6. EIA METHODOLOGY, SCOPING AND CONSULTATION

6. EIA Methodology, Scoping and Consultation

6.1. Introduction

6.1.1. Environmental Impact Assessment (EIA) is a process aimed to ensure that permissions for developments with potentially significant effects on the environment are granted only after the assessment of likely significant environmental effects has been undertaken. The assessment must be carried out following consultation with statutory consultees, other interested bodies and members of the public.

6.1.2. The requirement for EIA in Scotland for wind farm generating stations with an electrical output capacity in excess of 50 MW is provided under Part 4 of the Electricity Works (Environmental Impact Assessment) (Scotland) Regulations 2017[1] (hereafter referred to as the 'EIA Regulations').

6.1.3. The EIA Regulations implement European Union (EU) Directive 2014/52/EU which amended Directive 2011/92/EU on the assessment of the effects of certain public and private projects on the environment, insofar as it relates to applications for consent to construct, extend or operate a power station or install or keep installed overhead electricity lines under Sections 36 and 37 of the Electricity Act 1989[2].

6.1.4. EIA is an iterative process of assessment and design, whereby prediction and assessment of effects inform the design of the Proposed Development. The Proposed Development can then be refined in order to avoid or reduce potential environmental effects, where necessary, through the use of mitigation measures.

6.1.5. EIA follows a series of stages:

- Site selection and feasibility;
- Screening – is an EIA required;
- Pre-application consultation with statutory and non-statutory consultees;
- Scoping;
- Baseline studies to establish the current environmental conditions at the Site;
- Identification of potential environmental effects;
- Mitigation to avoid or reduce the effects through iterative design process;
- Assessment of residual effects;
- Preparation of an EIA Report;
- Submission of the EIA Report;
- Consideration of application and environmental information by the Scottish Government, Dumfries and Galloway Council (the Council) and other consultees;
- Determination of application (with or without conditions); and
- Implementation and monitoring.

[1] legislation.gov.uk (2017). The Electricity Works (Environmental Impact Assessment) (Scotland) Regulations 2017. [online] Legislation.gov.uk. Available at: http://www.legislation.gov.uk/ssi/2017/101/contents/made [Accessed 06/11/2018].

[2] legislation.gov.uk (2018). Electricity Act 1989. [online] Legislation.gov.uk. Available at: https://www.legislation.gov.uk/ukpga/1989/29/contents [Accessed 06/11/2018].

6.1.6. The EIA Regulations require that an EIA Report should include a range of information including: a description of the development, a description of reasonable alternatives, baseline information, a description of the likely significant effects of the development, and mitigation measures amongst other factors.

6.1.7. This EIA Report has been prepared in accordance with the EIA Regulations and includes the required information.

6.2. Consultation

6.2.1. Consultation has formed an integral role throughout the EIA process, including at the following key stages:

- Pre-Scoping - obtaining initial feedback on the Development;
- Scoping and community open days - identification of key issues;
- Technical Assessments - collecting baseline information from relevant organisations and confirming survey methodologies;
- Informing site design - communication with local communities and consideration of baseline information; and
- Discussing opportunities for mitigation and enhancement.

6.2.2. Pre-application consultation undertaken includes:

- Meeting with ECU on the 21st February 2018;
- Meeting with Planning Officers 21st February 2018; and
- Meeting with Case Officer 18th March 2018.

6.2.3. Further information about pre-scoping, scoping and public consultation is outlined below with other consultation elements discussed within the individual technical chapters and detailed within the Statement of Community Consultation (SCC) Report which accompanies the application.

Pre-Scoping

6.2.4. Consultation commenced prior to the Scoping stage to inform the Local Authority of the Development and seek their views on the potential environmental sensitivities associated with it, as well as discussing the cumulative situation within the Local Authority area. The Applicant also contacted the community councils and a number of individuals local to the application site in advance of progressing to the scoping stage to seek their opinion on the Development and advise that the EIA progress was being initiated.

Scoping

6.2.5. A scoping report was originally submitted in 2013 with a scoping opinion received in July the same year. In 2018, an updated scoping exercise was undertaken. The aim of the Scoping process was to identify key environmental issues at an early stage, to determine which elements of the proposal are likely to cause significant environmental effects, and to identify issues that can be 'scoped out' of the assessment. This established the work required for preparation of this EIA Report.

6.2.6. The request for an Updated Scoping Opinion was submitted to the Scottish Government in March 2018. The request was accompanied by an Updated Scoping Report which described the Proposed Development, the EIA methodology, and the key issues to be addressed. The document was also sent to a range of consultees, as agreed with the Scottish Government Energy Consents Unit (ECU). Consultees are detailed in Table 6.1. Other bodies and interested parties were also consulted directly by Arcus, and these are also provided in Table 6.1. The ECU issued the updated Scoping Opinion in late May 2018.

