minor road in upper Shinnel Water, near Auchenbrack	276584, 596570	5.4 km	Thornhill Uplands RSA and scattered properties
6	Kelloholm or Kirkconnel	274058, 611135	7.2 km	Settlement – Visibility is similar from both settlements

7	Cairnsmore of Cairsphairn	259443, 597958	8.3 km	Popular summit as walking destination and on the edge of the Galloway Hills RSA
8	Southern Upland Way crossing B729 near Stroanfreggan Bridge	263961, 591608	9.4 km	SNH requested in 2013 - lower level views along the Ken valley and sequential on Southern Upland Way
9	Auchengibbert Hill	280617, 594454	10.0 km	Upland view within Thornhill Uplands RSA
10	Sanquhar High School/Station	277855, 610230	10.0 km	SNH requested in 2013
11	Southern Upland way, above Sanquhar	278734, 610338	10.9 km	Sequential on SUW long distance route
12	A76, Mennock	279762, 608523	11.4 km	Road and edge of Thornhill Uplands RSA
13	East Mount Lowther Hill, just off the Southern Upland Way	287808, 610018	19.5 km	Specific Viewpoint near SUW, Walking destination and within Thornhill Uplands RSA
14	Corserine, Rhinn of Kells (wireframe only)	249757, 587051	22.7 km	SNH requested in 2013 - Galloway Hills RSA and walking destination
15	Queensberry (wireframe only)	298907, 599741	27.2 km	Thornhill Uplands RSA and walking destination

In line with SNH guidance 'Assessing the Cumulative Impact of Onshore Wind Energy Developments' (SNH, 2012) the assessment will consider surrounding windfarms within the LVIA study area including those which are operational, consented and those for which a valid application has been submitted but which are yet to be determined. Schemes in scoping will only be included by exception where there is specific justification for doing so.

An initial cumulative search area of 15 km from the proposed Development will be undertaken and all other cumulative windfarm developments identified. Wind turbines below 50 m and single turbine developments will only be considered within a 5 km radius of the proposed Development and will be scoped out of the initial assessment and cumulative assessment beyond this distance.

The precise scope of the cumulative assessment would be agreed with consultees nearer the time of the submission, usually within 12 weeks prior to submission. The proposed scope of the cumulative assessment would focus on where there may be likely significant effects which may influence the outcome of the consenting process.

A Residential Visual Amenity Assessment (RVAA) will be included as a separate technical appendix. This will assess the potential effects of the proposed Development on the visual amenity of residential properties. A 2 km study area from the outermost turbines is proposed for this assessment.

As the turbines proposed are over 150m to tip, they would require visible aviation lighting. We are currently developing a Lighting Strategy with an Aviation specialist in consultation with the CAA for this proposed development. It is expected that the directional intensity / shielding of lights and reduced intensity of lights in clear conditions (from 2000cd to 200cd) would be included as mitigation. In addition to this, there is emerging acceptance of cardinal or perimeter lighting schemes on suitable sites. If this is acceptable on this site, this could reduce the overall number of turbines which require lighting and will likely form the basis of the Lighting Strategy on site. We will also be investigating other forms of mitigation such as radar activated lighting and siting/design considerations. This will be documented within the EIAR.

The agreed Lighting Strategy will form the basis of the assessment and visual material presented. An assessment of night-time impacts on landscape and visual receptors will be carried out and presented as a separate appendix in the

LVIA. We propose a 15km study area for this assessment. Whilst we appreciate that even with the mitigation mentioned above the lights would be visible beyond 15km, the effect is unlikely to be significant.

To assess the effects on visual receptors in the study area we propose to include dusk/dawn visualisations from the following proposed viewpoints. These locations are within 15km of the proposal, safe to obtain the night time photography and would represent the potential effect on visual receptors who would be sensitive to views at night.

- VP 5 Minor road in upper Shinnel Water, near Auchenbrack; and
- VP 10 Sanquhar High School/Station

To assess the effects on landscape receptors in the study area, we propose to include wireline diagrams with the lights indicated at the following proposed viewpoints. From our experience, this area is very dark at night. As a result, the baseline photography is likely to add very little additional information to our understanding of the baseline. These locations are within 15km of the proposal and would represent the potential effect on the local landscapes and designated landscapes which are most sensitive to change.

- VP 3 Blackcraig Hill - East Ayrshire Sensitive Landscape;
- VP 7 Cairnsmore of Carsphairn – Galloway Hills RSA;
- VP 9 Auchengibbert Hill – Thornhills Uplandss RSA;

The photomontage visuals would include a night time baseline photograph and photomontage for comparative purposes. The photomontage and wireline diagrams would illustrate the visible Lighting Strategy adopted for this proposal. We also propose to include two figures:

- Landscape character and existing lighting environment; and
- ZTV out to a 15km radius illustrating potential visibility of the hub and tower lights in the visible Lighting Strategy.

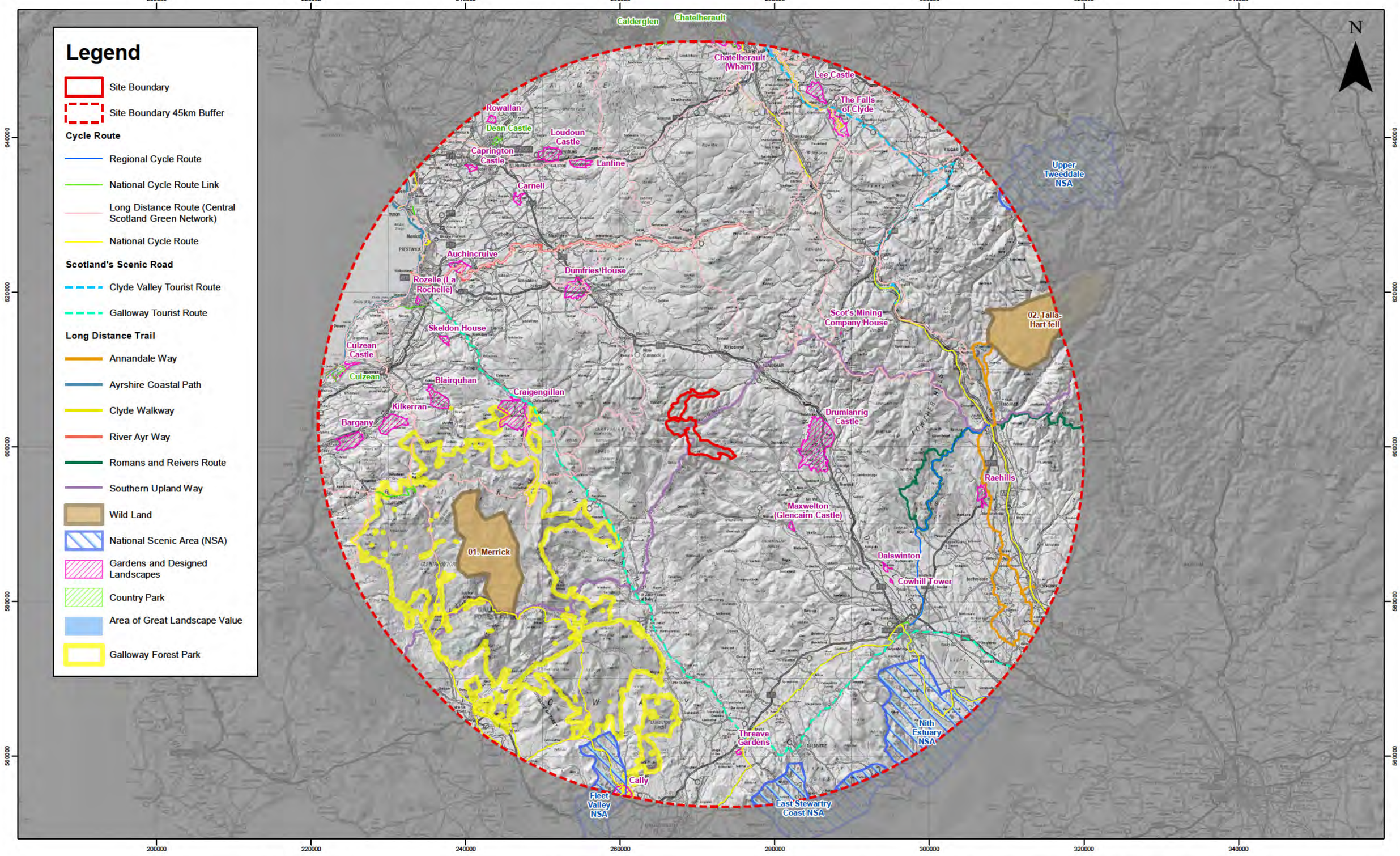
Matters to be Scoped Out

It is considered that a wild land assessment should not be required, due to the separation distance.

It is also proposed to scope out of the LVIA further specific landscape and visual receptors and landscape designations in consultation with Dumfries and Galloway Council, East Ayrshire and SNH when the design of the proposed Development is closer to finalisation and more is known regarding the potential impacts.

Consultee Questions

- Do consultees agree that the proposed study areas are acceptable?
- Are the proposed candidate viewpoints acceptable?
- Do consultees agree that a wild land assessment is not required?
- Please confirm any additional requirements that you consider should be included in this element of the EIA, that have not been covered in this fact sheet.
- Is the scope of night time assessment and graphic material adequate for the EIAR?



SCOTTISHPOWER RENEWABLES

Rev	Date	By	Comment
A	14/02/20	LM	First Issue.

1:450,000 Scale @ A3

0 5 10 15 20 Km

Euchanhead Renewable Energy Development

Scoping Report

Landscape and Visual Context: National Datasets

Drg No	00481.00052.0100.0
Rev	A
Date	14/02/20
Figure	1

Datum: OSGB36
Projection: TM

Legend

- Site Boundary
- Site Boundary 45km Buffer
- Local Authority Boundary
- Dumfries and Galloway Regional Scenic Area
- East Ayrshire Sensitive Landscape Area
- South Ayrshire Scenic
- South Lanarkshire Special Landscape Area
- Scottish Borders Area of Great Landscape Value
- Galloway Dark Skies - Core Area
- Galloway Dark Skies - Park Boundary
- Dumfries and Galloway Dark Sky Park Transitional Area

Lower Clyde and Calderglen
Lower Clyde and Calderglen
Pentland Hills and Black Mount
Middle Clyde Valley
Upper Clyde Valley and Tinto
Douglas Valley
SeLa No.1
Leadhills and Lowther Hills
SeLa No.3
Moffat Hills
Thornhill Uplands
Galloway Hills
Terregles Ridge
Torthorwald Ridge
Solway Coast
Solway Coast
Solway Coast

N

200000 220000 240000 260000 280000 300000 320000 340000

640000 620000 600000 580000 560000

SCOTTISHPOWER RENEWABLES					1:450,000 Scale @ A3	0 5 10 15 20 Km	**Euchanhead Renewable Energy Development** Scoping Report Landscape and Visual Context: Local Dataset
	A	14/02/20	LM	First Issue.			
	Rev	Date	By	Comment			

Drg No	00481.00052.0099.0	
Rev	B	Datum: OSGB36 Projection: TM
Date	14/02/20	
Figure	2	

Legend

- Site Boundary
- Site Boundary 45km Buffer
- Local Authority Boundary

SNH Landscape Character Assessment

- 346 / Open Farmed Slopes
- 219 / Broad River Valley
- 218 / Rounded Landmark Hills
- 217 / Southern Uplands - Glasgow & Clyde Valley
- 214 / Plateau Moorland with Windfarms - Glasgow & Clyde Valley
- 213 / Plateau Moorlands - Glasgow & Clyde Valley
- 210 / Undulating Farmland and Hills
- 209 / Upland Glen - Glasgow & Clyde Valley
- 208 / Broad Valley Upland
- 207 / Upland River Valley - Glasgow & Clyde Valley
- 206 / Broad Urban Valley
- 204 / Incised River Valleys
- 202 / Rugged Upland Farmland
- 201 / Plateau Farmland - Glasgow & Clyde Valley
- 200 / Rolling Farmland - Glasgow & Clyde Valley
- 181 / Rugged Uplands with Forest - Dumfries & Galloway
- 180 / Rugged Uplands - Dumfries & Galloway
- 179 / Coastal Uplands
- 178 / Southern Uplands with Forest - Dumfries & Galloway
- 177 / Southern Uplands - Dumfries & Galloway
- 176 / Foothills with Forest - Dumfries & Galloway
- 175 / Foothills - Dumfries & Galloway
- 174 / Plateau Moorland with Forest - Dumfries & Galloway
- 172 / Upland Fringe - Dumfries & Galloway
- 170 / Coastal Plateau - Dumfries & Galloway
- 169 / Drumlin Pastures
- 168 / Drumlin Pasture in Moss and Moor Lowland
- 166 / Upland Glens - Dumfries & Galloway
- 165 / Upper Dale - Dumfries & Galloway
- 164 / Flooded Valley
- 163 / Middle Dale - Dumfries & Galloway
- 162 / Lower Dale - Dumfries & Galloway
- 161 / Pastoral Valley - Dumfries & Galloway
- 160 / Narrow Wooded River Valley - Dumfries & Galloway
- 158 / Coastal Flats - Dumfries & Galloway
- 157 / Peninsula with Gorsey Knolls
- 156 / Peninsula
- 116 / Upland Valley with Woodland
- 113 / Upland Valley with Pastoral Floor
- 102 / Upland Fringe with Prominent Hills
- 96 / Southern Uplands with Forest - Borders
- 95 / Southern Uplands - Borders
- 92 / Plateau Outliers
- 83 / Rugged Upland - Ayrshire
- 82 / Southern Uplands with Forest - Ayrshire
- 81 / Southern Uplands - Ayrshire
- 79 / Plateau Moorland with Windfarms - Ayrshire
- 78 / Plateau Moorland - Ayrshire
- 77 / Low Hills - Ayrshire
- 76 / Foothills - Ayrshire
- 75 / Lowland Hills - Ayrshire
- 74 / Upland Basin - Ayrshire
- 73 / Upland Glen - Ayrshire
- 72 / Pastoral Valleys - Ayrshire
- 71 / Middle Dale - Ayrshire
- 70 / Lower Dale - Ayrshire
- 69 / Upland River Valleys - Ayrshire
- 68 / Lowland River Valleys - Ayrshire
- 66 / Agricultural Lowlands -
- 63 / Coastal Valley with Policies
- 62 / Coastal Headlands
- 60 / Low-Lying Coast
- 59 / Raised Beach Coast and Cliffs
- 0 / Urban

N

180000 200000 220000 240000 260000 280000 300000 320000 340000

640000 620000 600000 580000 560000

SCOTTISHPOWER RENEWABLES

Rev	Date	By	Comment
A	14/02/20	LM	First Issue.

