Modified Tangy III Wind Farm

Scoping Report

April 2017

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Environmental Scoping Report

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Executive Summary

Overview

Tangy Wind Farm, situated on the west coast of the Kintyre Peninsula in Argyll and Bute, Scotland, began generating electricity in 2004 and now comprises 22 turbines, each with 0.85 megawatt (MW) capacity, totalling 18.7MW. Consent for the operational site expires in August 2022 when, under the current planning conditions the wind farm would either be decommissioned or an application submitted for continued use. Therefore, in June 2013, a request was made for the Scottish Ministers to issue a Scoping Opinion for the repower and extension of the existing operational Tangy Wind Farm. However, as the final design capacity was less than 50MW, SSE Generation Ltd (SSEG), "the Applicant" submitted a planning application and Environmental Statement (ES) in November 2014 to Argyll and Bute Council and in June 2015 was granted planning permission for 15 turbines, under the Town and Country Planning (Scotland) Act 1997.

The Applicant is now proposing to install over 50MW based on the same 16 turbine layout previously submitted but with an increased tip height, from the consented 125m, up to, but not exceeding, 150m and an increased rotor diameter from 105m to circa 130m ("The Proposed Development"), in order to maximise the energy yield of the site and the site's contribution to Scottish renewable electricity generation targets[1],

All other elements of The Proposed Development remain unchanged from that presented in the Tangy III Wind Farm ES (November 2014), referred to as 'the ES (2014)'. As the footprint has not changed from the ES (2014), it is anticipated that the predicted effects documented in the ES (2014) would remain unchanged for many of the environmental features previously assessed.

It is proposed that further surveys will be carried out to inform the ES, focussing on the assessment of landscape and visual, ornithological and indirect cultural heritage effects. For other environmental features, it is proposed to reuse the survey data collected for the ES (2014). Previous assessments will be refreshed to take account of the design changes, updated project information, and updated policy and guidance, where relevant. As the footprint of The Proposed Development remains unchanged from that presented in the ES (2014), it is proposed to scope out some environmental features for which no significant effects were predicted in the ES (2014), and, there is no change in circumstances that affects those conclusions.

SSE Renewables Developments (UK) Limited, "the Developer" is preparing the application on behalf of the Applicant, SSE Generation Ltd (SSEG), which will be made to Scottish Ministers (ECU) under Section 36 of the Electricity Act 1989, including an application for deemed planning permission for the same development under Section 57(2) of the Town and Country Planning (Scotland) Act 1997.

This Scoping Report forms part of the Environmental Impact Assessment (EIA) process. The aim of the document is to inform stakeholders about The Proposed Development and provide information on the approach to the EIA. For each environmental feature, the potential effects of The Proposed Development that require further investigation are identified and the proposed scope of assessment in terms of studies and surveys to be undertaken is discussed. The detailed assessment methodologies for the various environmental features will be further informed by responses to this Scoping Report and ongoing consultation with relevant statutory consultees.

[1] Scotland's target for renewable electricity generation is for renewables to generate the equivalent of 100% of gross annual consumption by 2020 (2020 Routemap for Renewable Energy in Scotland, updated in 2015, The Scottish Government).

1 Introduction

1.1 Background Information

SSE Generation Ltd (SSEG), "the Applicant", is proposing to repower and redevelop the existing Tangy I and II Wind Farm ("The Existing Development"). The proposals for which consent under Section 36 of the Electricity Act 1989 will be sought by the Applicant are referred to in this report as 'The Proposed Development' and are described below. The application for Section 36 consent is being prepared by SSE Renewables Developments (UK) Limited (SSE Renewables), "the Developer", on behalf of the Applicant.

In November 2014, Tangy III Wind Farm Environmental Statement (ES), 'the ES (2014)', was submitted in support of an application for consent under the Town and Country Planning (Scotland) Act 1997 to Argyll and Bute Council to construct and operate a new 16 turbine wind farm with an installed capacity of up to 36.8MW ("the ES 2014 Layout"). Following discussions with Argyll and Bute Council to remove turbine 8 from the turbine layout, planning permission for 15 turbines was granted in June 2015 ("The Consented Development"), with the general support of Councillors and the local community.

To maximise the energy yield of the site, in addition to maximising the site's contribution to Scottish renewable electricity generation targets[2], the Applicant is now proposing to install over 50MW based on the same 16 turbine layout previously submitted but with an increased tip height, from the consented 125m, up to, but not exceeding 150m and an increased rotor diameter from 105m to circa 130m. As a result an EIA will be required under the Electricity Works (Environmental Impact Assessment) (Scotland) Regulations 2000 ("the EIA Regulations"), as The Proposed Development comprises a wind farm with a generation capacity greater than 50 MW and for which Section 36 consent is required. It is therefore considered to fall within the definition of Schedule 2 development contained in regulation 2(1) of the EIA Regulations. In terms of the application for Section 36 consent, deemed planning permission under Section 57 (2) of the Town and Country Planning (Scotland) Act 1997, as amended, will also be sought.

The Existing Development

Tangy Wind Farm is situated on the west coast of the Kintyre Peninsula in Argyll and Bute, Scotland, as shown on Figure 1: Site Location. Tangy I, comprising 15 turbines began generating electricity in 2004. Following an extension to include a further seven turbines in 2007 (Tangy II), The Existing Development currently comprises 22 turbines, each with 0.85MW capacity. The planning permission for the Existing Development expires in August 2022 when, under the current planning conditions, Tangy I and II would either be decommissioned or an application for continued use submitted.

The Consented Development

In June 2013, a Scoping Report was submitted to the Energy Consents Unit (ECU) and a request made for The Scottish Ministers to issue a Scoping Opinion for the repower and extension of the existing operational Tangy Wind Farm as it was anticipated that the proposals would result in a project greater than 50MW. However, as a result of the iterative design process the final design capacity was less than 50MW, so the Applicant submitted a planning application and Environmental Statement to Argyll and Bute Council in November 2014 under the Town and Country Planning (Scotland) Act 1997 for planning permission for 16 turbines at 125 metres to tip ("The ES 2014 Layout").

[2] Scotland's target for renewable electricity generation is for renewables to generate the equivalent of 100% of gross annual consumption by 2020 (2020 Routemap for Renewable Energy in Scotland, updated in 2015, The Scottish Government).

Planning permission was granted in June 2015 for 15 turbines (125 metres to blade tip) and ancillary development, including decommissioning of Tangy I and Tangy II Wind Farms, referred to in this report as - "The Consented Development".

The Proposed Development

This latest proposal is to install 16 turbines with an increased maximum tip height of up to, but not exceeding 150m and rotor diameter of circa 130m, which would provide an installed capacity of greater than 50MW. The site boundary remains unchanged at approximately 711 hectares (ha) comprising the 247ha leased area of the existing wind farm plus approximately 13ha for site access and 451ha of an area of commercial forestry to the north of the existing wind farm site.

All other elements of the site design (i.e. turbine locations, access track layout, etc.) remain unchanged. As such, it is anticipated that the predicted effects documented in the ES (2014) would remain unchanged for many of the environmental features previously assessed as they would be unaffected by an increase in height or rotor diameter.

It is proposed that further surveys will be carried out to inform the ES, focussing primarily on the assessment of landscape and visual, ornithological and indirect cultural heritage effects. For other environmental features, it is proposed to reuse the survey data collected for the ES (2014). Previous assessments will be refreshed to take account of the design changes, updated project information and updated policy guidance, where relevant. As the footprint of The Proposed Development remains unchanged from that presented in the ES (2014), it is proposed to scope out some environmental features for which no significant effects were predicted in the ES (2014), as there is no change in circumstances that affects those conclusions.

1.2 Purpose of this Report

This report is submitted as the basis of a request to Scottish Ministers for a formal EIA Scoping Opinion for The Proposed Development under Regulation 7 of the EIA Regulations.

The scoping process allows statutory consultees and others to comment on The Proposed Development, the scope of the EIA and the proposed assessment methodologies. It also provides an opportunity for consultees to raise any issues that they consider to be relevant to the EIA process.

The aims of this document are to:

- set out the overall approach to the EIA;
- summarise key baseline information;
- describe the proposed assessment methodology;
- identify key potential effects at all stages of development;
- identify topics not requiring further assessment that can be scoped out; and
- describe the proposed content and structure of the ES.

The document is divided into eight sections:

- Section 1: introduces The Proposed Development and provides a context for the Scoping Report;
- Section 2: summarises the consultation input;
- Section 3: describes The Proposed Development;
- Section 4: outlines the planning policy context;
- Section 5: provides information on the structure of the ES;
- Section 6: details the environmental features to be assessed as part of the EIA;
- Section 7: describes those environmental features that are to be scoped out of the EIA; and
- Section 8: details how responses to the Scoping Report should be provided.

The EIA process enables the likely significant effects of The Proposed Development on the environment to be fully understood and taken into account during consideration of the application. The process is also used to develop mitigation measures to avoid, reduce or offset any adverse effects of The Proposed Development.

The Developer will appoint a team of independent specialists to advise on the environmental issues associated with The Proposed Development. These specialists will work with The Developer during the design process, carry out environmental impact assessment work, and will prepare chapters for inclusion in the ES.

The Scoping Opinion received from Scottish Ministers will be used to inform the EIA. The list of organisations consulted to date is presented in Section 2 of this report and details are also provided regarding proposed consultation during the EIA process.

1.3 Need for Onshore Wind in Scotland

The Climate Change (Scotland) Act 2009 received Royal Assent in August 2009. The Act commits Scotland to a greenhouse gas emission reduction target of 42% of 1990 levels by 2020. This compares with the UK Government target of a 34% reduction by 2020, with an intention to increase this to 42% if targets are met. The European Union's (EU) current commitment is for a reduction of 20% of 1990 levels by 2020 (www.decc.gov.uk).

The Scottish Government has set a target of providing 100% of Scotland's electricity generation from renewable sources by 2020.

The Scottish Government published a Renewables Action Plan (RAP) in 2009 which sets out a framework for action in the renewable energy sector. Since its publication, the Action Plan has been updated in February 2010, August 2010, February 2011 and March 2011. Key objectives of the action plan include:

- to establish Scotland as a UK and EU leader in the field;
- to ensure maximum returns for Scotland's domestic economy; and
- to meet Scotland's targets for energy from renewables and emissions reductions to 2020 and beyond.

1.4 Local Supply Chain and Community Benefit

The Applicant is committed to proactively engaging with the local supply chain to ensure that local companies are aware of and know how to tender for contracts related to The Proposed Development. As part of its commitment to developing these relationships, the Applicant has launched a dedicated supplier portal called Open for Business (O4B) Highlands and Islands, under which Argyll and Bute is included.

This web-based portal provides a platform for the Applicant to promote opportunities that enable the local supply chain to view opportunities, register as a supplier and respond to notices free of charge. Users of the site can also use the portal to advertise their own sub-contracting opportunities to the local supplier base.