6.2.7. The Chapter is supported by the following appendices:

- The Original Scoping Report: **Appendix 6.1**;
- The Original Scoping Opinion: **Appendix 6.2**;
- The Updated Scoping Report: **Appendix 6.3**;
- The Updated Scoping Opinion: **Appendix 6.4**;

Table 6.1: List of Consultees

Consultees Consulted throughout EIA Process
The Scottish Government – Energy Consents Unit
Dumfries and Galloway Council
Scottish Environment Protection Agency (SEPA)
Scottish Natural Heritage (SNH)
Historic Environment Scotland
Marine Scotland
Transport Scotland
Forestry Commission Scotland
Fisheries Management Scotland
Dee District Salmon Fisheries Board (Kirkudbrightshire) via Galloway Fisheries Trust
British Telecoms (BT)
Civil Aviation Authority (CAA)
Crown Estate Scotland
Defence Infrastructure Organisation
Joint Radio Company
NATS Safeguarding
RSPB Scotland
Mountaineering Scotland
Scottish Water
Visit Scotland
John Muir Trust
Scottish Wildlife Trust
BAA (Glasgow Airport)
BAA Aerodrome Safeguarding (Edinburgh)

Consultees Consulted throughout EIA Process
BAA Aerodrome Safeguarding (Edinburgh)
Glasgow Prestwick Airport
British Horse Society
Scottish Rights of Way and Access Society (ScotWays)
Carsphairn Community Council
Carsphairn Heritage Group
Spectrum Licensing
Arqiva
Atkins
SPEN
Vodafone

6.2.8. Table 6.2 provides an overview of the issues raised by the consultees at the updated 2018 scoping stage. The detail of the individual responses received from consultees during the EIA, including at the scoping stage, is set out in the relevant technical chapters. Where appropriate, reference is provided as to where the comments have been addressed within this EIA Report.

Table 6.2: Scoping Responses

Consultee	Summary of Consultee Response	Where Addressed in EIA Report
Other		
Carsphairn Community Council (CCC)	In regards to consultation, the CCC recommends that individual residents be consulted as well as keeping an open line of consultation with the CCC themselves.	Chapter 6, Section 6.2: Public Consultation.
Crown Estate	Crown Estate asset map indicates Barr Royal Mines Lease covers the northern part of site. They consider the development unlikely to interfere with an early stage Mines Royal options.	Consideration in EIA Report not required
Forestry		
Forestry Commission Scotland	The EIA Report should include forecasts of timber production and traffic movements and mitigation should be described with a Timber Transport Management Plan for agreement with the Local Authority. The southern boundary of the proposed development abuts the National Forest Estate at Castlemaddy Forest and Forest Enterprise Scotland (FES) should be consulted directly regarding potential impacts on that forest. The EIA Report should consider the Scottish Government's Control of Woodland Removal Policy when identifying any woodland losses resultant from the development and explain how the developer proposes to address those losses. It should be made clear that both felling operations and compensatory planting (if relevant) must be carried out in accordance with good forestry practice as defined in the UK Forestry Standard (UKFS). Ensure that even age woodlands are progressively restructured in a sustainable manner: felling coupes should be phased to meet adjacency requirements and their size should be of a scale which is appropriate in the context of the surrounding woodland environment. The chapter should consider how the forests would evolve without the wind farm and then consider how this would differ if the development were to go ahead. Such considerations should cover both felling and restocking activities and be laid out clearly to show how these would differ in the two scenarios. The specifics of the proposed mitigation should be included in a Compensatory Planting Plan (CPP), appropriately described in the EIA Report, as they are vital in	Chapter 7: Forestry

Consultee	Summary of Consultee Response	Where Addressed in EIA Report
	understanding the development in full. The CPP should include a summary.	
Dee DSFB (Kirkcudbrightshire) via Galloway Fisheries Trust	Would like to comment upon forest plan, specifically felling and restocking, in relation to fishery issues.	Chapter 7: Forestry
Landscape and Visual		
SNH	The proposal for the "Ken" landscape of the "Narrow Wooded River Valley" character type to be included as a part of the "Southern Uplands with Forest" must justified within the LVIA section. With the inclusion of a viewpoint from Corserine, the list of viewpoints is adequate. When considering the cumulative assessment, viewpoints should contain cumulative wireframes and consultation with D&G, South Ayrshire and East Ayrshire Councils for up to date lists is advised.	Chapter 8: Landscape and Visual
D&G Council	A local landscape character assessment should be undertaken to assess and mitigate against potential landscape and visual impacts on the local landscape and setting of features, which contribute to its sense of place and local distinctiveness. • The setting of the Cairnsmore of Carsphairn as a landmark and focus to the range of shapely / sculptural Carsphairn Hills, including most notably Benniner and Moorbrock summits and slopes. • The setting of Mascalloch Hill as a local landscape feature. • The setting of and approach to the Stroanfreggan area and associated landscape (and historic) features, the Crag and Iron Age hill fort, and Smitton's Bridge. • The setting and character of the Dundeugh Hill and High Bridge of Ken area, including the picnic site by the river. • The setting and character of the upper water of Ken Valley, as appreciated from the minor Head of the Ken road, and including Smitton's Bridge. • Access and other design aspects of the commercial forestry. Agreed with 20 viewpoints but suggested additional one along with further 8 residential properties. 15km is suggested in this instance as an outer limit of visual interest for full visualisations, although wirelines could usefully be provided beyond this to pick up particularly sensitive visual receptors.	Chapter 8: Landscape and Visual