1:450,000 Scale @ A3

0 5 10 15 20 Km

Euchanhead Renewable Energy Development

Scoping Report

Landscape Character Assessment within 45km

Drg No	00481.00052.0101.0
Rev	A
Date	14/02/20
Figure	3

Datum: OSGB36
Projection: TM

Legend

- Indicative Turbine Location
- Candidate Viewpoint
- Site Boundary
- Site Boundary 5-20km Buffers

Zone of Theoretical Visibility No. of Turbine Blade Tips Visible

- High : 20 Turbines Vis ble
- Low : 1 Turbine Visible

Note

This Zone of Theoretical Visibility (ZTV) has been generated using ESRI ArcGIS Spatial Analyst extension. The digital terrain model (DTM) has been derived from OS Terrain 50 dataset (+/-10m). Earth curvature has been included in the ZTV calculation and refraction of light has been applied using SNH guidance settings. The ZTV has been generated from a viewing height of 2m above ground level which falls within recommenda ions by "Visual Representation of Windfarms" prepared for Scottish Natural Heritage (SNH) February 2017 - Version 2.2.

The use of ZTV mapping at this stage is limited and he folowing assumptions should be noted:

- The ZTV has been generated using the proposed turbine locations for Euchanhead.
- The proposed turbine blade tips heights of 225m have been used for generating the ZTV.
- The ZTV is generated from a bare earth terrain and does not account for the screening effect of features within the landscape such as settlements and woodland. It does not indicate potential visual effects or show the likely significance of effects. It shows potential theoretical visibility only. The ZTV has been produced for he purpose of informing 'on the ground' visual assessment.
- The ZTV colour palette has been specifically developed to assist viewers with reduced sensitivity to red, green and blue light.
- The ZTV has been generated up to 45km from the proposed Euchanhead turbines.

SCOTTISHPOWER RENEWABLES

Rev	Date	By	Comment
B	14/02/20	JRS	Amendments following comments
A	15/01/20	JRS	First Issue.

1:180,000 Scale @ A3

0 4 25 8.5 Km

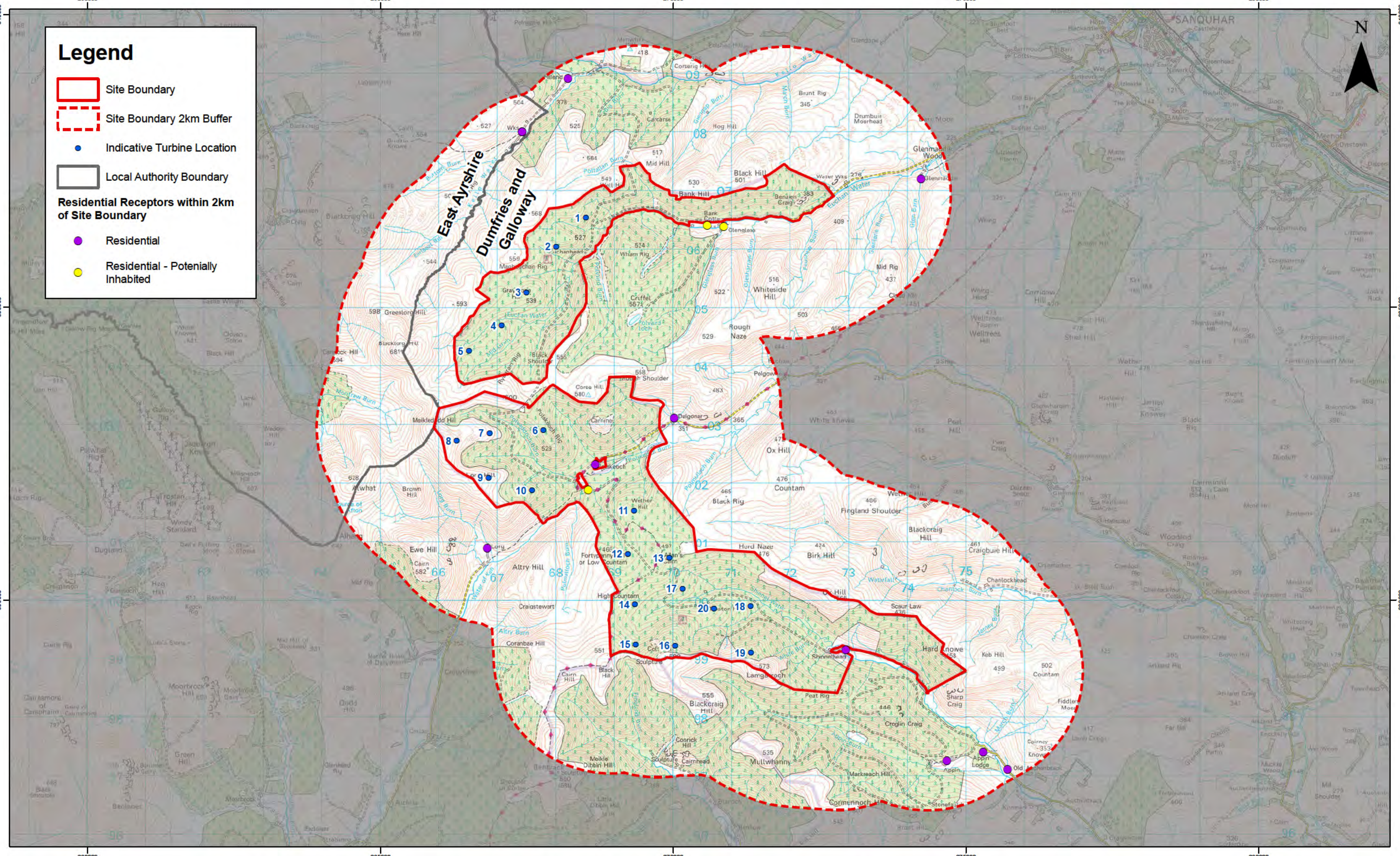
Euchanhead Renewable Energy Development

Scoping

Candidate Viewpoints

Drg No	00481.00052.0088.1
Rev	B
Date	14/02/20
Figure	4

Datum: OSGB36 Projection: TM



B	13/02/20	JRS	Amendments following comments
A	15/01/20	LM	First Issue.
Rev	Date	By	Comment

1:60,000
Scale @ A3

0 1 2 3 Km

Euchanhead Renewable Energy Development

Scoping Report

Residential Receptors

Drg No	00481.00052.0069.1	
Rev	B	Datum: OSGB36 Projection: TM
Date	14/02/20	
Figure	5	

Legend

- Site Boundary
- Site Boundary 5-15 km Buffers

Cumulative Wind Farm Developments Status

- Operational
- Consented
- In Planning

Cumulative Windfarms

1 - Afton
2 - Benbrack
3 - Blackcraig
4 - Blackhill to Magheuchan (Sanquhar) Wind Farm
5 - Enoch Hill Windfarm
6 - Glenmuckloch
7 - Glenshimmeroch
8 - Hare Hill
9 - Hare Hill Extension 2
10 - Knockman Hill
11 - Lethans
12 - Longburn
13 - Lorg * (Consented but Variation in planning)
14 - Magheuchan Rig (Sanquhar Six)
15 - Margree
16 - North Kyle Wind Farm
17 - Over Hill Wind Farm
18 - Penbreck/Carmacoup Forest Wind Farm
19 - Pencloe Wind Farm
20 - Sandy Knowe
21 - Sanquhar II
22 - Shepherd's Rig
23 - South Kyle
24 - Sunnyside
25 - Twentyshilling Hill
26 - Wether Hill
27 - Wether Hill Extension
28 - Whiteside Hill
29 - Windy Rig
30 - Windy Standard
31 - Windy Standard Extension
32 - Windy Standard III

5km
10km
15km

240000 260000 280000 300000
620000 600000 580000

Rev	Date	By	Comment
A	14/02/20	LM	First Issue.

1:200,000 Scale @ A3

0 4 8 Km

Cumulative Wind Farms Status Correct as of 08/02/2019

Euchanhead Renewable Energy Development
Scoping Report
Cumulative Windfarm Sites

Drg No	00481.00052.0104.0
Rev	A
Date	14/02/20
Figure	6

Datum: OSGB36
Projection: TM

Ecology & Biodiversity

Relevant Policy and Guidance

The following list covers the main guidance documents that will be referred to with respect to terrestrial ecology:

- Chartered Institute of Ecology and Environmental Management (CIEEM) (2018). Guidelines for ecological impact assessment in the UK and Ireland. Version 1.1.
- Scottish Natural Heritage (SNH) (2012). Assessing the cumulative impact of onshore wind energy developments.
- SNH (2018). General pre-application/ scoping advice to developers on onshore wind farms.
- Scottish Environment Protection Agency (SEPA) (2017). Land use planning guidance note LUPS-31: Guidance on assessing the impacts of development proposals on ground water abstractions and ground water terrestrial ecosystems.
- SNH et al. (2019). Bats and onshore wind turbines - survey, assessment and mitigation.

Baseline

The following ecology surveys and desk-based studies were undertaken in 2018-19 and a summary of the methods used and key findings is provided in the following paragraphs:

- Ecology desk study (including review of surveys previously undertaken at the site in 2013);
- Vegetation surveys (National Vegetation Classification (NVC) and Phase 1);
- Protected mammal survey (excluding bats);
- Fish habitat survey; and
- Bat surveys.

The survey area for fish habitats, protected mammals and vegetation was the area within the application boundary plus a 250 m buffer area along the application boundary to the northwest of Polskeoch roughly between Altry Hill and Meikledodd Hill. No access was permitted for surveys out with the application boundary in other areas. Surveys were completed in October 2019.

Ground level, automated bat detector surveys were undertaken in the Euchanhead area between May and September 2018 and in the Polskeoch area in 2019.

Desk Study

Protected and notable species

Desk study data (from the local records centre and relevant ecological reports for nearby development proposals) included records for the following protected or notable species from within 2 km of the application boundary:

- Eight species of mammals, including the legally protected species otter, water vole, badger, pine marten and red squirrel;
- At least eight species of bat (within 10 km of the application boundary), including common pipistrelle, soprano pipistrelle, noctule and Leisler's, all of which are considered to be at high risk from wind turbines under current guidelines;
- Three species of reptile, common lizard, slow-worm and adder;
- Two species of fish, Atlantic salmon and brown trout;
- Twenty-one species of insect, in particular species reliant on wetland and heath habitats;

- Two species of plant, juniper and field gentian; and
- Ten species of lichen/ lungwort.

Surveys for great crested newt were carried out in the area in 2007 during the EIA for the South West Scotland interconnector project and in 2013 for an earlier proposal on the Site, however no great crested newts were found.

Designated sites

Statutory designated sites of nature conservation importance within 10 km of the application boundary are summarised in Table 1 and include:

- The Muirkirk and North Lowther Uplands Special Protection Area (SPA), this is designated only for its ornithological interest and therefore is not relevant in terms of non-avian ecology;
- Mennock Water Site of Special Scientific Interest (SSSI) is designated for wetland habitat associated with riparian zones however this site is upstream of the Euchanhead so there is no hydrological connectivity with the Site.

Other sites listed in Table 1 are designated for ornithology interest, which are not of relevance to the ecology EIA and terrestrial habitats (woodland, juniper and upland habitats).

Table 1: Statutory Designated Sites

Name	Designation	Distance to Site Boundary (km)	Direction from Site	Qualifying Features Summary
Muirkirk and North Lowther Uplands	SPA	6.38 (to nearest area)	NE	Golden plover, hen harrier, merlin, peregrine and short-eared owl.
Upper Nithsdale Woods	SAC	4.93 (to nearest area)	E	Multiple small areas of mixed woodland on base-rich soils associated with rocky slopes.
Tynron Juniper Wood	SAC	9.66	SE	Juniper on heaths or calcareous grasslands.
Back Wood	SSSI	7.33	NE	Upland oak woodland
Mennock Water	SSSI	8.08	NE	Fen meadow and Upland oak woodland
Stenhouse Wood	SSSI	6.78	SE	Upland mixed ash woodland
Tynron Juniper Wood	SSSI	9.66	SE	Juniper scrub
North Lowther Uplands	SSSI	6.38	NE	Breeding bird assemblage, hen harrier and upland habitats.
Chanlockfoot	SSSI	4.93 (to nearest area)	E	Mixed woodland on base-rich soils associated with rocky slopes
Muirkirk Uplands	SSSI	8.27	N	Blanket bog, breeding bird assemblages, hen harrier, short eared owl and upland habitats.

Ancient Woodland

There are a number of areas of woodland in the area surrounding the Site that are listed on the Ancient Woodland Inventory (AWI), the closest is within 132 m of the application boundary, however none are within the application boundary.

Local Wildlife Sites and Other Non-Statutory Designations

Two Local Wildlife Sites (LWS) are within 2 km of the Site boundary: Glenmaddie Wood LWS (2 km downstream of the Site on either side of the Euchan Water), and Afton Uplands Provisional LWS (adjacent to the north western edge of the Polskeoch area). In addition, the Site and 2 km buffer area is entirely overlapped by the Galloway and Southern Ayrshire Biosphere reserve, and all forestry within the Site are former red squirrel priority woodlands. Whilst these areas have now been superseded in terms of strategic priorities by the Red Squirrel strongholds, these sites indicate habitats considered to be of local importance for Red Squirrels.

Vegetation

Surveys were completed following methods outlined in the Handbook for Phase 1 Habitat Surveys[1] and National Vegetation Classification (NVC) User's Handbook[2]. The potential for groundwater dependency was identified via NVC survey in line with SEPA LUPS guidance[3].

The 2,456 hectare (ha) survey area supports over 2,000 ha of coniferous plantation or recently-felled coniferous plantation. These areas and other highly modified habitats such as improved grassland were not subject to NVC survey.

The Phase 1 and NVC survey results show that the remainder of the survey area is predominantly covered with acid grassland and peatland habitats, including blanket bog, wet and dry modified bog, and marshy grassland communities. In addition, there are smaller areas of wet and dry heath, semi-improved neutral grassland and bracken present. Of the peatland habitats, only less modified, more Sphagnum rich bog community polygons were classed as blanket bog (55.86 ha) with the rest being attributed to marshy grassland (38.37 ha) and wet (7.94 ha) or dry (23.75 ha) modified bog.

The locations of potential Groundwater Dependent Terrestrial Ecosystem (GWDTE) habitats were mapped based on the NVC data, as per Scottish Environment Protection Agency (SEPA) guidance. It must be stressed that the NVC survey is only able to identify communities which are potentially groundwater dependent and in practice some of the areas may not actually represent GWDTEs. Current SEPA guidance states that*, "if any GWDTEs are located within a radius of (i) 100 m from roads, tracks and trenches or (ii) 250 m from borrow pits and foundations the likely impact of these features will require further assessment"*. Further assessment of potential GWDTEs will be presented in the Hydrology, Hydrogeology, Geology and Soils chapter of the EIA Report.

