Scottish Government
Riaghaltas na h-Alba
gov.scot

The Scottish Government
Energy Consents Unit

Scoping Opinion on behalf of Scottish Ministers under the Electricity Works (Environmental Impact Assessment) (Scotland) Regulations 2017

Sauchrie Burn Wind Farm
Energiekontor UK Ltd

30 April 2024

CONTENTS

1. Introduction

1.1 This scoping opinion is issued by the Scottish Government Energy Consents Unit on behalf of the Scottish Ministers to Energiekontor UK Ltd, a company incorporated under the Companies Acts with company number 03830819 and having its registered office at 114 St Martin's Lane, Covent Garden, London, United Kingdom, WC2N 4BE ("the Company") in response to a request received by the Energy Consents Unit dated October 2023 for a scoping opinion under the Electricity Works (Environmental Impact Assessment) (Scotland) Regulations 2017 in relation to the proposed Sauchrie Burn Wind Farm ("the proposed development"). The request was accompanied by a scoping report.

1.2 The proposed development is located approximately 4km south west of Ayr.

1.3 The proposed development is anticipated to comprise up to 9 wind turbines with tip heights up to 200 metres and battery energy storage.

1.4 In addition to wind turbines and energy storage facility there will be ancillary infrastructure including:

- Site Access:
- Site Tracks;
- Temporary construction compound / storage area;
- Crane hardstandings and outrigger pads;
- Transformer housings;
- High voltage and control cables;
- Substation building; and
- Off-site highway works

1.5 The Company indicates the proposed development would be decommissioned after 35 years and the site restored in accordance with the decommissioning and restoration plan.

1.6 The proposed development is solely within the planning authority of South Ayrshire Council.

2. Consultation

2.1 Following the scoping opinion request a list of consultees was agreed between Energiekontor UK Ltd and the Energy Consents Unit. A consultation on the scoping report was undertaken by the Scottish Ministers and this commenced on 22 February 2024. The consultation closed on 14th March 2024. Extensions to this deadline were granted to:-

- NatureScot;
- Historic Environment Scotland; and
- Defence Infrastructure Organisation

The Scottish Ministers also requested responses from their internal advisors Transport Scotland and Scottish Forestry. Standing advice from Marine Directorate - Science Evidence Data and Digital (MD-SEDD) has been provided with requirements to complete a checklist prior to the submission of the application for consent under section 36 of the Electricity Act 1989. All consultation responses received, and the standing advice from MD-SEDD, are attached in ***ANNEX A Consultation responses*** and ***ANNEX B MD-SEDD Standing Advice.***

2.2 The purpose of the consultation was to obtain scoping advice from each consultee on environmental matters within their remit. Responses from consultees and advisors, including the standing advice from MD-SEDD, should be read in full for detailed requirements and for comprehensive guidance, advice and, where appropriate, templates for preparation of the Environmental Impact Assessment (EIA) report.

2.3 Unless stated to the contrary in this scoping opinion, Scottish Ministers expect the EIA report to include all matters raised in responses from the consultees and advisors.

2.4 The following organisations were consulted but did not provide a response:

- Ayrshire Rivers Trust;
- British Horse Society;
- Civil Aviation Authority – Airspace;
- Crown Estate Scotland;
- Dunure Community Council;
- Galloway and Southern Ayrshire Biosphere;
- John Muir Trust;
- Mountaineering Scotland;
- RSPB Scotland;
- Scottish Rights of Way and Access Society (ScotWays);
- Scottish Wildlife Trust;
- Scottish Wild Land Group (SWLG);
- Visit Scotland; and
- Woodland Trust

2.5 With regard to those consultees who did not respond, it is assumed that they have no comment to make on the scoping report, however each would be consulted again in the event that an application for section 36 consent is submitted subsequent to this EIA scoping opinion.

2.6 The Scottish Ministers are satisfied that the requirements for consultation set out in Regulation 12(4) of the Electricity Works (Environmental Impact Assessment) (Scotland) Regulations 2017 have been met.

3. The Scoping Opinion

3.1 This scoping opinion has been adopted following consultation with South Ayrshire Council, within whose area the proposed development would be situated, NatureScot (previously "SNH"), Scottish Environment Protection Agency (SEPA) and Historic Environment Scotland (HES), all as statutory consultation bodies, and with other bodies which Scottish Ministers consider likely to have an interest in the proposed development by reason of their specific environmental responsibilities or local and regional competencies.

3.2 Scottish Ministers adopt this scoping opinion having taken into account the information provided by the applicant in its request dated 24 October 2024 in respect of the specific characteristics of the proposed development and responses received to the consultation undertaken. In providing this scoping opinion, the Scottish Ministers have had regard to current knowledge and methods of assessment; have taken into account the specific characteristics of the proposed development, the specific characteristics of that type of development and the environmental features likely to be affected.