Consultee	Summary of Consultee Response	Where Addressed in EIA Report
	Visual impact assessment should consider residential properties within 2 km of the windfarm. The potential for adverse cumulative effects are complex and in order to assess when the capacity of the area is reached the assessment should address the different potential scenarios of development: • Committed schemes: existing and consented. • Committed schemes and the different scenarios of in-planning schemes. • Committed schemes with and without in-planning and scoping schemes. • Committed schemes with / without each of the immediately adjacent in-planning and scoping schemes and the differing scenarios of each. Most of the proposed scheme lies within an established area of forestry. The LVIA should address the assessment of effects in relation to the Forest Plan, detail forestry proposals, including any potential mitigation by design / compensatory mitigation. Photomontage visualisations should show the proposals, including forest cover. Access to and within the site should be assessed in terms of impacts; along with the Abnormal Loads Route / options, indicating any requirements in terms of road upgrades at corners, boundary and verge treatments, bridges, tree works and access points etc., along with detail design proposals for these. Photomontage visualisations should show any such proposals. Other compounds, substations, site offices, batching plants, borrow pits etc. should be assessed in terms of impacts; indicating any requirements in terms of architectural and engineered structures or ground works, boundary treatments, tree works, proposed screening etc., along with detail design proposals for these. Photomontage visualisations should show proposals.	
Mountaineering Scotland	Landscape and visual assessment should look at the effects of saturation within the local area and determine whether cumulative impact is clustered in certain quadrants or widespread throughout the panorama.	Chapter 8: Landscape and Visual
John Muir Trust	No Response to Scoping Request. Subsequent consultation undertaken during preparation of EIA for which they responded:	Consideration in EIA Report not required.

Consultee	Summary of Consultee Response	Where Addressed in EIA Report
	John Muir Trust has no comment as they do not routinely respond to Scoping unless there is a conflict with their policies but will rely upon the Planning Authority and Statutory Agencies.	
Ecology		
SNH	Key sensitive receptors, potential effects and assessment methodology are adequately covered in Scoping Report.	Chapter 9: Ecology
SEPA	Potential impacts upon Groundwater dependent Terrestrial Ecosystems, abstractions and Buffers must be assessed and mapped.	Chapter 9: Ecology and Chapter 13: Hydrology and Hydrogeology
Marine Scotland	Suggested a robust, integrated monitoring programme for water quality and fish populations at least 12 months before, during and after construction. Potential impact of felling on water quality and aquatic biota should be discussed in the Environmental Statement as well as a list of nitrates and phosphates included. Cumulative impacts of present and proposed developments in the area on fisheries and hydrology should be assessed.	Chapter 9: Ecology and Chapter 13: Hydrology and Hydrogeology
RSPB Scotland	Highlighted the need to minimise impact to blanket bog, marshy grassland and dry heath through design layout.	Chapter 9: Ecology
Fisheries Management Scotland	No Response to Scoping Request. Subsequent consultation undertaken during the preparation of the EIA. The Proposed Development falls within the district of the Kirkcudbright Dee District Salmon Fishery Board, and the catchments relating to the Galloway Fishery Trust. Recommend to follow the FMS guidelines.	Chapter 9: Ecology
Dee DSFB (Kirkcudbrightshire) via Galloway Fisheries Trust (GFT)	Welcome the use of existing forestry tracks where possible but as these would likely require upgrading, mitigation measures should provide protections for watercourses, water quality and fish populations. Raise concerns regarding nutrient input and acidification as a result of felling. Site specific mitigation must be detailed and monitoring plans produced to assess water quality and protect watercourses. Fisheries data collected in 2013 is out of date, and updated baseline fisheries survey is required. Additionally, there is no context in regards to the low-moderate trout population and updated baseline fisheries data is required. These must occur between July and September and must adhere to	Chapter 9: Ecology

Consultee	Summary of Consultee Response	Where Addressed in EIA Report
	Scottish Fisheries Co-ordination Centre (SFCC) standards. EIA report should contain details regarding fish monitoring to be conducted pre-construction, during construction and post-construction surveys. Highlight the importance of small watercourses to spawning and nursery areas for salmonids. All running watercourse must be properly assessed. Biosecurity is important especially in regards to invasive crayfish species.	
Scottish Wildlife Trust	No response to Scoping Request. Subsequent consultation undertaken during the preparation of the EIA.	Chapter 9: Ecology
Ornithology		
SNH	Agreed that geese related SPA issues could be scoped out of the assessment. Given the site, and similar results from recent surveys, it is agreed that the survey effort is acceptable. Distance strips in Figure 7 and the distance strips surrounding the Development site boundary should be consistent.	Chapter 10: Ornithology
RSPB Scotland	Advise that any habitat restoration includes enhancement for key bird species such as black grouse. Future forest design plans should consider the opportunity to enhance forest edge habitat for black grouse through the provision of small leafed native broadleaves. Forest management should take into account the breeding raptor species in the area, through pre-felling survey work. Support SNH advice that NVC habitat survey should be undertaken for any Annex 1 or UKBAP Priority Habitats. Spring migratory vantage point watches should be carried out to assess any likely impact to Annex 1 species Whooper swan	Chapter 10: Ornithology and Chapter 9: Ecology
Cultural Heritage		
Historic Environment Scotland	Assessment required for nearby designations with request for visualisations and wirelines. Assets include Stroanfreggan Craig Fort/Smittons Bridge, Stroanfreggan Bridge Cairn and Craigengillan Cairn. Any turbines in the southern half of the Development site should be set well back from the site boundary to mitigate impacts on the setting of Stroanfreggan Craig fort, Smittons Bridge.	Chapter 11: Cultural Heritage Chapter 3: Alternatives and Scheme Evolution Chapter 11: Cultural Heritage and Volume 3:

Consultee	Summary of Consultee Response	Where Addressed in EIA Report
	The EIA report should include photomontages from the Stroanfreggan monuments looking towards the wind farm; the unnamed road leading eastwards from Smittons Bridge and from the south side of Stroanfreggan Burn. A series of wireframes should be provided from Craigengillan Cairn. Strongly recommend further pre-application consultation.	Landscape and Cultural Heritage Visualisations
Dumfries and Galloway Archaeologist	Impacts on the setting of historic environment assets should be set by the ZTV. Nationally significant sites out to 10 km should be assessed as well as regionally significant sites at 5 km. After preliminary assessment, a finalised illustration for inclusion in the EIA should be agreed with the Council Archaeologist. A series of wireframes and photomontage visualisations will be required from: Craigengillan Cairn, Woodhead Mines (around Higher Row), Cairn Avel, Stroanfreggan fort, Stroanfreggan cairn, Little Auchrae farmstead, Round Craigs cairn, Drove road/Pilgrims' way at Stroangassel Hill (MDG3416, around NX 5983 8592) and Culmark Hill cairn.	Chapter 11: Cultural Heritage and Volume 3: Landscape and Cultural Heritage Visualisations
Carsphairn Community Council	In regards to the Cultural Heritage chapter CCC request that a detailed field survey accompanies the Desk based Assessment (DBA).	Chapter 11: Cultural Heritage and Technical **Appendix 11.1** in Volume 4
Carsphairn Heritage Group	No Response to Scoping Request. Ongoing consultation undertaken during preparation of EIA.	Chapter 11: Cultural Heritage
Geology and Peat		
SEPA	Application should be supported by comprehensive site specific Peat Management Plan. A peat depth survey with additional table detailing re-use proposals, map and table detailing forest removal, map and site layout of borrow pits that are going to be used during the construction phase must all be included in the EIA process. Cabling must be laid in ground already disturbed such as verges. The planning submission must demonstrate how the layout has been designed to minimise disturbance of peat and consequential release of CO2. The planning submission must outline the preventative/mitigation measures to avoid significant drying or oxidation of peat.	Chapter 12: Geology and Peat

Consultee	Summary of Consultee Response	Where Addressed in EIA Report
	The submission must include a detailed map of peat depths (this must be to full depth and follow the survey requirement of the Scottish Government's Development on Peat: Site Surveys and Best Practice) with all the built elements (including peat storage areas) overlain to demonstrate how the development avoids areas of deep peat and other sensitive receptors. The submission must include a table which details the quantities of acrotelmic, catotelmic and amorphous peat which will be excavated and where it will be re-used during reinstatement. The assessment and design must be in accordance with Guidance on the Assessment of Peat Volumes, Reuse of Excavated Peat and Minimisation of Waste and Scottish Environment Protections Regulatory Position Statement – Developments on Peat. The following information should be submitted with the application or in some instances required by condition: a) a map showing the location, size, depths and dimensions of each borrow pit. b) a map showing in relation to each proposed excavation, stocks of rock, overburden, soils and temporary and permanent infrastructure including tracks, buildings, oil storage, pipes and drainage, overlain with all lochs and watercourses to a distance of 250 metres from working areas. c) a site-specific buffer drawn around each loch or watercourse proportionate to the depth of excavations and at least 10 m from access tracks. If this minimum buffer cannot be achieved each breach must be numbered on a plan with an associated photograph of the location, dimensions of the loch or watercourse, drawings of what is proposed in terms of engineering works. d) a ground investigation report giving existing seasonally highest water table including sections showing the maximum area, depth and profile of working in relation to the water table. e) a site map showing cut-off drains, silt management devices and settlement lagoons to manage surface water and dewatering discharge. Cut-off drains must be installed to maximise diversion of water from entering quarry works. f) a site map showing proposed water abstractions with details of the volumes and timings of abstractions.	