Protected Mammals (Excluding Bats)

A Site walkover was undertaken looking for signs of protected mammals in line with standard methodologies[4]. Along watercourses the walkover was completed for otter and water vole at the same time as fish habitat surveys.

The Site offers suitable habitat for a range of protected mammal species including otter, water vole, badger, red squirrel and pine marten. Evidence of pine marten activity, including a potential den or resting site, was widespread within the survey area.

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[1] Joint Nature Conservation Committee. 2010. Handbook for Phase 1 habitat survey: a technique for environmental audit. JNCC, Peterborough.

[2] Rodwell, J. S. 2006. National Vegetation Classification: Users' handbook. JNCC, Peterborough: http://data.jncc.gov.uk/data/a407ebfc-2859-49cf-9710-1bde9c8e28c7/JNCC-NVC-UsersHandbook-2006.pdf

[3] SEPA. 2014. Land use planning system SEPA guidance note 31. Guidance on assessing the impacts of development proposals on groundwater abstractions and ground water dependent terrestrial ecosystems.

[4]

- Ward D, Holmes N and José P (1994) *The New Rivers and Wildlife Handbook*. RSPB, Bedfordshire.
- Bang, P. and Dahlstrom, P. (2001) *Animal Tracks and Signs*. Oxford University Press.
- Dean, M., Strachan, R., Gow, D. and Andrews, R. (2016). *The Water Vole Mitigation Handbook (The Mammal Society Mitigation Guidance Series).* Eds Fiona Mathews and Paul Chanin. The Mammal Society, London. https://assets.sussexwildlifetrust.org.uk/water-vole-mitigation-guidance-2016.pdf
- Neal E. and Cheesman C. (2006) *Badgers*. Poyser Natural History, Cambridge, UK.
- Bang, P. & Dahlstrøm, P. 2001. Animal Tracks and Signs. Oxford University Press, Oxford

The majority of squirrel evidence was observed within the Polskeoch area, although chewed cones were also found in the Euchanhead area. No dreys were found during the surveys, this is likely due to low squirrel densities on site and the densities of trees which limited access to coupe interiors, rather than the absence of any dreys. Based on the habitat present and following a precautionary approach it is assumed that all squirrel signs are of red squirrel.

Evidence of otter activity was recorded on five of the watercourses surveyed indicating that otter activity is widespread along suitable watercourses in this area, although no holts or other resting places were recorded.

No signs of water vole or badger were recorded during the surveys, but these results do not necessarily preclude the possibility of these species being present within the application boundary. Badger, and water vole if present, may be at very low density or only use the Site occasionally.

Fish habitats

The fish habitat survey was undertaken by Nith District Salmon Fisheries Board, along watercourses following the standard Scottish Fisheries Coordination Centre methodology.

This study identified presence of habitat that is suitable for sustaining salmonid species of fish in the Euchan Water, Shinnel Water, Scaur Water and Water of Ken catchments. Archive fisheries data on some of these watercourses proves the above statement for those watercourses. The study also noted that American signal crayfish are known to be present in the Ken catchment, although white-clawed crayfish are very unlikely to be present at Euchanhead or the surrounding area (NDSFB, pers. comm.). No freshwater pearl mussels were noted during the survey however habitat favoured by freshwater pearl mussels was present in most of the watercourses.

Bats (Euchanhead Area 2018)

A daytime assessment of the Site was conducted in April 2018. During the walkover assessment no suitable roosting locations were found for bats.

Ground level automated recorders (AnaBat Express bat detectors with omni-directional microphone) were positioned at nine locations throughout the site for a minimum of 30 nights per season (spring, summer and autumn) totalling 810 nights of data. The detectors recorded between sunset and sunrise. The detectors were placed in the vicinity of indicative turbine locations. These surveys were completed before the 2019 SNH guidance requiring full spectrum detectors and collection of weather data was issued. However, with the exception of the detector type used, the surveys are largely compliant with the 2019 guidance and recorded for three times as many nights are recommended in the 2019 guidance (30 nights per season rather than 10 nights per season). The 2018 survey data are therefore considered to be suitable for use in the EIA.

Most bat activity recorded was during the summer (1.42 Bat Passes per Hour (BPpH)), with lower levels in the spring (0.08 BPpH) and the lowest in the autumn (0.01 BPpH). The higher levels of activity during summer could have been due to the increased insect activity which will have been associated with warmer weather conditions.

The most commonly encountered species was soprano pipistrelle, followed by common pipistrelle. The pipistrelle species accounted for 92.46% of the total bat passes. *Myotis* sp., *Nyctalus* sp (i.e. Leisler's or noctule) and brown long-eared bats were recorded much less frequently, with *Myotis* accounting for 4.35%, *Nyctalus* for 1.94% and brown long-eared for 1.15% of the total bat passes.

Bats (Polskeoch Area 2019)

A habitat and potential roost assessment of the survey area was carried out in May 2019. Four structures with the potential to support roosting bats were recorded: Polskeoch Bothy, Tin Hut and Polskeoch Farmhouse and Garage. The assessment followed the methodology detailed in Collins (2016)[5] and comprised an inspection of all accessible areas of the structures to identify features likely to be used by roosting bats.

Dusk emergence and dawn re-entry surveys were completed on the four buildings with roost potential in August and September 2019. These surveys found three roosts: a soprano pipistrelle maternity roost (the Bothy) , and two non-breeding pipistrelle species bat roosts (the Bothy and the Farm House); and a potential brown-long eared bat (1 individual) roost at (the Bothy), this bat was seen but not picked up on the acoustic detectors so species is not certain. The south east of the bothy was found to support a maternity roost for soprano pipistrelle bats with a peak count of 83.

[5] Collins, J. (ed.) (2016) Bat surveys for professional ecologists: Good practice guidelines (3rd edn). The Bat Conservation Trust, London: https://cdn.bats.org.uk/pdf/Resources/Bat_Survey_Guidelines_2016_NON_PRINTABLE.pdf?mtime=20181115113931

Bat activity surveys were undertaken between May and October 2019. Static detectors were deployed at 13 locations; 11 on Polskeoch and a further two on open ground northwest of Euchanhead. Activity was recorded using a mix of Song Meter SM2BAT (recording in full spectrum) and Anabat Express (recording in zero-crossing) detectors (the mix of detector types was agreed with SNH prior to survey). Static detectors were deployed for a minimum of 10 nights in each of: spring, summer and autumn. The daily weather data for the static recording deployment periods were provided from the SPR met mast at Eliock weather station (approximately 4.5 km west of Euchanhead). Daily rainfall was collected from the Scottish Environment Protection Agency (SEPA) rainfall data website.

Static detector surveys identified the presence of a minimum of six species of bats: common pipistrelle, soprano pipistrelle, Daubenton's, Leisler's, noctule and brown long-eared bats, with peak activity during the autumn dispersal/mating season.

Proposed Additional Baseline Work

As water levels were very high at the time of the October 2019 survey it is possible that otter and water vole signs were either submerged or had been washed away. On that basis and given also that the water vole survey was slightly later in the season than their peak activity period (April to September), a second water vole and otter survey will be undertaken in spring 2020 to inform the EIA. As direct impacts to water vole and otter are only likely within 250 m of proposed infrastructure, this survey will be limited to within 250 m of potential infrastructure locations (if known at the time of survey). Survey would take place following the same methodology used in 2019.

Freshwater habitats within the survey area may be suitable for freshwater pearl mussel (FWPM). It is therefore proposed to undertake surveys for this species, in the vicinity of proposed water crossing locations (once known), as water crossing construction is the only aspect of the proposed Development likely to result in direct impacts on FWPM, assuming water quality is protected. Surveys would either take place: a) as per SNH guidance (Freshwater Pearl Mussel Survey Protocol for use in site-specific projects), which involves field searches within suitable FWMP habitat 0.1 km upstream and 0.5 km downstream of proposed crossing locations, in low flow conditions, under licence, between April and September; or b) by eDNA sampling. We would welcome consultee views on this.

No other surveys are considered necessary to inform the EIA, although some further surveys such as electro-fishing surveys and pre-construction checks for protected species are anticipated to be required prior to construction, should the project be consented.

At this stage we do not anticipate that infrastructure will be placed closer than 250 m from the edge of the area surveyed, and therefore consider that the extent of the survey area is sufficient. However, should infrastructure be placed closer than 250 m from the application boundary where the 250 m site buffer has not been surveyed, then we propose to undertake top-up surveys within 250 m (access permitting).

The access route to the Site is still being investigated and surveys and assessment may be required, depending on the location of the route and whether it is entirely located on existing tracks or whether new track construction is required. The scope of survey work and assessment required can only be determined once the location of the access route has been confirmed.

Potentially Significant Effects

Construction

Avoidance of important habitats and resting places for protected/notable species, along with the implementation of good practice mitigation measures to prevent disturbance of protected mammals and protect water quality and GWDTE, will limit the potential for significant negative effects on ecological features during construction. However, until the proposed Development layout has been finalised and the assessment is completed, it is not known whether significant effects are likely. Potential negative effects during construction include but are not limited to:

- Permanent/temporary loss of important habitats and/or habitats used by protected species;
- Disturbance to protected/notable species; and
- Pollution to watercourses and associated impacts on aquatic species.

The proposed Development is also likely to result in positive effects through the implementation of a Habitat Management Plan (HMP). The scope of any HMP will be determined during the EIA process and a Draft HMP will be provided with the EIA Report.

Operation

Avoidance of important habitats for protected/notable species, along with the implementation of good practice mitigation measures to prevent disturbance and protect water quality, will limit the potential for significant negative effects on ecological features during operation. However, until the proposed Development layout has been finalised and the assessment is completed, it is not known whether significant effects are likely. Potential operational effects may include but are not limited to:

- Bat mortality due to collision with turbines (or Barotrauma);
- Disturbance to protected or notable species during operation and maintenance work or mortality to such species due to, e.g. traffic collisions; and
- Pollution to watercourses and associated impacts on aquatic species.

Matters to be Scoped Out

We propose to scope out the following from further survey to inform the EIA:

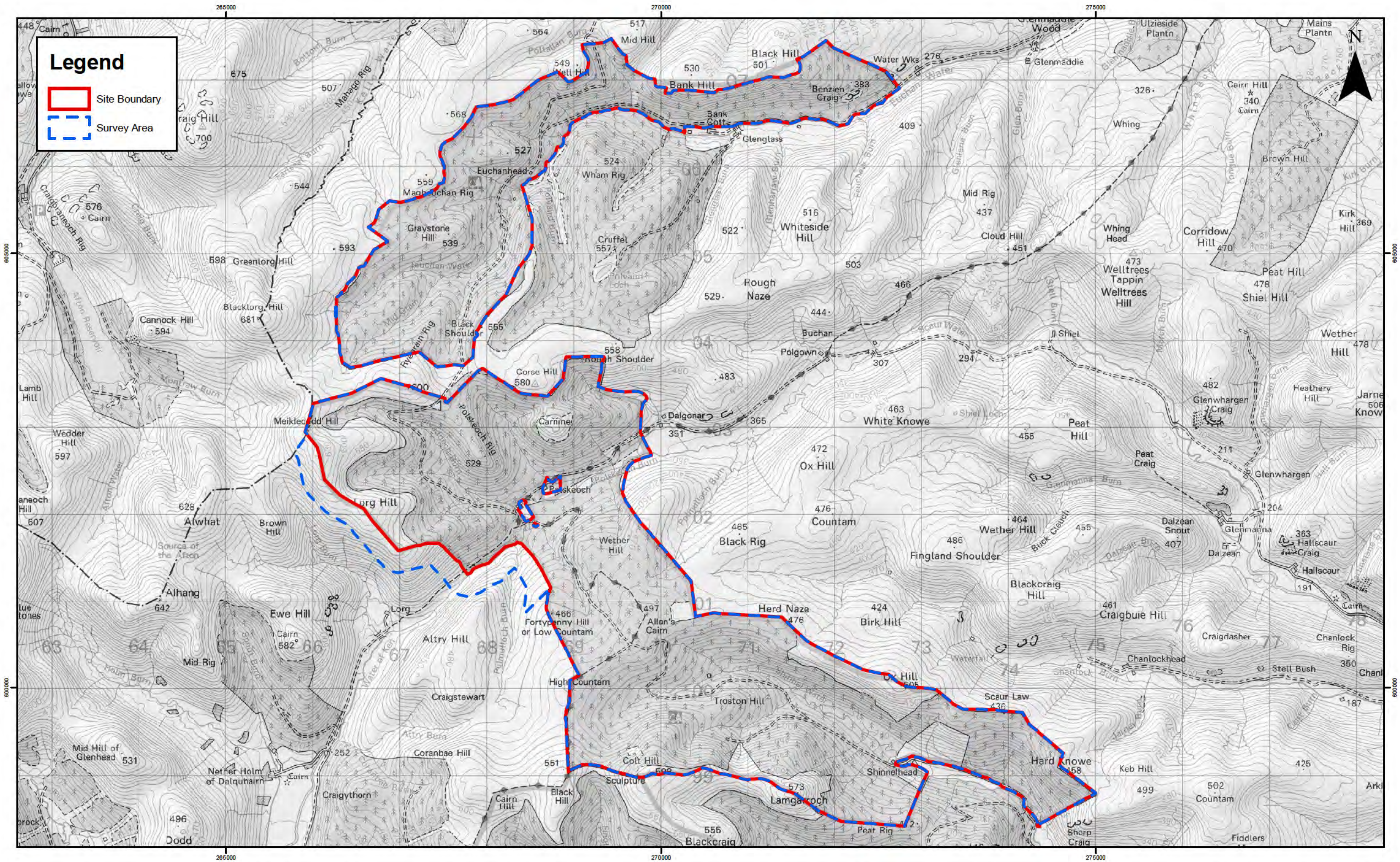
- Reptiles, amphibians and invertebrates (with the exception of European Protected Species (EPS)) – based on SNH's general guidance for windfarm developers it is not proposed to survey for these species to inform the EIA. With standard mitigation measures in place these species are unlikely to experience a significant effect during construction/ operation of onshore windfarms.
- Great Created Newt is an EPS, a desk study and habitat suitability assessment of pools on site has been undertaken for this species. There are no local records for the species, despite surveys having been undertaken and only low suitability habitat on site. GCN is therefore very unlikely to be present and no further surveys for GCN are considered necessary.
- It is proposed to assess potential impacts to fish based on historic records and habitat suitability, therefore detailed fish surveys are not considered necessary to inform the EIA.