To help promote opportunities more widely the Applicant also hosts 'Meet the Buyer' events designed to provide an opportunity for local businesses to find out about the opportunities available within the Applicant's pipeline of projects. Initiatives such as these demonstrate the Applicant's strong commitment to maximising the positive economic effects of its projects through local companies where possible. One important employer, based locally at Machrihanish, is CSWind UK (previously Wind Towers Ltd.), who have previously supplied tower sections for wind turbines on a number of other projects for the Applicant.

The Applicant has established a community benefit fund linked to the operational Tangy I and II Wind Farm which is expected to generate £160,000 in funding over its lifetime. The annual community benefit fund payment from both Tangy I and II is distributed via Kintyre Wind Farm Trust, Ali Energy, who deliver energy projects across the region and five community councils (Campbeltown, East Kintyre, Southend, The Laggan and West Kintyre). The Applicant's policy on community investment has been revised since Tangy I and II became operational, therefore current policy would be applied. Revised Government policy on shared ownership would be followed and opportunities for the suitability of shared ownership at the site would be explored.

2 Consultation

2.1 Consultation to date

Effective consultation took place with Argyll and Bute Council, statutory / non statutory consultees and the local community as part of the previous application. The Developer has also held discussions with Argyll and Bute Council on locating larger turbines on this site. A comprehensive consultation process will continue throughout the EIA process for The Proposed Development.

2.2 Scoping Stage Consultation

It is anticipated that Scottish Ministers will issue this Scoping Report to the statutory consultees listed below:

- Argyll and Bute Council;
- Scottish Environment Protection Agency (SEPA); and
- Scottish Natural Heritage (SNH).

In addition to the statutory consultees above, the Developer will issue this Scoping Report to the following consultees:

- Argyll District Salmon Fishery Board;
- BAA Aerodrome Safeguarding;
- British Telecom;
- Civil Aviation Authority (Airspace);
- CSWind UK;
- Defence Estates;
- Fisheries Management Scotland;
- Forestry Commission Scotland (FCS);
- Highlands and Islands Airports;
- Historic Environment Scotland;
- John Muir Trust;
- Joint Radio Company;
- Machrihanish Airbase Community Company;
- Marine Scotland;
- Mountaineering Council of Scotland;
- National Air Traffic Services (NATS) Safeguarding;
- Nuclear Safety Directorate (HSE);
- RSPB Scotland;
- Scottish Water;
- Scottish Wildlife Trust;
- Scotways;
- South Kintyre Development Trust;
- The Crown Estate Scotland;
- The Long and Winding Way Ltd.;
- Transport Scotland; and
- Visit Scotland.

The Scoping Report will also be issued to the following Community Councils:

- Campbeltown;

- East Kintyre;
- Southend;
- The Laggan; and
- West Kintyre.

The Developer's project liaison manager will contact the MP, MSP and local Councillors to offer copies of the Scoping Report if required and to provide further information about Public Exhibitions.

2.3 EIA Consultation

During the EIA process, further consultation will be undertaken with the statutory consultees listed above. Additional groups, organisations or individuals identified during the scoping process will be contacted as appropriate during the progression of the EIA.

The scoping and consultation process will be reported in a chapter in the ES.

A Pre-Application Consultation Report (PACR) will be prepared as a supporting document for the Section 36 application. A PACR is not formally required as part of a Section 36 application (PACR is a requirement of the Town and Country Planning (Development Management Procedure) (Scotland) Regulations 2013 for categories of national development and major development), but is submitted by the Developer as best practice for both planning applications and Section 36 applications.

2.4 Public Exhibitions

A public exhibition will be held locally to inform local residents and other interested parties about The Proposed Development. The exhibition will provide information regarding wind power generally and specific details of The Proposed Development and will provide an opportunity for members of the public to ask questions about The Proposed Development. Representatives will be present to answer any questions.

3 The Proposed Development

3.1 Introduction

This chapter describes The Proposed Development and provides information on its location, physical characteristics, proposed components and design. The turbine and infrastructure layout has already been subject to an iterative design process as part of the ES (2014). The footprint of The Proposed Development has not changed from the ES 2014 Layout.

The Proposed Development would consist of:

- 16 turbines of up to, but not exceeding, 150m tip height and circa 130m rotor diameter with external transformers and associated hardstand areas;
- permanent meteorological masts and associated hardstand areas;
- two site substations (one new substation and retention of the existing Tangy I and II Wind Farm substation);
- one operations control building with parking and welfare facilities;
- a total of 11km of onsite access tracks with associated watercourse crossings and passing places (of which approximately 7.4km are new access tracks and 3.6km are upgrades to existing tracks); and
- onsite underground cabling.

In addition to the above components of the operational wind farm, the construction phase would involve the following (see Figure 2: Site Layout):

- temporary construction compound and laydown areas (option for on-site concrete batching);
- temporary meteorological masts;
- temporary telecoms infrastructure;
- forestry removal and subsequent replanting; and
- dismantling of existing turbines and associated reinstatement (turbine bases to 1m below ground level and approximately 2.1km of redundant access tracks).

The construction phase would also comprise the working of up to four borrow pits, for which planning consent has already been granted under the Town and Country Planning (Scotland) Act 1997.

3.2 Proposed Changes from the Consented Development

Proposed changes from the Consented Development include:

- Increase in maximum wind turbine tip height from 125m to up to, but not exceeding, 150m;
- Increase in maximum wind turbine rotor diameter from 105m to circa 130m;
- Reintroduction of Turbine 8 to maximise the energy yield of the site, resulting in a total of 16 turbines; and
- Replanting of felled forestry up to 10m in height with key hole design as per previously agreed position on the previous application following detailed discussions with FCS.

All other aspects of The Proposed Development, such as turbine locations, hardstanding's and access track layout remain unchanged from the ES (2014), as shown on Figure 2: Site Layout.

3.3 Site Selection

The operational Tangy Wind Farm site was selected following a search of potential wind farm sites throughout Scotland by the Developer. Site selection factors and features included a range of criteria, such as wind speed, access to grid connection, landscape and recreational designations, site topography, ecological sensitivities, ornithological interests, noise and water features.

At Tangy, the site benefits from the presence of an existing local turbine tower manufacturing factory, upgraded harbour facilities, and an existing operational wind farm with exceptional wind resource, and, associated infrastructure.

3.4 Site Design and Mitigation

The site design and footprint remains unchanged from that as described in the ES (2014), as shown on Figure 2: Site Layout.

Mitigation has been an integral part of the overall design strategy of The Consented Development and the turbine and infrastructure layout has already been subject to an iterative design process as part of the ES (2014). As part of this process, The Consented Development has been designed to ensure maximum re-use of the existing infrastructure and to reduce the disturbance of new areas.

3.5 Site Description

The site is located approximately 9km northwest of Campbeltown, Kintyre's largest settlement. The closest villages are Bellochantuy, 2km northwest of the site, and Kilchenzie, 3km south of the site. The current land use of the application site comprises a combination of forestry, agricultural land currently used for commercial forestry and grazing, and renewable electricity generation. The highest point within the site boundary is Cnocan Gean, northeast of the existing wind farm at a height of 200m Above Ordnance Datum (AOD).

The site also contains several small watercourses/burns, many of which are connected to Tangy Loch, which is adjacent to the south eastern site boundary.

There is access to the site via Tangy Mill Road to the south, which connects to the A83 at Drum Farm. The A83 runs to the west and south of the site providing access to Campbeltown Harbour and Machrihanish.

3.6 Grid Connection

An application for connection to the grid has been lodged separately by the network operator (Scottish and Southern Electricity Networks). The Proposed Development retains the existing substation and allows for a new substation, to provide a flexible grid solution.

3.7 Turbine Design

The dimensions of the proposed turbines will be determined as the project design progresses. At this stage it is likely that the turbines will consist of three bladed horizontal downward axis machines with a blade (rotor) diameter of circa 130m and a total maximum blade tip height of up to, but not exceeding, 150m.

The blades will be made from fibreglass-reinforced epoxy and the tower will be constructed from rolled steel plate. The finish and colour of the turbines are likely to be semi-matt and pale grey.

Blades typically rotate in the range of 6 to 18 revolutions per minute, depending on the size of the turbine generating power at wind speeds between about 3m/s and 25m/s (7-56 mph). When operating at wind speeds above 15m/s (34 mph), the turbines will regulate their output to the maximum level using pitch control, whereby the blades are feathered to reduce speed. At wind speeds generally greater than 25m/s (56 mph), the turbines will shut down for self-protection and will only restart when wind speed drops back below a reset value.

3.8 Site Access

The proposed site access track layout is shown on Figure 2: Site Layout. It is anticipated that site access would include delivery of components from Campbeltown Harbour, heading west when joining the A83, and turning east or west onto the farm access track at Drum Farm, proceeding northwards on the Tangy Mill Road to the junction just past High Ballevain. The route selected for access to the site entrance is anticipated to be from High Ballevain, heading east towards Breakachy and Tangy.

Widening and upgrading of either route may be required to accommodate the transport of components to site. Proposed works will be informed following completion of a revised transport assessment, and would be expected to include:

- temporary removal of fence lines, walls and gates; and
- provision of additional passing places where deemed necessary.

3.9 Electrical Layout

The Existing Development currently has a mix of internal and external transformers. In line with current best practice, external transformers are required for The Proposed Development. External transformers would be located adjacent to the base of each turbine.

Underground cables will link the transformers to the on-site substations. Detailed construction and trenching specifications will depend on ground conditions at the site. Where possible the existing cable trenches will be re-used. Electric cabling currently in place for The Existing Development is not suitable for re-use on The Proposed Development due to its size and electrical capacity. It is anticipated that cable removal may be possible in areas where construction works would already be disturbing the ground (i.e. during the installation of new cable) however, cable would be left in situ where construction is not required in order to minimise unnecessary disturbance to habitats and peat, including Ground Water Dependent Terrestrial Ecosystems (GWDTE) (see Appendix 1).

3.10 Forestry Clearance and Replanting

The northern part of the site includes an area of commercial plantation forestry. The developer has agreed with FCS, as the forestry commission are also a landowner, to clear fell approximately 270.5 ha of forestry and replant on site to a keyhole design, productive conifer, up to 10m in height. This approach was agreed during late 2014 and early 2015 prior to consent being granted for The Consented Development.

A detailed forest plan would be finalised through discussion with the landowners, agents and in consultation with Forestry Commission Scotland, following detailed design. Areas for peatland restoration have also been identified.

3.11 Decommissioning of and Reinstatement for The Existing Development

Decommissioning of and reinstatement for The Existing Development would comprise:

- Removal of the 22 existing wind turbines and towers to 1m below ground level and associated reinstatement;
- Removal of approximately 2.1km of access tracks and reinstatement of former track routes; and
- Removal of electrical cable in areas where construction works would disturb the ground.

3.12 Project Construction

It is anticipated that the construction phase of The Proposed Development would be completed over a period of up to 18-24 months.

All statutory legislation would be fully complied with during construction and other best practice guidance (e.g. SEPA Pollution Prevention Guidelines and Good Practice during Wind Farm Construction (Version 3), Scottish Renewables et al, (2015)) would be adhered to.