Consultee	Summary of Consultee Response	Where Addressed in EIA Report
	g) a site map showing the location of pollution prevention measures such as spill kits, oil interceptors, drainage associated with welfare facilities, recycling and bin storage and vehicle washing areas. The drawing notes should include a commitment to check these daily. h) a site map showing where soils and overburden will be stored including details of the heights and dimensions of each store, how long the material will be stored for and how soils will be kept fit for restoration purposes. a map showing the location, size, depths and dimensions of each borrow pit. i) sections and plans detailing how restoration will be progressed including the phasing, profiles, depths and types of material to be used. j) details of how the rock will be processed in order to produce a grade of rock that will not cause siltation problems during its end use on tracks, trenches and other hardstanding.	
RSPB Scotland	Advises avoidance of peat depths greater than 0.5m	Chapter 12: Geology and Peat
Hydrology and Hydrogeology		
D&G Council	Complete a Pre-development Enquiry (PDE) form and submit it directly to Scottish Water.	Consideration in EIA Report not required.
SEPA	Assessment of all engineering activities that have the potential to impact the water environment must be included in the EIA process. Potential impacts upon Groundwater dependent Terrestrial Ecosystems, abstractions and Buffers must be assessed and mapped. The EIA process should also include a schedule of mitigation including PPG, quarry or borrow pit site management plan of pollution prevention measures, waste water and surface water drainage layout, a map of proposed water abstractions and a decommissioning statement. The submission must include a map showing all proposed temporary or permanent infrastructure overlain with all lochs and watercourses. A minimum buffer of 50 m around each loch or watercourse should be maintained. If this minimum buffer cannot be achieved each breach must be numbered on a plan with an associated photograph of the location, dimensions of the loch or watercourse and	Chapter 13: Hydrology and Hydrogeology and Chapter 9: Ecology

Consultee	Summary of Consultee Response	Where Addressed in EIA Report
	drawings of what is proposed in terms of engineering works. If water abstractions or dewatering are proposed, a table of volumes and timings of groundwater abstractions and related mitigation measures must be provided. Watercourse crossings must be designed to accommodate the 0.5% Annual Exceedance Probability (AEP) flows, or information provided to justify smaller structures. If it is thought that the development could result in an increased risk of flooding to a nearby receptor then a Flood Risk Assessment must be submitted in support of the planning application. The following information must be included in the submission: a map demonstrating that all Groundwater dependent terrestrial ecosystems are outwith a 100m radius of all excavations shallower than 1m and outwith 250m of all excavations deeper than 1m and proposed groundwater abstractions. If micro-siting, the distance of survey needs to be extended by the proposed maximum extent of micro-siting. The survey needs to extend beyond the site boundary where the distances require it. If the minimum buffers above cannot be achieved, a detailed site specific qualitative and/or quantitative risk assessment will be required. The assessment and design must be in accordance with SEPA Guidance on Assessing the Impacts of Development Proposals on Groundwater Abstractions and Groundwater Dependent Terrestrial Ecosystems. The submission must include a map demonstrating that all existing groundwater abstractions are outwith a 100m radius of all excavations shallower than 1m and outwith 250m of all excavations deeper than 1m and proposed groundwater abstractions. If micro-siting, the distance of survey needs to be extended by the proposed maximum extent of micro-siting. The survey needs to extend beyond the site boundary where the distances require it. If the minimum buffers above cannot be achieved, a detailed site specific qualitative and/or quantitative risk assessment will be required. A schedule of pollution prevention mitigation measures must be submitted. This must include reference to best practice pollution prevention and construction techniques, regulatory requirements, the daily responsibilities of ecological clerk of works, how site inspections will be recorded and	

Consultee	Summary of Consultee Response	Where Addressed in EIA Report
	acted upon and proposals for a planning monitoring enforcement officer. The layout and the general principles for decommissioning must demonstrate waste minimisation and compliance with waste regulations.	
Scottish Water	Highlighted that the proposal is located within a drinking water catchment area and that this should be noted in future documentation and taken into account during environmental risk assessments. Requested further involvement in drawing up the CEMP.	Chapter 13: Hydrology and Hydrogeology
Noise		
D&G Council	No Response to Scoping Request. Previous consultation undertaken during the preparation of the EIA.	Chapter 14: Noise
Traffic		
Transport Scotland	Request a swept path analysis of the A77(T) junctions, as well as A713 and B729. Methods used to assess the likely traffic and transportation impacts on traffic flows should comprise: determination of the baseline traffic and transportation conditions and the assessment of the significance of predicted impacts from transport requirements.	Chapter 15: Traffic and Transport
D&G Council	It would be appropriate that the proposed access route, with particular regard to the B729, be assessed in full and that a swept path analysis for the route from and including the junction of the A713/B729, to the site access be supplied. Full details of the design and layout of the access and any other accommodation works, should be submitted and agreed by the Planning Authority in consultation with the Roads Authority. Any construction traffic accessing this proposed site from the east would not be in favour. Timber Haulage operations should be coordinated with consultation between the office of the South of Scotland and the Timber Transport Officer. If borrow pits are not adequate in supplying aggregate, any vehicle movements involving the importing of aggregate on site should be recorded. Where alterations to public boundaries take place, they should be returned to their	Chapter 15: Traffic and Transport

