

The Town and Country Planning (Environmental Impact Assessment) (Scotland) Regulations 2011

Scoping Opinion of South Ayrshire Council for the proposed development at Altercannoch Farm, by Barrhill

1. Introduction

South Ayrshire Council received a request under Regulation 14(1) of The Town and Country Planning (Environmental Impacts Assessment) (Scotland) Regulations 2011 ('The Regulations') for a scoping opinion in respect of a proposed development at Altercannoch Farm, by Barrhill. The purpose of this scoping opinion is to set out what the Council considers the likely main effects of the proposed development to be, and therefore, the topics on which the Environmental Statement (ES) should focus.

As part of the process of adopting this scoping opinion the Council consulted with a range of consultees which are considered to be relevant in the context of a proposal of this nature. Each of these consultees has provided a response in terms of what the ES should focus upon and in some instances, the methodology that should be used. These responses are attached as an appendix.

There are a range of issues associated with this particular proposal which should be covered within the ES. This document will identify those issues in order to provide the ES with some focus and to ensure that all of the areas of concern are fully addressed within the ES.

2. Description of your development

At present, the proposed development indicates that the turbines will be concentrated in an area of land on the south-eastern corner of the site boundary. Therefore, although the site boundary is located immediately adjacent to the Barrhill settlement boundary, the nearest turbine, as the proposal stands, would be approximately 2km to the south-east of the settlement.

The proposal consists of 8 turbines with an overall capacity to generate 27MW. The turbines have a maximum blade tip height of 131m. The proposed development will also comprise of access tracks, underground cabling, borrow pits, watercourse crossings, a permanent lattice design meteorological mast, a temporary construction compound and temporary wind monitoring masts.

The proposed development site occupies an area characterised by intensively managed pastureland, upland moorland, peatland and grassland habitats.

3. Planning policy context

In developing the proposal and preparing the Environmental Statement, particular regard should be afforded to the relevant provisions of Scottish Planning Policy (SPP); PAN 45: Renewable Energy Technologies", as well as other relevant national policy guidance; the provisions of the local development plan (adopted, September 2014), the South Ayrshire Landscape Wind Capacity Study; and other material planning policy considerations.

The proposed site is situated within the Scenic Area as defined by the SALP; and a Sensitive Landscape Character Area, as defined by the AJSP. The Ayrshire Landscape Assessment (1998) identifies the proposed site as falling within both the Intimate Pastoral Valleys and Plateau Moorland with Forest character areas.

There are several natural and built heritage designations within and around the proposed development site. Of particular note are the wildlife sites, the SSSI (and SWT Reserve) to the north-east, the flood risk areas around the site and listed buildings. There are also a number of archaeological trigger zones within the site. Accordingly, there are a number of relevant policies within the development plan which would be taken into consideration in the determination of any future planning application. It is considered that the following policies of the local development plan would be particularly relevant to an evaluation of the environmental impacts of the proposed development:

- Spatial Strategy
- Sustainable Development
- Landscape Quality
- Protecting the Landscape
- Preserving Trees
- Central Scotland Green Network
- Water Environment
- Flooding and Development
- Air, Noise and Light Pollution
- Renewable Energy
- Wind Energy
- Historic Environment
- Archaeology
- Natural Heritage
- Outdoor Public Access and Core Paths

The PSALDP can be viewed on the Council's website by clicking [here](#).

4. Consideration of Alternatives

Schedule 4, paragraph 2 of the Town and Country Planning Environmental Impact Assessment (Scotland) Regulations 2011 requires that all environmental statements should include information on the main alternatives studied and indicate the main reasons for choosing the selected option, with reference to the environmental effects. Consideration of alternatives will therefore be required in relation to turbine specification, site layout and other design considerations.

5. Landscape Implications

Consideration should be given to the potential effects of the development upon local scenic designations, as defined in the South Ayrshire Local Plan; other built and natural heritage designations (e.g. listed buildings) within the study area and wider landscape. Regard should be had to the impact of the development on landscape character, as defined in the Ayrshire Landscape Character Assessment. The landscape and visual assessment should address all aspects of the proposal (access to the site and within the site, borrow pits, control/ transformer buildings, forestry/ tree felling) as well as turbine locations and should be conducted in accordance with industry best practice.

In terms of the portrayal of visual and landscape impacts within environmental statements, guidance has also been developed, jointly by SNH and the Scottish Renewables Forum, on 'Visual Representation of Wind Farms – Good Practice Guidance' (SNH, 2007). Published at: <http://www.snh.gov.uk/planning-and-development/renewable-energy/onshore-wind/>.

The South Ayrshire Landscape Wind Capacity Study (which is a material consideration) offers useful information in relation to the landscape character of the area and the sensitivities involved in positioning wind energy developments within the locality. This document identifies the proposed development site as being located within two distinct landscape character typologies: foothills with forest and wind farm; and intimate pastoral valley. In general terms, both of these landscapes types are restricted in terms of the scale of wind energy developments that they would be able to absorb without notable detriment. The environmental statement should include information on how the difficulties associated with integrating a wind energy development within such a sensitive location (in landscape terms) will be overcome.

The environmental statement should include a detailed description of the landscape as it currently exists, including reference to the special features of the landscape and how it will be affected by the proposed development. In this regard, particular cognisance should be given towards impacts upon the locally designated scenic area.

6. Cumulative Impacts

The cumulative impacts (visually and ecologically) arising from windfarm developments are a key consideration in the assessment of such proposals, particularly given the number of existing operational windfarms in the area, windfarms with permission and windfarm developments at application, scoping and pre-scoping stages.

The relationship of the Altercannoch wind farm proposal to operational (Mark Hill and Arecleoch, in particular) and consented windfarms should be assessed, together with other developments which are the subject of undetermined Section 36 applications or planning applications and, where possible, proposals at formal scoping stage. Particular cognisance should be taken of the views of Scottish Natural Heritage (see attached) on the cumulative landscape and visual impact of the proposal. It is important that any cumulative assessment should not only address inter visibility and the visibility of multiple windfarms from key viewpoints, but should also address the consequences of travelling through the landscape and sequential views.

7. Zones of Theoretical Visibility (ZTVs)

It is desirable that individual and cumulative ZTVs be prepared early on in the assessment process, with representative viewpoints being agreed in advance with South Ayrshire Council, East Ayrshire Council, Dumfries and Galloway Council and Scottish Natural Heritage. A minimum of 35km ZTV is recommended, which should include a provisional list of views, with an indication of distance and the evaluation and justification for their inclusion or omission (e.g. sequential road view/ fixed view from distant hill/ key skyline views; views on approach to/ impact on the landscape setting of settlements and built and cultural heritage features; locally important views/ landmarks; views from rights of way/ walking routes/ residents views/ popular recreation areas etc).

The initial list of fixed and sequential viewpoints, in relation to the assessment of individual and cumulative landscape and visual impacts, should be provided and agreed upon with SNH and South Ayrshire Council.

These should be used to influence the site layout process, and the zone should include wind farm projects known to be at application or decision stage within 35km distance from the proposed development site.

8. Design Principles

The layout of the site should be designed so as to minimise the impact of the development upon key environmental features, significant views and sites designated for their ecological, historical, cultural or scenic qualities. The principles to be adopted in the design process should be made explicit, and could take the form of a Design Statement as advocated in PAN 68.

9. Nature Conservation Designations

As stated earlier, there are several natural heritage interests around the site. There are a number of wildlife sites within and around the site with a variety of botanical and ornithological interests. There is a SWT Reserve to the north-east of the site which also encompasses a SSSI. All of these features must be afforded the necessary level of protection and the environmental statement should fully consider the impacts upon each of these designations in consultation with the relevant organisations. Please refer to the responses of SNH and RSPB, set out within Appendix 1.

There are several small watercourses within and around the site which could be affected by the proposals, including through the provision of watercourse crossings to enable the construction of the proposed development. Full consideration requires to be given to any natural heritage interests associated with these watercourses. Particular attention should also be given to any impacts upon European protected species within the vicinity of the site.

10. Soils

The majority of the site (including all of the area within which the turbines are proposed) contains peat resources. Peat is a valuable natural resource for its carbon capture and storage capabilities. The environmental statement should include information on the exact location of peat resources within the proposed development site, how the proposal will impact upon these resources and the mitigation measures that will be employed.

11. Ornithology

The SWT Reserve to the north has ornithological interest, known for supporting Kestrel, Snipe, Curlew and Linnet. Impacts upon these designations should be addressed within the environmental statement.

12. Short-term Impacts

The consequence of construction works should be assessed and addressed by means of a method statement, environmental management plan, mitigation programme, reinstatement measures and monitoring regime. These techniques should deal with the timing of works in relation to ornithological interests and site restoration proposals following decommissioning. There will be a need to protect all watercourses, tributaries and river catchments. This is particularly important as there are water courses in and around the site. The advice of the Scottish Environmental Protection Agency will be of particular importance in this respect.

The effects of construction activities on water quality should be assessed, to avoid in particular, sedimentation and accidental spillages. This will apply to turbine base formation, access road construction and borrow pit extraction operations. Consideration should be given to the need for silt traps and possibly a settlement lagoon and, dependent on effluent quality, discharge consent from SEPA may be required. Any private water supplies should be protected during and after construction. The development should maximise the use of secondary aggregates or recycled materials and the production of waste materials should be minimised.

It is noted that there are flood risk areas along the boundary of the site. The advice of SEPA will be pertinent in order to ensure that the existing flood risk problems within the area are not exacerbated by the proposed development.

13. Built and Cultural Heritage Resources

The ES should assess the direct and indirect impacts of the proposed development (individually and in association with other existing and proposed windfarms) upon heritage resources and their settings within the zone of visual influence of the development, including scheduled monuments, unscheduled archaeological sites, listed buildings, conservation areas and gardens and designated landscapes.

Of particular note to this proposal are the built heritage designations in and around Barrhill, including the Barrhill conservation area and A-listed Kildonan House, located to the north west of the settlement.

14. Tourism/ Recreation and Public Access Resources

The ES should address the consequences of the development for users of the countryside and its direct and indirect impacts on tourism and recreational interests and resources in the vicinity.

15. Amenity Issues

The consequences of the proposed windfarm for occupiers of properties within the vicinity of the development, as well as countryside users, should be assessed in terms of impact on views from properties and access routes; noise from the construction and operational phases of the development; dust from the construction phase of the development; fumes and vibration from HGV traffic movements; and shadow flicker. A noise assessment methodology should be submitted in respect of both the construction and operational phases of the development.

16. Traffic and Transportation Issues

The ES should assess the impact of the construction and operational phases of the proposed development on the public road network in terms of the effects of the additional vehicular traffic generated, particularly heavy goods vehicles and abnormal loads comprising turbine components, on traffic management, road safety, road layout and road condition. The consultation response of the Ayrshire Roads Alliance (Appendix 1) provides more detail in this regard.

17. Aviation

The consequences of the proposal for military and civil aviation should be assessed, notably the impact of the wind turbines on operations within the MOD Low Flying Tactical Training Area 20T and upon airport approach and en-route air traffic control radar systems, including impact with other operational, consented and proposed windfarms.

As part of the scoping exercise the National Air Traffic Service (NATS) was consulted. It is recommended that the applicant familiarise themselves with any aviation implications as a result of their proposal and provide any evidence of their assessments. NATS have produced self-assessment maps which will help prospective applicants identify any potential issues.

18. Telecommunications

The impact of the proposed development on domestic television reception in the area and on any civil or military broadcast linkages traversing the site should be assessed and any necessary mitigation measures identified.

Appendix 1 – Comments received by consultation authorities

Ayrshire Roads Alliance

This response provides comments on the request for Scoping Opinion submitted by PNE Wind UK, and outlines the minimum level of information that we would expect to see within the supporting EIA report.

Summary of Proposals

We note that the proposals are for a wind farm of circa 8 turbines (131m to tip height) at a site located at Altercannoch, OS Grid Reference 224500E, 579500N to the south east of the village of Barrhill, and that at this early stage the site layout is indicative and therefore subject to change.

It is acknowledged that the provision of feedback on the Scoping Report is intended to inform the required contents of any subsequent Environmental Impact Assessment (EIA) process.

Proposed Access Route

We note that the indicative access route described within the Scoping Report for abnormal loads is as follows:

Ayr Port → A719 → A77 southbound → A751 southbound → A75 Eastbound → A714 Northbound → B7027 → site entrance on A714 SE of Barrhill.

As a significant proportion of this proposed route involves use of the A77 which forms part of the Trunk Road network in Scotland, we would suggest that Transport Scotland should be included within the consultation process of this proposal.