Construction mitigation and environmental protection measures would be implemented via a Construction Environmental Management Plan (CEMP). Further information on the CEMP is provided in Section 5.4.

3.13 Project Operation and Maintenance

Routine operational and maintenance work would be carried out as necessary.

3.14 Project Decommissioning

At the end of the operational lifespan, decommissioning would take place and the turbines removed, or a new application would be made to extend the consent for the existing turbines or to replace the turbines.

4 Planning Policy Context

4.1 Introduction

This section provides an overview of the planning policy context for The Proposed Development. A more detailed discussion and evaluation of relevant policies will be included within the Planning Statement that will be provided as a supporting document with the Section 36 application, as discussed further in Section 5.4. An up-to-date list of relevant planning policies will be contained within an appendix to the ES.

4.2 National Planning Framework 3

National Planning Framework (NPF) provides a framework for long-term spatial development in Scotland. The third NPF (NPF3, June 2014) (Scottish Government 2014a) was laid before the Scottish Parliament and approved in June 2014, and it sets out the Government's development priorities over the next 20-30 years and identifies national developments which support the development strategy. The central vision is set out over four key policy objectives for Scotland to be: a successful, sustainable place; a low carbon place; a natural, resilient place; and, a connected place.

4.3 Scottish Planning Policy

Scottish Planning Policy (SPP) was published by the Scottish Government in June 2014 (Scottish Government, 2014b) and sets out a national policy framework for land use planning. Guidance regarding renewable energy including onshore wind farms is contained within the renewable energy section of the document. This consolidated document supersedes previous Scottish Planning Policies (SPPs) and National Planning Policy Guidelines (NPPGs).

Onshore Wind Turbines, (Scottish Government, 2014c), provides greater clarity and focus for planning authorities in locating wind farms and assessing wind farm applications. It also places emphasis on the importance of pre-application discussions.

4.4 Local Planning Policy

The site lies entirely within the jurisdiction of Argyll and Bute Council. The Argyll and Bute Council Adopted Local Development Plan 2015, provides the local planning framework for the area and provides the general policy context against which The Proposed Development would be assessed. The Council has also developed Supplementary Guidance, adopted in March 2016.

Argyll and Bute Council published the 'Renewable Energy Action Plan' (REAP) framework in 2010. This framework is a non-statutory document that has been produced to develop further the renewable energy sectors in Argyll and Bute, and also to assist Argyll and Bute's Community Planning Partners help realise their vision for the development of the renewable energy sector.

5 Proposed Approach to EIA

5.1 The Overall Approach to the EIA

The ES will be prepared in accordance with the EIA Regulations 2000 (as amended), and the Good Practice Guidance published by the Scottish Government's Energy Consents & Deployment Unit in January 2013, together with its Guidance on the EIA Regulations and the supplementary guidance on the amending Electricity Works (Environmental Impact Assessment) (Scotland) Amendment Regulations 2008. Consideration will also be given to advice contained in Planning Circular 1/2013 (Environmental Impact Assessment) where relevant.

Scoping Question:

As this scoping request is submitted prior to the implementation of the 2014/52/EU Directive which takes place on 16th May 2017, do Scottish Ministers agree that the EIA will be prepared in accordance with the existing regulations under the 2011/92/EU Directive?

The EIA work will comprise a series of specialist environmental studies which will be targeted to assess the potential significant effects which The Proposed Development is likely to have on the environment. Survey work undertaken for The Consented Development will be used for this assessment where possible and appropriate. Each topic included within the EIA process will be incorporated as a separate chapter in the main body of the ES, or included as an appendix if the assessment of the subject matter requires to be more detailed.

Throughout the ES, where an issue raised in the scoping opinion is addressed, this will be clearly referenced in the relevant chapter. A scoping matrix will also be included in the ES which will detail all consultation responses received for the purposes of the Scoping Opinion and during the EIA process, with a reference to where these responses have been addressed in the ES. A schedule of mitigation measures will also be included as an appendix and cross-referenced in the relevant assessment work.

Baseline

All topics covered within the ES will assume that The Existing Development (i.e. the existing Tangy I and II Wind Farm) will form part of the environmental baseline for assessment purposes. This is consistent with the approach adopted in the ES (2014) and is also consistent with Scottish Planning Policy (SPP, 2014 para. 174) which states on the matter of repowering that: *'The current use of the site as a wind farm will be a material consideration…'.* This established approach to new wind farm development is also reinforced in the Scottish Government Onshore Wind Policy Statement January 2017 (Scottish Government, January 2017, Page 12) which states: '*The current arrangement for determining section 36 applications is to assess applications against the environmental baseline prevailing at the point of determination. Whilst we are always looking at ways we can improve this process, it is an established process and one that has developed over time and is respected by developers.'*

The Applicant considers the approach proposed, to consider The Existing Development as part of the baseline, as consistent with SPP, the Scottish Government's Onshore Wind Policy Statement (draft) and the views of Argyll and Bute Council on this matter. The Applicant recognises that SNH are currently preparing guidance on assessing repowering applications and plan to consult on the draft guidance later in 2017. In the meantime SNH have advised that they will be scoping the assessment of repowering applications on a case by case basis.

Comparison of Predicted Effects

Whilst the assessment of potential likely significant effects will be based on an assessment of The Proposed Development as a separate EIA project, it is proposed that as an added layer to the assessment, a succinct comparison of the predicted effects of The Proposed Development (against the baseline) will be made with the predicted effects of The EIA 2014 Layout contained within the ES (2014.). The purpose of this exercise is to identify and explain the differences in predicted effects between the two proposals.

The ES will also explain the differences in energy yield by optimising the generating capacity of the site by utilising turbines with increased tip heights in order to maximise efficiency and return and increase viability of the scheme. The provision of such an explanation in the ES is supported by Scottish Government in its Onshore Wind Policy Statement (January 2017).

Cumulative Effects

For the purposes of the cumulative impact assessment, the baseline for assessment purposes would include all operational wind farms, those consented and those for which applications for statutory consents have been submitted. Consultation and discussion with Argyll and Bute Council, SNH and other bodies as required would be carried out to determine which wind farms have the potential to cause significant cumulative effects and therefore should be included within the EIA. The approach taken to identifying the development projects that should be included in the baseline for the cumulative impact assessment will be tailored so that it is appropriate to each topic under consideration.

Any proposed wind farm developments for which applications which have not been submitted to the Local Planning Authority or Energy Consents Unit but for which a formal scoping opinion has been requested, will not be assessed. The reasoning for this approach is that there is little certainty about such development at that stage and limited information is available to inform assessment work.

5.2 Structure of the Environmental Statement (ES)

It is anticipated that the ES will be produced as four volumes:

- Volume 1: Non-Technical Summary;
- Volume 2: Written Statement;
- Volume 3: Figures; and
- Volume 4: Technical Appendices.

Volume 2 will include a set of introductory chapters that describe the background and needs case for The Proposed Development, provide the relevant energy and national policy context, and provide information with regard to the construction, operation and decommissioning of the wind farm.

For each of the environmental features assessed in Volume 2, the following information will be included in the respective chapters:

- a summary;
- an introduction to the environmental feature;
- scoping and consultation responses;
- assessment scope, methodology and study area;
- baseline conditions;
- impact assessment and proposed mitigation; and
- references.

Volume 2 will be concluded with a summary chapter outlining the main committed mitigation measures and an overall summary of significance in the context of the EIA (Scotland) Regulations.

5.3 ES Format

The ES will be made available on DVD and hard copy although in the interest of the environment we would encourage take up of the DVD format. Figures/drawings and detailed specialist reports and figures will be provided in Volumes 3 and 4 respectively.

If necessary, a confidential appendix will be prepared containing sensitive, confidential ecological/ornithological information to be provided to the Scottish Government and SNH.

5.4 Supporting Documents

A Planning Statement will be prepared in support of the application for consent. The Planning Statement will not be part of the ES. It will discuss the relevant energy and environment policies relating to wind energy development, Scottish Government's policies on renewable energy development and the Development Plan context for The Proposed Development. A list of relevant planning policies will be contained within an appendix to the ES.

A Design Statement will be prepared setting out the design principles that have influenced and shaped the design of The Proposed Development.

As explained in Section 2.3, a Pre-application Consultation Report (PACR) will be prepared detailing engagement regarding The Proposed Development between the Developer and local Community Councils, Argyll and Bute Council, other consultees and members of the public.

An Outline CEMP will be provided as an appendix within the ES and will contain general, good practice information applicable to both the construction and decommissioning phases of The Proposed Development on the following subject-matters:

- Site Induction;
- Pollution Prevention;
- Site Waste Management;
- Drainage Management;
- Watercourse Crossings;
- Water Quality Monitoring;
- Excavation Materials and Reinstatement;
- Decommissioning Restoration Plan;
- Ecological (Habitats and Species) Protection;
- Archaeological Protection; and
- Environmental Incident and Emergency Response.

6 Environmental Features

6.1 Introduction

The ES will provide an assessment of effects during the construction, operation and decommissioning of The Proposed Development for the environmental features described in this section.

As the footprint of The Proposed Development will remain unchanged from the ES (November 2014), it is anticipated that the predicted effects documented in the ES (November 2014) would also remain unchanged for many of the environmental features previously assessed for which an increase in height and rotor diameter of the turbines will not alter the assessment of effect.

It is proposed to reuse all of the survey data collected for the ES (2014), supplemented by additional survey work where required. Assessments will be refreshed to take account of the design changes and updated guidance, where relevant.

This section provides a brief overview of the baseline conditions, the potential effects associated with The Proposed Development and the assessment methodology for each environmental feature to be considered in the ES.

6.2 Ornithology

Introduction

The ES (2014) concluded that the potential effects of the proposed development on Greenland white fronted geese within the study area and associated with the Kintyre Goose Roosts SPA and Ramsar site, as well as wider ornithological interests, were **not significant** in the context of the EIA Regulations.

Given the increase in turbine height and rotor diameter from that assessed in the ES (2014) (125m tip height) to that proposed (up to, but not exceeding 150m tip height), a revised ornithological assessment will be undertaken. It is proposed to reuse all of the survey data collected for the ES (2014) to inform the assessment of The Proposed Development, supplemented by some additional survey work where considered relevant (see Table 6.1).

Baseline Description

Ornithological Designations

There are no statutory nature conservation designations that cover the application site. The Kintyre Goose Roosts Special Protection Area (SPA), Kintyre Goose Lochs SSSI, Tangy Loch SSSI and the Kintyre Goose Roosts Ramsar site are all located adjacent to or within the vicinity of the site (see Figure 3: Environmental Designations). A qualifying feature of each of these sites is Greenland white-fronted goose.

Previous Survey Work and Assessment Findings

Ornithological fieldwork to inform the assessment of effects detailed in the ES (2014) commenced in April 2012 and was completed in March 2014, covering two full breeding and non-breeding seasons. This suite of surveys (referred to below in Table 6.1) supplemented previous data collected in relation to Tangy I and II Wind Farm EIA surveys (from 1994 to 2004 and 2005 to 2007) and subsequent ornithological monitoring reports.