We propose to scope out the following from the terrestrial ecology assessment in the EIA:

- Impacts on statutory designated sites; and
    - The Muirkirk and North Lowther Uplands SPA is designated only for its ornithological interest and therefore is not relevant in terms of non-avian ecology;
    - Mennock Water SSSI is designated for wetland habitat associated with riparian zones however this site is upstream of the Euchanhead so there is no hydrological connectivity with the Site; and
    - Other designated sites within 10 km (Upper Nithsdale Woods SAC, Tynron Juniper Wood SAC/ SSSI, Back Wood SSSI, Stenhouse Wood SSSI, North Lowther Uplands SSSI, Chanlockfoot SSSI, Muirkirk Uplands SSSI) are designated either for their ornithology interest (which is not relevant to non-avian ecology or terrestrial habitats (woodland, juniper and upland habitats), which given the intervening distances are not likely to be affected by the proposed Development.
- Impacts on Ancient Woodland: as there is no ancient woodland on site, and as ancient woodland is a terrestrial habitat and given the intervening distance, ancient woodland outwith the application boundary is not considered to be ecologically connected with the Site and is therefore not likely to be affected by the proposed Development.

Consultee Questions

- Please confirm that you are satisfied with the level of ecological survey effort undertaken/ proposed for EIA purposes?
- Please confirm that you are satisfied with the surveys proposed to be scoped out and features proposed to be scoped out of detailed consideration within the EIA?
- Please confirm if you consider eDNA sampling for freshwater pearl mussel to be an acceptable alternative to traditional searches as per SNH guidance.
- Please confirm any additional requirements that you consider should be included in this element of the EIA, that have not been covered in this fact sheet.



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Euchanhead Renewable Energy Development

Scoping Report

Ecology Field Survey Area

Drg No	00481.00052.0087.0	
Rev	A	Datum: OSGB36 Projection: TM
Date	14/02/20	
Figure	01	

Ornithology

Relevant Policy and Guidance

The assessment will be undertaken in accordance with the following relevant legislation and guidance:

- SNH Guidance: Assessing Connectivity with Special Protection Areas (SPAs) (SNH, 2016);
- SNH Guidance: use of avoidance rates in the SNH wind farm collision risk model (SNH, 2017);
- Environmental Impact Assessment Directive 2014/52/EU;
- The Wildlife and Countryside Act (as amended) (WCA);
- The Conservation (Natural Habitats, &c) Regulations 1994 (as amended) ('The Habitats Regulations');
- The Nature Conservation (Scotland) Act 2004 (as amended);
- The Council Directive on the Conservation of Wild Birds 2009/147/EC ('The EU 'Birds Directive'); and
- The Electricity Works (Environmental Impact Assessment) (Scotland) Regulations 2017

Baseline

The Site is not covered by any statutorily designated nature conservation site. The nearest designated sites to the Site include:

- Muirkirk and North Lowther Woods Special Protection Area (SPA) is located approximately 9 km at its closest point to the north-east of the Site and is designated for regularly supporting breeding populations of European importance of hen harrier, short-eared owl, merlin, peregrine and golden plover as well as wintering hen harrier.
- North Lowther Uplands Site of Special Scientific Interest (SSSI) is located approximately 9 km to the north-east of the Site at its closest point and is designated for its upland habitats, breeding bird assemblage and for breeding hen harrier. The SSSI lies within the Muirkirk and North Lowther Woods SPA.
- Muirkirk Uplands SSSI is located approximately 10 km to the north of the Site at its closest point and is designated for nationally important blanket bog, dry heath and acid grassland. It also supports outstanding assemblages of upland breeding birds. The SSSI lies within the Muirkirk and North Lowther Woods SPA.

The following desk based studies and field based baseline studies have been undertaken:

- Ornithology Desk Study including a review and summary of extensive surveys undertaken on the site between 2012 and 2016.
- One full breeding season of flight activity surveys in 2019 and ongoing flight activity surveys during the 2019/2020 non-breeding season, to be completed in 2020.
- Breeding bird surveys of open ground in 2019.
- Scarce breeding bird surveys in 2019.
- Black Grouse surveys in 2019.

All field surveys have been undertaken following the Scottish Natural Heritage (SNH) Guidance (20171) as well as other relevant generic and species-specific survey guidance. Copies of the full baseline report can be provided on request along with summaries of historical data from between 2012 and 2016. The survey findings suggest the proposed Development is of low interest to birds.

An interim Ornithology report was submitted to SNH for initial consultation based upon the findings of the 2019/2020 survey work undertaken to date and the historic data collected on site. It was proposed that one single year of survey

[1] SNH Guidance: Recommended bird survey methods to inform impact assessment of onshore wind farms (2017)

will be sufficient to inform a robust assessment of the ornithological interests of the proposed development, due to low levels of flight activity of protected bird species over the site and no indication that the site and wider survey area is a sensitive area for bird interests.

SNH have confirmed that the proposal for one single year of survey data is sufficient to inform the ornithology assessment, subject to the findings of the remainder of the survey work to be completed, up to March 2020, being consistent with the interim survey results.

Potentially Significant Effects

Taking account of the findings of the work undertaken to date in the local area, potential effects on birds associated with the construction and operation of the proposed Development include:

- a short-term reduction in breeding or wintering bird populations due to construction disturbance (affecting breeding or foraging behaviour and causing reductions in productivity or survival);
- a long-term reduction in breeding or wintering bird populations due to the loss of habitat critical for nesting or foraging. This may arise as a consequence of direct loss of habitat under infrastructure or disturbance/displacement as a result of operational activities;
- a long-term reduction in breeding or wintering bird populations due to collision mortality. If collision risk is identified as a concern, predicted collision rates will be calculated through theoretical collision risk modelling; and
- cumulative effects with other projects or activities that are constructed during the same period, and / or with projects or activities which pose either a potential collision risk or loss of habitat by displacement.

Given the low levels of activity recorded to date, it is considered unlikely that significant effects will occur on ornithological receptors at the Site, although this issue will be considered in detail as part of the EIA.

Proposed Assessment Methodology and Approach

The assessment of ornithological effects associated with the Site will be undertaken in accordance with the guidelines published by Scottish Natural Heritage (2018[2]) .

Based on the findings of surveys and studies carried out to date (including the previous survey period) we propose the assessment in the EIA will consider the following: birds considered of high and moderate Nature Conservation Importance where their occurrence during surveys within the survey area is deemed sufficient to merit assessment..

The effects on birds will be assessed during construction and operational stages, as well as cumulatively with other relevant proposed developments.

Effects will be assessed following the implementation of embedded mitigation measures included as part of the design of the proposed Development, as well as any residual effects assessed after any further mitigation, if relevant, has been factored in.

Matters to be Scoped Out

Unless subsequent surveys find observations that are in contrast to previous survey findings, all other effects will be scoped out of the EIA including effects on internationally and nationally designated sites (the distance to the nearest SPAs and SSSIs are such that the species cited in the designations for these areas would not be affected by the proposed Development) and effects on other species of high and moderate Nature Conservation Importance not noted above and all bird species classified as of low Nature Conservation Importance. This will be justified in the EIA Report with reference to the final survey data.

Consultee Questions

- Do consultees agree with the proposed approach to the ornithology assessment as set out above?
- Please confirm any additional requirements that you consider should be included in this element of the EIA, that have not been covered in this fact sheet.

[2] SNH Guidance: Assessing Significance of Impacts from Onshore Windfarms on Birds outwith Designated Areas (2014, updated in 2018)

Hydrology, Hydrogeology, Geology & Soils

Relevant Legislation and Guidance

The assessment will be undertaken in accordance with the following relevant legislation and guidance:

- EC Water Framework Directive (2000/60/EC).
- Water Environment and Water Services (Scotland) Act 2003.
- Water Environment (Controlled Activities) Regulations 2011.
- Land Use Planning System – SEPA Guidance Note 31 (Guidance on Assessing Impacts of Development Proposals on Groundwater Abstractions and Groundwater Dependent Terrestrial Ecosystems), Version 3, SEPA, 11/09/2017.
- Good Practice during Windfarm Construction. A joint publication by Scottish Renewables, Scottish Natural Heritage, Scottish Environment Protection Agency, Forestry Commission Scotland and Historic Environment Scotland, Version 4, 2019.
- Control of Water Pollution from Linear Construction Projects – Technical Guidance, C648, CIRIA, 2006.
- Environmental Good Practice on Site C692, CIRIA, 2010.
- Peat Landslide Hazard and Risk Assessments. Best Practice for Proposed Electricity Generation Developments. 2nd Edition April 2017. Prepared for Energy Consents Unit (ECU) Scottish Government.
- Scottish Government (2014). Guidance on Development on Peatland – Site Surveys.

Baseline

The underlying geology identified by British Geological Survey Sheet 15W (New Cumnock Solid and Drift) is the Kirkcolm Formation (a turbidite sequence of medium to thin bedded quartzose greywacke sandstones with some thick siltstone intercalations).

A fault is recorded trending northeast-southwest across the southern part of the Site. This fault influences the underlying solid geology. To the south of the fault lies the Portpatrick Formation (medium-and coarse-grained greywacke sandstones), to the north the Moffat Shale Group (Black and dark grey silty mudstones, with thin chert beds) and Kirkcolm Formation.

No Coal Measures are recorded beneath the Site. The overlying superficial deposits are recorded as glacial till and peat. Superficial deposits are recorded as absent on the highest hills.

The proposed Development is located in the Solway Tweed River Basin District - River Nith and River Dee Catchments. The northern site area, as well as most of the southern area, is located within the catchments of the Euchan Water and Scuar Water which are tributaries of the River Nith. The River Nith is classified as possessing 'Good' ecological status and a chemical status of 'Pass'. The River Nith also has associated protection for fish under the Fresh Water Fisheries Directive (2006) for salmon.

The southern area to the west of Polskeoch is located within the catchment of the Water of Ken, a tributary of the River Dee which is classified as possessing 'Bad' ecological status and a chemical status of 'Pass'. The River Dee also has associated protection for fish under the Fresh Water Fisheries Directive (2006) for salmon.

The groundwater unit located under most of the hydrological study area is identified as the Nithsdale bedrock and localised sand and gravel aquifers, which is classified as having 'Good' chemistry status and having a 'Good' quantitative status.

The Site lies within an area identified as having the potential for peat on the SNH Carbon and Peatland database, having a mixture of peat soil and mineral soil (class 4 and class 5). The Soils map of Scotland further identifies this

potential for the Site to contain peat by identifying a mix of blanket peats, peaty gleys and peaty podzols within the proposed Development boundary.

Preliminary survey work undertaken in 2013 has also confirmed the presence of peat on the Site with deep peat primarily located on the central area. Although peat or peaty soils are developed across most of the Site, the potential development of peat on the steeper slopes has been proven to be limited. It is also recognised that peat on parts of the Site may have been degraded by commercial forestry operations. Additional peat depth probing is proposed and will be used to inform the emerging site design.

Potentially Significant Effects

Having regard to the nature of the proposed Development, key baseline characteristics and proposed embedded mitigation measures, it is considered that the following have the potential for significant environmental effects during the construction and operation phases of the proposed Development and therefore require further consideration through the EIA process:

- Pollution risk, including potential impact on surface water and groundwater quality and public and private water supplies;
- Erosion and sedimentation which could give rise to potential impact on surface water and groundwater quality, and private water supplies;
- Fluvial flood risk resulting from changes to runoff volumes and rates and modifications to natural and man-made drainage patterns during operation;
- Potential impact upon the connection between groundwater and surface water and potential reduction in baseflow to surface water courses or groundwater dependent habitat;
- Potential impact on areas of Ground Water Dependent Terrestrial Ecosystems (GWDTEs); and
- Potential cumulative impact during construction.

It is considered that the construction and operation of the proposed Development has the potential to result in the following types of effects:

- Disturbance and loss of deposits of peat;
- Ground instability (including peat slide risk) and contamination;
- Impacts on surface water and groundwater quality from pollution, fuel, oil, concrete or other hazardous substances;
- Increased flood risk to areas downstream of the Site during construction through increased surface runoff;
- Potential change of groundwater levels and flow paths and contribution to areas of peat and GWDTEs;
- Disturbance of watercourse bed and banks from the construction of culverts; and
- Potential pollution impacts to public and private water supplies.

Proposed Assessment Methodology and Approach

The assessment of likely significant effects will be undertaken through desk-based characterisation of the Site and surrounding area and of likely effects on identified receptors. The desk study will be supported by a programme of field investigations.

The assessment methodology will be informed by the project team's experience of carrying out such assessments for renewable energy developments, knowledge of peatland, geology and the water environment characteristics in Scotland and cognisance of good practice. The assessment will be carried out by hydrological, geological and geotechnical specialists, in close liaison with project ecologists and other members of the EIA project team, to ensure that a robust and proportionate impact assessment is presented.

The desk study will be undertaken to determine and confirm the baseline characteristics by reviewing available information relating to soils, geology, hydrology, and hydrogeology such as groundwater resources, licensed and unlicensed groundwater and surface water abstractions, public and private water supplies, surface water flows,

flooding, rainfall data, water quality and soil data. This will include review of published geological maps, OS maps, aerial photographs and site-specific data such as site investigation data, geological and hydrogeological reports, digital terrain models (slope plans) and geological literature.

A detailed site visit and investigation will be undertaken to:

- Verify the information collected during the desktop study;
- Undertake a visual assessment of the main surface waters and identify private water supplies, including their intakes;
- Identify drainage patterns, areas vulnerable to erosion or sediment deposition, and any pollution risks;
- Visit any identified GWDTEs (in consultation with the project ecologists);
- Prepare a schedule of potential watercourse crossings;
- Allow appreciation of the Site, determining gradients, possible borrow pits, access routes, ground conditions, etc., and to assess the relative location of all the components of the proposed Development;
- Undertake a phase 1 peat probing exercise at 100 m grid interval of the proposed developable area in line with SNH best practice guidance, and subsequently a more detailed phase 2 probing exercise along the proposed site infrastructure at 50 m centres as well as at 10 m centres at turbine locations. The surveys will be used to facilitate design of the proposed Development by avoidance if possible of thick peat, sensitive peat and any peat posing a risk to the development.

The study area for the hydrological assessment will consider a buffer of up to 2 km from the proposed infrastructure. A cumulative assessment will also be completed and include an area of 5 km from the proposed infrastructure as beyond this distance potential changes to hydrology and hydrogeology are not considered to be discernible.

Peat Slide Risk Assessment

Should significant quantities of peat be present within the Site, a Peat Slide Risk Assessment will be undertaken in accordance with the Scottish Government guidance[1] along with full consultation with the relevant consultees.