We would also request clarification as to the routing of other construction traffic associated with the proposals.

Road Structures

The exact location of the site access is not clear in the documentation supplied by PNE Wind, but it is assumed to be from some point along the B7027. The bridges where we have concerns regarding their capacity to carry the wind turbine components are summarised below and would require assessment by the developers.

A714/150 Feoch Bridge - Feoch Bridge is a 7.8m span masonry arch with a reinforced concrete slab extension, assessment for the individual load combinations will be required with appropriate condition factors applied based on inspections carried out closer to the proposed date for transport of turbine components.

A714/140 Duisk Bridge - Duisk Bridge is a 10.5m span masonry arch, again assessment for the individual load combinations will be required with appropriate condition factors applied based on inspections carried out closer to the proposed date for transport of turbine components. There is only 4.95m between the parapets with bends just off both ends the bridge, which may require modification to allow long and wide turbine components to negotiate this section.

There is a third bridge the loads will have to cross on the A714, namely A714/160 Wheeb Bridge on the boundary with Dumfries and Galloway. This boundary bridge is maintained by Dumfries and Galloway who appear to have been consulted.

Swept Path Analysis

The EIA should include a set of vehicle swept path drawings demonstrating that the largest vehicle anticipated to be using the construction route can safely negotiate all junctions falling within public road limits along the route.

The EIA should clearly identify the extent of any land required adjacent to the public road to allow the passage of abnormal loads whose swept path cannot be contained within the existing road widths.

Traffic Impact

The Scoping Report states that an assessment of the significance of the traffic and transport impacts and the need for mitigation measures will be considered within the EIA.

To expand upon this statement, we require that the following be undertaken within the EIA:

- The commission of traffic surveys on the proposed construction traffic route in order to demonstrate an appreciation of Base conditions;
- The investigation of suitable growth estimates for projecting traffic flows forward to the proposed year of construction (if different from survey year);
- A comprehensive breakdown of the predicted number of trips to the proposed development site during the construction phase of the wind farm. This information should be fully classified by vehicle type and cover total construction trips for the entire project, as well as average vehicles per month and average per day;
- Investigation of the predicted scale of impact that construction trips will have on the proposed construction traffic route;
- A comprehensive breakdown of anticipated levels of operational traffic, and associated traffic impact implications should also be considered within the EIA.

The results of the impact assessment shall then be used to consider the most appropriate Roads recommendation for the application, which may include conditions and/ or management planning in order to minimise the impacts that the construction phase of the development would have on the South Ayrshire road network.

Cumulative Impact

There are currently several live wind farm development applications within South Ayrshire Council at various stages of the planning consultation process. In addition to examining the impact that construction trips will have on the strategic/ local road network, we will also require the EIA to investigate the effects of cumulative impact where overlapping construction periods and common sections of access routes are found to occur. We would only expect developments within 35km of the application site with more than 2 turbines to be applicable for inclusion in any cumulative impact assessment.

Confirmation on both the construction traffic route and planned construction period would be required in order to ascertain which (if any) other wind farm applications should be included in a cumulative impact assessment.

Decommissioning

We require that the EIA provides details on decommissioning of the site at the end of the wind farm's 25 year life cycle.

Conclusion

A review of the Scoping Report submitted by PNE Wind UK in support of a proposed 8 turbine wind farm located at a site located at Altercannoch, to the south east of the village of Barrhill, has been undertaken by the Ayrshire Roads Alliance.

We would clarify that as a minimum level of supporting information, the EIA shall address the following:

- The commission of traffic surveys on the proposed construction traffic route in order to demonstrate an appreciation of Base conditions;
- The investigation of suitable growth estimates for projecting traffic flows forward to the proposed year of construction (if different from survey year);

- A comprehensive breakdown of the predicted number of trips to the proposed development site during the construction phase of the wind farm. This information should be fully classified by vehicle type and cover total construction trips for the entire project, as well as average vehicles per month and average per day;
- Investigation of the predicted scale of impact that construction trips will have on the proposed construction traffic route;
- A comprehensive breakdown of anticipated levels of operational traffic, and associated traffic impact implications should also be considered within the EIA.

We trust that the information contained within this response clarifies the position of ARA in relation to the Scoping Report submitted in support of the proposed Altercannoch wind farm development. Should you require clarification or additional information on any aspect of this response, please do not hesitate to contact me.

Civil Aviation Authority

Civil Aviation Authority Screening and Scoping Opinion for Wind Turbine Applications

The CAA regularly gets asked by Planning Authorities and Developers for its opinion on the Screening or Scoping of Wind Turbine Applications under the Environmental Impact regulations. In all cases the advice is the same and in the past the CAA has also advised applicants specifically which aviation stakeholders to consult. With increasing pressure on limited resources within the CAA this customised service is no longer viable. The following guidance is provided to enable applicants to identify the appropriate elements to include within the aviation section of any environmental report and how Local Planning Authorities should assess the information. Only in cases where the CAA is statutorily consulted under the Electricity Act or the Planning Act will it provide a specific response to the application or scoping request.

That said, if a Local Planning Authority (LPA) has **specific** questions relating to an application it is recommended that they contact the CAA using windfarms@caa.co.uk.

Screening Opinion

The CAA has no authority over the conduct of the planning process and hence it is the view of the CAA that the decision as to whether an applicant requires to submit an Environmental Impact Assessment rests solely with the relevant planning authority.

Scoping Opinion

When considering aviation effects, there are typically two aspects to consider; obstacles and electromagnetic impact including radar. Different aviation stake holders will be affected in different ways. Applicants should be made aware that several consultees act on a national basis and, therefore, leaving consultations until just before an application is submitted negates the purpose of the scoping process and will lead to delays.

Sometimes a developer or agent will claim that due to a development's small size, aviation is not an issue. This is not necessarily the case; indeed to date no evidence has been supplied to substantiate these claims and, for example, there are a number of instances where small wind turbines are detected by radar. Research is being undertaken to identify whether there is a set of dimensions and materials that would have no substantial impact.

Identifying Statutory Consultees

Both NATS (which provides En Route Air Traffic Control) and the Ministry of Defence (MoD) are statutory consultees under the Town and Country Planning Act. The impact on their infrastructure should be assessed within the Environmental Impact Assessment. The MoD currently provide a free service although demand is high leading to the need to allow sufficient time to respond, although this should be well within the timescales of other consultation requirements such as ecological or noise surveys. NATS provide a number of paid-for services and free self-assessment tools details of which can be found on their website. Both of these organisations need to be consulted in **all** cases.

There are also a number of officially safeguarded aerodromes which are defined in government circulars (listed at the end of this guidance). These may offer pre-planning services for which there may be a charge. Such aerodromes should have lodged safeguarding maps with LPA identifying the areas in which they need to be consulted. Due to the nature of their operations these areas may be in excess of 50km from the aerodrome.

Local Planning Authorities and applicants must note that if an objection is raised by any of the above, and consent is granted there is a possibility that the decision will be subject to 'call-in' by the Secretary of State or Scottish Ministers.

Identifying Non statutory Consultees

In addition to officially safeguarded Aerodromes there are several hundred other aerodromes in the United Kingdom. These may be Licensed or Unlicensed by the CAA. Associated Aerodrome Licence Holders or operators may have registered safeguarding maps with their LPAs. To verify the presence of aerodromes known to the CAA in any particular area, it is recommended that an aeronautical chart is purchased and the site of the turbine checked to see if it falls within the range of an aerodrome using the distances recommended in CAP 764. It is also recommended that Emergency Service Helicopter Support Units are consulted as they may operate in the area of concern and be affected by the introduction of tall obstacles. For example Police helicopters are permitted to operate down to 75 feet and will routinely follow main roads and motorways during their operations. Both the Police and Air Ambulance may need to land anywhere and will also have specifically designated landing sites.

Consideration of Electromagnetic Effects Including Radar and Radio Impacts

Almost uniquely among land developments wind turbines can be interpreted as moving objects by Air Traffic Control Radar. This can lead to impacts such as increased workload for Air Traffic Controllers, misidentification of tracks or loss of a genuine aircraft track, any of which could have safety implications. It is for this reason that consultation with the statutory consultees is essential in determining whether there is an operational impact on the radar system and if so, whether a mitigation can be agreed.

There may also be impacts upon other radio systems such as Air Ground Air communications and radio navigation beacons.

Consideration of Obstacle Aspects

As wind turbines are tall structures they can become obstacles to aviation. When in the vicinity of an aerodrome this will be assessed by the aerodrome itself. Away from an aerodrome the CAA will assess whether a wind turbine is an obstacle. The key blade tip heights to consider for developments away from an aerodrome are:

- 91.4 metres as there is an international requirement for all obstacles of 300 feet or more in height to be marked on aeronautical charts and listed in the UK Aeronautical Information Publication. This assists pilots to safely plan their flights to take into consideration the locations of tall obstacles. The national database of aeronautical obstacles is maintained by the Defence Geographic Centre.
- 150 metres at which the display of medium intensity aviation warning lights becomes mandatory as specified in Article 219 of the Air Navigation Order. There may also a requirement that the turbine is appropriately marked which would require the upper 2/3 of the turbine to be painted white. NB. Like any structure a wind turbine less than 150m in height might need to be lit / marked if, by virtue of their location and nature, it is considered a significant navigational hazard. If asked for comment, it would be unlikely that the CAA would have any issues associated with an aviation stakeholder (eg a local aerodrome operator or airspace operator) request for lighting / marking of any structure that was considered to be a significant hazard to air navigation.

There may be areas where the CAA will consider turbines of lower heights to be obstacles due to a combination of complex airspace with a low base and high terrain. Currently these areas of special

consideration include the Manchester Low level Route and the Scottish Terminal Manoeuvring Area. Other areas may be included as wind turbines proliferate and the design of airspace changes.

Useful Resources for Potential Applicants

CAA Wind Energy web pages	www.caa.co.uk/windfarms
CAA Policy and guidelines on wind turbines	www.caa.co.uk/docs/33/Cap764.pdf
Air Navigation Order	http://www.legislation.gov.uk/uksi/2009/3015/contents/made
List of Stockists of Aeronautical Charts	http://www.nats-uk.ead-it.com/public/index.php%3Foption=com_content&task=blogcategory&id=235&Itemid=355.html
Interim Guidelines for the wind industry. (Note: only the MoD is offering a pre planning service)	http://www.bwea.com/pdf/Wind-Energy-and-aviation-interim-guidelines.pdf
DECC Renewable Energy Statistics project (for aviation safeguarding data)	https://restats.decc.gov.uk/cms/aviation-safeguarding-maps/
NATS Ltd Radar Coverage Maps	http://www.nats.co.uk/just-for-you/windfarm-developers/
ODPM Government Circular 1/2003	http://www.dft.gov.uk/pgr/aviation/safety/safeguarding/safeguardingaerodromestechni2988
Annex 3 (list of officially safeguarded aerodromes)	http://webarchive.nationalarchives.gov.uk/+http://www.dft.gov.uk/pgr/aviation/safety/safeguarding/coll_safeguardingaerodromestechn/atedannex3todftcircul ar12003.pdf
Scottish Government Circular 2/2003	http://www.scotland.gov.uk/Publications/2003/01/16204/17030
Ministry of Defence safeguarding	http://www.mod.uk/DefenceInternet/MicroSite/DE/WhatWeDo/Operations/ModSafeguarding.htm
Environmental Impact Regulations	http://www.legislation.gov.uk/uksi/1999/293/made
DAP Policy: Lighting of En-Route Obstacles and Onshore Wind Turbines	http://www.caa.co.uk/application.aspx?catid=33&pagetype=65&appid=11&mode=detail&id=4494

Dumfries and Galloway Council

I refer to your email with enclosures dated 8 September 2014, and would like to make the following comments:

The document considered by Dumfries and Galloway Council, as Planning Authority, in adopting this opinion is the: *"Altercannoch Wind Farm - Request for Scoping Opinion"*, dated 5 September 2014.

Dumfries and Galloway Council accepts the content and conclusions made in the above document for the proposed scope of the EIA subject to the comments that will be invariably made by your Council and other consultees/stakeholders with specialisms in specific subject areas.

It is noted that the principal statutory consultees and other relevant bodies have been notified directly and therefore those respective comments will be collated directly by yourselves.