The surveys carried out between 2012 and 2014 identified a total of 73 species in and around the site, most of which were of low conservation value. Four target species were considered in detail within the assessment: Greenland white-fronted goose, hen harrier, merlin and herring gull.

Previous survey work did not record any flights at potential collision height (for the 125m turbine) for Greenland white-fronted goose, hen harrier or merlin and therefore collision risk estimates were assessed as zero.

It was concluded that all disturbance and displacement effects during construction and operation were considered to have no likely significant effects on the Kintyre Goose Roosts SPA and Ramsar site (or any other Natura 2000 site in the wider area (see Figure 3: Environmental Designations)), even prior to consideration of any mitigation measures. This conclusion was supported in a response from SNH dated 16th March, 2015, which advised that "*given the low collision risk, and low likelihood of displacement and disturbance, the information / appraisal presented demonstrates no adverse effect on site integrity*."

Potential Effects

Potential effects which will be considered may include:

(a) Construction

- disturbance and displacement;
- indirect effects e.g. disruption to habitat function, effects on prey; and
- indirect effects on designated sites.

(b) Operation

- collision risk with the rotating blades of the turbines;
- disturbance and displacement;
- barrier effects causing disruption of flight lines due to the addition of turbines, including migratory flight paths and day to day movements between breeding / roosting sites;
- indirect effects on designated sites; and
- indirect effects e.g. disruption to habitat function, effects on prey.

(c) Decommissioning

- disturbance and displacement.

6.2.1 Proposed Scope of Assessment

The assessment will be refreshed to take account of the increase in turbine height and rotor diameter, changes in land use conditions during operation (i.e. replanting areas of the site with coniferous forestry) and, changes in the cumulative baseline. Table 6.1 defines the types of survey that will be used to inform this assessment.

Table 6.1: Bird Survey Types

Survey Type	Date of Survey Data	Comments
Flight Activity Vantage Point (VP) Surveys across the proposed site.	April 2012 to March 2014	Winter vantage point surveys over 2016 / 2017 are being carried out to supplement the previously collated VP data. Historical survey data for Tangy 1 & 2 will also be used in the assessment from 1994 to 2004 and 2005-07 which provides a comprehensive picture of geese and raptor flight lines within the vicinity. It is not proposed to carry out any further vantage point survey work over the summer (2017) as it is considered that existing survey data is sufficient to inform the assessment, supplemented by breeding diurnal raptor and diver walkover surveys (see below).
Upland Breeding Birds Surveys (BBS) (within the proposed development site and a 500m study area buffer).	Spring to Summer 2012	It is proposed to use existing survey data to inform the assessment. The level of activity recorded previously was low over the site, and with no change in habitat conditions there is little to suggest that further survey effort would add to existing knowledge of baseline conditions.
Breeding diurnal raptor (including short-eared owl) and diver surveys (within the site and a 2km study area buffer).	Spring to Summer 2012 and 2013	It is proposed to carry out walkover surveys during Spring to Summer 2017 to build on existing survey data.
Black grouse lek surveys (within the site and a 1.5km study area buffer).	Spring to Summer 2012 and 2013	Previous survey effort found no black grouse within the proposed development area or within 1.5km. Given the sub-optimal habitat within the proposed development area it is not proposed to carry out any further black grouse lek surveys.
Breeding and non-breeding season Woodland Point Counts (WPC) (within the site and a 500m study area buffer).	Spring to Summer 2012 and Winter 2012 / 2013	In line with current guidance (SNH, 2014), woodland point count surveys for woodland passerines are generally not required. Existing survey data will be utilised to inform this assessment.
Non-breeding season winter walkover surveys (within the site and a 500m study area buffer).	Winter 2012 / 2013	It is proposed to carry out walkover surveys during Winter 2016 / 2017 to build on existing survey data.
Non-breeding season barn owl roost surveys (within the site and a 1km study area buffer).	Winter 2012 / 2013	It is proposed to carry out walkover surveys during Winter 2016 / 2017 to build on existing survey data.
Non-breeding season goose roost surveys within the vicinity of Tangy Loch.	Winter 2012 / 2013 and 2013 / 2014	There is a considerable volume of data to inform this assessment, and checks will be included in other winter VP and walkover surveys listed above.

The impact assessment will follow the methodology set out by the Chartered Institute of Ecology and Environmental Management (CIEEM, 2016) and SNH guidance (SNH, 2014). The assessment of collision risk impacts will use the guidelines set out by SNH (Band 2000, Band et al. 2007, SNH 2013).

Guidance utilised for the ornithological assessment will include the following:

- Scottish Natural Heritage (2000). Windfarms and birds: calculating a theoretical collision risk assuming no avoidance action. SNH Guidance Note;
- Scottish Natural Heritage (2006). Assessing significance of impacts from onshore windfarms on birds outwith designated areas;
- Scottish Natural Heritage (2010). Survey methods for use in assessing the impacts of onshore windfarms on bird communities;
- Scottish Natural Heritage (2014). Recommended bird survey methods to inform impact assessment of onshore wind farms;
- Scottish Natural Heritage (2012a). Cumulative effects of windfarms;
- Scottish Natural Heritage (2012b). Post-construction management of windfarms on clear-felled forestry sites; reducing the collision risk for Hen Harrier, Merlin and Short-eared Owl from Special Protection Areas;
- Scottish Natural Heritage (2009). Environmental Statements and Annexes of Environmentally Sensitive Bird Information; Guidance for Developers, Consultants and Consultees; and
- Scottish Natural Heritage (2013). Assessing connectivity with Special Protection Areas.

6.3 Landscape and Visual

Introduction

The Landscape and Visual Impact Assessment (LVIA) undertaken in the ES (2014) concluded that significant effects were anticipated in respect of one Landscape Character Type (LCT) (Upland Forest-Moor Mosaic), and on some visual receptors within the study area.

Responding to the ES (2014), SNH did not object to the proposed development but raised concerns over the landscape and visual impacts identified within the ES (2014). In acknowledging SNH's comments, the Planning Officer advised in his report to committee[3] that he did not *'consider that the increase in impact from the baseline condition (with the existing wind farm) provided significantly adverse impacts that would warrant refusal of this re-powering proposal'.*

Given the increase in turbine height and rotor diameter from that assessed in the ES (2014) (125m tip height) to that proposed (up to, but not exceeding 150m tip height), a revised LVIA will be undertaken which will assess the effects of The Proposed Development on the landscape, views, visual amenity and receptors within the study area and the Zone of Theoretical Visibility (ZTV).

Baseline Description

The existing wind farm is located approximately 9km northwest of Campbeltown on the Kintyre peninsula, Argyll & Bute and is separated from the coastline by a bluff slope (cliff/steep slope). Slopes below the site are noticeably steeper than the site itself and incised by small burns, largely fed by the nearby Tangy Loch. The aspect of the site is generally south to south west.

Land to the north of the site continues to rise towards a local high point known as Cnoc Buidhe (312m AOD) and is used for commercial forestry. To the south, the land is low-lying and largely flat, occupied by a

[3] Reference No: 14/02969/PP: Delegated or Committee Planning Application Report and Report of handling

number of farms and Campbeltown Airport. A ribbon of raised beaches and small bays is located along the coast to the west.

Designations

The site is not covered by any national landscape policy designations. However, as shown on Figure 3: Environmental Designations, landscape designations of varying importance are present in the wider area. These include the North Arran National Scenic Area (NSA), located approximately 19km to the northeast, and an Area of Panoramic Quality (APQ) located approximately 300m to the west of the site. There are other NSAs, APQs, Gardens and Designed Landscapes and Wild Land Areas within the wider area.

Landscape Character

The Proposed Development falls within an area covered by the Landscape Assessment of Argyll and the Firth of Clyde (Environmental Resource Management, 1996). The site sits within the Upland Forest-Moor Mosaic LCT. A few of the key characteristics of the LCT include its upland plateau with rounded ridges, craggy outcrops and irregular slope profile, upland lochs, winding narrow glens and extensive large-scale mosaic of forestry plantations.

Visual Amenity

There are a limited number of receptors within the immediate vicinity of The Proposed Development. Generally, most receptors are located along the coast and close to either the A83 or the B842. Campbeltown, the main settlement on the Kintyre peninsula, is located approximately 9km to the southeast. Other settlements tend to be smaller and scattered along the coast. Receptors in the area include residents, tourists, walkers, road users and water-based receptors, such as ferry passengers.

Potential Effects

Potential effects on landscape and visual amenity which will be considered include:

(a) Construction

- temporary physical effects on landscape fabric;
- temporary effects on landscape character; and
- temporary effects on views.

(b) Operation

- long term effects on landscape character;
- long terms effects on views; and
- long term cumulative effects with other wind farms.

(c) Decommissioning

- long term effects on landscape fabric;
- temporary physical effects on landscape fabric;
- temporary effects on landscape character; and
- temporary effects on views.

Proposed Scope of Assessment

The LVIA will build upon the previous assessment documented within the ES (2014) which considered turbines up to a maximum tip height of 125m.

A ZTV will be used to inform the LVIA. For reference, ZTVs are included in this Scoping Report showing The Existing Development (i.e. the baseline at 75m tip height) (Figure 4A), The ES 2014 Layout (i.e. at 125m tip height) (Figure 4B) and The Proposed Development (i.e. at 150m tip height) (Figure 4C).

Generally, the methodology will follow the LVIA carried out as part of the ES (2014), except where updated guidance or other factors require consideration. The key aspects of the LVIA are set out below.

Baseline

As discussed in Section 5.1 of this report, and consistent with Scottish Planning Policy (SPP, 2014 para. 174), The Existing Development comprising 22 turbines will be considered to be part of the baseline context for the LVIA.

Study Area

A study area of 40km from the outer turbines is proposed to assess the relationship between The Proposed Development and the wider area in terms of potential significant effects on landscape character and visual amenity. This study area has been extended from the 35km study area included in the LVIA documented in the ES (2014) due to the increase in tip height. This is in line with SNH Guidance 'Visual Representation of Wind Farms Version 2.2, (SNH, 2017a) for turbines with a maximum tip height of between 131m and 150m.

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 11km, as per the ES (2014) based on a comparison of the ZTVs for The Existing Development, The ES 2014 Layout and The Proposed Development (see Figures 4A, 4B and 4C).

Viewpoints and Photography

It is proposed that all viewpoints assessed as part of the ES (2014) are used in the assessment for The Proposed Development. These viewpoints were previously agreed in consultation with Argyll and Bute Council and SNH.

It is proposed to reuse the baseline photography undertaken for the ES (2014) where possible. However, due to changes in the cumulative wind farm baseline scenario (see below), or other recent changes in baseline views, some of the viewpoint photography may need to be retaken. This will be reviewed during the assessment process. The proposed list of viewpoint locations is detailed in Table 6.2 and viewpoint locations are shown on Figure 4C.