The Peat Slide Risk Assessment will comprise of detailed analysis and reporting on the design freeze and will include a hazard and slope stability assessment and preliminary peat management recommendations. The hazards existing on the Site will be ranked based on factors that influence stability, namely peat depth and slope gradient. In addition, potential receptors exposure to risk will be established and hazard rankings applied across the Site, with management and mitigation measures recommended for an acceptable construction.

The Peat Slide Risk Assessment will be included as a Technical Appendix to the EIA Report, although we anticipate the site to be a low risk due to limited presence of peat on the steeper slopes. We would use this assessment to guide our design and peat management concerns.

Outline Peat Management Plan

Should significant quantities of peat be present within the Site, an outline Peat Management Plan[2] [3]will also be prepared and included as a Technical Appendix to the EIA Report. This plan will include high level estimation on peat excavation and re-use volumes. This will be based on the approximate infrastructure dimensions and anticipated re-use streams. This will include:

- Defining the materials that will be excavated as a result of the proposed Development, focusing specifically on the excavation of peat;
- Determine volumes of excavated arisings, the cut/fill balance of the Development and proposals for re-use or reinstatement using excavated materials; and

[1] 'Peat Landslide Hazard and Risk Assessments: Best Practice Guide for Proposed Electricity Generation Developments (Second Edition)' April 2017'
[2] SEPA Regulatory Position Statement – Developments on Peat (SEPA, February 2010)
[3] Guidance on the Assessment of Peat Volumes, Reuse of Excavated Peat and the Minimisation of Waste (SR, SEPA, January 2012)

- Detailing proposed management techniques for handling, storing and depositing peat for reinstatement.

Matters to be Scoped Out

It is considered that the potential effects listed below have no potential for significant environmental effects and can therefore be scoped out of requiring further assessment in the EIA:

- Detailed Flood Risk and Drainage Impact Assessment: Published mapping confirms that most of the Site is not located in an area identified as being at flood risk. It is proposed, therefore, that a simple screening of potential flooding sources (fluvial, coastal, groundwater, infrastructure etc.) is presented in the EIA Report and measures that would be used to control the rate and quality of runoff will be specified in the Construction Environmental Management Plan (CEMP).

- Water quality monitoring: As the assessment will be informed by watercourse classification data available from the Scottish Environment Protection Agency (SEPA) and there are no known sources of potential water pollution at the Site, no additional water quality monitoring is considered necessary at this stage.

- Potential effects on geology: There are no protected geological features within the Site. Furthermore, the nature of the activities during construction, operation and decommissioning of the proposed Development would be unlikely to alter the geology of the Site.

- Detailed GWDTE Assessment: As the Site is currently used for commercial forestry it is not expected that a standalone or detailed GWDTE assessment will be required or warranted. National Vegetation Classification (NVC) data will be used to assess for potential areas of GWDTE, but at this stage no detailed assessment is expected.

- Increased flood risk caused by blockages to flow in watercourses during operation and maintenance of the proposed Development. Any required watercourse crossings would be subject to maintenance requirements under the Controlled Activities Regulations (CAR), flood risk onsite is low and the development design would ensure no critical infrastructure is located near a watercourse.

Consultee Questions

- Is the spatial extent of the study area considered to be appropriate?

- Do consultees have any information that would be useful in the preparation of the geology, hydrology, hydrogeology and soil assessment?

- Do consultees agree the scope of the flood risk assessment is appropriate and that a drainage impact assessment can be provided as part of the detailed site design and agreed as part of the site CEMP (noting the principles for the control and management of runoff will be presented in the EIA Report)?

- Please confirm any additional requirements that you consider should be included in this element of the EIA, that have not been covered in this fact sheet.

Noise

Relevant Policy and Guidance

The noise assessment will be undertaken with reference to the following documents:

- ETSU-R-97 The Assessment and Rating of Noise from Wind Farms (The Working Group on Noise from Wind Turbines, 1996);
- PAN 01/2011 Planning and Noise and associated Technical Advice Note (Scottish Government, 2011);
- Onshore Wind Turbines: Planning Advice. Online planning advice, Scottish Government, last updated 28 May 2014.
- A Good Practice Guide to the Application of ETSU-R-97 for the Assessment and Rating of Wind Turbine Noise (Institute of Acoustics (IoA), 2013);
- BS 5228-1:2009+A1:2014 Code of practice for noise and vibration control on construction and open sites – Part 1: Noise (British Standards Institution, 2014);
- HMSO Department of Transport (1988). Calculation of Road Traffic Noise; and
- The Highways Agency, Transport Scotland, Transport Wales, the Department for Regional Development (Northern Ireland) (2011). Design Manual for Roads and Bridges (DMRB), Volume 11, section 3, Part 7, Traffic Noise and Vibration.

Baseline

The proposed Development is located in a relatively sparsely populated area, although there are a number of individual properties directly adjacent to the Site. The noise environment surrounding these receptors is expected to be dominated by 'natural' sources, such as wind disturbed vegetation and forestry, watercourses (in places), birds and farm animals, with a varying influence in the ambient noise environment from adjacent operating windfarms.

Proposed Additional Baseline Work

An initial review of the baseline data surveyed for other windfarm schemes, and which are publicly available in the EIA Reports for those schemes, suggests that existing baseline levels have been sufficiently defined for the purposes of an assessment of operational noise in accordance with ETSU R 97 and best practice (see Table 1). Therefore, undertaking additional noise monitoring is not anticipated to be necessary, which in any case may have to be conducted with nearby adjacent operational wind turbines, and could therefore be contrary to best practice.

Potentially Significant Effects

During construction, noise could arise from both onsite activities, such as the construction of onsite access tracks, turbine foundations, the substation/control building etc., and also from the movement of construction related traffic both onsite and travelling on public roads to and from the Site.

During operation, wind turbines have the potential to create noise effects through both aerodynamic noise and mechanical noise. Other operational elements of the proposed Development with the potential to create noise effects (including the proposed energy storage facility) will be located remote from any noise sensitive receptors. Consequently the operational noise assessment will focus on the noise emitted from the proposed wind turbines.

Proposed Assessment Methodology and Approach

The noise impact assessment will assess the effects of construction (including traffic) of the proposed Development and operational noise of the wind turbines on nearby noise sensitive receptors (including cumulatively with nearby windfarms as necessary). The assessment will identify where significant effects may occur, what mitigation measures may be necessary, what residual effects there may be and what post commissioning monitoring will be undertaken.

The study area for the assessment will comprise the nearest noise sensitive receptors considered to be representative of residential dwellings in the immediate vicinity that may experience noise effects from construction or operation of the proposed Development based on professional judgement and initial noise modelling. Receptors will be agreed with the nominated Environmental Health Officers (EHOs) from Dumfries & Galloway Council and East Ayrshire Council

as appropriate. An initial review of those receptor locations nearby and which require to be assessed is shown below in Table 1. For each receptor, relevant information are discussed, which it is proposed to reference when assessing noise from the proposed Development.

Table 1: List of receptor locations adjacent to the proposed Development which may require operational noise to be assessed. Included for each receptor is a discussion of sources of information on background noise levels and derived ETSU R 97 noise criteria.

Receptor (Easting, Northing)	Assessment of the Proposed Development
Hillend (268201, 608890)	This location has noise limits already defined for the operational Harehill Windfarm and the operational Harehill Extension Windfarm. These limits will be used as the basis of the assessment of the proposed Development and reference background noise levels from which these limits derive.
Bank Cottage (270530, 606420) Glenglass (270796, 606363) Glenglass Cottage (272954, 607106)	The noise impact assessment report for the Sanqhuar II Windfarm stated these locations were derelict and were not assessed. It is proposed to not assess these locations for the proposed Development. Should assessment be required, it is proposed to assess the proposed Development by reference to limits which are already defined for these locations in the Whiteside Hill Windfarm consent or the Sanquhar Windfarm consent.
Polskeoch (268688, 602320)	Background noise levels were surveyed for the consented Lorg Windfarm, from which consent noise limits were derived. These background noise levels would be referenced for assessment of the proposed Development.
Dalgonar (270038, 603129)	The background noise levels were surveyed for the proposed Sanqhuar II Windfarm and ETSU-R-97 criteria defined. These criteria would be referenced for assessment of the proposed Development.
Polgown (271866, 603844)	Background noise levels were surveyed for the proposed Sanqhuar II Windfarm and ETSU-R-97 criteria defined in the Sanqhuar II noise impact assessment report. These criteria would be referenced for assessment of the proposed Development.
Chanlockhead (275336, 600219)	The noise impact assessment report for the Sanqhuar II Windfarm stated this location was derelict and not assessed. It is proposed to not assess this location for the proposed Development.
Shinnelhead (272926, 599169)	Background noise levels were surveyed for the proposed Sanqhuar II Windfarm and ETSU-R-97 criteria defined in the Sanqhuar II noise impact assessment report. These criteria would be referenced for assessment of the proposed Development.
Cairnhead (270133, 597200) Corlae (265835, 597727)	Background noise levels were surveyed for the consented Lorg Windfarm at Nether Holm of Dalquhairn, from which consent noise limits were derived. These background noise levels would be referenced for assessment of the proposed Development.
Upper Holm of Dalquhairn (265547,599285) Nether Holm of Dalquhairn (265527,599008)	Background noise levels were surveyed for the consented Lorg Windfarm at both locations, from which consent noise limits were derived. These background noise levels would be referenced for assessment of the proposed Development.
Lorg (266850, 600875)	The location will no longer be a residential receptor once the Lorg Windfarm is operational. However should the Lorg Windfarm not become operational this location could be a potential receptor location and require assessment. Background noise levels were surveyed for the consented Lorg Windfarm at Windfarm at Nether Holm of Dalquhairn, from which consent noise limits were derived both locations, from which consent noise limits were derived for both Cairnhead and Corlae (see above). These background noise levels would be referenced for assessment of the proposed Development.
Craig An Dhu / Lynn View (262729, 605695)	The noise impact assessment report for the Sanqhuar II Windfarm was based on background noise levels from Pencloe Wind Farm Decision Notice. These

Craig (263442, 606454)	locations are likely to be sufficiently distant that noise from the proposed Development would not be acoustically important. This would be determined through reference to the ETSU-R-97 criteria used for these locations in the Sanqhuar II Windfarm noise impact assessment report.

The assessment of construction noise effects would be undertaken in accordance with the guidance contained within BS 5228:2009+A1:2014: Code of Practice for Noise and Vibration Control on Construction and Open sites. Part 1: Noise (BS 5228-1). An assessment of potential impacts arising from any changes in traffic flows as a result of the proposed Development will also be undertaken as part of the construction noise assessment. Where necessary, appropriate levels of mitigation would be identified, in accordance with best practice, to ensure that noise levels are acceptable during the construction phase.

The assessment of operational noise effect will be undertaken using ETSU-R-97 'The Assessment of Rating of Noise from Wind Farms' (The Working Group on Noise from Wind Turbines, 1996). The report defines a procedure for assessing and rating wind farm noise.

ETSU-R-97 recommends that noise limits should be set relative to existing background noise levels at the nearest receptors and that these limits should reflect the variation in background noise with wind speed. Separate noise limits apply for day-time and for night-time periods. Daytime limits are chosen to protect a property's external amenity, and night time limits are chosen to prevent sleep disturbance indoors, with windows open.

Based on the approach set out in Table 1 above and the adopted quiet day and night-time wind varying background noise levels for each identified noise sensitive receptor, noise immission limits will be derived in accordance with the methodology set out in ETSU-R-97. The significance of the predicted scheme noise immission levels will then be determined against these criteria.

A representative wind turbine will be nominated for the assessment of noise from the operational development and meet the design requirements for the proposals. A computer model will be constructed and used to predict noise levels resulting from the operation of the proposed Development, based on the methodology detailed in ISO 9613-2:1996, with the specific modelling procedure defined in the IOA Good Practice Guidance (2013).

Matters to be Scoped Out

Groundborne vibration resulting from the operation of wind turbines is imperceptible at typical receptor separation distances and is therefore proposed to be scoped out from the noise impact assessment.

Noise associated with the operation of the substation and routine maintenance visits and operational traffic is likely to be negligible, and therefore would be scoped out of the noise impact assessment. Subject to it being carefully located, noise from the proposed energy storage facility is also likely to be negligible and consequently would be scoped out of the noise impact assessment. This will be confirmed with consultees once the energy storage facility location has been finalised.

Due to advances in turbine design, low frequency noise and vibration from turbines has been reduced. The Scottish Government references a report for the UK Government and concerning Low Frequency Noise notes that:

"…there is no evidence of health effects arising from infrasound or low frequency noise generated by wind turbines that were tested."

Therefore, it is proposed that low frequency noise is scoped out from the impact assessment.

Consultee Questions

- Do consultees agree with the proposed approach to the noise and vibration assessment as set out above?

Legend

- Site Boundary
- Site Boundary 2km Buffer
- Indicative Turbine Location
- Local Authority Boundary

Residential Receptors within 2km of Site Boundary

- Residential
- Residential - Potenially Inhabited

East Ayrshire

Dumfries and Galloway

N

260000 265000 270000 275000 280000

610000 605000 600000

SCOTTISHPOWER RENEWABLES					1:60,000 Scale @ A3	0 1 2 3 Km	**Euchanhead Renewable Energy Development** Scoping Report Residential Receptors
	A	14/02/20	LM	First Issue.			
	Rev	Date	By	Comment			

Drg No	00481.00052.0102.0	
Rev	A	Datum: OSGB36 Projection: TM
Date	14/02/20	
Figure	1	

Cultural Heritage

Relevant Policy and Guidance

Relevant legislation and policy documents include:

- The Ancient Monuments and Archaeological Areas Act 1979;
- The Planning (Listed Buildings and Conservation Areas) (Scotland) Act 1997;
- The Historic Environment (Amendment) (Scotland) Act 2011 (this includes amendments to the above);
- Statutory Instrument No 101 The Electricity Works (Environmental Impact Assessment) (Scotland) Regulations 2017;
- Planning Advice Note Planning and Archaeology PAN 2/2011;
- Scottish Planning Policy (2014);
- Historic Environment Policy for Scotland (2019);
- Historic Environment Circular 1, Historic Environment Scotland (HES) 2016; and
- Dumfries and Galloway Council Local Development Plan 2 (2019).

The following guidance documents will be used to inform the cultural heritage impact assessment:

- HES (2016). Managing Change in the Historic Environment: Setting.
- Chartered Institute for Archaeologists (CIfA) (2014a). Standard and Guidance for Historic Environment Desk-Based Assessment.
- CIfA (2014b). Code of Conduct.