3.3 A copy of this scoping opinion has been sent to South Ayrshire Council for publication on their website. It has also been published on the Scottish Government energy consents website at www.energyconsents.scot.

3.4 Scottish Ministers expect the EIA report which will accompany the application for the proposed development to consider in full all consultation responses attached in **Annex A and Annex B**.

3.5 Scottish Ministers are satisfied with the scope of the EIA set out in section 3 of the scoping report.

3.6 In addition to the consultation responses, Ministers wish to provide comments with regards to the scope of the EIA report. The Company should note and address each matter.

3.7 The proposed development set out in the scoping report refers to wind turbines and other technologies including battery storage. Any application submitted under the Electricity Act 1989 requires to clearly set out the generation station(s) that consent is being sought for. For each generating station details of the proposal require to include but not limited to:

- the scale of the development (dimensions of the wind turbines and battery storage)
- components required for each generating station
- minimum and maximum export capacity of megawatts and megawatt hours of electricity for battery storage

3.8 Scottish Water advised that there were no Scottish Water drinking water catchments, or water abstraction sources, which are designated as Drinking Water Protected Areas under the Water Framework Directive, in the area that may be affected by the proposed development. Scottish Water also provided general advice which should be addressed in the EIA report, including any relevant mitigation measures required.

3.9 Scottish Ministers request that the Company investigates the presence of any private water supplies which may be impacted by the development. The EIA report should include details of any supplies identified by this investigation, and if any supplies are identified, the Company should provide an assessment of the potential impacts, risks, and any mitigation which would be provided.

3.10 Marine Directorate – Science Evidence Data and Digital (MD-SEDD) provide generic scoping guidelines for onshore wind farm and overhead line development https://www2.gov.scot/Topics/marine/Salmon-Trout-Coarse/Freshwater/Research/onshoreren) which outline how fish populations can be impacted during the construction, operation and decommissioning of a wind farm or overhead line development and informs developers as to what should be considered, in relation to freshwater and diadromous fish and fisheries, during the EIA process.

3.11 In addition to identifying the main watercourses and waterbodies within and downstream of the proposed development area, developers should identify and consider, at this early stage, any areas of Special Areas of Conservation where fish are a qualifying feature and proposed felling operations particularly in acid sensitive areas.

3.12 MD-SEDD also provide standing advice for onshore wind farm or overhead line development (which has been appended at Annex B) which outlines what information, relating to freshwater and diadromous fish and fisheries, is expected in the EIA report. Use of the checklist, provided in Annex 1 of the standing advice, should ensure that the EIA report contains the required information; the absence of such information may necessitate requesting additional information which may delay the process. **Developers are required to submit the completed checklist in advance of their application submission.**

3.13 Scottish Ministers consider that where there is a demonstrable requirement for peat landslide hazard and risk assessment (PLHRA), the assessment should be undertaken as part of the EIA process to provide Ministers with a clear understanding of whether the risks are acceptable and capable of being controlled by mitigation measures. The Peat Landslide Hazard and Risk Assessments: Best Practice Guide for Proposed Electricity Generation Developments (Second Edition), published at http://www.gov.scot/Publications/2017/04/8868, should be followed in the preparation of the EIA report, which should contain such an assessment and details of mitigation measures. Where a PLHRA is not required clear justification for not carrying out such a risk assessment is required.

3.14 The scoping report identified viewpoints in Table 7.2 to be assessed within the landscape and visual impact assessment. South Ayrshire Council and Historic Environment Scotland suggested additional viewpoints.

3.15 The noise assessment should be carried out in line with relevant legislation and standards as detailed in section 7 (iii) of the scoping report. The noise assessment report should be formatted as per Table 6.1 of the IOA “A Good Practice Guide to the Application of ETSU-R-97 for the Assessment and Rating of Wind Turbine Noise.

3.16 As the maximum blade tip height of turbines exceeds 150m the LVIA as detailed in section 7.1 of the scoping report must include a robust Night Time Assessment with agreed viewpoints to consider the effects of aviation lighting and how the chosen lighting mitigates the effects.

3.17 It is recommended by the Scottish Ministers that decisions on bird surveys – species, methodology, vantage points, viewsheds & duration - site specific & cumulative – should be made following discussion between the Company and NatureScot.

3.18 Where borrow pits are proposed as a source of on-site aggregate they should be considered as part of the EIA process and included in the EIA report detailing information regarding their location, size and nature. Ultimately, it would be necessary to provide details of the proposed depth of the excavation compared to the actual topography and water table, proposed drainage and settlement traps, turf and overburden removal and storage for reinstatement, and details of the proposed restoration profile. The impact of such facilities (including dust, blasting and impact on water) should be appraised as part of the overall impact of the working. Information should cover the requirements set out in ‘**PAN 50: Controlling the Environmental Effects of Surface Mineral Workings**’.