Table 6.2: Proposed Viewpoint List

2014 ES VP No.	Name	OS Grid Reference
1	A83 at Glenbarr Burial Ground	166435, 634642
2	Glenbarr War Memorial	167006, 637068
3	Barr Glen	167811, 637021
4	Islay Ferry Route	152000, 634000
5	Gigha (South Pier)	164242, 646439
6	Machrihanish (Little Scone)	163576, 620715
7	Ballygrogan Picnic Site	162479, 619131
8	Stewarton	169658, 619904
9	Southend Road	168430, 617435
10	Campbeltown (Ralston Road)	171240, 619830
11	Beinn Ghuilean	172079, 618569
12	Goatfell	199114, 641547
13	High Peninver	175049, 625512
14	Bord a Dubh	172677, 631495
15	A' Cruach	175618, 632214
16	Allt a Choire	172510, 627309
17	Ballywilline	171119, 623631
18	Kilberry Road	171319, 661817
19	Kilbrannan Sound	181562, 617372
20	Breakachy	167129, 626898
21	Skeroblingarry	170855, 626808
22	Drumlemble	166487, 619125
23	Rhunahaorine Point	169198, 648201
24	B842 North Peninver	176185, 625499
25	Campbeltown Airport	168416, 622058
26	Beinn Bharrain	189510, 642235
27	Sea near Machrihanish	163400, 622100
28	Ranachan Hill	168899, 625000

In addition to the above, it is proposed to add a new viewpoint at Westport Beach (grid reference 165467, 626294). This viewpoint was recommended by SNH as a potential viewpoint in the ES (2014) but was not included as there was no view from this viewpoint. It will now be included to reflect the potential visibility as a result of the proposed increased height of the turbines.

Visualisations

Visualisations from each viewpoint will be prepared in accordance with best practice guidance (SNH, Visual Representation of Windfarms: Version 2.2, 2017a).

For comparative purposes, it is proposed to include a baseline panorama (showing The Existing Development) with a wireline of The Existing Development (Sheet 1), a wireline of The EIA 2014 Layout (i.e. the 16 turbine layout at 125m tip height) and a wireline of The Proposed Development (i.e. a 16 turbine layout at 150m tip height) (Sheet 2), and a photomontage of The Proposed Development (Sheet 3). An example of this approach is provided in this Scoping Report (see Figures 5 to 7) for reference purposes from three viewpoints (Glen Barr Memorial, Machrihanish and Southend Road).

In all visualisations, it is proposed to show The Proposed Development with forestry up to 10m in height. This would be in line with the replanting proposals described in Section 3.10 of this report.

Cumulative

In line with SNH guidance 'Assessing the Cumulative Impact of Onshore Wind Energy Developments' (SNH, 2012) the assessment will consider other wind farms within a 60km radius. This area will then be refined to a more focussed study area, defined following further assessment but anticipated to be 40km from the outer turbines. Other wind farms within this radius which are operational, consented and those for which an application has been submitted but which are yet to be determined will also be considered. As discussed in Section 5.1, any proposed wind farm applications which have not been submitted to the Local Planning Authority or Energy Consents Unit but which a formal scoping opinion has been requested, will not be assessed.

The LVIA will be prepared with reference to the following:

- Guidelines for Landscape and Visual Impact Assessment: Third Edition (Landscape Institute and IEMA, 2013);
- Argyll and Bute Wind Energy Capacity Study (Consultant Landscape Architects Carol Anderson and Alison Grant, 2012);
- Visual Representation of Windfarms (Version 2.2) (SNH, 2017a);
- Siting and Designing Windfarms in the Landscape (SNH, 2017b);
- Guidelines on the Environmental Impacts of Windfarms and Small Scale Hydroelectric Schemes (SNH, 2002);
- Assessing the Cumulative Impact of Onshore Wind Energy Developments (SNH, 2012); and
- The Special Qualities of the National Scenic Areas, SNH Commissioned Report No. 374 (SNH, 2010).

6.4 Cultural Heritage

Introduction

The ES (2014) identified 27 non-designated cultural heritage assets within the site boundary. The layout was designed to minimise any potential effects, in conjunction with proposed measures such as demarcating assets prior to construction works, trial trenching and watching briefs during the construction period. In forested areas where field survey was not possible, it was proposed that an archaeologist monitor felling to identify any other cultural heritage assets in these areas and suggest additional mitigation as appropriate. After mitigation, the significance of residual effects was predicted to be negligible.

Evaluation of indirect effects (setting) on cultural heritage assets in the ES (2014) concluded that potentially significant effects on three assets of National Importance would occur. These comprised Killocraw Cairn

Scheduled Monument (SM), Killocraw Cup Marked Stone SM and Tangy Loch Fortified Dwelling SM. Since the magnitude of residual effect was Low, the residual effect on setting was concluded to be Moderate.

Historic Scotland considered that the wind farm would result in adverse impacts on the setting of Killocraw Cairn SM and Tangy Loch Fortified Dwelling SM, but did not object when consulted on The Consented Development. In acknowledging Historic Scotland's comments, the Planning Officer advised in his report to committee[4] that these monuments *are difficult to access and their position in the landscape is not readily evident. There is already some impact on setting by the existing Tangy wind farm and it is not considered that the slight increase in adverse impact on this setting is sufficient to warrant a refusal to the application.*

As the footprint of The Proposed Development remains unchanged from that presented and assessed in the ES (2014), it is proposed to scope out the assessment of direct effects on cultural heritage assets within the site boundary (see Section 7.4) as these would be unaffected by an increase in height or rotor diameter.

However, given the proposed increase in turbine height and rotor diameter from that assessed in the ES (2014), a revised assessment would be carried out to assess the potential indirect effect (setting) on cultural heritage assets as a result of The Proposed Development.

Baseline Description

No SMs are located within the site boundary. However, the Tangy Loch Fortified Dwelling SM sits just outside the site boundary to the southeast and Killocraw Cairn SM is also located approximately 0.5km to the northwest of the site boundary.

No Listed Buildings are located within the site although Tangy Mill, which is B listed, is located approximately 0.5km outside of the site boundary to the southwest.

Potential Effects

Potential effects on cultural heritage which will be considered include:

(a) Construction

- direct physical damage to or destruction of cultural heritage features.

(b) Operation

- effects on the setting of cultural heritage features.

(c) Decommissioning

- The potential effects of decommissioning activities will be similar to those of construction.

[4] Reference No: 14/02969/PP: Delegated or Committee Planning Application Report and Report of handling

Proposed Scope of Assessment

It is proposed to assess the potential indirect effect (setting) on cultural heritage assets as a result of The Proposed Development. The assessment will be refreshed from the ES (2014) to take into account the increase in turbine height and rotor diameter, and change in land use conditions during operation (i.e. replanting areas of the site with coniferous forestry and change in cumulative baseline situation). Wirelines and photomontages will be included to illustrate views from within the vicinity of Tangy Loch Fortified Dwelling SM and Killocraw Cairn SM, as per the ES (2014).

The cultural heritage assessment will be refreshed in line with the following guidance:

- Scottish Planning Policy (Scottish Government, 2014) paragraphs 135-151 on the Historic Environment;
- Planning Advice Note 2/2011, Planning and Archaeology (Scottish Government, 2011a);
- The Historic Environment Scotland Policy Statement 2016 (Historic Environment Scotland, 2016a);
- Historic Environment Circular 1 (Historic Environment Scotland, 2016b);
- Standard and Guidance for Historic Environment Desk-Based Assessment, Institute for Archaeologists (IFA, 2014);
- Standard and Guidance for Archaeological Advice by Historic Environment Services, Institute for Archaeologists (IFA, 2014); and
- Managing Change in the Historic Environment: Setting (Historic Environment Scotland 2016c).

6.5 Land Use, Socio-economics and Recreation

Introduction

The Land Use, Socio-economic and Recreation Chapter of the ES (2014) concluded that, with the implementation of the mitigation measures outlined in the chapter, no significant adverse effects were predicted. Positive socio-economic effects were identified such as the support of a wide range of businesses in the supply chain during construction and the positive effect on tourism businesses through the spending of wages by workers.

It is proposed that the assessment on land use, socio-economics and recreation be refreshed to take into account the increase in turbine height and rotor diameter, and change in land use conditions during operation (i.e. replanting areas of the site with coniferous forestry), as well as the increase in installed capacity.

Baseline Description

The site is predominately managed commercial forestry with areas of agricultural grazing land. The southern part of the site is already used for wind power generation (Tangy I and II Wind Farm).

The nearest villages to the site are Bellochantuy (2.8km north-west of the site), West Darlochan (4km south of the site) and Kilchenzie (3.1km south of the site). Campbeltown is the largest town in the Kintyre peninsula and is located 9km to the south-east of the site. There are no residential properties within the site.

The site is located within South Kintyre ward. The population of the local area is just under 10,000 and comprises 11.1% of the population of Argyll and Bute (General Register Office for Scotland, 2013). Campbeltown is the fourth largest settlement in Argyll and Bute. Around 35% of the local workforce is employed by the public sector (including defence, education and health industries) as well as by accommodation and food services. CS Wind, formerly Wind Towers Ltd. employs around 130 employees (as

of 2014), who all live locally, and its presence has contributed to infrastructure improvements to the local area including upgrading of the road to Campbeltown to trunk road status and improving the harbour.

Tourism and recreation are important industries for the economy of Argyll and Bute and the local area. Key visitor attractions and activities in the wider area include Campbeltown distilleries (Springbank, Glengyle and Glen Scotia), Machrihanish Golf Club and Dunes Club, Westport beach, Campeltown Heritage Centre and the long distance path; the Kintyre Way. Lussa Loch and Tangy Lochs (3km east and 350m south-east of the site respectively) are used by anglers for their populations of brown trout and the Killean Estate; 15km north of the site, offers game and bird shooting.

Potential Effects

Some effects on the area of commercial forestry to the north of the site are expected as a result of land-take from The Proposed Development.

In terms of local benefits, the wind farm would be expected to provide increased local employment opportunities and revenues, particularly during the construction phase. As noted previously, the Applicant intends to include CSWind UK (previously Wind Towers Ltd.) in the tendering process for the production of the tower sections for The Proposed Development.

Potential effects which will be considered include:

(a) Construction

- visual effects;
- temporary disruption of existing land uses;
- increased employment in construction and supporting industries;
- change in economic activities in the vicinity of The Proposed Development;
- restricted public access during construction; and
- increased expenditure through supply of goods and services required to develop the wind farm.

(b) Operation

- visual effects;
- increased employment during maintenance and operation;
- road improvements/upgrades as a result of transporting turbines to and from site during construction; and
- community benefit.

(c) Decommissioning

- Decommissioning effects are expected to be similar to those of construction but of a lesser magnitude.

Proposed Scope of Assessment

It is proposed that the assessment on land use and recreation be refreshed to take into account the increase in turbine height and rotor diameter, and change in land use conditions during operation (i.e. replanting areas of the site with coniferous forestry). Due to an increased installed capacity from The Proposed Development from 36.8MW to over 50MW, an updated socio-economic impact assessment would also be undertaken.