1. Planning Policy Background and Guidance

The developer should be aware of the following:

- National Planning Framework for Scotland
- Scottish Planning Policy (June 2014)
- NPPG5: Archaeology and Planning
- Procedures
- PAN45 2002: Renewable Energy Technologies
- PAN45 Annex 2: Spatial Frameworks and Supplementary Guidance for Windfarms
- PAN51: Planning and Environmental Protection
- PAN56: Planning and Noise
- PAN57: Transport and Planning
- PAN58: Environmental Impact Assessment
- PAN60: Planning for Natural Heritage
- PAN68: Design Statements
- PAN73: Rural Diversification
- PAN75: Planning for Transport
- PAN79: Water and Drainage
- PAN84: Reducing Carbon Emissions in New Development
- Designing Places: A Policy Statement for Scotland
- A Policy on Architecture for Scotland
- River Crossings and Migratory Fish: Design and Guidance 2000
- Scottish Biodiversity Strategy
- Nature Conservation (Scotland) Act 2004

Scottish Government renewable energy policy and targets are a material consideration, and there is a clear commitment from the Scottish Government to support renewable energy developments as set out in SPP. The current target (amended) is for 100% of Scotland's electricity to be generated from renewable sources by 2020 (The Scottish Government announced in October 2012 an Interim target of 50% by 2015). This is a material consideration of significant weight in support of the proposal, which would clearly contribute to meeting that target. It is noted that SPP also states that planning authorities should support the development of wind farms in locations where the technology can operate efficiently and environmental and cumulative impacts can be satisfactorily addressed. It further states that the design and location of any wind farm development should reflect the scale and character of the landscape, and that the location of turbines should be considered carefully to ensure that the landscape and visual impact is minimised.

2. Landscape and Visual Impacts

A scoping opinion should refer to the key sources of information that should be referred to in terms of setting out the method and requirements for the LVIA, and focuses on the landscape and visual sensitivities of the area and the implications of those. The subsections are:

- Sources of information
- Extent of area and level of detail for landscape and visual assessment
- Main receptors and viewpoints
- Review of policy
- Landscape opinion

(i) Sources of information

National policy and guidance

- Check Scottish Government and other national publications: ETSU report, The Cumulative Effects of Wind Turbines (2000), current SPP, PAN 45, etc.
- Landscape Character Assessment, Guidance for England and Scotland (Countryside Agency & SNH, 2004), Topic Paper 6: Techniques and Criteria for Judging Capacity and Sensitivity
- SNH Policy Statement No. 02/02: Guidance on Onshore Renewable Energy (2009)
- SNH Policy Statement No. 02/03: Wildness in Scotland's countryside (2002)
- Siting and Designing Windfarms in the Landscape (SNH, 2009)
- Cumulative Effects of Windfarms (SNH, 2005), and Assessing the cumulative impact of onshore development (SNH, 2012)
- Guidelines for Landscape and visual impact Assessment, Second Edition (The Landscape Institute and the Institute of Environmental Management & Assessment, 2002). Note: this is currently under review by the LI and IEMA and the up to date version should be referred to when available. The status can be confirmed on the LI website.
- Visual Representation of Windfarms Good Practice Guidance (Horner and MacLennan and Envision, for SNH, 2006)
- Photography and photomontage in landscape and visual impact assessment (Landscape Institute, 2011)

DG policy and guidance

- Dumfries and Galloway Local Development Plan (29 Sept 2014)
- Dumfries and Galloway Windfarm Landscape Capacity Study (Carol Anderson and Alison Grant, for DG, 2011). Hereafter referred to as the DGWLCS.
- Wind Energy Development Supplementary Guidance Consultative Draft (Jan 2013)

ii) Extent of area and level of detail for the baseline studies, for assessment of landscape and visual effects

Given the turbine height a Study Area of 35km radius is required, with 15km as a potential Detail Study Area.

Landscape Impact Assessment

Understanding of the landscape in the area that may be affected: its character and the way that character varies, its condition, the way the landscape is experienced, and the value or importance attached to it.

The landscape impact assessment should address the site itself, the immediate setting, and the wider landscape context, within which the proposed development may influence landscape character.

Wider landscape context: Landscape impacts to be assessed against the following, with details within the Wider and Detailed Study Areas, set out in Main receptors and viewpoints.

- Landscape Character Types / Landscape Character Units within the study areas, as appropriate.
- Designated landscapes: RSAs, and NSAs if relevant, and the contribution that the area of the proposals makes to the landscape character, scenic interest, special qualities, and appreciation of these protected landscape areas, including views to them and the setting.
- Designed landscapes and gardens: Inventory Designed Landscapes, Non Inventory Designed Landscapes, and any other relict features, and the contribution that the area of the proposals makes to the landscape character, designed quality and appreciation of these areas.
- The Merrick Search Area for Wild Land and the Galloway Forest Dark Sky Park, Galloway Hills Regional Scenic Area and the landscape character and appreciation of these areas.

The site and immediate context: The landscape fabric within the site, its immediate setting, and general surroundings. Given the scale of development and the potential sensitivity of the landscape, a detailed landscape appraisal should be undertaken comprising:

- Local landscape character assessment, identifying local landscape character types and their assessment, within the site and for its immediate context.
- Identification of the individual landscape areas within the site and the various receptors, based on a spatial and visual analysis, to inform an understanding of how the area is experienced.
- Forest Design Plans, or Forest Plans for any areas of forestry affected by the proposals with felling and restocking to reflect the proposals.

Visual Impact Assessment

Visual amenity: the area in which the proposed development might be visible, the viewpoints from which it can be seen, the people who experience views at these points, and the nature of the views.

The area of study should relate to the visual envelope. The ZTV provided in the Scoping Report relates to 131m turbines and has a 35km radius. This complies with the recommended 35km radius for assessment of wind turbines over 100m and above, using Zone of Theoretical Visibility (ZTV) analysis, as per Visual Representation of Windfarms Good Practice Guidance (Horner and MacLennan and Envision, for SNH, 2006).

Consideration of ZTVs and wirelines for reduced turbine height thresholds should be considered. It is suggested 80m and 100m turbine heights are calculated. Based on initial considerations the proposed turbine height of 131m may be too large, particularly in relation to the character of the moorlands and the adjacent committed and proposed windfarms. (It will be recalled that the previous proposal of 125m was also considered by this Council to be too large). Reduced size turbines should be tested in these respects, and in relation to wider sensitivities.

Testing the impact of the suggested variety of turbine heights within different areas of the site should also be undertaken.

Cumulative Impact Assessment

With respect to requirements and methodology for Cumulative Landscape and Visual Impact Assessment (CLVIA), see Appendix 5 – Guidance on Cumulative Landscape and Visual Impact Assessment for windfarm developments, Cumulative Effects of Windfarms (SNH, 2005, p.24), and the updated Assessing the cumulative impact of onshore development (SNH, 2012).

It is anticipated that cumulative impacts will be of particular issue with respect to this application. The proposals are in very close proximity to Arecleoch and Mark Hill Windfarms, the committed Kilgallioch windfarm, and the currently undetermined S36 Stranoch scheme. Apart from the visible extent and dominance of windfarms as a defining landscape character, there could be design issues in relation to how the windfarm relates to the topography, turbine layout and size, to ensure that the overall impact of visually adjoining developments are not visually discordant. Where the windfarms would potentially be seen together, they must be designed to be appreciated and fit with each other and the landscape in this way. If not, then a degree of separation must be achieved.

The Altercannoch site is also within an area of intensive windfarm development activity and a number of other developments and proposals closeby in Ayrshire/Dumfries and Galloway border area. The proposals would also be likely to be intervisible with the aforementioned schemes as well as Hadyard Hill Windfarm and numerous additional proposals in the pipeline, such as Corwar, Ballunton Hill, Breaker Hill, Assel Valley, Fyntalloch Hill, as well as other developments and proposals further afield.

Full assessment of all these potential detailed and complex cumulative impacts should be assessed and visualised with wireframes and selected photomontage, with turbine numbers indicated. Detail requirements:

- Base plan with a 60km radius, with all windfarms that are constructed, consented undetermined, scoping or otherwise in the public domain.
- Cumulative visual impacts:
 - Cumulative Zones of Theoretical Visibility (CZTVs) showing areas from where one or more windfarms are likely to be seen. Note: Early draft ZTVs, if possible CZTVs, will

assist in selection of viewpoints for stationary cumulative impact assessments and routes for sequential cumulative impact assessments.

- Selection of viewpoints and study of fixed positions using wireframe and photomontage for cumulative visual effects, including *combined or simultaneous visibility*, within a 90 degree arc of view, or *successive or repeated visibility* in wider arcs of view. Final selected viewpoints to be agreed.
- Sequential visual assessment and selection of routes for analysis.
- Annotated visualisations using wireframes and photomontages for selected viewpoints to represent and interpret the visual impact.
- Cumulative landscape impacts:
Including effects on: landscape designation (RSAs) integrity and objectives, designed landscape key views and settings, landscape character, sense of scale and distance, focal points and landmarks, skylining, remoteness and wildness, and the setting of settlements and other cultural features, or associations.

(iii) Main receptors and viewpoints

Should this proposal be developed through to a formal submission, the following viewpoints are recommended to be used:

Grid Ref	PROPOSED REPRESENTATIVE VIEWPOINTS
34 0 78 2	Bargrennan Cottage and / or Marrbury Smokehouse
36 1 78 6	Glencaird (designed landscape / NIDL) in addition to / alternative to Glentrool Village.
31 9 77 2	Barwinnock / Dalnaw area
30 2 80 7	A 714 S of site, by mast
By A714, or 35 1 77 4	Bargrennan
28 8 81 1	A714 Eldrick
35 8 78 5	Glentrool Village
32 7 74 1	SUW, Glenvernoch Fell
23 6 73 6	SUW, Craig Airie Fell
28 9 75 6	B7027, DG border
20 5 76 7	Chirmorie
13 5 78 6	Beneraid
11 3 66 6	Braid Fell
42 8 85 4	The Merrick RSA, Wild Land, Dark Sky Park
50 1 67 0	Cairnsmore of Fleet RSA
47 2 57 7	A75 Point Fishery lay-by & Barholm NIDL and Upper Wigtown Bay, RSA
40 3 69 7	Knockan Woods RSA, walks
25 2 68 8	Eldrig Fell
30 1 63 7	Fell End minor road
52 6 58 4	Cambret Hill RSA

(iv) Review of policy

When determining applications, Councils are required to consider the overall aims and objectives of the development plan as well the above subject policies. In this case the application site falls within South Ayrshire but within 2.7km of the border with Dumfries and Galloway Council. As such, it is considered that the guiding policies and principles of the new Dumfries & Galloway Local Development Plan (LDP) ought to have a bearing on the assessment of any application made for the subject proposal given its nature and ensuing potential impacts. These principles are to encourage the growth and development of sustainable communities in Dumfries & Galloway.

The key policies regarding renewable energy development in the LDP are:

Policy IN1 which states that:

The Council will support development proposals for all renewable energy provided they do not individually or in combination have a unacceptable* significant adverse impact on:

- landscape;
- the cultural and natural heritage;
- areas and routes important for tourism or recreational use in the countryside;
- water and fishing interests;
- air quality; and
- the amenity of the surrounding area.

To enable this assessment sufficient detail should be submitted, to include the following as relevant to the scale and nature of the proposal:

- any associated infrastructure requirements including road and grid connections (where subject to planning consent)
- environmental and other impacts associated with the construction and operational phases of the development including details of any visual impact, noise and odour issues.
- relevant provisions for the restoration of the site
- the extent to which the proposal helps to meet the current government targets for energy generation and consumption.

[* Acceptability will be determined through an assessment of the details of the proposal including its benefits and the extent to which its environmental and cumulative impacts can be satisfactorily addressed.]

Policy IN2 states that:

PART 1: Assessment of all windfarm proposals:

The Council will assess the acceptability* of any proposed wind energy development against the following considerations#:

Landscape and visual impact:

- the extent to which the proposal addresses the guidance contained in the Dumfries and Galloway Windfarm Landscape Capacity Study.
- the extent to which the landscape is capable of accommodating the development without significant detrimental impact on landscape character or visual amenity
- that the design and scale of the proposal is appropriate to the scale and character of its setting, respecting the main features of the site and the wider environment and that it fully addresses the potential for mitigation.

Cumulative Impact

The extent of any detrimental landscape or visual impact from two or more wind energy developments and the potential for mitigation.

Impact on local communities

The extent of any detrimental impact on communities and local amenity including assessment of the impacts of noise, shadow flicker, visual dominance and the potential for associated mitigation.

Impact on Aviation and Defence Interests

The extent to which the proposal addresses any impacts arising from location within an area subject to potential aviation and defence constraints including the Eskdalemuir Safeguard Area.