Due cognisance will also be given to the Scottish National Heritage (SNH) and HES's (2018) *Environmental Impact Assessment Handbook: Guidance for competent authorities, consultation bodies, and others involved in the Environmental Impact Assessment Process in Scotland*.

The desk study will identify any cultural heritage issues within the study area and will include the following tasks:

- consultation with the Historic Environment Record (HER) of the Dumfries and Galloway Archaeological Service (DGAS) and West of Scotland Archaeological Services (WoSAS);
- the desk-based assessment of the Site produced by Arcus Archaeological Services in 2013 will be drawn upon for the baseline of the Historic Environment Record (HER) within the GIS and chronological order for the baseline assessment.
- consultation with HES as appropriate for designated assets;
- consultation of web-based facilities for other information;
- map regression using historic mapping sources to identify changes and development of the historic landscape;
- review of available Historic Landscape Characterisation;
- review of aerial photographs (National Collection of Aerial Photography, Edinburgh);
- review of any appropriate geotechnical data including peat probing and sampling data;
- relevant assessments for nearby developments;

- synthesis of published sources to establish historic landscape and archaeological context and any cultural heritage associations, including data from Canmore (the HES database);

- online data on designated assets including Scheduled Monuments, Listed Buildings and Gardens and Designed landscapes; and

- place-name analysis and assessment of the intangible cultural heritage of the study area.

A walkover survey will be carried out targeting all areas of potential ground disturbance within the Site (Inner Study Area). It is proposed that the walkover survey will be undertaken once the layout of the proposed Development has progressed and likely infrastructure locations have been identified. The aims of the site walkover would be to assess the potential of direct and indirect effects upon known heritage assets, and to check for evidence of any further unknown heritage assets within the Site. The findings of the walkover will be taken into account during the final design of the proposed Development to prevent or reduce effects as far as is reasonably practicable.

Visits to designated assets within the outer study area, and undesignated heritage assets within 5 km of the proposed turbines that are demonstrable of regional or national importance, where a visit is beneficial to the assessment of impacts upon setting. This would evaluate their setting where theoretical visibility of the turbines is likely. This information would also feed into the design of the proposed Development.

The following study areas are proposed for the cultural heritage impact assessment:

- Inner Study Area

  The Inner Study Area is all land within the application boundary. All known heritage assets would be assessed for their significance and potential to be affected by direct impacts from construction. The recorded historic environment of the Inner Study Area and land up to 2 km from it would be analysed to inform a predictive model of the probability for unknown potential buried archaeological remains. All regionally and nationally important heritage assets within the Inner Study Area will be considered for operational impacts upon their setting.

- Outer Study Area

  The Outer Study Area is defined as land outwith the Inner Study Area and within 10 km from the proposed turbines. The cultural heritage team would map and assess designated assets on this basis:

    - Up to 5 km from the proposed turbines: assess all assets of nationally and regionally important heritage;

    - Up to 10 km from the proposed turbines: assess all assets of national importance where long distance views from or towards the assets (such as designed views, prospect towers or hill-top sites) are thought to be particularly sensitive.

The assessment will detail whether effects upon heritage assets are considered temporary, short term, long term or permanent. A cumulative effect is considered to occur when there is a combination of:

- an above negligible effect on an asset or group of assets due to changes which would be caused by the main development under assessment; and

- an effect on the same asset or groups of assets which would be caused by another development or developments.

Baseline

The baseline condition presented below is drawn from publicly available information on designated cultural heritage assets available from HES and for undesignated sites from a search on Past Map.

- Assets within the Site:

  Within the application boundary there are no designated cultural heritage assets including Scheduled Monuments; Conservation Areas; Inventoried Garden and Designed Landscape's (GDLs); Inventoried Battlefields; World Heritage Sites; or Listed Buildings. A search of Past Map indicates that the HES Canmore database and Dumfries and Galloways Historic Environment Record, between them, record 16 undesignated sites within the application boundary. These comprise records of sheepfolds or cairns. Sheepfolds are traditionally for storing sheep for sheering or simply enclosing a flock. They are typically post medieval or medieval in date but can predate this.

Cairns within the Site range from commemorative cairns such as Allan's Cairn to hilltop cairns which can date to the Neolithic.

- Assets out with the Site:

  There are five Scheduled Monuments; three Category A Listed Buildings and one Conservation Area within a 10 km Outer Study Area of the Turbine Locations. There are no Inventoried GDL's; Inventoried Battlefields or World Heritage Sites within a 10 km of the proposed turbine locations.

Potentially Significant Effects

During construction, there is potential for direct effects on heritage assets, through partial or total removal during ground breaking operations, on known or currently undiscovered buried remains of archaeological interest. If necessary, a mitigation strategy will be established as part of the cultural heritage impact assessment, including input into the design process and/or a suggested programme of archaeological work.

Operational effects are likely to derive principally from visual impact upon the setting of heritage assets. The cultural heritage impact assessment will establish the heritage significance of the assets likely to be affected by the operation of the proposed Development, and the contribution of setting to the understanding and appreciation of the asset. It would assess the impact upon settings of statutorily designated historic assets and / or other features that fulfil criteria for regional or national importance within the Inner Study Area. Criteria such as period, topographic location, function, design, conceptual frameworks, and group and community value would be employed to understand the heritage significance of the assets, and this would then be applied to identify the key contributions of settings to that heritage significance.

Matters to be Scoped Out

It is proposed to scope out:

- Setting effects associated specifically with the construction and decommissioning phases as these will be relatively short-lived and transitory.
- Indirect effects – assets out of zone of theoretical visibility (ZTV) that also have no viewpoint significant to understanding or interpretation of the asset that includes both the asset and the proposed Development.
- Operational effects upon Category C Listed buildings outside the Site as these are highly unlikely to be significant.

Consultee Questions

- Do consultees agree with the proposed methodology and scope of the cultural heritage assessment?
- Please confirm any additional requirements that you consider should be included in this element of the EIA, that have not been covered in this fact sheet.

Legend

- Site Boundary
- Indicative Turbine Location

Listed Building (Grade)

- A
- C
- B
- Properties in Care
- Scheduled Ancient Monument
- Conservation Area
- Gardens and Designed Landscapes

SCOTTISHPOWER RENEWABLES

Rev	Date	By	Comment
B	14/02/20	JRS	Amendments following comments
A	13/01/20	NJG	First Issue.

1:125,000
Scale @ A3

0 3 6 Km

Euchanhead Renewable Energy Development

Scoping Report

Designated Heritage

Drg No	00481.00052.0066.1
Rev	B
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Figure	1

Datum: OSGB36
Projection: TM

Legend

- Indicative Turbine Location
- Site Boundary
- Site Boundary 5-20km Buffers

Zone of Theoretical Visibility No. of Turbine Blade Tips Visible

High : 20 Turbines Vis ble

Low : 1 Turbine Visible

Note

This Zone of Theoretical Visibility (ZTV) has been generated using ESRI ArcGIS Spatial Analyst extension. The digital terrain model (DTM) has been derived from OS Terrain 50 dataset (+/-10m). Earth curvature has been included in the ZTV calculation and refraction of light has been applied using SNH guidance settings. The ZTV has been generated from a viewing height of 2m above ground level which falls within recommenda ions by "Visual Representation of Windfarms" prepared for Scottish Natural Heritage (SNH) February 2017 - Version 2.2.

The use of ZTV mapping at this stage is limited and he folowing assumptions should be noted:

- The ZTV has been generated using the proposed turbine locations for Euchanhead.
- The proposed turbine blade tips heights of 225m have been used for generating the ZTV.
- The ZTV is generated from a bare earth terrain and does not account for the screening effect of features within the landscape such as settlements and woodland. It does not indicate potential visual effects or show the likely significance of effects. It shows potential theoretical visibility only. The ZTV has been produced for he purpose of informing 'on the ground' visual assessment.
- The ZTV colour palette has been specifically developed to assist viewers with reduced sensitivity to red, green and blue light.
- The ZTV has been generated up to 45km from the proposed Euchanhead turbines.

SCOTTISHPOWER RENEWABLES

Rev	Date	By	Comment
A	14/02/20	JRS	First Issue.

1:180,000 Scale @ A3

0 4 5 9 Km

Euchanhead Renewable Energy Development

Scoping Report

Zone of Theoretical Visbility - Blade Tip

Drg No	00481.00052.0096.0
Rev	A
Date	14/02/20
Figure	2

Datum: OSGB36 Projection: TM

Access, Traffic and Transport

Relevant Policy and Guidance

The access, traffic and transport assessment will be carried out in accordance with relevant legislation, policy and guidance documents including:

- Scottish Planning Policy (2014);
- the Institution of Highways and Transportation (IHT) publication "Guidelines for Traffic Impact Assessment" (1994);
- the Guidelines for the Environmental Assessment of Road Traffic (1993) from the Institute of Environmental Management and Assessment (IEMA);
- Transport Scotland "Transport Assessment and Implementation: A Guide" (2012); Department for Transport (DfT) "Design Manual for Roads and Bridges (DMRB) (2008);
- D&G Roads and Transport Guidelines and Standards; and
- East Ayrshire Roads and Transport Guidelines and Standards.

Baseline

The Site is located in commercial forestry approximately 10 km to the south west of Sanquhar. Access to the site is currently provided by minor roads, including Euchan Water Road and an un-named road leading to Polskeoch (U405).

The Site is located in an area subject to a number of recent windfarm planning proposals. While most of the potential routes to the Site will have been subject to assessments for delivery of abnormal loads for windfarms in the past, only recently have turbine blades of this size been considered for delivery along the route with regards to the proposed Sanquhar II development. The Sanquhar II development proposes delivery along the A76 (either from the north or south) and includes the proposed use of Blade Lifter vehicles to allow pinch points to be successfully negotiated.

The proposed access routes under consideration for the turbine components to the Site are as follows:

- Port of Ayr → A719 → A77 → A76 → Minor roads to site
- King George V Dock, Glasgow → Kings Inch Drive → M8 → M74/M6 → A75 → A76 → Minor roads to site

A route access study will be undertaken based on using Ayr or King George V as the port of delivery.

Potentially Significant Effects

Construction

The main potential sources of impact are likely to relate to the transportation of abnormal loads and the impact of construction traffic on residential areas and other amenities along the network route.

The construction phase of the proposed Development is likely to create the greatest environmental impact. This is due to the number of heavy goods vehicles (HGVs), light goods vehicles (LGVs) and abnormal load deliveries required to transport the materials onto site.

Operation

It is anticipated that any effects predicted to result during the operation of the proposed Development will be limited, and certainly lower than the effects expected during the construction phase.

During operation the proposed Development would generate a negligible number of vehicle movements. These would predominantly be for maintenance visits by technicians. Abnormal load vehicle access is unlikely but may be needed if a turbine component requires replacement.

Proposed Assessment Methodology and Approach

A traffic, transport and access assessment is to be undertaken as part of the EIA for the proposed Development. The assessment will be carried out in accordance with the relevant policy and guidance documents as detailed at the top of the factsheet.

The study area for the assessment will focus on the route to be used for access by construction vehicles and abnormal loads, and will include a section of the A76 which will depend on the final direction of travel to Site along this road.

A full assessment of the access route within the study area will be included within the EIA Transport Chapter, including identification of key pinch points along the route and assessment using swept path analysis.

Due to known, existing pinch points being found along the public road network, a Blade Lift Adapter vehicle will be required to transport blades through these pinch points. Further information will be provided within the EIA Report regarding the logistics and safety protections in relation to this method on the public highway.

It is anticipated that any effects predicted to result during the operation of the proposed Development will be limited, and certainly lower than the effects expected during the construction phase. Therefore, operational traffic is proposed to be scoped out of the access, traffic and transport assessment.

Desk Study

A desk based review of the impacts arising from the construction of the proposed Development will be undertaken, including the following;

- Collection and analysis of available road traffic accident data over the study area;
- The use of a blade lift adapter will be considered for transport of the turbine blades from the A76 to the Site. Any predicted impacts associated with this type of transport will be included in the assessment;
- Determination of a construction phase programme and quantification of construction phase trips based on the quantity of material required for the proposed Development and the duration of the construction phase;
- Determination of a traffic baseline, taking account of measured existing traffic flow and other developments that have been identified for inclusion within the cumulative assessment; and
- Quantification of material increases in traffic resulting from the construction phase of the proposed Development.

Field Surveys

A visual inspection of the study area will be completed to ensure a full understanding of the local area and to identify all sensitive receptors, especially with regard to abnormal loads.

24 hour automatic traffic counts (ATCs) would be undertaken on the A76 and at one further location (2 counts in total). The exact location of the counts will be determined once full details of the route for access are understood.

Assessment of Effects

It is anticipated that the collated traffic flow data will confirm existing traffic levels within the study area and will include LGVs and HGVs. These traffic flows will be combined with the forecast levels of proposed Development traffic to identify the likely significant effects within the study area in relation to the IEMA Guidelines.

In accordance with the IEMA Guidelines, the method used for assessing environmental effects of increased traffic will be based on a comparison in percentage terms between predicted traffic flows on potentially affected roads with and without the proposed Development traffic. The IEMA guidelines expresses two ‘rules’ which should be followed when determining the scale and extent of the assessment, these are:

- Rule 1: include highway links where traffic flows would increase by more than 30% (or the number of heavy goods vehicles would increase by more than 30%); and
- Rule 2: include any other specifically sensitive areas where traffic flows have increased by 10% or more.

Rules 1 and 2 will be used as a screening tool to determine if a full assessment on routes within the study area is required due to the level of increase in traffic flows. In the case of construction traffic, where it is anticipated that traffic

volumes do not increase by more than 30% (or 10% in sensitive locations) then a detailed assessment of the effects is not deemed necessary.

Construction

In the event that these thresholds are likely to be exceeded, consideration of the environmental effects of construction traffic would typically be undertaken in relation to the following transport effects:

- Severance;
- Driver delay;
- Pedestrian delay and amenity;
- Accidents and safety; and
- Hazardous loads.

Where relevant, consideration of noise effects of traffic would be included within the Noise chapter of the EIA Report.

In addition to this, the overall carrying capacity of the road in question will be considered in undertaking the assessment A quantitative assessment of impact would be undertaken, based on the predicted rise in traffic flows against a measured baseline, taking into account the temporary nature of the works. The likely 'worst case' scenario will be described for the periods of peak traffic generation, with the daily numbers of vehicle movements predicted

The assessment will identify the potential traffic and associated environmental effects on sensitive receptors and mitigation will be proposed where necessary. Traffic flows will increase on routes used for access to the Site and stretches of the local road network may need to be closed to facilitate the delivery of abnormal loads. The construction phasing and vehicle access would be managed to ensure that flows would be controlled during periods of more significant disruption, with mitigation likely to take the form of a Construction Traffic Management Plan (CTMP).