Reports that will be reviewed and referred to during the EIA will be likely to include:

- Tourism Trends and Attitudes towards Wind Farms (Various);
- The Economic Impact of Wind Farms on Scottish Tourism: a Report for the Scottish Government (Glasgow Caledonian University, 2008);
- Scottish Economic Statistics (Scottish Government);
- Scotland's Economic Strategy (Scottish Government, 2015);
- Scottish Annual Business Statistics 2014 (Scottish Government, 2016a);
- Business Register and Employment Survey (Office for National Statistics, 2016); and
- Delivering Social and Economic Benefits: Gordonbush Wind Farm Case Study (SSER, 2012).

6.6 Noise

Introduction

The ES (2014) concluded that the worst-case noise effects of construction traffic are predicted to be minor for the majority of receptor locations, whilst some short term, temporary moderate noise effects are predicted at the residential properties along the unclassified road between the A83 and Tangy Farm during the concrete delivery stage. It is therefore proposed to scope out construction noise from the ES (see Section 7.5).

With regard to noise levels from operation of the turbines, the ES (2014) concluded that operational noise levels from the wind farm will be within levels deemed, by national guidance, to be acceptable for wind energy schemes (acknowledging the higher noise levels accepted at properties owned and/or occupied by individuals with a financial interest in The Consented Development). A Planning Condition was agreed to ensure compliance with agreed noise levels.

Given the change in turbine model from that assessed in the ES (2014), it is proposed that a revised assessment of the potential effects of noise generated from the operation of The Proposed Development will be undertaken as part of the ES.

Baseline Description

The majority of residential properties that would be affected by noise from The Proposed Development are located to the south and west of the site.

The closest residential properties to The Proposed Development are located to the south and west of the site boundary and are listed below:

- Tangy (0.25km);
- Tangymoil (0.25km);
- Killarow (0.5km);
- Mill (0.5km); and
- South Lagalgarve (0.5km).

The villages of Bellochantuy and Kilchenzie are located approximately 2km and 3km away, respectively. Background noise monitoring was undertaken between September and November 2013 to inform the assessment of noise from The ES 2014 Layout. The methodology and monitoring locations were agreed with the Environmental Health Department of Argyll & Bute Council. The four monitoring locations included Killocraw; Drum Farm; Gobagrennan; and Corrylach.

The noise environment in the area surrounding the site is generally characterised by 'natural' sources, such as wind disturbed vegetation, birds, animals, water flow, and also noise from the existing Tangy Wind Farm. Other sources of noise include intermittent local road and agricultural vehicle movements in the area.

Background noise measurement locations were chosen to minimise the noise impact from the operational wind farm, while ensuring the noise environment was representative of the nearest receptors in other respects.

Potential Effects

Potential noise effects associated with wind farm developments are as follows:

(a) Construction

- Noise will be emitted by machinery and vehicles used during construction of the wind farm and involved in the transportation of materials.

(b) Operation

- Noise is generated by wind turbines as they rotate to generate power. This occurs above the 'cut-in' wind speed (around 3 m/s) and below the 'cut-out' wind speed (25 m/s). The principal sources of noise are from the blades rotating in the air (aerodynamic noise) and, to a lesser extent, from internal machinery (mechanical noise).

(c) Decommissioning

- Noise due to decommission of the existing Tangy I and Tangy II Wind Farms, and the future decommissioning of The Proposed Development, is anticipated to be less than that due to construction activities.

Proposed Scope of Assessment

The assessment will focus on operational noise only. It is proposed to use the background noise monitoring data collected for the ES (2014) to inform an updated operational noise assessment of The Proposed Development. The updated assessment would be carried out using a representative turbine height and rotor diameter, and would be carried out in line with current best practice guidance, including:

- Good Practice Guide to the application of ETSU-R-97 for the Assessment and Rating of Wind Turbine Noise (Institute of Acoustics, May 2013);
- ETSU-R-97: The Assessment and Rating of Noise from Wind Farms (Energy Technology Support Unit, 1997; and
- Pan 1/2011 Planning and Noise (Scottish Government, 2011b).

6.7 Traffic, Access and Transport

Introduction

Traffic surveys were carried out for the ES (2014) using Automatic Traffic Counts which identified that the roads around the site were operating below their maximum capacity. Based on existing traffic data and estimated construction vehicle movements, the ES (2014) assessment concluded that no significant effects would be predicted as a result of construction traffic. No cumulative effects were predicted.

As the footprint of The Proposed Development remains unchanged from that presented and assessed in the ES (2014), it is proposed to scope out an assessment of impacts on the local and trunk road network as effects would be as predicted in the ES (2014) (see Section 7.6). An updated swept path analysis would however be carried out given the larger turbine model.

Baseline Description

The site is located to the north of Campbeltown and to the east of the A83 Campbeltown to Tarbet road. The A83 passes approximately 1km to the west and 3km to the south of The Proposed Development, and connects to Campbeltown and the B842 and B843 roads. It is proposed that turbine components would be transported from Campbeltown Harbour, via the A83 and minor roads to the site.

Tangy Mill Road is accessible by vehicles up to the site entrance and connects to the A83 at Drum Farm to the south. There are no public access roads within the site.

Potential Effects

Potential effects of The Proposed Development which will be considered are as follows:

(a) Construction

- increased traffic flows;
- changes to the traffic composition;
- congested roads;
- journey delays;
- reduction in safety; and
- degradation of road surface.

(b) Operation

- Traffic associated with the operation of The Proposed Development is unlikely to give rise to appreciable traffic effects.

(c) Decommissioning

- Decommissioning effects are expected to be of a lower magnitude than construction effects and will result from the removal of the wind turbines from the site.

Proposed Scope of Assessment

As The Proposed Development would use a different model of turbine compared to that assessed in the ES (2014) an updated swept path analysis study would be undertaken along the proposed delivery route to consider constraints associated with the transportation of larger turbine components and any necessary road improvements or other traffic management measures.

A detailed Traffic Management Plan (TMP) would be produced prior to the commencement of construction works. The TMP would provide detail of materials, plant, equipment, components and labour required on-site during the construction and operation phases of The Proposed Development.

6.8 Other Issues

Introduction

As part of the ES, it is proposed that a refresh of the assessment of the potential effects of The Proposed Development on other issues will be undertaken, including:

- telecommunications,

- television and radio;
- aviation navigational equipment;
- ice throw;
- shadow flicker; and
- carbon assessment.

With the implementation of appropriate mitigation measures, no significant effects in respect of other issues were identified within the ES (2014). There were no objections maintained by telecommunication operators or aviation bodies during the consultation period for The Consented Development.

Baseline Conditions

Wind turbines can interfere with telecommunications, radio and television reception and transmission and radar. The ES (2014) considered that there would be no disruption to telecommunications, such as television and radio reception, and no effects on aviation safety have been identified.

Potential Effects

Potential effects are:

(a) Construction

- air and climate - exhaust emissions relating to the movement of vehicles on and off site during construction and generation of dust during construction-related activities.

(b) Operation

- Potential for interference with telecommunications, radio, television and aviation radar;
- potential for shadow flicker;
- potential for ice throw from turbines; and
- carbon savings and payback of the wind farm.

(c) Decommissioning

- Decommissioning effects would be similar to construction effects but are expected to be of a lesser magnitude.

Proposed Scope of Assessment

An update to the assessment carried out for the ES (2014) would be undertaken to inform the assessment of The Proposed Development. This would include:

- review of telecommunications, television and radio signal transmission in the area;
- line-of-sight analysis of civil and military aviation radars;
- review of any properties within 130 degrees either side of north, relative to the turbines, which may be susceptible to shadow flicker; and
- consultation with telecommunications operators as necessary.

Climate effects will be assessed for the construction and operational phases. During the construction of the wind farm the movement of vehicles and on-site plant will generate exhaust emissions. The potential savings in CO_2 emissions due to The Proposed Development replacing other electricity sources over the lifetime of the wind farm will be reviewed.

Guidance for assessing the effects of wind farms on telecommunications, aviation and navigational equipment, shadow flicker, ice throw and carbon assessment will include the following:

- PAN 62: Radio Telecommunications (Scottish Executive, 2001);
- Tall Structures and their Impact on Broadcast and Other Wireless (Ofcom, 2009);
- Wind Farms Impact on Radar Aviation Interests, Qinetiq (2003);
- CAP 764 CAA Policy and Guidelines on Wind Turbines (Civil Aviation Authority, 2013);
- Wind Energy and Aviation Interests – Interim Guidelines (Wind Energy, Defence and Civil Aviation Interests Working Group, 2002);
- Onshore Wind Turbines (Scottish Government 2014c);
- Planning for Renewable Energy: A Companion Guide to PPS22. Technical Annex: Wind: 176-177. ODPM (2004);
- Update of UK Shadow Flicker Evidence Base. Parsons Brinckerhoff on behalf of the Department of Energy and Climate Change (DECC (2011));
- Seifert, Westerhellwg and Kroning Risk Analysis of Ice Thrown from Wind Turbines (BOREAS, 2003);
- Calculating Potential Carbon Losses & Savings from Wind Farms on Scottish Peatlands: Technical Note Version 2.10.0 (Scottish Government, 2016b); and
- Calculating Carbon Savings from Wind Farms on Scottish Peat Lands – A New Approach, (Nayak et al., 2008, 2010).

6.9 Schedule of Mitigation

The concluding chapter of the ES (Schedule of Mitigation) will provide a summary of the mitigation measures identified that are considered necessary to protect the environment prior to and during construction, operation or decommissioning of The Proposed Development.

7 Recommended Features to be Scoped Out

Assessment for the following environmental features is recommended to be scoped out of the EIA for The Proposed Development.

7.1 Geology, Soils and Hydrogeology

The geology, soils and hydrogeology impact assessment, undertaken as part of the ES (2014), took into account appropriate and targeted mitigation during the construction phase such as the development of a CEMP and the use of best practice construction techniques. The central conclusion being that where these mitigation measures are applied, the residual impact and effects would not be raised above low to negligible levels and therefore were assessed as **Not Significant** in the context of the EIA Regulations.

As the footprint of The Proposed Development remains unchanged from that presented and assessed in the ES (2014), it is proposed to scope out the assessment of Geology, Soils and Hydrogeology from the ES.

Appropriate mitigation measures identified within the ES (2014) will be included within the Schedule of Mitigation Measures, to be included as an appendix to the ES for The Proposed Development (see Section 5.2 and 6.9). This will include a commitment to undertake further site investigation following removal of forestry on site, to better determine peat depth and peat slide risk. This would, in turn, inform a detailed Peat Management Plan for the construction of The Proposed Development. This approach is consistent with the Conditions of Consent of The Consented Development (Planning Reference 14/02969/PP). The Peat Management Plan will be developed in consultation with Argyll and Bute Council, SNH and SEPA as required.