Consultee	Summary of Consultee Response	Where Addressed in EIA Report
	original state after the construction works have finished. A comprehensive Traffic Management Plan detailing component transportation, deliveries, delivery numbers and cumulative traffic impacts must be agreed with the Council, Transport Scotland and the Police.	
Carsphairn Community Council	In regards to the Traffic and Transport chapter The CCC require assurance that the proposed construction and operation phases of Shepherds' Rig windfarm do not include additional road construction.	Chapter 15: Traffic and Transport
Aviation		
CAA	No Response to Scoping Request. Subsequent consultation undertaken during preparation of EIA.	Chapter 16: Aviation
NATS	No Response to Scoping Request. Subsequent consultation undertaken during preparation of EIA.	Chapter 16: Aviation
MOD	No Objection based on locations of turbines within scoping report. Subsequent consultation undertaken during preparation of EIA.	Chapter 16: Aviation
BAA (Glasgow Airport)	No Response to Scoping Request. Subsequent consultation undertaken during preparation of EIA.	Chapter 16: Aviation
BAA Aerodrome Safeguarding (Edinburgh)	Development is outside safeguarding zone for Edinburgh Airport. No Objection	Chapter 16: Aviation
Glasgow Prestwick Airport	The site appears to be terrain shielded from Primary Surveillance Radar; however, it cannot be established at Scoping stage whether there would be a safeguarding objection. Subsequent consultation undertaken during preparation of EIA.	Chapter 16: Aviation
Socio-economics, Tourism and Recreation		
D&G Council	LVIA should take into account walkers in the area by assessing SUW long distance route, core paths, footpaths and heritage trails including: Stroanfreggan Heritage Trail, Dundeugh Hill, Forrest lodge forest walks, core paths around Carsphairn, including Garryhorn Mine and Bardennoch Heritage trails. Also views from the A712, A762 and A713 should be assessed.	Chapter 17: Socio-economics, Tourism and Recreation and Chapter 8 Landscape and Visual
Carsphairn Community Council	In regards to the Socio-Economics and Tourism Chapter the Scoping Report does not propose practical measures that could increase visitor numbers to the area or enhance the visitor numbers. The CCC asks	Chapter 17: Socio-economics, Tourism and Recreation

Consultee	Summary of Consultee Response	Where Addressed in EIA Report
	that the creation of new footpaths and maintenance and improvement of existing pedestrian access to the local area be considered.	
Scotways	Welcome the applicant's confirmation that rights of way DS15-17 and DS21 along with the SUW will be considered in the EIA. Would like informed opinion as to whether the inclusion of two viewpoints representing the Striding Arches is sufficient. Recommend adherence to Technical Advice Note 8 on Renewable Energy (TAN 8) that all wind turbines should be set back a minimum of blade tip height from any public highway (road or other public right of way) or railway line.	Chapter 17: Socio-economics, Tourism and Recreation Addressed during Gatecheck Chapter 3: Alternatives and Scheme Evolution
Visit Scotland	No response to Scoping Request. Subsequent consultation undertaken during the preparation of the EIA.	Chapter 17: Socio-economics, Tourism and Recreation
Telecommunications		
BT	Does not interfere with BT point-to-point microwave radio links and should not cause interference to BT's current and presently planned radio network.	Chapter 19: Telecommunications and Utilities
Spectrum Licensing	Spectrum Licensing identified one link identified within 2.5 km (0950837/1 Vodafone) and recommended contacting Vodafone for the exact location.	Chapter 19: Telecommunications and Utilities
JRC	In the case of this proposed wind energy development, JRC does not foresee any potential problems based on known interference scenarios and the data provided.	Chapter 19: Telecommunications and Utilities
Arqiva	No Objection.	Chapter 19: Telecommunications and Utilities
Atkins	No Objection.	Chapter 19: Telecommunications and Utilities
Vodafone	Provided further link details. Analysis indicates that link is beyond 100m buffer and not a constraint to development.	Chapter 19: Telecommunications and Utilities

Public Consultation and Exhibitions

6.2.9. The Applicant has undertaken a number of activities to ensure local residents can access and participate in the pre-application consultation process for the Proposed Development.

6.2.10. This has included:

- creation of a project website;
- provision of a freephone telephone enquiry number;
- email address and freepost mail address;
- issuing a newsletter to just under 3000 households within the wider locality in July 2013 and 1770 within 15km of the site in June 2018.
- holding two rounds of public exhibitions, in July 2013 at the Langwyne Hall in Carsphairn and the Glencairn Memorial Institute in Moniaive and in September 2018 at the same venues.

6.2.11. To raise awareness, in the lead up to the community open days, advertisements were placed in the Dumfries & Galloway Standard, Friday 5th July 2013, The Galloway News, Thursday 11th July 2013 and The Galloway News, Thursday 18th July 2013. A press release providing information about the proposed scheme and the public consultation activity was issued on 5th July 2013 to local and regional print and broadcast media. In addition, posters advertising the exhibitions were provided to Community Council Clerks for display on relevant community notice boards. Electronic versions were provided to local Facebook Groups for posting onto their site.