Cumulative Effects

The anticipated cumulative effects of the potential for overlapping construction programmes for the proposed Development in addition to other development proposals will be considered. The mechanism for mitigation of any cumulative effects is the implementation of a CTMP.

It should be noted that a cumulative assessment in relation to transport and traffic is reliant on the prospect of more than one windfarm being under construction at the same time as the proposed Development.

Mitigation

Mitigation measures will be proposed following the completion of the impact assessments, as informed by baseline assessments. The purpose of these measures is to remove, minimise or compensate any significant effects where required. These mitigation measures will be agreed with Dumfries and Galloway Council / East Ayrshire Council as appropriate. These measures will also be incorporated into the outline CTMP that will be submitted with the application.

Consultee Questions

- Do consultees agree with the proposed methodology and scope of the access, traffic and transport assessment?
- Are there any planned road works or highway improvement schemes that we need to take account of?
- Is the available Department for Transport Count Data on the A76 suitable for the assessment or should we plan to undertake traffic surveys?
- Please confirm any additional requirements that you consider should be included in this element of the EIA, that have not been covered in this fact sheet.

Forestry

Relevant Policy and Guidance

The forestry proposals would be prepared in accordance with the current industry policies, best practice and guidance including, but not limited to:

- Dumfries and Galloway Council (2014). The Dumfries and Galloway Forestry and Woodland Strategy.
- Forestry Commission Scotland (2009). The Scottish Government's Policy on Control of Woodland Removal.
- Forestry Commission (2017). The UK Forestry Standard: The Government's Approach to Sustainable Forestry.
- Forestry Commission Scotland (2019). Guidance to Forestry Commission Scotland staff on implementing the Scottish Government's Policy on Control of Woodland Removal.
- Scottish Environment Protection Agency (2013). SEPA Guidance Notes WST-G-027 "Management of Forestry Waste".
- Scottish Environment Protection Agency (2014). LUPS-GU27 "Use of Trees Cleared to Facilitate Development of Afforested Land.
- The Scottish Government (2012): Waste (Scotland) Regulations 2012.
- The Scottish Government (2014a). Scotland's Third National Planning Framework (NPF3).
- The Scottish Government (2014b). Scottish Planning Policy.
- The Scottish Government (2016). A Land Use Strategy for Scotland.
- The Scottish Government (2019). Scotland's Forestry Strategy 2019 - 2029.
- UKWAS (2018). The UK Woodland Assurance Standard 4th Edition.

Baseline

A desk-based assessment reveals no woodland designations affecting the Site. Very small areas are identified as core areas of the Native Woodland Integrated Habitat Network. The Native Woodland Survey of Scotland (NWSS) identifies these woodlands primarily as upland birch woodland. Further parts of the woodlands are classed as Primary and Secondary Zones under the Native Woodland Integrated Habitat Network as potential areas for native woodland expansion. The commercial woodlands are in the production phase, with ongoing felling and replanting of mature woodlands.

Proposed Additional Baseline Work

A further desktop assessment would include the Native Woodland Survey of Scotland (NWSS); the National Forest Inventory (NFI); aerial photographs; Forestry Land Scotland (FLS) sub compartment database; Scottish Forestry databases; and current Policy, Legislation and Guidance.

A field survey would consist of a walkover of the Site to verify and update baseline data as necessary and to identify any opportunities for on-site compensatory planting.

The forestry baseline would describe the crops existing at the time of preparation of the Environmental Impact Assessment (EIA) Report. This would be compiled from the desk-based assessment and field surveys. The output would be the production of finalised baseline data including any forestry constraints, species, planting year, felling and restocking proposals and other relevant data. This baseline data, in particular the restocking plan, would be used for comparison against the development forestry proposals.

Potentially Significant Effects

In the UK there is a strong presumption against permanent woodland removal, unless it addresses other environmental concerns or where it would achieve significant and clearly defined additional public benefits. In Scotland, such woodland removal is dealt with under the Scottish Government's 'Control of Woodland Removal Policy' (2009). The purpose of the policy is to provide direction for decisions on woodland removal in Scotland. It is essential that the requirements of the Control of Woodland Removal Policy are addressed within the EIA Report. The integration of the proposed Development into the existing forest structure will be a key part of the development process.

There is potential for changes to the forest structure resulting from the proposed Development, with consequential implications for the wider felling and restocking plans across the forest area. Areas of woodland may need to be felled for the construction and operation of the proposed Development including for access tracks, turbine locations and other infrastructure. The potential effects would be changes to the structure of the woodlands, which may result in a loss of woodland area. This would be addressed through a redesign of the existing forest including, for example, the use of designed open space; alternative woodland types; changing the management intensity; or the provision of compensatory planting within the Site or on an alternative site.

The resulting changes to the woodland structure and any requirement for compensation planting to mitigate against any woodland loss would be considered in the context of the Control of Woodland Removal Policy and in consultation with Scottish Forestry.

The baseline data and comparison against the development forestry proposals will also be used to provide information on the use of forestry wastes that are to be retained and reused at the Site. The proposed reuse of forestry wastes would be quantified and justified.

The analysis of the changes to the commercial forestry and information of forestry wastes will be presented as a separate technical appendix to the EIA Report. The environmental effects of the proposed Development related forest felling and restocking would be assessed in the relevant chapters of the EIA Report, including Ecology; Landscape and Visual; Hydrology and Hydrogeology; Ornithology; and Traffic and Transport.

Matters to be Scoped Out

The changes to forests as a result of the proposed Development are regarded as site specific and it is considered that there are no cumulative forestry issues to be addressed.

Consultee Questions

- Do consultees agree with the proposed methodology and scope of the forestry assessment?
- Do consultees have any information, particularly with reference to any new guidance, which should be taken into account within the forestry assessment?
- Please confirm any additional requirements that you consider should be included in this element of the EIA, that have not been covered in this fact sheet.

Other Considerations

Socio-Economics, Tourism and Recreation

Recreational activity on and in the vicinity of the Site is generally low, with the exception of the Southern Upland Way which runs through the southern part of the Site, passing through the glen of Polskeoch Burn and across higher ground west of Wether Hill. Informal access is highest at Cairnhead, where the Striding Arches attracts visitors.

The potential effects on visual amenity of the Southern Upland Way, the Striding Arches, core paths and rights of way will be fully assessed in the EIA Report as part of the Landscape and Visual Impact Assessment (LVIA). A number of studies have been undertaken in order to determine the potential impact upon the tourism and recreation industry due to the presence of a windfarm(s). These show that for most tourists, windfarms are not a major factor in their decision making, whilst amongst those who do take note of them, most regard them as having either a positive or a neutral effect on the landscape (Scottish Government, 2008)[1]. On the evidence presented in these studies, it is concluded that there is no evidence that windfarm proposals have a significant negative impact upon tourism. This conclusion is supported by the findings in the Scottish Parliaments Economy, Energy and Tourism Committee's (2012) 'Report on the Achievability of the Scottish Government's Renewable Energy Targets' which concluded that there is "no empirical evidence which demonstrates that the tourism industry in Scotland will be adversely affected by the wider deployment of renewable energy projects, particularly onshore and offshore wind." It is therefore proposed that impacts upon tourism be scoped out of the EIA process.

There is however acknowledged to be the potential for direct impacts to the Southern Upland Way, core paths and rights from the proposed Development during both construction and operation. To minimise these potential effects, the layout of the proposed Development will be designed to ensure an appropriate set back distance between turbines and all long distance promoted footpaths, core paths and rights of way. Where public access will be temporarily disrupted during construction and maintenance activities, it is proposed that the mitigation to be employed to minimise or avoid these impacts be clearly identified in the EIA Report.

SPR is also committed to the identification and implementation of access enhancement measures that will help to facilitate greater use and enjoyment of the Site and wider access network. Examples of such enhancement measures that have been adopted for other SPR sites include creating new circular access routes, providing new visitor interpretation facilities at key locations, improving signposting, upgrading parking facilities and provision of bird hides. SPR will seek to identify suitable opportunities for this Site through the public consultation and scoping exercise. It is considered that such enhancement opportunities have the potential for significant beneficial effects to the local community.

The proposed Development would also bring the potential for significant beneficial economic effects at a local level in relation to employment opportunities and the use of local services by construction workers. There will also be some potential local employment opportunities during operation. Other socio-economic benefits that would arise from the proposed Development will be the establishment of a community benefit fund and the opportunity for local community groups to invest directly in the project. It is expected that these income streams could be used to support community projects within the local area.

Although the above access, recreation and other socio-economic benefits are not expected to be significant at a national or regional level, given their potential importance at a local and community level it is considered that their impacts should be fully assessed and reported in the EIA Report.

Air Quality

Pollutants released from stationary plant and as a result of traffic movements associated with the proposed Development have the potential to impact air quality receptors. However, due to the scale of the proposed Development and the temporary nature of the construction works, any impacts are not likely to be significant.

Dust impacts are unlikely to occur due to the distances of receptors from areas where earthworks are proposed to be undertaken. In addition, best practice measures would be put in place during construction to minimise dust impacts. A site specific Construction and Environmental Management Plan (CEMP) will be prepared for the proposed

[1] Scottish Government (2008). Economic Impact of Wind Farms on Scottish Tourism.

Development which will incorporate these mitigation measures. Therefore, no significant dust effects are anticipated. It is therefore proposed that air quality is scoped out of the EIA process.

Shadow Flicker

Shadow flicker is the effect caused when the rotating blades of a wind turbine cause a shadow to be cast on neighbouring properties and receptors. As the blades rotate, shadows on the ground or nearby properties move. The effect occurs under certain combinations of factors, including geographical position and time of day and can occur inside buildings, where the moving shadow passing an aperture such as a window opening creates a flicker effect.

Scottish Government web-based advice on onshore wind turbines states that 'where separation is provided between wind turbines and nearby dwellings (as a general rule 10 rotor diameters), "shadow flicker" should not be a problem.' In addition, only properties within 130 degrees either side of north relative to the turbines can be affected at these latitudes in the UK as turbines do not cast long shadows on their southern side. This is referred to as the Zone of Potential Shadow Flicker.

The proposed Development will be designed where possible to avoid turbine placements within the Zone of Potential Shadow Flicker. Should this be achieved, it is proposed that shadow flicker be scoped out of the EIA process. If not feasible to avoid shadow flicker effects through turbine placement, then the dates, times and durations of shadow flicker events for each property within this distance will be calculated and an assessment of any effects at these properties undertaken and reported in the EIA Report.

Climate Change

The EIA Regulations require consideration of climate change. Although a separate climate change chapter is not proposed, climate change would be considered throughout the EIA Report. The proposed approach is set out below.

Climate Change: Changes to Future Environmental Conditions

Each topic chapter of the EIA Report will consider predicted changes in baseline environmental conditions, including changes resulting from climate change, where robust information regarding future climate change is available at the time of writing. The climate change information will cover the anticipated operational lifetime of the proposed Development. This will be based on the information available from the UK Climate Projections project (UKCP18), which provides information on plausible changes in the climate for the UK (Met Office, 2018) and on published documents such as the UK Climate Change Risk Assessment 2017 (Committee on Climate Change, 2016). The assessment of effects for each topic will take into account identified trends or changes predicted to arise as a result of climate change.

Effects of the Proposed Development on Climate Change

Greenhouse gas (GHG) emissions can occur throughout the lifecycle of a development, including during construction and operation of a development. This can be affected by factors such as material use and energy demand. The proposed Development will incorporate measures during its construction by reducing fuel, energy and raw material consumption, and waste generation.

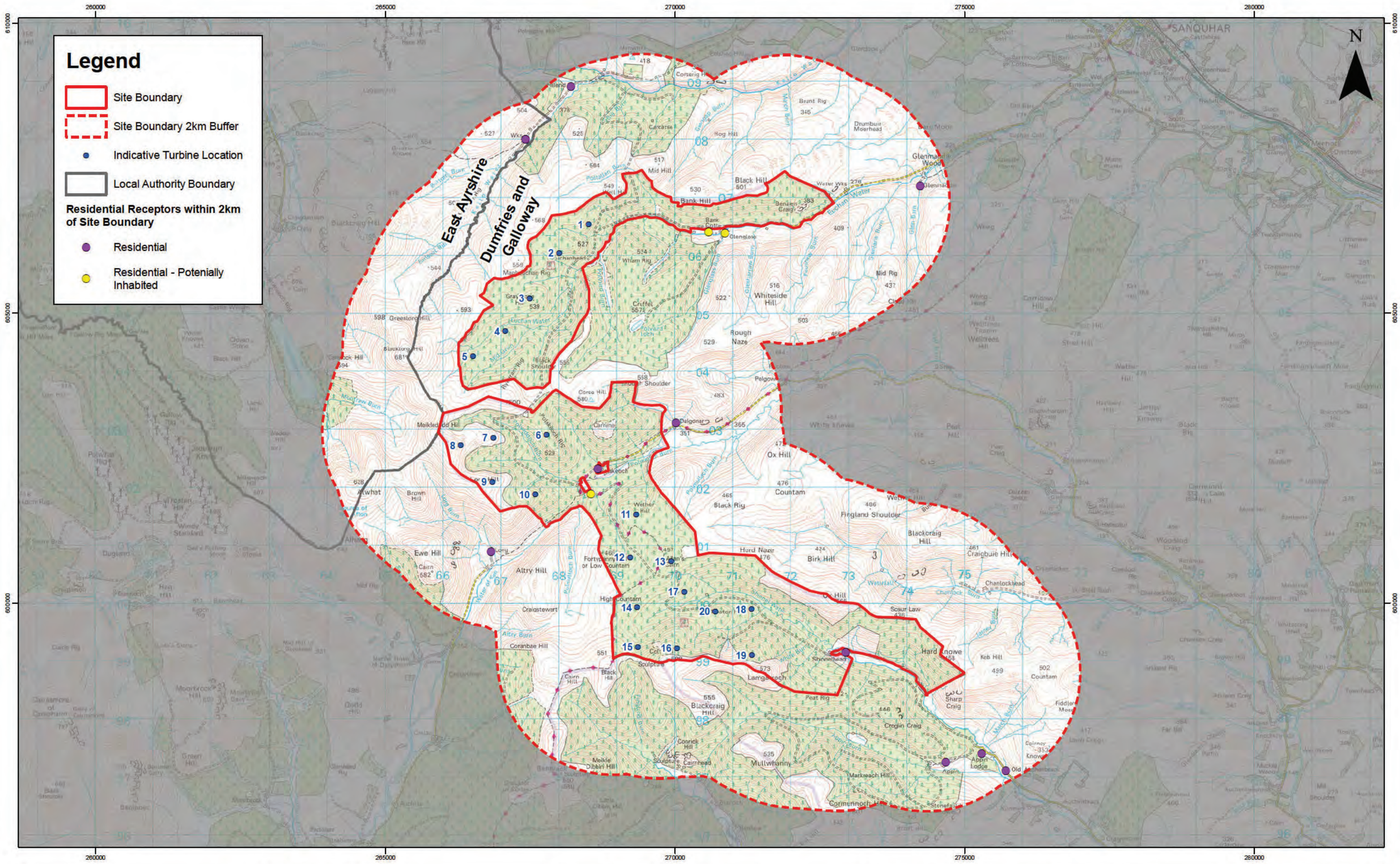
Construction of the proposed Development would generate a limited amount of greenhouse gas emissions and the turbines and other development infrastructure would incorporate some embodied carbon. However, the contribution to overall greenhouse gas emissions is anticipated to be negligible given the nature and scale of the proposed Development.