3.19 Ministers are aware that further engagement is required between parties regarding the refinement of the design of the proposed development regarding, among other things, surveys, management plans, peat, radio links, finalisation of viewpoints, cultural heritage, cumulative assessments and request that they are kept informed of relevant discussions.

4. Mitigation Measures

4.1 The Scottish Ministers are required to make a reasoned conclusion on the significant effects of the proposed development on the environment as identified in the environmental impact assessment. The mitigation measures suggested for any significant environmental impacts identified should be presented as a conclusion to each chapter. Applicants are also asked to provide a consolidated schedule of all mitigation measures proposed in the environmental assessment, provided in tabular form, where that mitigation is relied upon in relation to reported conclusions of likelihood or significance of impacts.

5. Conclusion

5.1 This scoping opinion is based on information contained in the applicant's written request for a scoping opinion and information available at the date of this scoping opinion. The adoption of this scoping opinion by the Scottish Ministers does not preclude the Scottish Ministers from requiring of the applicant information in connection with an EIA report submitted in connection with any application for section 36 consent for the proposed development.

5.2 This scoping opinion will not prevent the Scottish Ministers from seeking additional information at application stage, for example to include cumulative impacts of additional developments which enter the planning process after the date of this opinion.

5.3 Without prejudice to that generality, it is recommended that advice regarding the requirement for an additional scoping opinion be sought from Scottish Ministers in the event that no application has been submitted within 12 months of the date of this opinion.

5.4 It is acknowledged that the environmental impact assessment process is iterative and should inform the final layout and design of proposed developments. Scottish Ministers note that further engagement between relevant parties in relation to the refinement of the design of this proposed development will be required, and would request that they are kept informed of on-going discussions in relation to this.

5.5 Applicants are encouraged to engage with officials at the Scottish Government's Energy Consents Unit at the pre-application stage and before proposals reach design freeze.

5.6 When finalising the EIA report, applicants are asked to provide a summary in tabular form of where within the EIA report each of the specific matters raised in this scoping opinion has been addressed.

5.7 It should be noted that to facilitate uploading to the Energy Consents portal, the EIA report and its associated documentation should be divided into appropriately named separate files of sizes no more than 10 megabytes (MB).

Nicola Ferguson

Energy Consents Unit
30 April 2024

ANNEX A

Consultation

List of consultees who provided a response.

- South Ayrshire Council; A1-A9
- SEPA; A10-A19
- Historic Environment Scotland (HES); A20-A25
- NatureScot; A26-A30
- BT; A31-A32
- Defence Infrastructure Organisation; A33-A34
- Edinburgh Airport; A35
- Fisheries Management Scotland; A36
- Glasgow Airport; A37
- Glasgow Prestwick Airport; A38-A44
- Joint Radio Company; A45-A47
- NATS Safeguarding; A48-A58
- Office for Nuclear Regulation; A59
- Scottish Forestry; A60
- Scottish Water; and A61-A62
- Transport Scotland A63-A65

Internal advice from areas of the Scottish Government was provided by officials from Transport Scotland, Scottish Forestry and Marine Directorate - Science Evidence Data and Digital (in the form of standing advice) included in **Annex B**.

See Section 2.4 above for a list of organisations that were consulted but did not provide a response. Any responses received after this Scoping Opinion is published will be added as an addendum and uploaded to the ECU Portal.

A1

Housing, Operations and Development

Service Lead – Planning and Building Standards: Craig Iles

Planning Service, County Buildings, Wellington Square, Ayr, KA7 1DR
Tel: 01292 616 177
Email: alastair.mcgibbon@south-ayrshire.gov.uk
Our Ref: 24/00135/EIASCO
Date: 18 March 2024

South Ayrshire Council
Comhairle Siorrachd Àir a Deas
Making a Difference Every Day

Energy Consents Unit
Nicola Ferguson
5 Atlantic Quay
150 Broomielaw
Glasgow
G2 8LU
By email to: Nicola.ferguson@gov.scot

Dear Nicola,

THE ELECTRICTY WORKS (ENVIRONMENTAL IMPACT ASSESSMENT) (SCOTLAND) REGULATIONS 2017 EIA SCOPING REPORT (OCTOBER 2023)

SUBMISSION REF:	**24/00135/EIASCO**
PROPOSAL:	**Request for Scoping Opinion for proposed Section 36 application for Sauchrie Burn Wind Farm**
SITE ADDRESS:	**Proposed Sauchrie Burn Wind Farm, Carrick Hills between A77 And A719, South Ayrshire**

Thank you for your email of 22 February 2024 inviting South Ayrshire Council's response as a consultee to the Scoping Opinion Report received by Scottish Ministers from Energiekontor UK Ltd.