Other Impacts and considerations

- a) *the extent to which the proposal avoids or adequately resolves any other significant adverse impact including:- on the natural and historic environment, cultural heritage, biodiversity; forest and woodlands; and tourism and recreational interests.*
- b) *the extent to which the proposal addresses any physical site constraints and appropriate provision for decommissioning and restoration.,*

[# Further details on this assessment process including its application to smaller capacity windfarms are to be provided through Supplementary Guidance on Wind Energy Development: This will also include mapping of the constraints relevant to the considerations above.]

[Acceptability will be determined through an assessment of the details of the proposal including its benefits and the extent to which its environmental and cumulative impacts can be satisfactorily addressed.]*

PART 2: Spatial Framework

*The considerations in Part 1 above will be applied in the context of the following Spatial Framework**:*

- **Areas of Greatest Potential (1):** *areas free from significant constraint where proposals for large and medium turbine typologies will be supported subject to detailed assessment.*
- **Areas of Significant Protection (2):** *Areas where a presumption against development applies due to significant constraints. These include:*
 1. *Sites designated for their national or international landscape or natural heritage value where Policies NE1, NE3, NE4 and NE5 also apply.*
 2. *Areas where the cumulative impact of existing and consented windfarms limit further development.*
- **Cumulative Sensitivity Zones (3):** *Areas where cumulative impact is a potential constraint. In these areas proposals should: address potential future cumulative impact and avoid unacceptable coalescence between clusters of windfarms to retain an acceptable and coherent pattern of windfarm development.*
- **All other areas (4):** *Areas where potential constraints apply but with potential for mitigation. Wind energy proposals will be assessed against all the considerations set out above in Part 1. For Regional Scenic Areas the proposal should assess the potential impact on the objectives of the designation and demonstrate the extent to which these can be addressed.*

(1) - (4) The relevant mapping of these areas including an updated and consolidated spatial framework map is to be included within supplementary guidance.

*[** The following Interim Spatial Framework Maps provide some strategic guidance on the relevant areas but must be read in conjunction with paragraphs 4.94 and 4.95 above and the relevant detailed mapping to be included in supplementary guidance. This mapping will be consolidated and revised to provide an updated spatial framework within the LDP at the earliest possible opportunity.]*

The Altercannoch site abuts an area allocated in the LDP as being one of Greatest Potential – but that indication of positivity must be tempered by the fact that a significant portion of this allocation is already committed to turbine developments, and cumulative impact issue are at a critical point.

The LDP applies only to the DGC area but obviously the landscape character in the vicinity of the administrative boundary does not end there, but carries through into South Ayrshire. On the DGC side of the border the landscape character type is classed as Plateau Moorland with Forest (Type 17a). This landscape type is “predominantly Sitka Spruce as yet little modified by redesign at rotation. Larch and isolated areas of other conifers add some diversity to the dark green colours and textures of the forests. The landscape is typified by extensive plantations of uniform age, colour and texture. There is a general lack of elevation which allows the forests to create dark horizons.....The open ground and surrounding moorland contrasts in its mosaics of brown and ochre colours. The landscape has an exposed and remoter character, although enclosure within the forests can be well defined.”

This landscape character type clearly extends north/north westwards into South Ayrshire.

The landscape of this landscape type has an overall **Medium** sensitivity to the large turbine typology, and **Medium** visual sensitivity. In terms of landscape values the score is **Medium-low** due to the general absence of designated landscapes within this character type.

(Text in brackets **below** comprises comments on how and if the Altercannoch proposal relates to the Supplementary Guidance (SG))

The Supplementary Guidance states that

"There is scope to locate larger scale typologies over 50 turbines within the densely forested areas of this character type, avoiding open moorland and farmland which makes a strong contribution to landscape and visual diversity. Larger typologies should be located away from the edge of this character type where turbines may have an impact on adjacent small scale settled valleys and in the east, the Galloway Hills."

(The Altercannoch site has been deliberately designed to occupy open and elevated ground, and not the heart of the plantation forests that characterises this landscape type. Furthermore, the development site is towards the edge of this landscape type. As such, it does not comply with the LDP/SG)

"All development typologies should avoid impacting on the setting and views to lochs, on areas of more complex landform and on archaeological features as these enrich the overall landscape of this character type and often provide a focus to views. Key views of the Galloway hills and the landscape experience gained from walking the Southern Upland Way should be conserved"

(Turbines of the height proposed will be visible from publicly frequented viewpoint at the neighbouring lochs and lochans, particularly to the south. The landscape form is particularly complex in this locale, the character of which would be detrimentally impacted by the proposed development. The Altercannoch development would be particularly intrusive in views of the Galloway Hills gained from the Barrhill station area, from along the A714, and lengths of the C1w road to New Luce in particular.)

"There may be capacity to accommodate multiple large scale developments within this character type, although the constraints identified above (and particularly the need to avoid impacting directly or indirectly on the character and experiential qualities associated with open moorland, settled farmland and open loch basins) are likely to limit scope for additional development should the proposed Kilgallioch windfarm be consented"

The Scottish Government Consents Unit has issued the final Section 36 Consent for Kilgallioch. Given the degree of landscape capacity that Kilgallioch, Arecleoch and Mark Hill windfarms have already consumed, there is little left for anything else in relative close proximity without detrimentally impacting on the criteria listed above.)

"Cumulative landscape and visual impacts between existing and new windfarm developments should be minimised by careful siting and design to avoid obvious contrasts in the scale and layout of turbines in key views. Any additional development should avoid significant visual impacts on the highly sensitive western Galloway Hills and on key viewpoints with Glen Trool"

(As discussed above the Altercannoch scheme intrudes on views of the Galloway Hills and views from nearby lochs and lochans. It also potentially introduces significant windfarm development closer to the plateau edge and closer to public roads and settlement than other committed schemes before it. It introduces a new visual dimension to windfarm development locally.)

Some of the area in Dumfries and Galloway immediately south east of the border nearest to the subject site is shown an Area Requiring Significant Protection. In this case the qualifying interest/constraints to development are: Forest and Woodland Cover, Bird Sensitivity, archaeology, aviation and MOD, landscape sensitivity. The site is within influencing proximity to the Galloway Hills Regional Scenic Area.

(v) Landscape Opinion

Whilst not being in a position to accurately ascertain the environmental constraints in South Ayrshire, using best professional judgment by projecting the Dumfries and Galloway identified constraints and policies north/north westwards into South Ayrshire it is reasonable to assume that the Altercannoch site mirrors the characteristics of the adjacent Area Requiring Significant.

The position concerning Areas of Greatest Potential requires some explanation. Firstly, it is a requirement of the SPP to designate them. This Council has designated these comprising three main clusters across Dumfries and Galloway (west around the Kilgallioch Area, central to the south of Windy Standard and Harehill Windfarms near to the East Ayrshire border, and east in the Eskdalemuir area). The rationale behind an Area of Greatest Potential is to offer developers a reasonably sized land area in which to prospect for wind energy developments, in the knowledge that the respective planning authority will view such proposals more favourably than sites outside Areas of Greatest Potential - the latter having already been excluded because of the constraints previously identified. However, Areas of Greatest Potential themselves have a finite environmental capacity and must not be viewed by developers as blocks of land to be totally filled in with wind turbines. The aim is to achieve a broad clustering of appropriately sited windfarms within the aforementioned 3 larger clusters that still safeguard and respect the respective underlying landscape character..

Turning to the Altercannoch proposal, the Barrhill area and its environs are already experiencing a strong presence from existing windfarms. The Arecleoch and Mark Hill developments already dominate to a significant degree. There is also the Corwar proposal within 3km of the subject site that was dismissed at appeal (a decision which in itself must be an accurate barometer of Scottish Government thinking on the appropriateness of further wind energy developments locally). That dominance is likely to be increased by the construction of the Kilgallioch over the next few years.

Of particular note is the Hill of Ochiltree Windfarm proposal, some 5km south/south east of the Altercannoch site. It was refused by Council Members on 20 November 2012. The following extract from the Committee Report draws together the salient issues and reasons for refusal:

".....Overall balance and Conclusions

4.80 The determining issue in deciding this application is whether the proposal accords with the development plan and, if it does not, whether there are other material considerations that would justify a departure from policy.

4.81 In this case, it has been concluded that the proposal is contrary to the development plan on the grounds that it would have significant adverse environmental effects in terms of landscape and visual amenity; design; hydrogeology and soils; and tourism resources. It has also been concluded that the proposal is in direct conflict with Interim Planning Policy WEP1 and constraints and guidance set out in the Dumfries and Galloway Wind Farm Landscape Capacity Study, which are material considerations of significant weight in the determination of this application.

4.82 Government policy as set out in SPP, which is also an important material consideration, supports a diverse range of wind energy developments at a national level but only where it can be shown that the proposal will not have significant adverse environmental impacts. The advantages of the proposal must be balanced against the disadvantages and relevant policy documents recognise that serious impact on the landscape or on the amenity of the surrounding area should be taken into account. In this case it is considered that the proposal would have significant adverse impacts and that these cannot be satisfactorily mitigated.

4.83 Drawing together all of the above, it is considered that the proposal would have significant adverse environmental effects in a number of areas and that, taken together, these disadvantages are not outweighed by other material considerations in terms of the advantages of the proposal in addressing climate change issues and general policy support at national level. The presumption in favour of the development plan should therefore predominate.

Conclusion

4.84 In conclusion, it is considered that, the proposal does not accord with provisions of the development plan under the stated policies and that there are no other material considerations of

sufficient weight to indicate otherwise in this case. Consequently, under Section 25 of the Town and Country Planning (Scotland) Act 1997 (as amended), the application should be refused."

A planning appeal was never lodged.

In conclusion it is considered that the Altercannoch scheme will give rise to undesirable cumulative landscape and visual impacts, being visually discordant and jarring with other nearby wind turbine developments. The rationale in the Hill of Ochiltree decision above applies equally in this instance. The proposal, if pursued, will detrimentally impact on and erode further landscape and visual amenities, and interests, in Dumfries and Galloway.

The attached updated Annex shows windfarm development activity in the Wigtownshire portion of Dumfries and Galloway.

3. Safety

The Environmental Statement should comply in all respects with the Electricity, Safety, Quality and Continuity Regulations 2002. This shall include evidence that the developer will have received consent from the local Transmission and Distribution owner/operator that the connection of the proposed windfarm will be acceptable with any suitable conditions.

4. Design

The Town and Country Planning (General Management Procedure) (Scotland) Regulations 2008 outline the requirements for design and access statements to accompany planning applications for certain types of development. The proposal will be classed as a "major" development as defined under the Planning etc (Scotland) Act 2006 and Circular 5/2009. A design statement will therefore be required.

Architecture + Design Scotland (A+DS) places particular importance on the layout design of windfarms and considers there is a need for a coherent, structured and quality driven approach to windfarm development. The appearance of windfarms is of particular interest to A+DS and it recommends the need for a coherent design strategy to be considered at scoping stage and to be prepared before submission of the Environmental Statement. The strategy should explain the design principles behind the layout plan in a rational way that can be easily understood.

A+DS would suggest that a planning design strategy should first look at the proposed location and address, whether this is a sensible location in relation to wind, access to the grid and to the character of the landscape.

A+DS advice on windfarm design complies with the Scottish Government's policies on design, which seek to promote good quality. A+DS recommends that the design strategy should be expressed through a Design Statement. The Design Statement should follow the clear and effective presentation format set out in pages 10 and 11 of PAN68. This would ensure that the wider advice in PAN68 is being followed.

In addition, A+DS recommends that the Design Statement should describe a clear strategy for meeting these objectives, a justification for the resulting layout and evidence that the design ideas have been tested against the objectives.

The Statement should also set out the way in which it has dealt with advice in PAN45 and also the siting, geometry and composition and detailed three dimensional layout. This would allow the testing of alternatives against clearly set design criteria.

The routing of tracks and design of control buildings should also be discussed in the Design Statement. A+DS advice in terms of control structures is for contemporary designs using good quality materials.

A+DS also advise that the Design Statement should state whether the design is dependent upon the site boundaries. Unless the site boundaries are clearly defined by the landscape, a design dependent upon a site boundary may relate to the landscape in a visually arbitrary way.

A+DS recommends that the Design Statement should be incorporated into the section of the Environmental Statement that describes the proposal and not in the sections dealing with landscape and visual assessment. It further recommends the use of diagrams and sketches to illustrate the principles of the design.