6.2.12. In 2013, over 2,700 newsletters were sent to households within the wider community and in 2018, 1770 newsletters were sent to households within approximately 15 km of the Site, together with surrounding Community Councils, local Councillors and relevant MSP/MPs. The newsletters included details of the exhibitions and a freepost community feedback questionnaire to enable those unable to attend to write in with their questions or comments. 45 newsletter responses were returned via the freepost address in 2013. 42 were returned in 2018.

6.2.13. A freephone telephone number provided an opportunity for questions to be answered directly by members of the project team and for views to be recorded over the phone.

6.2.14. The community open days held in July 2013 and September 2018 provided an introduction/update on the Proposed Development and highlighted some of the main issues being considered. A Zone of Theoretical Visibility and a number of photomontages from key local viewpoints were included in the exhibition material. Members of the project team were on hand to answer any questions.

6.2.15. 120 people attended the first exhibition in 2013 and 55 the second in 2018. This included some of the nearest neighbours of the application site, local residents, members of local interest groups, and the respective community councils. During the events, attendees were invited to fill out a feedback form, - in total 44 feedback forms were completed. Responses were provided to all those who requested further information.

6.2.16. The Applicant has prepared a Statement of Community Consultation (SCC) Report which is separate to the EIA Report but accompanies the section 36 application. The PAC Report provides further details of the consultation process undertaken.

6.3. EIA Methodology

Technical Assessments

6.3.1. Each of the technical assessments follows a systematic approach with the principle steps as follows:

- Assessment Methodology and Significance Criteria;
- Scoping Responses and Consultation;
- Description of the Baseline Conditions;
- Assessment of Potential Effects;
- Cumulative Effects Assessment;
- Mitigation Measures;
- Residual Effects; and
- Summary.

Assessment Methodology and Significance Criteria

6.3.2. Each technical assessment sets out the methodology used to undertake the assessment of potential effects, and details the criteria that are used to determine which effects are significant. The methodology seeks to ensure that the assessment is transparent. The criteria for assessing significance are set out in each individual assessment. Where a level of significance is attributed to an effect, this is based on professional judgement informed by consideration of the sensitivity of the receptor and the magnitude of the effect. Each assessment details the threshold at which effects are generally considered to be significant.

Scoping Responses and Consultation

6.3.3. This section sets out the scoping requirements and pre-application consultation responses that form the framework and scope of the specialist assessment work for the topic.

Description of Baseline Conditions

6.3.4. In order to evaluate the potential environmental effects, information relating to the existing environmental conditions has been collected through field and desktop research. This forms the baseline conditions. The baseline also extends into the future (the future baseline), although such predictions can involve a high number of variables and be subject to large uncertainties. As a result, in some cases, the current baseline condition can be assumed to remain unchanged throughout the timeframe of the Development.

6.3.5. The baseline has been used to assess the sensitivity of receptors within the study areas. Windfarms that are operational or consented at the time of commencing the assessments are treated as being part of the existing baseline,

except where specific guidance advises to the contrary. The approach to describing baseline conditions is set out in each relevant technical chapter.

6.3.6. Baseline information is used to inform the layout of the Development. From baseline information, constraints were identified which were considered as part of the design process. Further detail on the design process adopted for the Development is detailed in Chapter 3: *Alternative and Scheme Evolution* of this EIA Report.

6.4. Assessment of Potential Effects

6.4.1. The prediction of likely effects covers the three phases of the Proposed Development: construction (including pre-construction), operation and decommissioning. In order to assess the potential effects arising from the Proposed Development, the significance of such effects will be determined. The determination of significance relates to the sensitivity of the resource or receptor being affected and the magnitude of change as a result of the impact. The assessment of effects will combine professional judgement together with consideration of the following:

- The sensitivity of the resource or receptor under construction;
- The magnitude of potential impact in relation to the degree of change which occurs as a result of the Proposed Development;
- The type of effect, i.e. adverse, beneficial, neutral or uncertain;
- The probability of the effect occurring, i.e. certain, likely or unlikely; and
- Whether the effect is temporary, permanent and/or reversible.

6.4.2. Each chapter sets out its own specific methodology, but the assessments will broadly follow the methodology detailed in paragraphs 6.4.1 to 6.4.10.

Sensitivity of Receptors

6.4.3. The sensitivity of the receptors, including the importance of environmental features on or near to the Site of the sensitivity of potentially affected receptors, will be assessed in line with the best practice, legislation or statutory designations and/or judgement.

6.4.4. Table 6.3 details a framework for determining the sensitivity of receptors.

Table 6.3: Framework for Determining Sensitivity of Receptors

Sensitivity of Receptor	Definition
Very High	The receptor has little or no ability to absorb change without fundamentally altering its present character, is of very high environmental value or of international importance.
High	The receptor has low ability to absorb change without fundamentally altering its present character, is of high environmental value, or of national importance.

Sensitivity of Receptor	Definition
Medium	The receptor has moderate capacity to absorb change without significantly altering its present character, has some environmental value, or is of regional importance.
Low	The receptor is tolerant of change without detriment to its character, is low environmental value, or local importance.
Negligible	The receptor is tolerant to change and is of little environmental value.