In keeping with the breadth of environmental topics acknowledged within the applicant's Scoping Report, South Ayrshire Council has consulted both internally and externally with various departments and bodies whose respective remits pertain to those topics. The various responses to that intra council consultation and external consultation are contained in the enclosed Annex and to avoid duplication their collective content forms an integral part of South Ayrshire Council's scoping response. A response has yet to be received from the Ayrshire Roads Alliance and the Council's Built Heritage and Access Officers; however, I can confirm that these shall be forwarded on if/when available.

I trust the above feedback to be of assistance and note that notwithstanding the foregoing and attached, South Ayrshire Council's response at this juncture is confined to the technical parameters of the sufficiency of scope as regards EIA – and is strictly without prejudice to the authority's future consideration as to the actual merits of the proposal upon its anticipated consultation, in due course, at S36 application stage.

Yours faithfully,

Alastair McGibbon
Supervisory Planner – Planning and Building Standards

Encs.

ANNEX

Douglas Harman Landscape Planning (for the Council)

Introduction

These comments are provided by Douglas Harman Landscape Planning on behalf of South Ayrshire Council on the proposed scope of a Landscape and Visual Impact Assessment (LVIA) as set out in the applicant's *Environmental Impact Assessment Scoping Report* (October 2023).

Proposed development

Under para. 4.5 of the Scoping Report, it states "*a battery storage facility would be installed on part of the temporary construction compound area. The MW capacity of this would be determined post-consent following wind turbine selection*." In assessing the landscape and visual impact of the battery storage facility therefore, it is advised that as the MW capacity is dependent on the turbine selection, the LVIA should consider the worst case scenario, i.e. the largest possible size and extent of infrastructure.

Methodology and study area

The proposed methodology is broadly agreed with although as part of the *Proposed Scope of Assessment* (as stated in para. 7.92), the assessment of impact on any designated landscapes should be an LVIA objective. The impact on any landscape designations should also be made clear under the *Types of Effects Considered* (as stated in 7.94).

In relation to a proposed 35 km study area, it advised that a 45 km radial study area should be adopted, as recommended in *Visual Representation of Wind Farms Guidance* (SNH, 2017). In relation to the proposed 20 km study area for the detailed assessment, it is considered that a 25 km study area would be more appropriate, given the very large size of the proposed turbines. For the detailed assessment of cumulative effects, a 30 km study area is advised.

With regard to the guidance documents as listed in para. 711.4, the following should be updated (underlining added for emphasis):

- *General pre-application and scoping advice for onshore wind farms. Guidance.* NatureScot 2024; and
- *Assessing the Cumulative Impact of Onshore Wind Energy Developments*. NatureScot 2021.

Landscape character

In para. 7.82, the applicant proposes to focus the assessment of effects on the landscape character areas as defined *South Ayrshire Landscape Wind Capacity Study* (2018), rather than NatureScot's national dataset, as mapped in 2019. Whilst the *South Ayrshire Landscape Wind Capacity Study* provides a more detailed spatial framework that should form the basis for the assessment of effects, it should be recognised that as the NatureScot dataset is more recent, the LVIA should also consider this wider context.

In providing a summary of landscape sensitivity of the *Coastal Headlands – Carrick Hills* (4b) landscape character area (LCA) in which the proposed development is located, the applicant has not provided the following important information, as stated in the *South Ayrshire Landscape Wind Capacity Study*:

> "*The importance of this group of landmark hills in an Ayrshire wide context, their wide visibility and contribution to the setting of adjacent character types and nearby settlements, their height, which is small relative to their perceived scale, and the complexity of landform, as well as the settled character of the lower slopes combine to increase sensitivity especially to larger typologies. There would be a* ***High*** *sensitivity to the large and medium typologies (turbines >50m*)."

In providing an assessment of landscape sensitivity therefore, it is essential that a LVIA fully recognises and adopts the findings of the *South Ayrshire Landscape Wind Capacity Study*. In addition to providing a detailed assessment of effects on the *Carrick Hills* LCA, the LVIA should also provide detailed assessments on the surrounding LCAs and those within the wider landscape where the *Carrick Hills* form an important backdrop.

Landscape designations

In para. 7.85 it states "*The Proposed Development is not located within a nationally or locally designated landscape.*" This is clearly incorrect as alluded to in para. 7.86, "*the site lies within the locally designated Brown Carrick Hills Local Landscape Area*". In assessing effects on this local landscape designation and other Local Landscape Areas present in the wider study area, it is essential that the LVIA fully considers the *South Ayrshire Local Landscape Designations Review* and in particular, any impacts on the *reasons for designation* and the *description of character and special qualities.* In North Ayrshire, effects should also be assessed against the special qualities of the Candidate Local Landscape Areas, as detailed in the *North Ayrshire Local Landscape Designation Review* (2023).