5. Tourism and Recreation

The wider area in which the windfarm is proposed to be located benefits from tourism, and in particular the Southern Upland Way which passes some 4.5km from the proposed developable parts of the site. This route is of local and regional importance and the Environmental Statement must consider the potential landscape impact of the windfarm in relation to it. Also and importantly, given that this path is becoming increasingly impacted upon throughout its entire route by the proximity of numerous windfarms or windfarm proposals (currently totalling some 40) the effect on the walker experience of sequential and close-up windfarms will need to be fully addressed. Visit Scotland ought to be consulted as well as part of this exercise.

6. Archaeology

Given that the development site is some 3km+ within South Ayrshire, no direct effects are foreseen on the archeological resource of Dumfries and Galloway. The developer should be aware of the following:

Dumfries and Galloway Local Development Plan:

The applicant should be aware of the LDP adopted September 2104. This is supported by a technical study; the Dumfries and Galloway Wind Farm Landscape Capacity Study (DGWFLCS).

Policies HE3 and HE4 offer guidance on Historic Environment and Cultural Heritage that must also be considered for all wind turbine proposals.

Indirect Effects

Generally, impacts on the setting of significant historic environment assets, should be lead by the Zone of Theoretical Visibility, with the greatest effects likely to be experienced by assets closest to the site. The ZTV supplied suggests widespread visibility as a result of the height of the proposed turbines.

Effects on designated features and those assessed as being of national importance by the Council should be considered out to 10km, and further if indicated by ZTV.

Further analysis of the historic environment features in relation to the ZTV should be undertaken, before a finalised list of wirelines/photomontages illustrating the effects on the setting of features is agreed with Council Archaeologist (Jane Brann Tel: 01387 260154, jane.brann@dumgal.gov.uk).

It is advised that cumulative effects will need to be assessed.

Policy

Key policy statements that have been issued by Scottish Government in relation to the historic environment are:

- Scottish Historic Environment Policy.
- Scottish Planning Policy, paragraphs 110 -124 on Historic Environment,
- Managing Change in the Historic Environment: Setting, Historic Scotland October 2010.
- Planning Advice Note 2/2011 Planning and Archaeology

Historic Environment Record

Information on features recorded in the Council Historic Environmental Record, including listed buildings and designed landscapes, can be obtained from the Historic Environmental Record Officer (Andrew Nicholson), Planning and Environment, Militia House, Dumfries, DG1 2HR. Tel: 01387 260 154. In line with Council Policy there will be a charge to cover the costs of the time taken. This can be supplied in GIS and database format to facilitate integration with other data, particularly the ZTV.

7. Environmental Health

Until a site-specific noise assessment has been carried out following the principles detailed in the *Assessment and Rating of Noise from Windfarms ETSU Report ETSU-R-97, 1996* as described in 5.4 of the Scoping Report, the Council is unable to comment fully as to the expected impacts.

8. Transport Issues

The preferred access route is via the A75(T) which, following the completion of the Dunragit by-pass, is now free from abnormal load impediment.

The next road used is the A714 which has been upgraded and has been used by other windfarm traffic, and will also be used by that for Kilgallioch. There are some problems with drainage and with some weak sections. There is a privately owned section on the approach to Ballochadee bridge. The B7027 through Dumfries and Galloway is not recommended for use by either abnormal loads or construction-related traffic.

The application should identify the internal routes and the layout of any junctions including visibility splays. Parking and turning for the site compound and the permanent site office and turning for each turbine location should be identified.

The impact during construction on the maintenance and road safety of the access route should be carefully considered. The rural public roads in the area are historic and have developed on an ad-hoc basis with no designed construction. Strengthening and significant ongoing maintenance is likely to be required to keep them in a serviceable condition. This will require to be funded by the developer. Further works will then be required to restore them at the end of the construction again funded by the developer. Some works may be left in place to facilitate decommissioning and service. Any road improvement works outwith the red line application area or the existing road boundary will require separate planning permission.

Given the relatively remote location of the site the use of in situ materials and also of a concrete batching plant should be carefully considered.

The EIA shall identify any constraints such as cattle grids, culverts, bridges, junctions, overhead cables or road alignments which are not suitable for the proposed types of vehicles and volume of traffic generated by the proposal (particularly abnormal loads but also concrete wagons etc). The appropriate abnormal load authorities should be consulted.

A Traffic Management Plan (TMP) will be required prior to commencement of any works together with a detailed condition survey of any Council roads forming part of the access route. The plan will include proposals for maintenance of these routes during construction (including monitoring and proposals for agreeing additional maintenance costs and surveying and making good on completion of construction). Other issues such as signage and Community Consultation on the proposals should be covered in the TMP. In particular the Community Council will require to be fully consulted.

Forest owners and the impact on timber routes and haulage should be fully considered in the TMP.

The construction period should not run concurrently with any other major development using the access route.

Consideration should be given to use of the local ports at Loch Ryan, Cairnryan and Stranraer but these are operated by the ferry companies P&O and Stena Line and to date have not utilised by windfarm developments. However, the relocation of Stena Line to Cairnryan has freed up the existing harbourside at Stranraer for use by others prior to eventual redevelopment in accordance with the Stranraer Waterfront Masterplan. The Ports of Ayr and Troon have generally been used by others to date. For recent larger turbine proposals the bridge north of Maybole has been found to be a restriction on the A77(T).

9. Other Issues

Whilst the grid connection between the substation and the wider grid may be subject to a separate consent procedure, a preliminary assessment of the effects of the different grid options being considered should be included to inform the process.

The publication of any new planning guidance and/or advice will form a material consideration at the time of any planning application or consultation.

The ES should also include:

- A full assessment of the restoration of the site including the tracks, turbines and ancillary development.
- A full assessment of any potential interference with telecommunications.

10. Summary and Conclusion

The above comments suggest that the project requires the careful balancing of sometimes conflicting planning policy. However, despite the above it will be seen from the Annex that there is considerable windfarm development activity within an influencing zone of the area of interest and cumulative and sequential impact will be the major issue to address in any forthcoming ES, should the project be progressed further.

Glasgow Prestwick Airport

The Glasgow Prestwick Airport safeguarding team has reviewed the scoping document for the Altercannoch Wind Farm.

It is noted that the development has been reduced to 8 turbines up to a height of 131m.

This development is situated approximately 50km south of Glasgow Prestwick Airport and is sufficiently terrain shielded from our Primary Surveillance Radar. Therefore the proposed Wind Farm does not conflict with any of our safeguarding criteria.

As such Glasgow Prestwick Airport does not object to the development.

Historic Scotland

Thank you for your correspondence regarding the above proposed development and accompanying scoping report. This was passed to us by the Scottish Government in our role as consultee under the terms of the above legislation. We have reviewed the details provided for our historic environment interests. In this instance, that is scheduled monuments and their settings, category A listed buildings and their settings, inventory gardens and designed landscapes (GDLs), and inventory battlefields.

If you have not already done so, I recommend that you consult your council's archaeological and conservation services, who will also be able to comment on potential impacts on the historic environment. This may include heritage assets outwith our remit, such as category B and C listed buildings, and unscheduled archaeology.

The Proposed Development

I understand that the development would consist of 8 wind turbines, with maximum tip height of 131m. I note that a previous request for a scoping opinion was made for a scheme of 10 turbines with maximum height to tip of 125, in 2013. Having reviewed the alterations to the scheme, and the updated ZTV, we are broadly content that our previous comments are still relevant. Full details are given below.

Potential Direct Impacts

From the information provided, there do not appear to be any heritage assets covered by our remit within the application boundary. As such, direct impacts appear unlikely. However, the proposed development has the potential to have indirect impacts on the settings of heritage assets in the vicinity.

Potential Indirect Impacts

The following heritage assets are in the vicinity of the development, and have the potential to be impacted by it. This list is not considered to be exhaustive, and any Environmental Statement (ES) to be produced for this development should consider impacts not only upon the assets mentioned below but any others in the wider area which may experience significant impacts. It would be helpful if such an analysis contained, where appropriate, visualisations in relation to the sites and their settings, illustrating views both towards and from the proposed development.

Scheduled Monuments

- Cairn Kenny, Chambered Cairn (Index no. 1925)
 - Cairnderry, Chambered Cairn (Index no. 1007)
- Category A listed buildings
- Kildonan House (HB No. 1052)

We would welcome sight of any visualisations prior to the submission of the ES and planning application. We would then be able to provide further comments on the proposal.

Other Considerations

It will also be vital that the potential cumulative impacts are carefully considered within the ES, given the number of proposed and consented wind farm developments in the area.

I note that the scoping report states that the assessment will consider effects upon the setting of heritage assets during both construction and decommissioning. We do not consider that this is necessary for our interests, as operational impacts are likely to be of greater magnitude than for either of these phases.

I advise that consideration is given to our guidance notes on setting of historic environment assets when carrying out the assessment. These notes can be accessed via the following link: <http://www.historic-scotland.gov.uk/setting-2.pdf>. Additional guidance on EIA process can be found on our website at <http://www.historicscotland.gov.uk/index/heritage/policy/environmental-assessment/eiafaqs.htm>.

Royal Society for the Protection of Birds (RSPB)

Thank you for consulting RSPB Scotland on the scoping report for this proposed windfarm development consisting of 10 turbines and associated infrastructure.

RSPB Scotland recognises that climate change is a very significant threat to bird populations and renewable energy developments are an important part of the solution to tackling climate change. As with all development, windfarms should be sensitively located and designed to ensure that they do not cause unacceptable negative impacts on features of conservation importance.

The site includes intensive pasture, moorland, peatland and grassland. It is located in an upland area with extensive commercial conifer plantations and lies within 8 km of the Glenn App and Galloway

Moors Special Protection Area (SPA). The site is also within the transition area for the Galloway and South Ayrshire Biosphere.

The proposed development has potential to impact on the SPA qualifying feature of breeding hen harrier and is not directly connected with or necessary for the management of the site. If a significant impact on the SPA is likely, the application will be subject to the requirements of Article 6 of EC Directive 92/43 on the Conservation of Natural Habitats and of Wild Fauna and Flora (the 'Habitats Directive') and The Conservation (Natural Habitats, &c.) Regulations 1994 (as amended), which implement the Directive in the UK.

The Environmental Impact Assessment (EIA) undertaken for the proposal must assess the impacts on both habitats and birds and include sufficient information to enable the relevant authority to carry out an appropriate assessment of the impacts of the development. All survey work should conform to the most recent SNH guidance on assessing the impacts of onshore windfarms.

It is very disappointing that the scoping report does not provide any information on survey methods or assessment approach, as this is needed to enable us to confirm whether the proposed scope of work will be adequate to inform the EIA and appropriate assessment. This approach is unhelpful and makes it difficult to provide constructive and site specific input at this stage.

Site Selection

Consideration of alternatives must be clearly set out in the Environmental Statement (ES) as this information must be considered as part of any appropriate assessment.

Ecological Assessment

The scoping report does not include any information on the proposed scope of survey work and it is therefore not possible to comment in detail. At this stage, we would expect a scoping report to include a proposed suite of survey work and to highlight issues already identified as requiring specific assessment.

A Phase 1 survey and NVC surveys of habitats of interest will be required. These will be important to inform the design layout and proposals for habitat management and mitigation.

We note that the site contains moorland and peatland components and particular attention should be given to identifying peatland soils and bog habitat. These have value as both a habitat and a store of carbon. Peat depth surveys will be needed to inform the assessment.

Ornithological Assessment

The scoping report does not include any detail on the proposed scope of survey work and it is therefore not possible to comment in detail. At this stage we would expect a scoping report to include a proposed suite of survey work and to highlight issues already identified as requiring specific assessment.

In summary, all surveys should be undertaken in accordance with the methods specified in Bird Monitoring Methods (Gilbert et al, 1998), and according to the latest SNH guidance (with special reference to SPAs), and should include the following:

1. Breeding bird surveys over open ground using 'Brown and Shepherd' methods to 2 km of the site boundary
2. Surveys for breeding Annex 1 species should be conducted within, around and outwith the site boundary, to the distance specified by recent SNH guidance, which varies with species
3. Vantage point watches to assess flight patterns over the whole site and to 500m of the Boundary
4. Surveys of winter use of the site, which is of particular importance as hen harriers are present throughout the year
5. Point counts in areas of forestry
6. Black grouse searches and lek surveys to 500 m of the site boundary

We also strongly recommend contacting the South Strathclyde Raptor Study Group, who carry out monitoring of breeding and wintering raptors in the area.

Cumulative impacts

There is no indication that cumulative ornithological effects are to be considered in the ES. We consider that an assessment of the 'in-combination' effects of other plans and projects will be required in relation to cumulative impacts on the SPA.