7.2 Surface Water

The Surface Water assessment, undertaken as part of the ES (2014) concluded that following the application of suitable mitigation during the construction phase such as the development of a CEMP and the use of best practice construction techniques, the resultant effects were considered to be **Not Significant** in the context of the EIA Regulations.

As the footprint of The Proposed Development remains unchanged from that presented and assessed in the ES (2014), it is proposed to scope out the assessment of Surface Water from the ES. Appropriate mitigation measures identified within the ES (2014) will be included within the Schedule of Mitigation Measures, to be included as an appendix to the ES for The Proposed Development (see Section 5.2 and 6.9).

During consideration of the ES (2014), SEPA highlighted that four properties with groundwater fed PWS were not included in the assessment, and further work should be carried out to fully establish the source locations and further refine any site specific mitigation requirements. Further work was also requested in relation to Borrow Pit C and its potential risk to PWS. This additional assessment was acknowledged by the Developer at the time and it is proposed to undertake this prior to construction commencing and the results of which will inform the CEMP.

7.3 Ecology

The site has been designed to minimise the impact upon sensitive habitats (including GWDTE) by micrositing turbine locations and access track routes where possible. It was considered that following the application of mitigation measures proposed in the ES (2014) during the construction phase such as pre-

construction species surveys, the development of a CEMP and the use of best practice construction techniques, the residual effects on ecological receptors would range from **Not Significant** to **Low Significance**, and were therefore considered not to be significant in terms of the EIA Regulations.

A Phase 1 Habitat survey was undertaken as part of the ES (2014) between April and June 2013. The Phase 1 Habitat Map is included in Appendix 1 of this report for reference. The habitats on-site are dominated by planted coniferous woodland, marshy grassland, improved grassland and wet modified bog. A National Vegetation Classification (NVC) survey was also undertaken between April and June 2013. The results of this survey, along with the location of all those habitats considered to be a GWDTE, are included in Appendix 1 of this report for reference. GWDTE on site have been modified by the existing land use or are only present as a result of previous development of the site.

A series of species surveys were undertaken during 2013 to inform the ES (2014). Of note, one badger sett was recorded on site and a commitment to the production of a badger protection plan has been commissioned by The Developer. Four species of bat were recorded on or near the site over the course of the bat surveys: soprano pipistrelle; common pipistrelle; Leisler's bat; and Daubenton's bat. The previous assessment concluded that this site is considered to be of local value to bat species with activity dominated by common species (soprano and common pipistrelle) that are at low risk of adverse effects upon their populations. No evidence of great crested newt, otter (resting places), water vole, pine marten, wildcat or fresh water pearl mussel were recorded.

As the footprint of The Proposed Development remains unchanged from that presented and assessed in the ES (2014), it is proposed to scope out the assessment of Ecology from the ES as it would be unaffected by an increase in height or rotor diameter. The proposed replanting of the site to a key hole design is not considered to alter the previous assessment of effects.

Appropriate mitigation measures identified within the ES (2014) will be included within the Schedule of Mitigation Measures, to be included as an appendix to the ES for The Proposed Development (see Section 5.2 and 6.9).

7.4 Air Quality

The ES (2014) concluded that effects on local air quality during construction are likely to be negligible, and temporary in nature. An operational wind farm produces no notable atmospheric emissions. As such, it is proposed to scope out an assessment of impacts on air quality.

8 Response to the Scoping Report

This Scoping Report has been issued to the Energy Consents Unit (ECU) in support of a request for a scoping opinion under Regulation 7 of the EIA Regulations.

The responses to the Scoping Report will inform the detailed methodology for each aspect of the impact assessment and, at each stage, dialogue will be maintained with statutory bodies and key stakeholders to ensure that methods are both appropriate and robust.

The ECU will seek the views of those consultees listed in Section 2.2 in forming its Scoping Opinion. All responses should be sent to the following address:

Energy Consents Unit
4th Floor, 5 Atlantic Quay
150 Broomielaw
Glasgow
G2 8LU
energyconsents@scotland.gsi.gov.uk

In submitting your response to the ECU, SSE Renewables would be grateful if you could send a copy of your response to them at the address below:

For the attention of Karen Anderson
SSE Renewables Developments (UK) Limited
1 Waterloo Street
Glasgow
G2 6AY
karen.anderson@sse.com

All other responses or comments relating to The Proposed Development should be entitled 'Modified Tangy III Wind Farm' and sent to the above address.

This Scoping Report is also available online at www.sse.com/TangyIII.

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Glossary

Borrow pit
An area where soil, sand or gravel has been dug up for use elsewhere.

Effect
The result of change or changes on specific environmental resources or receptors.

EIA Directive
Directive 85/33/EEC on the assessment of certain public and private projects on the environment, as amended

EIA Regulations
The Electricity Works (Environmental Impact Assessment) (Scotland) Regulations 2000

Environmental Impact Assessment (EIA)
The process by which information about the environmental effects of a project are evaluated and mitigation measures identified.

Environmental Statement (ES)
Document provided by the Developer to the Competent Authority, containing environmental information required under Article 5 of Directive 85/337/EEC.

Groundwater
Water below the surface of the ground in the saturation zone and in direct contact with the ground or subsoil.

Habitat
Term most accurately meaning the place in which a species lives, but also used to describe plant communities or agglomerations of plant communities, as used, for example in a “Phase 1 Habitats Survey”.

Hydrological
The exchange of water between the atmosphere, the land and the oceans.

Impact
Any changes attributes to the proposed development that have the potential to have environmental effects (i.e. the causes of the effects).

Landscape
Human perception of the land, conditioned by knowledge and identity with a place.

Listed Building
Building included on the list of buildings of special architectural or historic interest and afforded statutory protection under the Planning (Listed Buildings and Conservation Areas) (Scotland) Act 1997 and other planning legislation. Classified categories A-C(s).

Magnitude
Size, extent, scale and duration of an impact.

Mitigation
Term used to indicate avoidance, remediation or alleviation of adverse impacts.

Ramsar Site
Wetlands of international importance, designated under the Ramsar Convention.

Scheduled Monument (SM)
A monument which has been scheduled by the Scottish Ministers as being of national importance under the terms of the Ancient Monuments and Archaeological Areas Act 1979.

Site of Special Scientific Interest (SSSI)
Areas of national importance. The aim of the SSSI network is to maintain an adequate representation of all natural and semi-natural habitats and native species across Britain. The site network is protected under the provisions of Sections 28 and 19 of the Wildlife and Countryside Act 1981 as well as the Amendment Act 1985, the Environmental Protection Act 1990 and the Nature Conservation (Scotland) Act 2004.

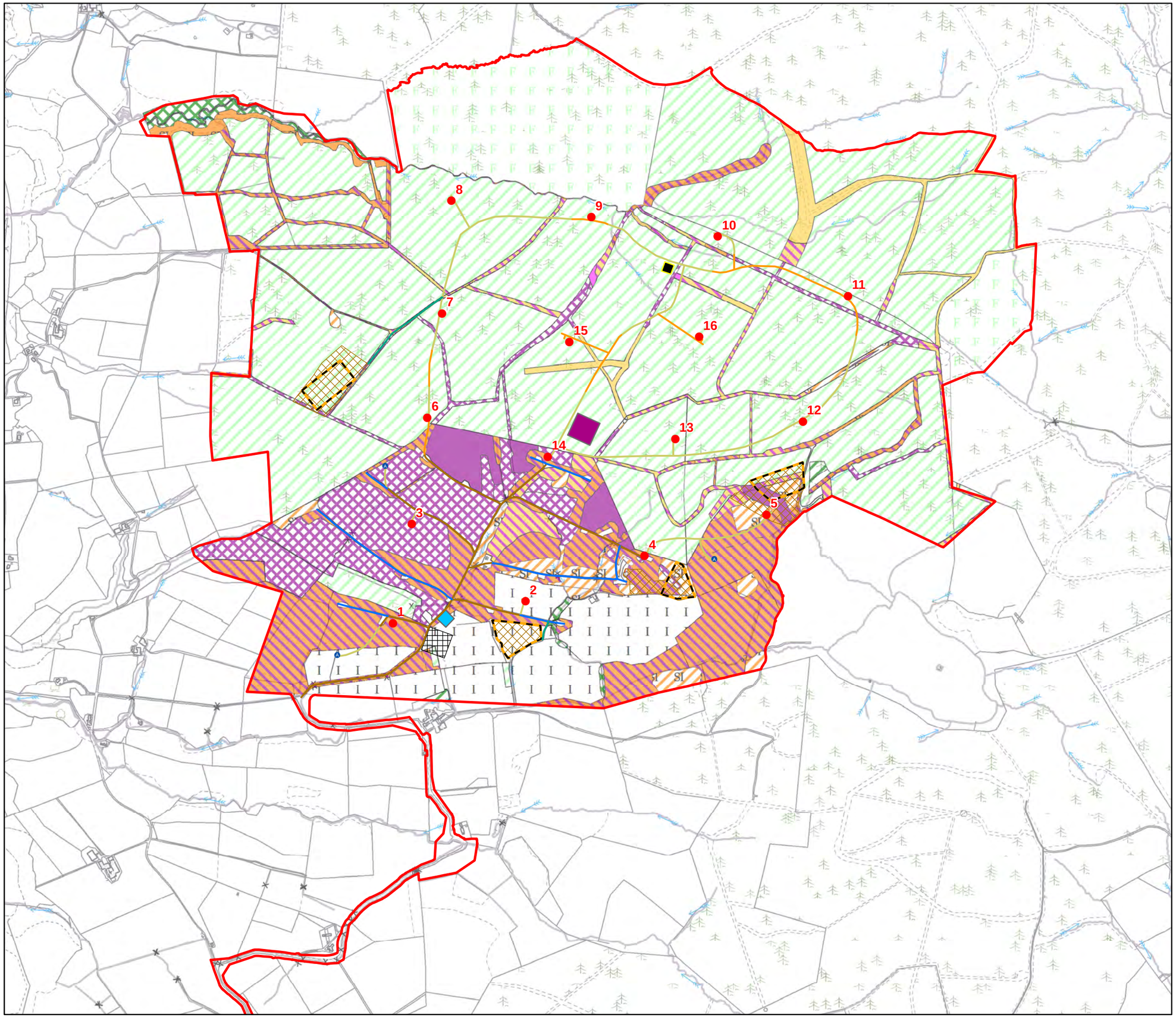
Special Protection Area (SPA)
An area designated under the Wild Birds Directive to protect important bird habitats. Implemented initially under the Wildlife and Countryside Act 1981.

Water Framework Directive (WFD)
Wide-ranging European environmental legislation (2000/60/EC) relevant to inland surface waters, estuarine and coastal waters and groundwater. The fundamental objective of the WFD is to maintain 'high status' of water quality where it exists, preventing any deterioration in the existing status of waters and achieving at least 'good status' in relation to all waters by 2015.

Wildlife and Countryside Act 1981 (WCA)
Principal mechanism for wildlife protection in the UK.

Zone of Theoretical Visibility (ZTV)
Area of land over which a development may be visible, as determined by analysis of OS data and field survey.