In para. 7.87 it states "*The nearest Garden and Designed Landscape is Rozelle, located approximately 6.5 km to the north-east, within the southern part of Ayr. Skeldon House lies around 9km away to the east, beyond Dalrymple*." Of major concern, the Scoping Report fails to identify that Culzean Castle Garden and Designed Landscape (GDL) is located approximately 3.1 km to the south of the site at its closest point. As a major visitor attraction owned by the National Trust Scotland, the GDL is considered by Historic Environment Scotland as having 'outstanding' qualities in all of the seven qualifying attributes, including its scenic contribution to the wider landscape. It is therefore paramount that the LVIA provides a rigorous assessment of effects on the landscape setting of the designation, to include effects on its scenic qualities, effects on key views from within the GDL and any likely perceptual responses of visitors to views of the proposed development.

As well as Culzean Castle and the two GDLs identified in the Scoping Report, there appears to be approximately ten other GDLs in the wider study so as part of the LVIA baseline assessment, it is essential that applicant undertakes an accurate and comprehensive examination of the Historic Environment Record to underpin the assessment of effects.

In addition to a robust assessment on GDLs, it is also essential that the EIA considers effects on the landscape setting of Scheduled Monuments, Conservation Areas, Listed Buildings and registered Battlefields within at least a 5 km radius.

Viewpoint locations

Given the very large size of the proposed turbines and the prominent/importance of the Carrick Hills in relation to the surrounding landscapes, many of which are well settled, traversed by busy main roads and are important for visitor recreation, the proposed 12 viewpoints are not considered adequate in number or coverage to provide a representative understanding of all likely significant effects. In addition to those proposed, it is advised that the LVIA should also provide detailed landscape, visual and cumulative assessments from the following locations. As with all viewpoints, the exact locations should be as open possible, thus representing the worst-case scenario:

- From Core Path SA1/NCN Route 7 near Knockdon Castle;
- From Dunduff Fort (Scheduled Monument);
- A719 near Heads of Ayr holiday park;
- Ayrshire Coastal Path near Fisherton;
- Southern edge of Ayr (somewhere near Auld Brig o' Doon);
- B7024 to north of Culroy;
- Several viewpoints within and near to Culzean Castle GDL. The exact location of these would neec to be informed by a detailed screened ZTV to ensure that all key views from within the designatior are considered. In addition to the more heavily visited parts of the grounds, the summit of Mochram Wood appears to be an obvious location;
- Ayr Beach;
- South Pier;
- Prestwick Beach/coast path;
- A77 to south of Ayr;
- A77 at Maybole;
- B744 south of Annbank;
- Turnberry Point/lighthouse;
- Outer Firth of Clylde (10-15 km); and
- Dippin Head/Largybeg Point (Arran).

Wider visual assessments

In assessing wider visual effects, the LVIA should provide detail sequential assessments of all main road, rail and important recreational routes within 25 km, as well as main settlements and visitor attractions.

The proposed 2 km study area for assessing residential visual amenity effects is considered appropriate and as part of this assessment, photomontages should be provided from some properties where the turbines are more prominent.

Forestry management

Given the proximity of nearby forestry, detailed consideration should be given to the landscape and visual effects of felling and restocking proposals (both adverse and beneficial) and any mitigation and landscape enhancement should be optimised in the design of any Wind Farm Forest Plan and/or compensatory planting. Any proposed forest felling areas should also be shown in relevant visualisations from nearby LVIA viewpoints.

Night time visualisations

Given the site and surrounding landscape is largely unlit and that the Carrick Hills form a dark backdrop to the surrounding lower-lying landscapes, it is advised that nigh time visualisations should be provided for all viewpoints within 10 km from the site. Lighting effects should also be assessed from all representative viewpoints and not just from the viewpoints selected to illustrate night-time effects.

While the character of a landscape is not readily discernible during hours of darkness, lighting can affect perceptual qualities associated with landscape character and it is recommended that the effect on the sense of seclusion and naturalness (due to existing low lighting levels) are also considered in the LVIA.

Cumulative assessment

In addition to providing a comprehensive assessment of cumulative effects with all planned, consented and operational windfarms within the study area, it is advised that the assessment should also consider any cumulative effects with single wind turbines out to 15 km from the site. In producing viewpoint visualisations and wirelines, these should include all relevant cumulative developments within 360^0.

The applicant is advised to keep the cumulative situation under review during the preparation of the EIA Report as this is an evolving situation. As such, it is suggested that they make contact with any local authorities within the study area to obtain up to date information relating to wind energy development in their respective authority areas.

The applicant should also give consideration to potential effects with other tall structures such as electricity pylons and any nearby telecommunication masts which could contribute to cumulative landscape and visual impacts. Furthermore, the cumulative assessment should include a cumulative night-time assessment taking into account other wind farms / turbines which have / will require visible aviation lighting and any other tall structures which have visible aviation lighting on them.