Magnitude of Impact

6.4.5. The magnitude of potential impacts will be identified through consideration of the Proposed Development, the degree of change to baseline conditions predicted as a result of the Proposed Development, the duration and reversibility of an impact and professional judgement, best practice guidance and legislation.

6.4.6. General criteria for assessing the magnitude of an impact are presented in Table 6.4.

Table 6.4: Framework for Determining Magnitude of Effects

Magnitude of Effects	Definition
High	A fundamental change to the baseline condition of the asset, leading to total loss or major alteration of character.
Medium	A material, partial loss or alteration of character.
Low	A slight, detectable, alteration of the baseline condition of the asset.
Negligible	A barely distinguishable change from baseline conditions.

6.4.7. If impacts of zero magnitude (i.e. none / no change) are identified, this will be made clear in the assessment.

Significance of Effect

6.4.8. The sensitivity of the asset and magnitude of the predicted impacts will be used as a guide, in addition to professional judgement, to assess the level of effects. Table 6.5 summarises guideline criteria for assessing the significance of effects.

Table 6.5: Framework for Assessment of the Significance of Effects

Magnitude of Impact	**Sensitivity of Receptor**				
	Very High	**High**	**Medium**	**Low**	**Negligible**
High	Major	Major	Moderate	Moderate	Minor
Medium	Major	Moderate	Moderate	Minor	Negligible
Low	Moderate	Moderate	Minor	Negligible	Negligible
Negligible	Minor	Minor	Negligible	Negligible	Negligible

6.4.9. Effects predicted to be of major or moderate significance are generally considered to be 'significant' in the context of the EIA Regulations and are shaded in light grey in the above table.

6.4.10. Zero magnitude impacts upon a receptor will result in no effect, regardless of sensitivity.

Cumulative Effects

6.4.11. In accordance with the EIA Regulations and using advice from SNH[3] the assessment has considered 'cumulative effects'. By definition, these are effects that result from incremental changes caused by past, present or reasonably foreseeable developments together with the Proposed Development being assessed. For the cumulative assessment, the combined effects of several developments that may on an individual basis be insignificant but cumulatively, have a significant effect, such as landscape and visual effects, have been considered.

6.4.12. The extent of any cumulative assessment is defined in each technical assessment chapter and can include both existing and proposed wind farm developments and other forms of development. The potential landscape and visual effects, for example, which relate to the intervisibility of individual wind farm development schemes will be much more wide ranging than noise effects which will be limited to receptors in the more immediate vicinity of the Proposed Development.

6.5. Mitigation Measures and Enhancement

6.5.1. Where the EIA identifies likely significant adverse effects, mitigation measures will be proposed in order to avoid, reduce, offset or compensate those effects. These mitigation measures may be embedded in the design or additional to the inherent design of the scheme. Such embedded mitigation measures will likely include the movement or loss of turbines, access tracks and other infrastructure, and/or management and operational measures.

[3] SNH, 2012, Assessing the Cumulative Impact of Onshore Renewable Energy Developments Available at: http://www.snh.gov.uk/docs/A675503.pdf [Accessed 02/02/2018]

6.5.2. In line with the mitigation hierarchy identified in Planning Advice Note (PAN) 1/2013, Revision 1.0 (2017)[4], the strategy of avoidance, reduction, offsetting and compensation seeks:

- First to avoid significant adverse effects;
- Then to minimise those which remain; and
- Lastly, where no other remediation measures are possible, to propose appropriate compensation.

6.5.3. In addition, enhancement measures may be incorporated into design of the Development to maximise environmental benefits.

6.6. Residual Effects

6.6.1. Taking cognisance of the suggested mitigation (and enhancement) measures, the predicted effects will be re-assessed to determine the residual effects.

6.6.2. The residual effects of the Proposed Development are those that remain, assuming successful implementation of the identified mitigation and enhancement measures.

6.6.3. Residual effects are identified in each technical assessment alongside an assessment of whether any residual effects are significant or not in terms of the EIA Regulations.

6.7. Assumptions and Limitations of the EIA

6.7.1. A number of assumptions have been made during preparation of this EIA Report, as set out below. The assumptions are:

- The principal land uses adjacent to the site remain as they are at the time of the submission of the application, except in cases where planning permission has already been granted for Proposed Development. In these cases, it is assumed that the approved development will take place, and these have been treated as contributing to "cumulative" effects; and
- Information provided by third parties, including publicly available information and databases is correct at the time of submission.

6.7.2. The EIA has been subject to the following limitations:

- Baseline conditions are accurate at the time of the physical surveys, but due to the dynamic nature of the environment, conditions may change during the site preparation, construction and operational phases; and
- The assessment of cumulative effects has been reliant on the availability of known information relating to existing wind farm developments as of 1st July 2018.

6.7.3. Assumptions specific to certain environmental aspects are discussed in the relevant Chapters of this EIA Report.

[4] The Scottish Government (2017). PAN 1/2013 Revision 1.0 Environmental Impact Assessment. Available at: http://www.gov.scot/Resource/0052/00521028.pdf [Accessed 01/03/2018]