Appendix 1: Habitat Survey Plans



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- Site Boundary
- Turbines
- Permanent Met Mast
- Substation
- New Cut Track
- New Float Track
- Existing Track to be Reused
- Existing Track for Construction Only
- Existing Track to be Reinstated
- Borrow Pit Working
- Borrow Pit - Search
- Proposed Construction Compound
- Proposed Laydown
- Proposed Operations Building

Phase 1 Habitat Areas

- A1.1.2 - Broadleaved woodland - plantation
- A1.2.2 - Coniferous woodland - plantation
- A2.1 - Scrub - dense/continuous
- A4.2 - Coniferous woodland - recently felled
- B1.2 - Acid grassland - semi-improved
- B2.2 - Neutral grassland - semi-improved
- B4 - Improved grassland
- B5 - Marsh/marshy grassland
- C1.1 - Bracken - continuous
- C1.2 - Bracken - scattered
- D1.1 - Dry dwarf shrub heath - acid
- D2 - Wet dwarf shrub heath
- E1.6.1 - Blanket sphagnum bog
- E1.7 - Wet modified bog
- E2.1 - Flush and spring - acid/neutral flush
- I2.1 - Scree - acid/neutral

N

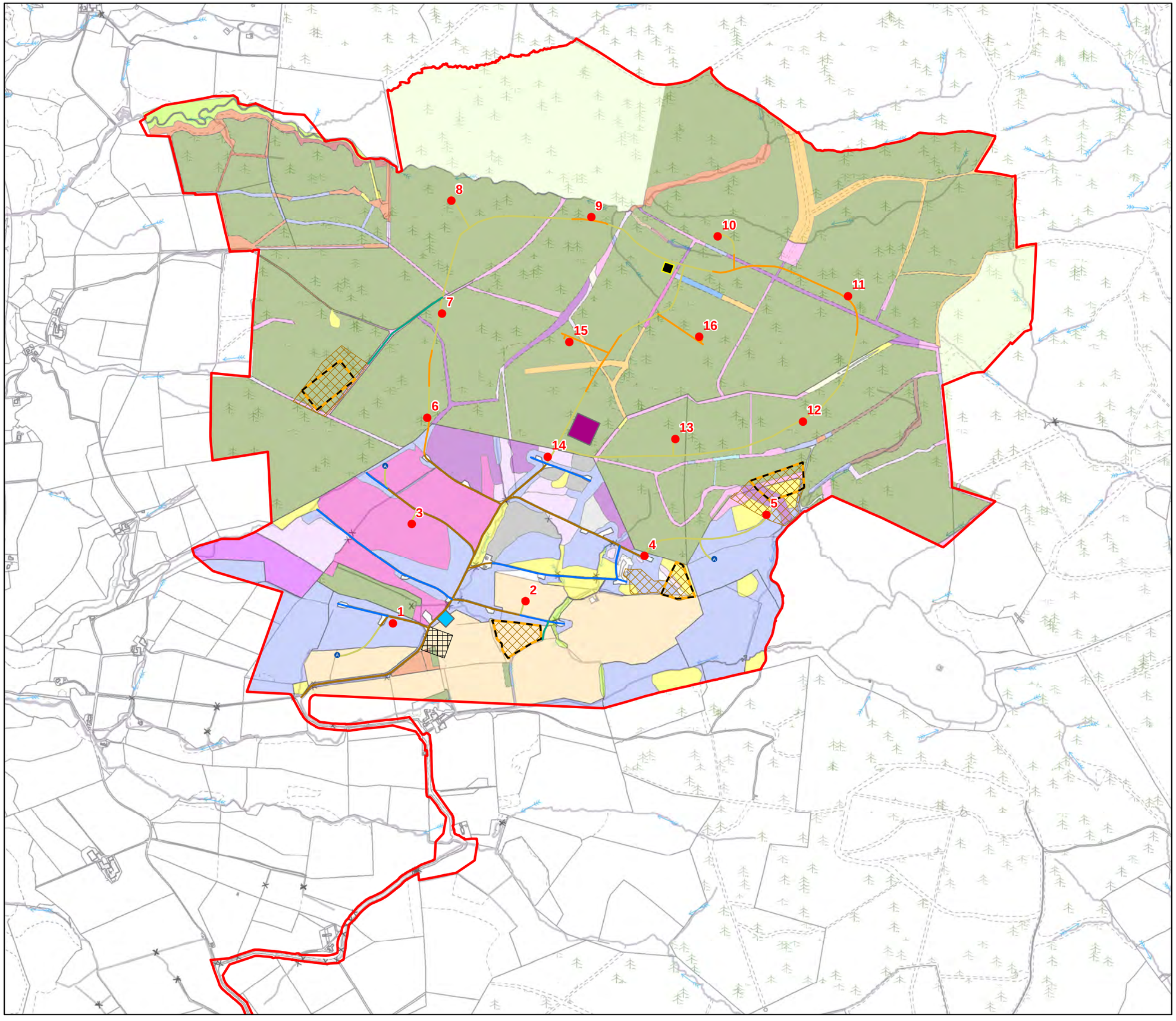
Scale 1:15,000 @ A3

0 0.125 0.25 0.5 km

Figure 10.2
Phase 1 Habitat Survey

Tangy III Wind Farm
Environmental Statement

Path: P:\CONTRACT\UK202xx\UK12-20234 SSE Renewables_Tangy III_EIA\GIS\MapFiles\ES Figs\UK1220234_Fig10.2_Ph1_E.mxd



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Key

- Site Boundary
- Turbines
- Permanent Met Mast
- Substation
- New Cut Track
- New Float Track
- Existing Track to be Reused
- Existing Track for Construction Only
- Existing Track to be Reinstated
- Borrow Pit Working Area
- Borrow Pit - Search Area
- Proposed Construction Compound
- Proposed Laydown Area
- Proposed Operations Building

NVC Habitat Areas

- Coniferous Forest
- Felled Woodland
- H12
- M15
- M15/M25/W2
- M15/W23/M...
- M16
- M16a
- M16d
- M19
- M20
- M23
- M23/M25
- M23M15
- M25
- M5/W23/MG1
- M6
- M6c
- MG10
- MG7
- MG9
- MG9/MG10
- U4
- U4/M15
- W23

N

Scale 1:15,000 @ A3

0 0.125 0.25 0.5 km

Figure 10.3
NVC Habitat Survey

Tangy III Wind Farm
Environmental Statement

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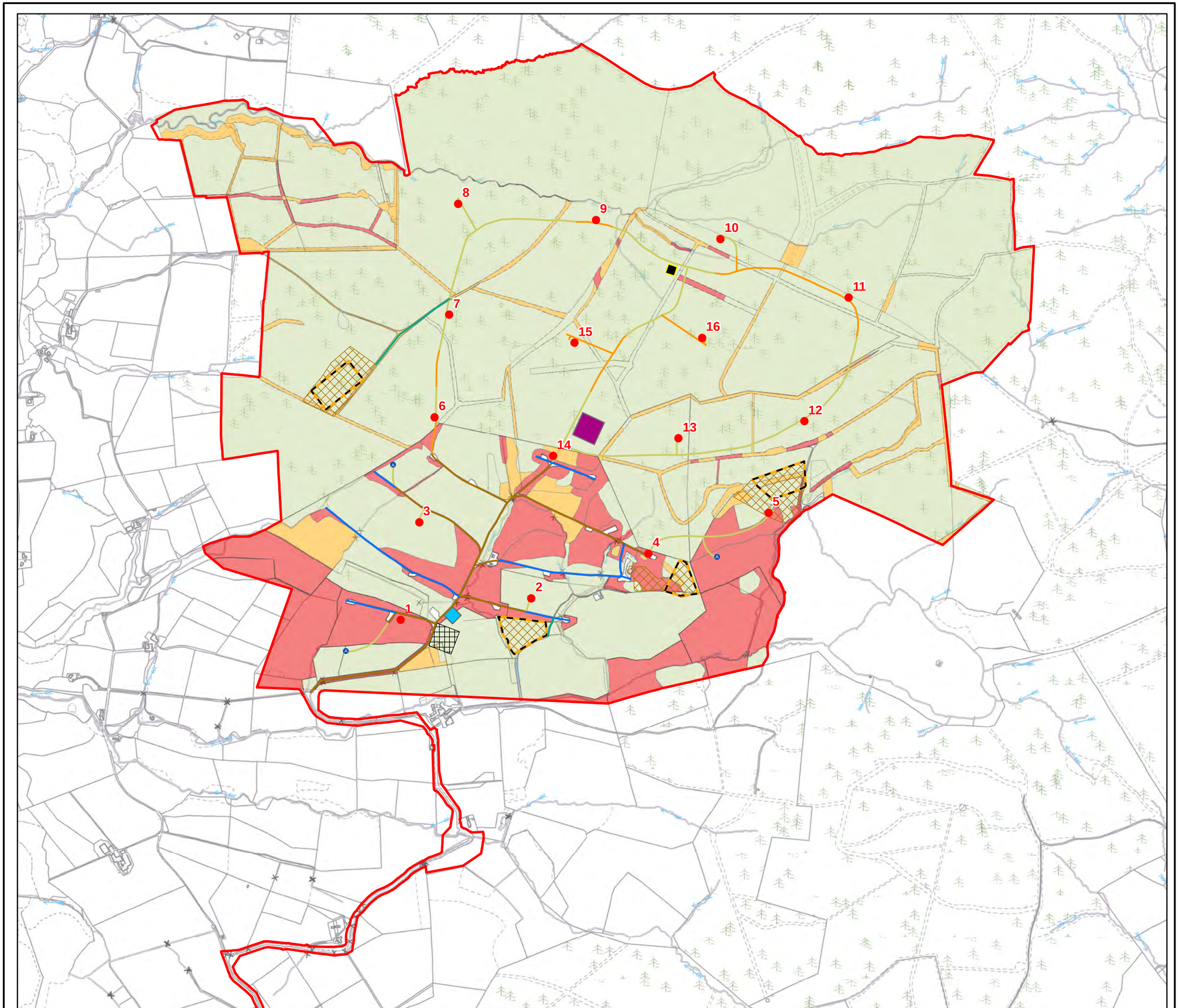

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ENVIRON

Key

- Site Boundary
- Turbines
- Permanent Met Mast
- Substation
- New Cut Track
- New Float Track
- Existing Track to be Reused
- Existing Track for Construction Only
- Existing Track to be Reinstated
- Borrow Pit Working Area
- Borrow Pit - Search Area
- Proposed Construction Compound
- Proposed Laydown Area
- Proposed Operations Building

GWDTE

- Non GWDTE
- Moderately GWDTE
- Highly GWDTE

In Accordance to SEPA Guidance Note 4.
However, as explained in chapter not all habitat types listed as GWDTE are always groundwater fed.

N

Scale 1:15,000 @ A3

0 0.125 0.25 0.5 km

Figure 10.4
Groundwater Dependent Terrestrial Ecosystems

Tangy III Wind Farm
Environmental Statement

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