ACCON (Operational Noise Consultant)

Baseline:

The Baseline section identifies that closest wind farm Kirk Hill is located approx. 8 km away. Therefore, the baseline noise levels will not be affected by existing wind farms. Noise in the area is likely to be from traffic noise, animals and birds. ACCON consider the commentary regarding the existing baseline conditions to be acceptable.

Potential Effects

Effects are likely due to construction, operation and decommissioning of the Proposed Development. Relevant factors contributing to the significance of effects such as the noise sources and separation distances are stated. Nosie sensitive receptors are considered to be residential properties. Vibration effects from construction and operation will be scoped out of the EIA.

The scoping report does not mention the distance to the nearest NSRs, or which NSR is the closest. The scoping report does not mention the potential effects due to overpressure from blasting activities. Apart from these comments, ACCON are satisfied that the potential effects have been considered.

Proposed Scope of Assessment

The noise impacts during construction and decommissioning are likely to be controlled via planning condition. The assessment of operational traffic noise is to be scoped out. The operational noise from the wind farm will be assessed utilising the maximum sound power level specified for a particular turbine type in order to assess the worst-case scenario. Mitigation measures will be suggested, if required.

The predicted noise levels due to the wind turbines will be compared against the existing background noise levels over a range of wind speeds using methodology set out in ETSU-R-97. The wind farm will be designed to ensure that noise generated by wind turbines would be within ETSU-R-97 limits.

ACCON consider the scope of the assessment to be appropriate.

Methodology

ETSU-R-97 is identified as the appropriate methodology for establishing noise limits for the proposed wind farm. The assessment is to include predictions of likely wind turbine noise levels based on a candidate turbine, across a range of speeds to demonstrate compliance with the noise limits. The report describes the approach to the cumulative assessment although the baseline section suggests existing wind turbines do not affect the study area.

BS 5228 is identified as the document providing guidance for assessment of noise from construction.

The appropriate guidance documents and methodologies have been identified.

Design and Mitigation

ACCON has no specific comments on this section.

South Ayrshire Council Environmental Health

I have had a look at the proposals for Sauchrie Wind Farm and this will require a specific risk assessment for the private water supplies by the applicant in this catchment area where there could be seven in total affected and these consist of a mixture of domestic, holiday let and rental properties.

I have attached the details of the properties:

- Groundwater Spring source feeds Meadownay Farm (rental property), Glenalmond Cottage (rental cottage), and Glengarry (domestic property). Meadownay Farm is supplemented with a borewell to create a combined supply.

- Groundwater Spring source feeds one property Craigskean - a domestic property
- Groundwater Spring source feeds Low Pinmore Farm and Brownhill – both domestic properties
- Groundwater Spring source feeds Carwinschoch Cottage – partly domestic and partly holiday let to rear of property.

Addresses and abstraction points of the properties that may be impacted:

Meadownay Farm, Maybole KA19 8EB (SPRING) 228851 612848 (BOREHOLE)	Abstraction point – 227892 614077
Glenalmond Cottage, Maybole KA19 8ED	AS ABOVE (SPRING ALONE)
Glengarry, Maybole KA19 8ED	AS ABOVE (SPRING ALONE)
Craigskean, Maybole KA19 8EL (SPRING)	Abstraction point - 229810 615050
Low Pinmore, Maybole KA19 8EW (SPRING)	Abstraction point - 230820 615095
Brownhill, Maybole KA19 8EW	AS ABOVE
Carwinschoch Cottage, Maybole KA7 4LD (SPRING)	Abstraction point – 229340 616898

The risk assessment should show all proposed changes on the land, including access roads, new and upgraded, buffer zones to catchment area, abstraction area, supply lines etc for the proposed wind turbine it will also normally includes the attached map of proposed design, with description of the private water supply, what it serves, the number of properties using and use, and a description of the catchment area, or assumed catchment area, and its characteristics. This includes contact with the private water supply owner, the landowner from which the water is drawn from catchment, abstraction, and the end user.

There should also be Emergency action Plan – stating a contact telephone number that is available to use 24/7, with a named person/s, who will respond, and to what, when and how they will respond as well. This action plan is for re-assurance to the private water supply users, that they can contact a named person out with office hours should their water quality or quantity deteriorate or stop.

The risk assessment should include the hazard descriptions, the potential risks, a comments section & list pre-existing mitigations (if any), the severity of the consequences, the likelihood of the risk to occur, and a risk score based on the likelihood severity. This then allows for proposed mitigation or control measures list, along with the governing legislation and/or guidance relevant to the proposed control measures. Then a list of the likelihood of the consequences with mitigation in place, and finally a mitigated risk score.

Scottish legislation and any guidance should also be listed that has been consulted and used in carrying out this risk assessment this is required to be in accordance with the legislation that we at Environmental health work to, as Regulators for the private Water Supply legislation and all other legislation associated with water and housing that may be affected.