The energy produced by the proposed Development would offset energy that would otherwise be produced by forms of generation that produce greenhouse gasses as a by-product. Therefore, as a result of the proposed Development there will be positive impact on climate change. The Scottish Governments Carbon Calculator Tool (Scottish Environment Protection Agency et al., 2018) will be used to produce a statement of the expected carbon savings over the lifetime of the proposed Development and will be included as a Technical Appendix to the EIA Report.

Consultee Questions

- Do consultees agree with the proposed scope of the socio-economic assessment, tourism and recreation assessment?
- Do consultees have any suggested access enhancement measures that they would wish to see implemented on the Site?
- Do consultees agree that air quality can be scoped out of the EIA?

- Do consultees agree with the proposed design mitigation approach to avoid potential shadow flicker effects?
- Do consultees agree with the proposed method and approach to assessment of climate change?
- Please confirm any additional requirements that you consider should be included in this element of the EIA, that have not been covered in this fact sheet.



SCOTTISHPOWER RENEWABLES					1:60,000 Scale @ A3	0 1 2 3 Km	**Euchanhead Renewable Energy Development** Scoping Report Residential Receptors
	A	14/02/20	LM	First Issue.			
	Rev	Date	By	Comment			

Drg No	00481.00052.0097.0	
Rev	A	Datum: OSGB36
Date	14/02/20	Projection: TM
Figure	1	

260000 265000 270000 275000 280000

605000

600000

N

Legend

- Indicative Turbine Location
- Application Boundary
- Local Authority Boundary

East Ayrshire
Dumfries and Galloway
Galloway

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20

Kyle
Nithsdale

260000 265000 270000 275000 280000

SCOTTISHPOWER RENEWABLES

Rev	Date	By	Comment
A	13/02/20	JS	First Issue.

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Euchanhead Renewable Energy Development

Public Information Day

Indicative Concept Layout

Drg No	00481.00052.0093.0
Rev	A
Date	13/02/20
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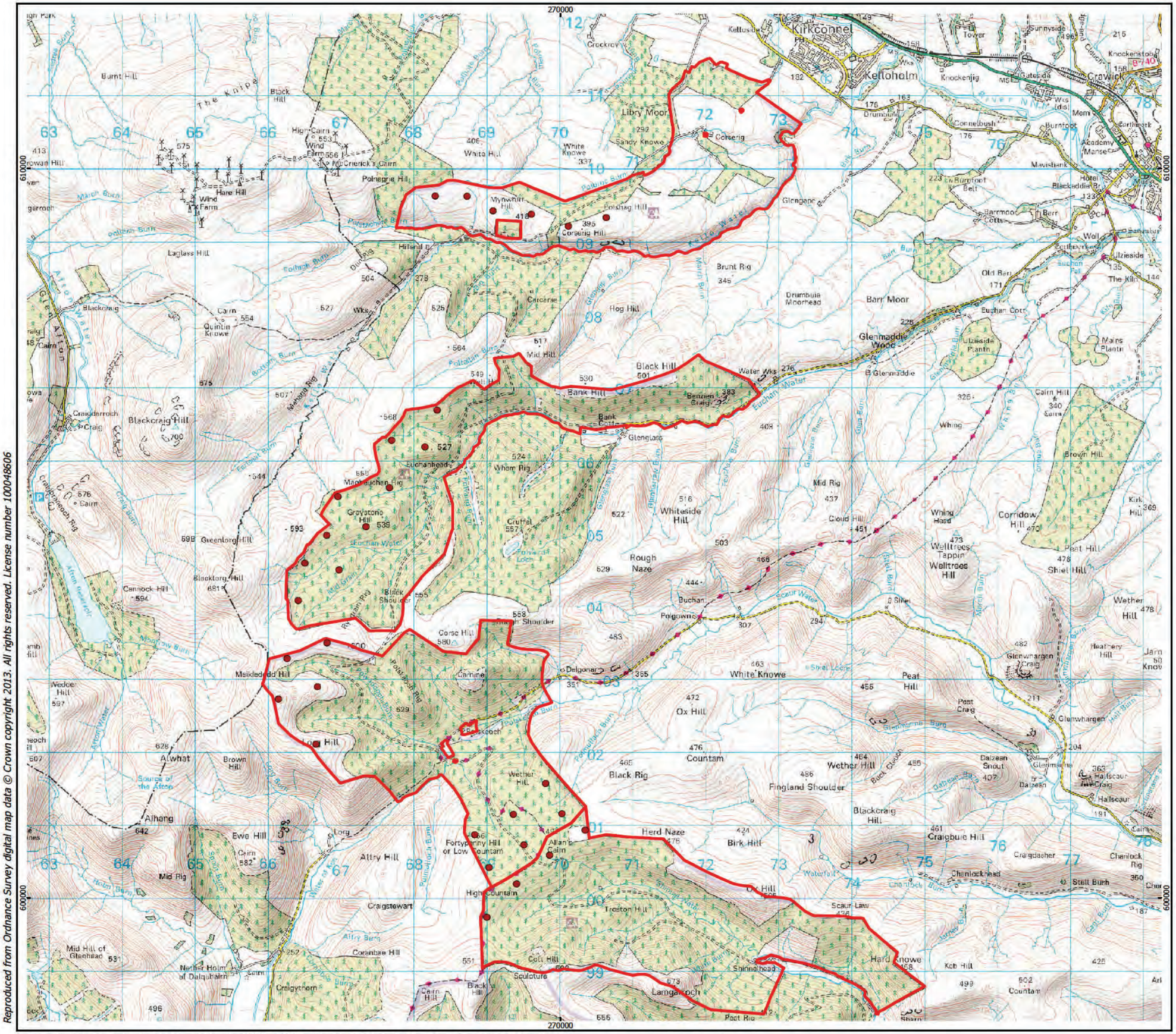
Datum: OSGB36
Projection: TM



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SCOTTISHPOWER RENEWABLES

ARCUS

- Indicative Turbine Layout
- Site Boundary

1:50,000 Scale @ A3

0 1 2 km

N

Produced: LHu
Reviewed: SC
Approved: RA

Ref: 1106/SR/001 | Revision: A

Date: 31/05/2013

Site Boundary
Figure 2

Euchanhead Windfarm Scoping Report

230000 240000 250000 260000 270000 280000 290000 300000 310000

620000 610000 600000 590000 580000

N

Legend

- Indicative Turbine Location
- Application Boundary
- Site Boundary 5-20km Buffers

Zone of Theoretical Visibility No. of Turbine Blade Tips Visible

High : 20 Turbines Visible

Low : 1 Turbine Visible

Note

This Zone of Theoretical Visibility (ZTV) has been generated using ESRI ArcGIS Spatial Analyst extension. The digital terrain model (DTM) has been derived from OS Terrain 50 dataset (+/-10m). Earth curvature has been included in the ZTV calculation and refraction of light has been applied using SNH guidance settings. The ZTV has been generated from a viewing height of 2m above ground level which falls within recommendations by "Visual Representation of Windfarms" prepared for Scottish Natural Heritage (SNH) February 2017 - Version 2.2.

The use of ZTV mapping at this stage is limited and the folowing assumptions should be noted:

•The ZTV has been generated using the proposed turbine locations for Euchanhead.

•The proposed turbine blade tips heights of 225m have been used for generating the ZTV.

•The ZTV is generated from a bare earth terrain and does not account for the screening effect of features within the landscape such as settlements and woodland. It does not indicate potential visual effects or show the likely significance of effects. It shows potential theoretical visibility only. The ZTV has been produced for the purpose of informing 'on the ground' visual assessment.

•The ZTV colour palette has been specifically developed to assist viewers with reduced sensitivity to red, green and blue light.

230000 240000 250000 260000 270000 280000 290000 300000 310000

SCOTTISHPOWER RENEWABLES

Rev	Date	By	Comment
A	13/02/20	JS	First Issue.

1:80,000
Scale @ A0

0 2.75 5.5 11 Km

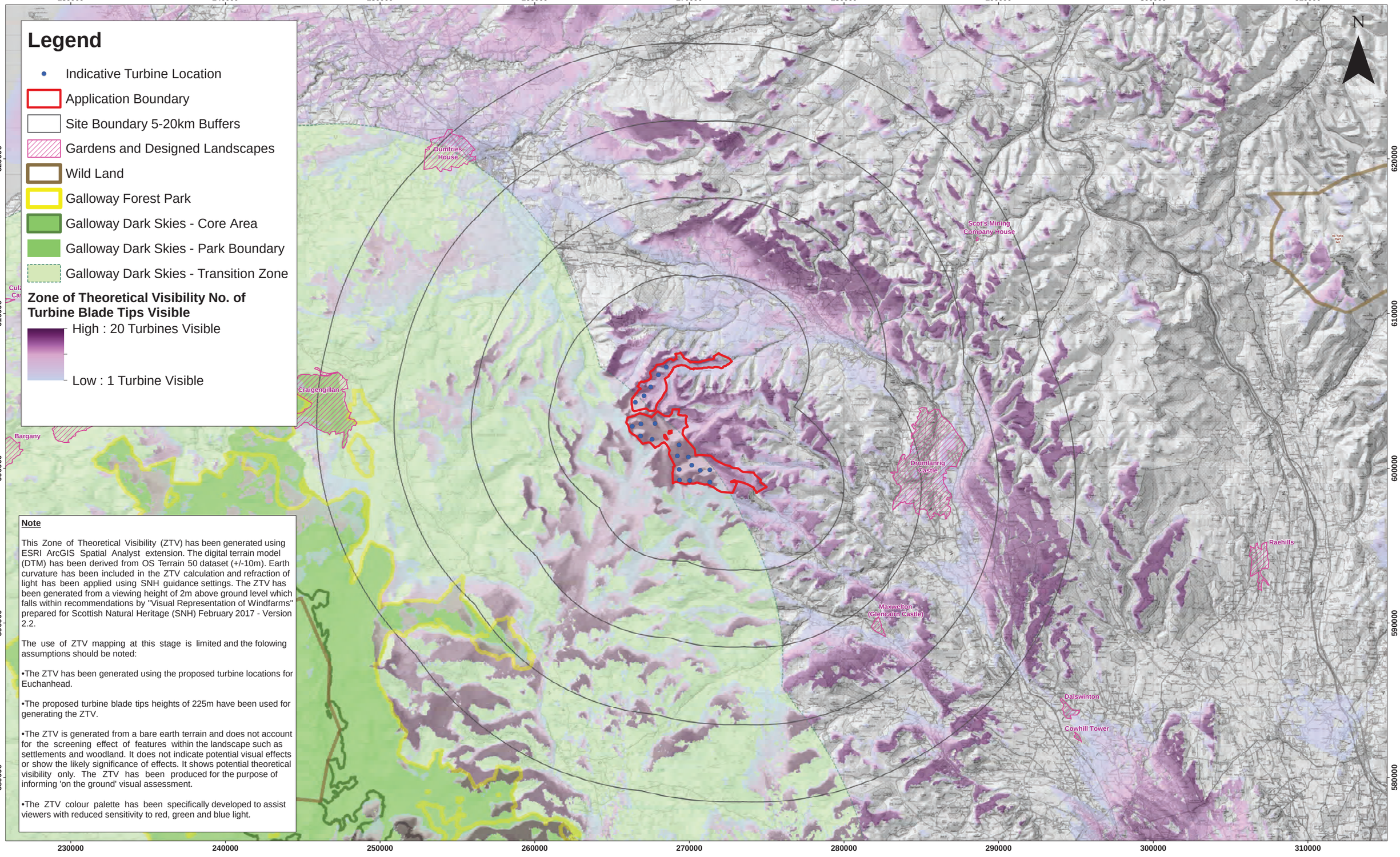
Euchanhead Renewable Energy Development

Public Information Day

Zone of Theoretical Visibility - Blade Tip

Drg No	00481.00052.0093.0
Rev	A
Date	13/02/20
Figure	-

Datum: OSGB36
Projection: TM



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•The ZTV colour palette has been specifically developed to assist viewers with reduced sensitivity to red, green and blue light.

SCOTTISHPOWER RENEWABLES

Rev	Date	By	Comment
A	13/02/20	JS	First Issue.

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Euchanhead Renewable Energy Development

Public Information Day

Zone of Theoretical Visibility - Blade Tip with Landscape Designations

Drg No	00481.00052.0095.0
Rev	A
Date	13/02/20
Figure	-

Datum: OSGB36
Projection: TM

APPENDIX 6
Feedback Form

To record your views and help us improve our future information days, please complete this feedback form.

It should take no longer than a few minutes.

Do you have any comments or questions for SPR to respond to?

Do you have any suggestions for community projects that could benefit from financial support?

Which do you consider yourself to be? (Please note: local is considered to be a resident living or a business operating within approx. 10 kilometres/ 6 miles of the project)

☐ Local Resident	☐ A Community Leader
☐ Local Business	☐ Elected Attendee (Please specify below)
☐ Other (Please specify below)	☐ A local Council Representative

……

Were you satisfied with the information provided today?

☐ Yes (if yes, what did you like?)

☐ No (if no, what could we do better?)

(Please specify)……

How did you hear about this event? Please tick

☐ Galloway Gazette	☐ Galloway Gazette online
☐ Letterbox leaflet	☐ Poster

☐ Other (Please specify)……

Please leave your details below to allow SPR to respond to your comment/question:

Name:……

Address:……

……

Email:……

For further information relating to how ScottishPower Renewables will use your data and your rights in this respect, please refer to the privacy statement on the website at www.scottishpowerrenewables.com/pages/privacy and on display at each Public Information Day.
This describes how ScottishPower/Iberdrola collects, stores and uses information that identifies individuals in connection with its business activities. If you do not have internet access, or would like to see a hard copy of our privacy statement please ask one of our representatives.

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