Aside from the potential SPA effects, we are concerned that this development would further reduce the availability of open ground habitats in an area that has suffered significant cumulative loss to commercial forestry. The ES should assess this cumulative loss and its impact on upland birds.

Mitigation

A detailed consideration of the use of mitigation measures will be required as part of the appropriate assessment process and should be fully addressed in the Environmental Statement.

I hope these comments prove useful but please do not hesitate to contact me with any queries on our response. We would also be very happy to meet with the applicant to discuss the proposal further.

South Ayrshire Council – Environmental Health

In response to a request received by Planning from PNE Wind UK for a scoping opinion in respect of the proposed Altercannoch Wind Farm located on an area of land to the south of Barrhill, South Ayrshire; I can advise that the following is Environmental Health response for a Scoping Opinion.

Required Information Operational Noise

A noise impact assessment must be undertaken in accordance with ETSU-R-97 and having regard to the methods described in the Institute of Acoustics Good Practice Guide to the Application of ETSU-R-97. The assessment should detail the following:-

- (a) Accurate twelve digit grid references for the turbine(s);
- (b) Accurate twelve digit grid references for the noise sensitive receptor(s);
- (c) Elevations of turbines and receptors;
- (d) Details of any financial involvement at noise sensitive receptors;
- (e) Sound power level details for the turbine, in its intended mode of operation. Broadband and A-weighted octave band data required, together with uncertainty figures and any tonal penalty;
- (f) Ground factor used;
- (g) Atmospheric conditions for A_{atm} ;
- (h) Propagation height;
- (i) Unless it can be shown that it would be possible to meet the simplified noise condition of 35 dB LA90 (10 min) at wind speeds up to 10m/s measured at 10m height, then a background noise survey will require to be carried out.
- (j) The cumulative noise effect on all relevant receptors from existing, consented or approved wind turbines. When considering the cumulative effect of other turbines regard should be had to the consented noise levels detailed in the approval.
- (k) Information regarding any valley effect. It will be necessary to demonstrate whether or not, a 3dB correction is required in respect of the valley significantly sloping ground effect.

Where background surveys are carried out then the following details are required:-

- Wind shear methodology
- Best fit curve polynomials for daytime and night time (there must be sufficient data collected across the range of wind speeds from 4m/s to 12m/s).
- Location of monitoring positions.
- Method to record rainfall (noise data affected by rainfall or extraneous noise sources e.g. dawn chorus, agricultural activities, aircraft etc should be excluded).

- Equipment used including the type of wind shield fitted to the microphone (the preferred wind shield is a large diameter double layer item). A standard wind shield may not be suitable and it is recommended that the sound level meter manufacturer be consulted to confirm the suitability of any wind shield used.

When considering the cumulative impact of large and small wind turbines the preferred option is to use the ETSU-R-97 guidance for large wind and the BWEA (now Renewable UK) guidance for small wind and add the two together.

As mentioned in (j) above, when considering the cumulative effect of other turbines regard should be had to the consented noise levels detailed in the approval.

Construction Site Noise

- Construction works require to be assessed executed in accordance the approved Code of Practice BS 5228-1 and 2:2009 *Noise and Vibration Control on Construction and Open Sites* or any subsequent code amending consolidating or replacing it as approved by the Secretary of State pursuant to Sections 71(2) and 104 of the Control of Pollution Act 1974.

Scottish Environmental Protection Agency

Thank you for your consultation which SEPA received on 08 September 2014.

While all of the issues below should be addressed in the Environmental Statement (ES), there may be opportunities for several of these to be scoped out of detailed consideration. The justification for this approach in relation to specific issues should be set out within the ES.

Please note that we can process files only of a maximum size of 25MB and therefore, when the ES is submitted, it should be divided into appropriately sized and named sections.

1. Disruption to wetlands including peatlands

- 1.1 If there are wetlands or peatland systems present, the ES or planning submission should demonstrate how the layout and design of the proposal, including any associated borrow pits, hard standing and roads, avoid impact on such areas.
- 1.2 A Phase 1 habitat survey should be carried out for the whole site and the guidance [A Functional Wetland Typology for Scotland](#) should be used to help identify all wetland areas. National Vegetation Classification should be completed for any wetlands identified. Results of these findings should be submitted, including a map with all the proposed infrastructure overlain on the vegetation maps to clearly show which areas will be impacted and avoided.
- 1.3 Groundwater dependent terrestrial ecosystems, which are types of wetland, are specifically protected under the Water Framework Directive. The results of the National Vegetation Classification survey and Appendix 2 (which is also applicable to other types of developments) of our [Planning guidance on windfarm developments](#) should be used to identify if wetlands are groundwater dependent terrestrial ecosystems.
- 1.4 The route of roads, tracks or trenches within 100 m of groundwater dependent terrestrial ecosystems (identified in Appendix 2) should be reconsidered. Similarly, the locations of borrow pits or foundations within 250 m of such ecosystems should be reconsidered. If infrastructure cannot be relocated out with the buffer zones of these ecosystems then the likely impact on them will require further assessment. This assessment should be carried out if these ecosystems occur within or out with the site boundary so that the full impacts on the proposals are assessed. The results of this assessment and necessary mitigation measures should be included in the ES.
- 1.5 For areas where avoidance is impossible, details of how impacts upon wetlands including peatlands are minimised and mitigated should be provided within the ES or planning submission. In particular impacts that should be considered include those from drainage,

pollution and waste management. This should include preventative/mitigation measures to avoid significant drying or oxidation of peat through, for example, the construction of access tracks, dewatering, excavations, drainage channels, cable trenches, or the storage and re-use of excavated peat. Detailed information on waste management is required as detailed below. Any mitigation proposals should also be detailed within the Construction Environmental Management Document, as detailed below.

2. Disturbance and re-use of excavated peat

- 2.1 Where the proposed infrastructure will impact upon peatlands, it is now best practice for developers to produce a Peat Management Plan within the Environmental Statement which sets out the principles as to how any surplus peat will be managed within the site. It is important this is done prior to the application gaining consent to ensure all opportunities to minimise peat disturbance are considered within the site design and that acceptable proposals to re-use the surplus peat can be accommodated within the site layout without significant environmental impact.
- 2.2 The Peat Management Plan can then form a basis for any detailed peat management proposals required within the Construction Environmental Management Plan. The Peat Management Plan should include:
 - a) A detailed map of peat depths (this must be to full depth) with all the built elements overlain so it can clearly be seen how the development avoids areas of deep peat. The peat depth survey should include details of the basic peatland characteristics, including a break down of acrotelmic, catotelmic and amorphous peat. This information is often already required as part of any peat slide risk assessment.
 - b) A table showing where surplus peat will be generated and what the quantities will be.
 - c) A table showing what quantity of this surplus peat will catotelmic and what quantity will be acrotelmic;
 - d) A map showing where any temporary peat storage areas will be located and how these storage areas, along with any associated access roads, avoid any watercourses, groundwater dependant terrestrial ecosystems or other sensitive areas. In addition details should be submitted of how the storage areas will be constructed, calculations demonstrating the need for these storage areas, how thick the peat will be stored, what types of peat will be stored and how the peat will be maintained fit for re-use. This information may also be of interest to geotechnical engineers assessing the peat stability proposals. Please note that any soils or peat stored for greater than 3 years will require a permit under The Landfill (Scotland) Regulations 2003.
 - e) A table demonstrating the principles of where catotelmic peat will be re-used and approximately how much will be re-used including details of width and thickness;
 - f) A table demonstrating the principles of where acrotelmic peat will be re-used and approximately how much will be re-used including details of width and thickness;
- 2.3 We would expect all these proposals to be in accordance with [Guidance on the Assessment of Peat Volumes, Reuse of Excavated Peat and Minimisation of Waste](#) and our [Regulatory Position Statement – Developments on Peat](#).
- 2.4 An example of a peat balance table is enclosed in Appendix 1 of this letter however this is just an example and the applicant may have a better way of illustrating the required peat information. The use of a table often illustrates where further peat minimisation is necessary and where best to re-use any surplus peat.
- 2.5 In our experience there a number of common issues which we often query within Peat Management Plans and therefore we wish to take the opportunity to highlight these below so that they can be addressed in the Peat Management Plan.

- a) Any proposals for road shoulders should follow the best practice guidance detailed in Pages 14 and 15 of the Scottish Renewables [Guidance on the Assessment of Peat Volumes, Reuse of Excavated Peat and Minimisation of Waste](#), Page 27 of the Scottish Natural Heritage (SNH) and Forestry Commission (FCS) [Floating Roads on Peat](#) guidance and Pages 38 and 39 of SEPA, SNH and Scottish Renewables and FCS guidance [Good practice during windfarm construction](#). Please note that only fibrous peat is likely to be suitable for battering road verges. Any landscaping or road batters should be limited to the areas of ground already disturbed.
- b) Details of where alternate construction techniques have been used such as piling or floating roads should be submitted and then this should be detailed within the Peat Management Plan as it shows how the disturbance of peat has been minimised where possible. For example this could be simply shown on a map showing the location of floating or upgraded roads and piled turbine bases alongside a peat balance table.
- c) Where peat is re-used details of how the hydrology and drainage will be managed to maintain the peat integrity should be detailed. For example how will peat turves be used, how will hydrology be maintained to prevent drying out and subsequent oxidisation?
- d) Where it is proposed to re-use peat for any borrow pit restoration or peat land restoration works, details of the target National Vegetation Community and how the drainage will be designed to achieve and maintain this vegetation should be submitted.
- e) Please note that current good practice is that any crane hardstanding areas should be left in place with no peat cover to allow access for maintenance. In addition the aggregate layer of the hardstanding may act as a drain and peat can dry out.

2.6 By adopting an approach of minimising disruption to peatland, the volume of excavated peat can be minimised and the commonly experienced difficulties in dealing with surplus peat reduced. The generation of surplus peat is a difficult area which needs to be addressed from the outset given the limited scope for re-use.

2.7 There are important waste management implications of measures to deal with surplus peat as set out within our [Regulatory Position Statement - Developments on Peat](#). Landscaping with surplus peat (or soil) may not be of ecological benefit and consequently a waste management exemption may not apply. In addition we consider disposal of significant depth of peat as being landfilled waste, and this again may not be consentable under our regulatory regimes. Experience has shown that peat used as cover can suffer from significant drying and oxidation, and that peat redeposited at depth can lose structure and create a hazard when the stability of the material deteriorates. This creates a risk to people who may enter such areas or through the possibility of peat slide and we are aware that barbed-wire fencing has been erected around some sites in response to such risks.

2.8 It is therefore essential that the scope for minimising the extraction of peat is explored and alternative options identified that minimise risk in terms of carbon release, human health and environmental impact. Early discussion of proposals with us is essential, and an overall approach of minimisation of peatland disruption should be adopted. If it is proposed to use some excavated peat within borrow pits or bunding then details of the proposals, including depth of peat and how the hydrology of the peat will be maintained, should be outlined in the ES or planning submission. Our [Planning and Energy webpage](#) provides links to current best practice guidance on peat survey, excavation and management.

3. Forest removal and forest waste

3.1 We would support the approach of key-holing wherever possible as large scale felling can result in a peak release of nutrients which can affect local water quality. We may, however, be supportive of clear felling in cases where planting took place on deep peat and it is proposed through a Habitat Management Plan to reinstate peat-forming habitats. This should be specifically referenced in the ES.