AECOM (Council's Ecology Consultant)

On 28 February 2024, South Ayrshire Council requested that AECOM provide comment on the ecological components of the Environmental Impact Assessment (EIA) Scoping Report[1] for the above planning application. The proposed Sauchrie Burn Wind Farm is referred to hereafter in this letter as the 'Proposed Development'.

The EIA Scoping Report invited consultees to consider the following questions relevant to ecology when providing comments:

- Are there any potential significant impacts that have not been included?
- Is the intended method of assessment appropriate?
- Are there additional mitigation measures that should be considered?
- Are there any other wind energy developments which should be included or excluded from the cumulative assessment?

We have considered these questions in our response.

The EIA Scoping Report identifies designated sites within 25 km of the Proposed Development. One of the designations identified, Arran Moors Special Protection Area (SPA), is a European site. We would therefore suggest that South Ayrshire Council request further information on whether a separate Habitats Regulations Appraisal (HRA) Screening exercise is considered necessary for this project.

In addition, based on AECOM's recent experience with a similar project, we would suggest that impacts on Ailsa Craig SPA are considered. It may be appropriate for the proposed ornithological surveys to include the collection of data to inform such an assessment. We would advise that the applicant seeks guidance from NatureScot in this regard.

At this early stage we do not consider there to be any issues with the approach being proposed, assuming cognisance of the following guidance (and any other relevant guidance):

- CIEEM Guidelines for Ecological Impact Assessment in the UK and Ireland;
- General pre-application and scoping advice for onshore wind farms published by NatureScot[2];
- Recommended bird survey methods to inform impact assessment of onshore wind farms[3];
- Guidance - Assessing the significance of impacts on bird populations from onshore wind farms that do not affect protected areas[4];
- Bats and onshore wind turbines – survey, assessment and mitigation[5];
- standing advice notes for protected species published by NatureScot[6]; and,
- other industry-standard good practice guidelines for surveying relevant ecological features.

In particular, the applicant should ensure that the survey approach for bats is aligned with the above *Bats and onshore wind turbines* guidance.

The applicant may also wish to consider whether assessment of impacts to aquatic species may be appropriate, and what surveys may be required to carry out such an assessment.

The assessment of cumulative effects, including from other operational and proposed wind farms, should take place in the context of the relevant NatureScot 'Natural Heritage Zone' (NHZ)[7], this being NHZ 17 – West Central Belt[8].

However, we consider the overall method of assessment to be appropriate.

The applicant may wish to consider additional mitigation measures, for example measures to protect bats, which are detailed in the *Bats and onshore wind turbines*[5] guidance and include *'feathering'* and curtailment.

We also suggest that, in pursuance of the objectives of NPF4, the applicant identifies and implements enhancement measures proportionate to the scale and impacts of the Proposed Development which will result in a demonstrable biodiversity benefit to biodiversity.

[1] Energiekontor UK Ltd. (2023). Sauchrie Burn Wind Farm: Environmental Impact Assessment Scoping Report.
[2] https://www.nature.scot/doc/general-pre-application-and-scoping-advice-onshore-wind-farms.
[3] https://www.nature.scot/sites/default/files/2018-06/Guidance%20Note%20-%20Recommended%20bird%20survey%20methods%20to%20inform%20impact%20assessment%20of%20onshore%20windfarms.pdf

[4] https://www.nature.scot/doc/guidance-assessing-significance-impacts-bird-populations-onshore-wind-farms-do-not-affect-protected
[5] https://www.nature.scot/doc/bats-and-onshore-wind-turbines-survey-assessment-and-mitigation.
[6] https://www.nature.scot/professional-advice/planning-and-development/planning-and-development-advice/planning-and-development-protected-species.
[7] Natural Heritage Zones are areas devised by NatureScot to cover the whole of Scotland and reflect biogeographical differences across the country. Accessed: https://raptormonitoring.org/natural-heritage-zones.
[8] https://www.nature.scot/doc/guidance-assessing-significance-impacts-bird-populations-onshore-wind-farms-do-not-affect-protected

West of Scotland Archaeology Service (WoSAS)

The scoping report is brief but agreeable subject to the following comments.

I doubt the Inner study area will be big enough to return much in the way of recorded sites as the area is a bit of a blank on the maps, probably due to a lack of previous field work in these hills.

The outer study area should not be limited to 10km as HES may have requirements for setting assessments outwith it.

I would add that NSR sites of possible national significance should be assessed for setting out to 5km.

A walk over survey with the benefit of LIDAR coverage (if available) would be required to establish a credible baseline for the start of the assessment for the application area and should be done in support of any EIA produced.