- 3.2 We would be especially interested in and are likely to have significant concerns relating to any proposals to fell to waste where the waste generated by the process will be managed by techniques such as chipping, mulching or spreading. This is because where material is classed as waste then appropriate waste management options require consideration and, where appropriate, adoption. In such cases we would wish the ES to include information which explains how the waste hierarchy has been applied in a way which delivers the best overall environmental outcome and if this is not demonstrated we are likely to be object to the application.
- 3.3 It has previously been argued that using waste on the site could yield an ecological improvement and so has been considered as an exemption under waste management licensing. However, this approach is now being questioned as the results of early research show there is a lack of clarity and evidence to support the claim that this practice delivers overall ecological improvement for the main target vegetation types (blanket bog or wet heath). Currently, this restoration practice is being tested and researched at a number of sites across Scotland. This research will provide greater clarity on the benefits and risks associated with the practice. If ecological benefit from use of waste is to be claimed, then reliable site-specific evidence must be provided. For avoidance of doubt, where it is sought to claim ecological benefit from deposition of forestry waste a) the ecological benefit must relate to the land to which the waste is applied rather than off-site benefits and b) there must not be an ecological harm also associated with the deposition of the waste. Note that if there are likely to be significant amounts of surplus forestry material without a clear use, and if scope for an exemption under waste management is unclear, then unfortunately we may need to object to an application due to our inability to advise on consentability under our regulatory regime and hence it is essential that these issues are addressed at an early stage.
- 3.4 Nationally we are working with our SEARS partners to agree common principles for considering the use of forest material / waste wood on peatland sites for restoration projects. This work is currently being agreed and will soon be published on our website as *Principles for Use of Forest Residue for Peatland Restoration*. The draft principles within it which should be applied are as follows:
- Full justification for using the material on-site must be provided. Evidence must be provided to show that all options for use of the material off-site have been considered;
 - The proposed use of the material must be beneficial in reaching the objectives of the Habitat Management Plan (HMP) as agreed by the local authority in consultation with statutory agencies (SNH and SEPA). Detailed monitoring proposals should be included in the HMP;
 - Material used on site should not have any negative impact on the water environment or other sensitive receptors (e.g. protected species);
 - Details of the size, volume, and depth of material to be used on site must be provided. A detailed map showing areas where the material will be used and extent of cover should also be provided;
 - A clear specification for contractors is required to ensure the correct machinery is used, and that any material left on site is used in line with the HMP. The quality of the material is an important factor; maximum chip size (or other criteria) should be defined and agreed with the contractor. A maximum depth of material should also be agreed with the contractor.
- 3.5 Where the ecological benefit proposed by the fell to waste activity does not relate to improvement of peatland habitats, then the expected environmental benefit must be set out and fully justified in the ES.

4. Existing groundwater abstractions

- 4.1 Roads, foundations and other construction works associated with large scale developments

can disrupt groundwater flow and impact on groundwater abstractions. To address this risk a list of groundwater abstractions both within and outwith the site boundary, within a radius of i) 100 m from roads, tracks and trenches and ii) 250 m from borrow pits and foundations) should be provided.

- 4.2 If groundwater abstractions are identified within the 100 m radius of roads, tracks and trenches or 250 m radius from borrow pits and foundations, then either the applicant should ensure that the route or location of engineering operations avoid this buffer area or further information and investigations will be required to show that impacts on abstractions are acceptable. Further details can be found in Appendix 2 (which is also applicable to other types of developments) of our [Planning guidance on windfarm developments](#).

5. Engineering activities in the water environment

- 5.1 In order to meet the objectives of the [Water Framework Directive](#) of preventing any deterioration and improving the water environment, developments should be designed to avoid engineering activities in the water environment wherever possible. The water environment includes burns, rivers, lochs, wetlands, groundwater and reservoirs. We require it to be demonstrated that every effort has been made to leave the water environment in its natural state. Engineering activities such as culverts, bridges, watercourse diversions, bank modifications or dams should be avoided unless there is no practicable alternative. Paragraph 211 of SPP deters unnecessary culverting. Where a watercourse crossing cannot be avoided, bridging solutions or bottomless or arched culverts which do not affect the bed and banks of the watercourse should be used. Further guidance on the design and implementation of crossings can be found in our [Construction of River Crossings Good Practice Guide](#). Other best practice guidance is also available within the water engineering section of our website.
- 5.2 If the engineering works proposed are likely to result in increased flood risk to people or property then a flood risk assessment should be submitted in support of the planning application and we should be consulted as detailed below.
- 5.3 A site survey of existing water features and a map of the location of all proposed engineering activities in the water environment should be included in the ES or planning submission. A systematic table detailing the justification for the activity and how any adverse impact will be mitigated should also be included. The table should be accompanied by a photograph of each affected water body along with its dimensions. Justification for the location of any proposed activity is a key issue for us to assess at the planning stage.
- 5.4 Where developments cover a large area, there will usually be opportunities to incorporate improvements in the water environment required by the Water Framework Directive within and/or immediately adjacent to the site either as part of mitigation measures for proposed works or as compensation for environmental impact. We encourage applicants to seek such opportunities to avoid or offset environmental impacts. Improvements which might be considered could include the removal of redundant weirs, the creation of buffer strips and provision of fencing along watercourses. Fencing off watercourses and creating buffer strips both helps reduce the risk of diffuse water pollution and affords protection to the riparian habitat.

6. Water abstraction

- 6.1 Where water abstraction is proposed we request that the ES, or planning submission, details if a public or private source will be used. If a private source is to be used the information below should be included. Whilst we regulate water abstractions under The Water Environment (Controlled Activities) (Scotland) Regulations 2011 (as amended), the following information is required at the planning stage to advise on the acceptability of the abstraction at this location:

- Source e.g. ground water or surface water;
- Location e.g. grid reference and description of site;
- Volume e.g. quantity of water to be extracted;

- Timing of abstraction e.g. will there be a continuous abstraction;
- Nature of abstraction e.g. sump or impoundment;
- Proposed operating regime e.g. details of abstraction limits and hands off flow;
- Survey of existing water environment including any existing water features;
- Impacts of the proposed abstraction upon the surrounding water environment.

6.2 If other development projects are present or proposed within the same water catchment then we advise that the applicant considers whether the cumulative impact upon the water environment needs to be assessed. The ES or planning submission should also contain a justification for the approach taken.

7. Pollution prevention and environmental management

7.1 One of our key interests in relation to major developments is pollution prevention measures during the periods of construction, operation, maintenance, demolition and restoration. The construction phase includes construction of access roads, borrow pits and any other site infrastructure.

7.2 We advise that the applicant should, through the EIA process or planning submission, systematically identify all aspects of site work that might impact upon the environment, potential pollution risks associated with the proposals and identify the principles of preventative measures and mitigation. This will establish a robust environmental management process for the development. A draft Schedule of Mitigation should be produced as part of this process. This should cover all the environmental sensitivities, pollution prevention and mitigation measures identified to avoid or minimise environmental effects. Details of the specific issues that we expect to be addressed are available on the Pollution Prevention and Environmental Management section of our [website](#).

7.3 A Construction Environmental Management Document is a key management tool to implement the Schedule of Mitigation. We recommend that the principles of this document are set out in the ES outlining how the draft Schedule of Mitigation will be implemented. This document should form the basis of more detailed site specific Construction Environmental Management Plans which, along with detailed method statements, may be required by planning condition or, in certain cases, through environmental regulation. This approach provides a useful link between the principles of development which need to be outlined at the early stages of the project and the method statements which are usually produced following award of contract (just before development commences).

7.4 We would refer you to best practice advice prepared by SNH, SEPA and the windfarm industry [Good Practice During Windfarm Construction](#). Additionally, the Highland Council (in conjunction with industry and other key agencies) has developed a guidance note [Construction Environmental Management Process for Large Scale Projects](#).

8. Borrow pits

8.1 Detailed investigations in relation to the need for and impact of such facilities should be contained in the ES or planning submission. Where borrow pits are proposed, information should be provided regarding their location, size and nature. In particular, details of the proposed depth of the excavation compared to the actual topography and water table should be submitted. In addition details of the proposed restoration profile, proposed drainage and settlement traps, turf and overburden removal and storage for reinstatement should be submitted.

8.2 The impact of such facilities (including dust, blasting and impact on water) should be appraised as part of the overall impact of the scheme. Information should cover, in relation to water; at least the information set out in [Planning Advice Note PAN 50 Controlling the Environmental Effects of Surface Mineral Workings](#) (Paragraph 53). In relation to groundwater, information (Paragraph 52 of PAN 50) only needs to be provided where there is an abstraction or groundwater dependent terrestrial ecosystem within 250 m of the borrow pit. Additional information on groundwater is provided above.

9. Flood risk

- 9.1 The site should be assessed for flood risk from all sources in line with Scottish Planning Policy (Paragraphs 196-211). Our [Indicative River & Coastal Flood Map \(Scotland\)](#) is available to view online and further information and advice can be sought from your local authority technical or engineering services department and from our [website](#).
- 9.2 If a flood risk is identified then a Flood Risk Assessment should be carried out following the guidance set out in our "Technical flood risk guidance for stakeholders" and (if relevant) "Technical Guidance Revision Note 1 - the Estimation of Coastal Sea Levels" both of which can be found on the planning and flood risk section of our [website](#).

10. Regulatory advice for the applicant

- 10.1 Details of regulatory requirements and good practice advice for the applicant can be found on our website at www.sepa.org.uk/planning.aspx. If you are unable to find the advice you need for a specific regulatory matter, please contact a member of the operations team in the local SEPA office at:

31 Miller Road
Ayr
KA7 2AX

Scottish Natural Heritage

Thank you for consulting Scottish Natural Heritage (SNH) over the above revised scoping request.

We responded to the earlier scoping request at this site on 6 March 2013. We then provided the applicants with further feedback on interim survey results by e-mail on 16 July 2013. Although we have not had sight of any updated survey results since that time, we are content that most of the survey work will be of sufficient standard for EA purposes. As yet, we have not had access to any of the findings of the bat surveys. We recommend that the survey follow the Bat Conservation Trust, Bat Surveys, Good Practice Guidelines 2nd Ed. These recommend the use of "at height" surveys should Noctule or Leisler's bats be encountered during transect or static surveys. If these surveys have encountered the presence of Noctule's or Leisler's bats then the results can then be used to assess the potential impacts and design appropriate mitigation.

I trust that these comments are useful, please do not hesitate to get in touch if you require further clarification.

Scottish Water

Thank you for consulting with Scottish Water regarding the above.

Our initial assessment indicates that the proposed wind farm development does not fall within a catchment used for public water supply / Drinking Water Protected Area (DWPA) therefore we have no concerns to this proposal.

However, you should confirm the location of Scottish Water below-ground assets by obtaining detailed plans from our Asset Plan Providers. Please see Annex 1 which includes the contact details for the Asset Plan Providers to check the location of assets in the area.

We would request that Scottish Water is consulted when the design of access routes for construction is being considered, and would ask you to contact or write to the Scottish Water Service Relocation team via service.relocation@scottishwater.co.uk at the earliest convenience to discuss these plans.

All detailed design proposals relating to the protection of Scottish Water's assets should be submitted to the Scottish Water Service Relocation Team for review and written acceptance. Works should not take place on site without prior written acceptance by Scottish Water.

We also include a list of precautions to be taken when working within the vicinity of Scottish Water assets at Annex 1 of this letter. You should take account of the list of precautions for assets.

I trust that the above is acceptable however, if you have any questions relating to this do not hesitate to contact me at the above address.

Yours Sincerely

Adam Zyndul
Policy Advisor – Strategy and Policy Team

ANNEX 1 SCOTTISH WATER LIST OF PRECAUTIONS TO PROTECT DRINKING WATER AND ASSETS

Scottish Water is required to ensure that the proposed activity does not impact on the ability of Scottish Water to meet its regulatory requirements.

The regulations relating to the quality of drinking water supplied by Scottish Water are the Water Supply (Water Quality) (Scotland) Regulations 2001. Quality Standards are derived from the European Drinking Water Directive 98/83/EC. Water Treatment Works are designed to treat water quality envelopes and are based on site specific raw water quality. If raw water deteriorates outside of the envelope, it can impact on the ability of the works to supply drinking water to customers which complies with the required standards.

If an activity is located within close proximity to water or waste water assets, it is essential that the assets are protected from damage. You can order copies of our water or waste water network drawings from the undernoted Asset Plan Providers, who have several years of experience supplying asset plans to the utility and developer industries and are ready to take your enquiry. This is distinct from your rights to seek access to and inspect apparatus plans at Scottish Waters area offices, for which no charge is applied.

Site Investigation Services (UK) Ltd
Tel: 0333 123 1223
Email: sw@sisplan.co.uk
www.sisplan.co.uk

National One-Call
Tel: 0844 800 9957
Email: swplans@national-one-call.co.uk
www.national-one-call.co.uk/swplans

If assets are located in the area please contact or write to the Scottish Water Service Relocation team via service.relocation@scottishwater.co.uk at your earliest convenience, regarding mitigation measures.

The following details a list of possible precautions and protection measures to be considered to ensure that the aforementioned does not occur or affect Scottish Water DWPA's and assets.

- You should at all times allow Scottish Water access to assets belonging to Scottish Water and must avoid the obstruction or hindrance to them.
- You will give full facilities to Scottish Water and our representatives to determine by inspection or otherwise whether our assets and/or pipelines are protected and whether special requirements of Scottish Water are being observed.
- Scottish Water will not accept liability for any costs incurred by you and your developer in fulfilling any of these requirements.

- If a connection to the water or waste water network is required, you must make a separate application to the Customer Connections section for permission to connect. It is important to note that the granting of planning consent does not guarantee a connection to Scottish Water assets.
- The proposed timing of the works to be submitted to Scottish Water in advance. Scottish Water to be notified prior to any activities commencing on site and upon completion.
- In the event of an incident that could impact on Scottish Water, notify us without delay, using the Emergency Helpline number 0845 600 8855 and the local contact if known.

Specific precautions for water mains, waste water mains and other assets

- Scottish Water assets and structures such as underground valves and pipes should be located and marked prior to any site activity.
- The offset distance has to be agreed in advance by Scottish Water. All structures and ground disturbance must be a minimum distance of 10 metres from the nearest raw water main or water main. All structures must be a minimum distance of either, 3 metres or depth plus 1 metre, whichever is greater, from the nearest sewer. Scottish Water reserves the right to ask for increased offset distance to suit specific circumstances.
- No stationary plant, equipment, scaffolding, construction or excavated material, etc. should be placed over or close to any Scottish Water assets.
- Special care must be taken to avoid covering or filling Scottish Water assets. Arrangements for altering the level of any chambers must be made in agreement with Scottish Water and constructed in accordance with our specifications. You will have to cover the costs of this work.
- Excavation or pumping should not be carried out in the proximity of a water or waste water main without due notice having been given to Scottish Water. You will then be asked to comply with our requirements for the particular situation. Special care should be taken to prevent the removal of ground support systems. If these are exposed during excavation work, they must be supported and re-covered according to our requirements.
- In the event of any of our assets being damaged, full details must be passed immediately to our local Operations team. No-one can interfere with or operate any Scottish Water apparatus.
- You must provide us with adequate notice and full information regarding all proposals for piling or other construction methods that may create vibrations in SW pipelines or ancillary apparatus. It is imperative that your methods of construction adhere to the accepted SW standards in order to minimise vibrations and their effect on the pipelines which could create damage or leakage.
- When construction plant is crossing over Scottish Water's existing apparatus, you should ensure the effective use of temporary protection to spread the weight on the water pipes and sewers to within safe working limits. Scottish Water requires that any proposals be subject to written acceptance by Scottish Water.
- You or anyone working for you should not interrupt the flow of water or waste water within Scottish Water's mains or sewers
- You should at all times allow Scottish Water access to its assets. You must avoid the obstruction or hindrance to the prompt and efficient use and manipulation of valves, hydrants, meters or other apparatus, water mains. There should be no interference with the free discharge of scours from water mains.

Transport Scotland

With reference to recent correspondence on the above development, we write to inform you of our involvement as Term Consultants to Transport Scotland – Trunk Road and Bus Operations (TS-TRBO) in relation to the provision of advice on issues affecting the trunk road network.

We have downloaded a copy of the Scoping Report prepared by PNE Wind UK Limited in support of the above development. Having reviewed the information provided, we would make the following comments on behalf of Transport Scotland.

We understand from the Scoping Report that the proposed development is to erect 8 wind turbines with a maximum tip height of 131m along with associated infrastructure on land near Altercannoch, to the south-east of Barrhill. The maximum power output of the wind farm would be 27MW.

The nearest trunk roads to the site are the A77(T) and the A75(T) which are located approximately 13km to the west and 20km to the south of the site respectively.

Site Access

Access to the proposed wind farm is to be taken from the A714 which is part of the local road network. As such, Transport Scotland would not comment further on the access point itself.

Abnormal Loads

It is noted that the delivery of abnormal loads would be from the Port of Ayr down the A77(T) before turning eastwards along the A75(T) prior to reaching Stranraer and then heading north at Newton Stewart before accessing the site from the A714.

We would advise that an abnormal loads assessment should be carried out on the finalised route for any abnormal loads as part of the EIA process. The report should identify any accommodation measures required including the temporary removal of street furniture, junction widening, traffic management etc.

Assessments of Environmental Impacts

With regard to the potential environmental impacts of the development on receptors adjacent to the trunk road network, there are a number of issues which should be taken into consideration when assessing the merits of the development.

The Environmental Statement (ES) should provide information with regard to the construction stage including the preferred route options for the movement of any heavy loads along with an estimate of vehicle trip generation from the site and an indication of distribution/assignment of these trips. The report should also identify potential environmental impacts on the trunk road once the development is operational.

We would generally advise that the assessment of environment effects of road traffic should be undertaken in accordance with the guidance set out within the Institute of Environmental Management and Assessment (IEMA) publication "Guidelines on the Environmental Assessment of Road Traffic (Guidance Note 1)", 1993. The IEMA guidelines generally advise that further assessment should be undertaken on:

- "Highway links where traffic flows will increase by more than 30% (or the number of HGV's will increase by more than 30%); and
- Any specifically sensitive areas where the traffic flows have increased by 10% or more."

We would also advise that useful guidance is also provided within Planning Advice Note 1/2013 on the EIA process and the preparation of ESs.

Potential trunk road related environmental impacts such as driver delay, severance, pedestrian amenity, safety etc should be considered and assessed where appropriate (i.e. Where IEMA thresholds for further assessment are exceeded). In the case of the ES the methods adopted to assess the likely traffic and transportation impacts on traffics flows and transportation infrastructure should comprise:

- Determination of the baseline traffic and transportation conditions, and the sensitivity of the site and existence of any receptors likely to be affected in proximity of the trunk road network;
- Review of the development proposals to determine the predicted construction and operational requirements; and
- Assessment of the significance of predicted impacts from these transport requirements taking into account impact magnitude (before and after mitigation) and baseline environmental sensitivity.

Noise and Vibration

Impacts to sensitive receptors associated with noise and vibration arising from the proposed development during the construction and operational phases should be considered. Operational traffic noise and construction traffic noise should be assessed by considering the increase in traffic flows and following the principles of Calculation of Road Traffic Noise (CRTN). We would also note the Design Manual for Roads and Bridges (DMRB) Vol.11 which states:

“In the period following a change in traffic flow, people may find benefits or disbenefits when the noise changes are as small as 1db(A) – equivalent to an increase in traffic flow of 25% or a decrease in traffic flow of 20%. These effects last for a number of years.”

PAN1/2011 advises that a change of 3db(A) is the minimum perceptible under normal conditions and a change of 10dB(A) corresponds roughly to halving or doubling the loudness of a sound.

Therefore the ES should consider potential impacts to identified trunk road receptors in terms of:

- Predicted noise levels from construction traffic; and
- Any increases to road traffic attributed to the proposed development.

Air Quality

Air Quality should be assessed based on the relevant guidelines described below.

The first criteria for identifying roads with a significant traffic change is defined in the Environmental Protection UK “Development Control: Planning for Air Quality” publication:

A change in annual daily traffic (AADT) flows of more than 5% or 10% (depending on local circumstances) on a road with more than 10,000 Annual Average Daily Traffic (AADT).

The second set of criteria is taken from the Design Manual for Roads and Bridges Air Quality Screening Criteria:

- Road Alignment will change by 5m or more; or
- Daily traffic flows will change by 1,000 AADT or more; or
- Heavy Duty Vehicle (HDV) flows will change by 200 AADT or more;

- Daily average speed will change by 10 kilometres per hour (km/hr) or more; or
- Peak hour speed will change by 20km/hr or more.

In the assessment, a conservative approach should be utilised and traffic changes screened against both sets of criteria; if a road link triggers any of the criteria it should be assessed further. Where significant changes in traffic are not noted for any link, no further assessment needs to be undertaken.

Where environmental impacts are fully investigated but found to be of little or no significance it is sufficient to validate that part of the assessment by stating in the report:

- The work that has been undertaken e.g. Transportation/ Noise/Air Quality Assessments etc;
- What this has shown i.e. what impact if any has been identified; and
- Why it is not significant.

I trust that the above is satisfactory and should you wish to discuss any issues raised in greater detail, please do not hesitate to contact me at our Glasgow Office.

West of Scotland Archaeology Service – please note that this response also includes details of another wind farm proposal due to the timing of a previous consultation exercise.

I've had a quick look at the plans you sent through, and my initial impression is that it's highly likely that we would advise the Council to refuse consent for the layout proposed at Altercannoch due to the fact that the turbines would appear to be sited directly within an apparently well-preserved relic landscape. Although the various hut-circles, cairns, enclosures and other features present on Eyes Hill are not currently scheduled, they were assessed as being of potentially-schedulable quality when the non-statutory register was compiled in the 1990s. While the NSR is no longer specifically mentioned in current planning policy documents, the fact that they were assessed as being of possibly national significance at that time would suggest that they are likely to remain of at least regional and possibly national importance.

The layout proposed would place turbines directly within this landscape, not only compromising the ability of the viewer to understand it as an entity but also having a very high probability of removing elements of it through ground disturbance associated with construction of the turbines themselves or their associated infrastructure. The severity of both the direct and indirect impacts appears likely to be of such a magnitude that it could not be meaningfully mitigated, and as a result, it is probable that we would recommend to the Council that any application for the layout shown on your plan should be refused.

This is in accordance with the comments made to CFA Archaeology Ltd in March of last year. Although there was no indication as to the position of individual turbines at that time, it was noted that it was 'difficult to see where they could be sited that would not have either a direct or indirect impact on this archaeological landscape....given that construction is likely to require fairly extensive ground disturbance across a wide area of the site, it's difficult to see how this could be accommodated without a significant detrimental impact on archaeological material. Without prejudice to the eventual results of your assessment, therefore, I would advise that my initial feeling is that it is likely that we would recommend to the Council that it should refuse any application for the construction of a wind farm in this area'. It is also in accordance with Paul's comments in relation to planning application 12/01242/APP, for the erection of a wind monitoring mast on Eyes Hill, a copy of which accompanied my previous email. In this response, Paul noted that there was 'likely to be a recommendation for refusal of any subsequent wind turbines that would impact on the landscape setting in this area'.

The layout proposed at Dalmorton appears less likely to raise direct issues, at least in terms of previously recorded material. It's apparent that the turbines would all be located in ground that has undergone a degree of previous disturbance associated with forestry planting. No features have been recorded from the majority of the area likely to be directly affected by construction, though it's possible that this may be due to a lack of detailed survey, the masking effect of tree cover or because ground preparation in advance of planting has removed or reduced upstanding elements. Certainly, the

relative abundance of recorded material present in adjacent unforested areas would suggest that there would have been a reasonable potential for features to have existed, though the extent to which these would have survived previous forestry activities is thus far unknown.

We also provided comments to CFA on Dalmorton in March of last year. Again, no turbine layout was available at that time, so these comments encompassed the larger site boundary and identified that a 'number of probable shieling huts were recorded from an area adjacent to a tributary of the Shiel Burn on Clauchrie Hill in 1955, and although the Ordnance Survey recorded in 1976 that two of the features had been destroyed by forestry, one was still identifiable. The OS suggest that this appeared to be of no great age, but I would not be content to automatically accept this categorisation, as I am aware of a number of examples where apparently recent shielings were found on excavation to occupy the sites of considerably earlier structures. I'd also suggest that the fact that at least one of the structures still existed in a recognisable form even after forestry ploughing raises the potential for other sites to survive, possibly in areas such as burn valleys where access for the plough would be restricted or difficult.' On balance, however, I think that the potential direct issues associated with this proposal could be successfully mitigated.

I don't have a ZTV for either of the proposals, so I can't at this stage assess the possible indirect impacts associated with either proposal with any degree of accuracy (beyond noting that the layout proposed at Altercannoch is likely to have a highly detrimental effect on the setting of a potentially nationally important relic landscape through the placement of turbines and other infrastructure directly within it). However, in terms of potential indirect issues associated with Dalmorton, the most obvious would be the effect of the proposal on the scheduled enclosures at Knockinculloch (SAM 3357), as these are located less than 200m from the prospective development area. The layout proposed would place the nearest turbine around 500m from this monument, and it is likely that this structure and others within the wind farm would be highly visible from the site, resulting in a substantial change to its setting. I'm not sure how much of the existing forestry would be retained, but I would note that this cannot necessarily be regarded as a permanent screen, as any commercial plantation is likely to be subject to routine felling. In addition, it is likely that the turbines would be visible above any tree-line that may survive. I'd also note the presence of a number of sites considered to be of potentially-schedulable quality in the area surrounding the proposed wind farm; these include a farmstead at Knockoner Burn, just outside the boundary, a possible cairn at Knockoner, though this may be screened by forestry, a hut circle at Wee Knockinculloch and a platform at The Pilot. It could be the case that the indirect effect of this wind farm on the scheduled and potentially-schedulable sites in the vicinity may be too significant to be acceptable, and I'd certainly suggest that any ES should be accompanied by extensive material illustrating this aspect.