A10

Scottish Environment Protection Agency
Buidheann Dìon Àrainneachd na h-Alba

Nicola Ferguson
Planning Department
Energy Consent Unit

By email only to: Econsents_Admin@gov.scot

Our Ref: PCS-20000626
Your Ref: ECU00004958

SEPA Email Contact:
planning.south@sepa.org.uk

26 February 2024

Dear Nicola Ferguson

Electricity Works (Environmental Impact Assessment) (Scotland) Regulations 2017
ECU00004958
Wind farm development comprising nine turbines at Sauchrie Burn
4km south west of Ayr, South Ayrshire

Thank you for consulting SEPA for an Environmental Impact Assessment (EIA) scoping opinion in relation to the above development on 22 February 2024. We welcome engagement with the applicant at an early stage to discuss any of the issues raised in this letter and would especially welcome further pre-application engagement once initial peat probing and habitat survey work has been completed and the layout developed further as a result.

National Planning Framework 4 (NPF4) has been published. The guidance referenced in this response is being reviewed and updated to reflect the new policies. It will still provide useful and relevant information, but some parts may be updated further in the future.

Advice for the planning authority / determining authority

SEPA
Unit 6
4 Parklands Avenue
Holytown
Motherwell
ML1 4WQ

Tel: 03000 99 66 99
www.sepa.org.uk

To **avoid delay and potential objection** the EIA submission must contain a scaled plan of sensitivities, for example peat, GWDTE, proximity to watercourses, overlain with proposed development. This is necessary to ensure the EIA process has informed the layout of the development to firstly avoid, and then reduce then mitigate significant impacts on the environment. We consider that the issues covered in Appendix 1 below must be addressed to our satisfaction in the EIA process. This provides details on our information requirements and the form in which they must be submitted.

We have also provided site specific comments in the following section which provides pre-application advice and can help the developer focus the scope of the assessment.

1. Site specific comments

1.1 Looking at the Carbon and Peatland 2016 map, it appears that some turbines are located in areas of peat. In this case, we expect the application to be supported by a comprehensive site specific Peat Management Plan.

1.2 As much of the site is likely to be peatland and/or wetland, we suggest you may wish to go straight to carrying out National Vegetation Classification survey (NVC) survey without carrying out Phase 1. For further information on assessments please refer to LUPS- GU31, in particular sections 2.10 to 2.14. Good practice during Wind Farm construction - NatureScot also provides useful information on NVC survey method and mapping requirements.

1.3 We can confirm that habitat survey information is not required for areas which are heavily forested or recently felled.

1.4 Provided watercourse crossings are designed to accommodate the 1 in 200 year event plus climate change and other infrastructure is located well away from watercourses we do not foresee from current information a need for detailed information on flood risk.

2. Regulatory advice for the applicant

2.1 Details of regulatory requirements and good practice advice, for example in relation to

private drainage, can be found on the regulations section of our website. If you are unable to find the advice you need for a specific regulatory matter, please contact a member of the local compliance team at: SWS@sepa.org.uk .

If you have queries relating to this letter, please contact us at planning.south@sepa.org.uk including our reference number in the email subject.

Your sincerely

Silvia Cagnoni
Senior Planning Officer
Planning Service

Ecopy to: nicola.ferguson@gov.scot

Disclaimer: This advice is given without prejudice to any decision made on elements of the proposal regulated by us, as such a decision may take into account factors not considered at this time. We prefer all the technical information required for any SEPA consents to be submitted at the same time as the planning or similar application. However, we consider it to be at the applicant's commercial risk if any significant changes required during the regulatory stage necessitate a further planning application or similar application and/or neighbour notification or advertising. We have relied on the accuracy and completeness of the information supplied to us in providing the above advice and can take no responsibility for incorrect data or interpretation, or omissions, in such information. If we have not referred to a particular issue in our response, it should not be assumed that there is no impact associated with that issue. For planning applications, if you did not specifically request advice on flood risk, then advice will not have been provided on this issue. Further information on our consultation arrangements generally can be found on our website planning pages - www.sepa.org.uk/environment/land/planning/

Appendix 1: Detailed scoping requirements

This appendix sets out our minimum information requirements and we would welcome receipt and discussion around these prior to formal submission to avoid delays. There may be opportunities to scope out some of the issues below depending on the site. Evidence must be provided in the submission to support why an issue is not relevant for this site to **avoid delay and potential objection.** If there is a significant length of time between scoping and application submission the developer should check whether our advice has changed.

1. Site layout

1. All maps must be based on an adequate scale with which to assess the information. This could range from OS 1: 10,000 to a more detailed scale in more sensitive locations. Each of the maps below must detail all proposed upgraded, temporary and permanent infrastructure. This includes all tracks, excavations, buildings, borrow pits, pipelines, cabling, site compounds, laydown areas, storage areas and any other built elements. Existing built infrastructure must be re-used or upgraded where possible. The layout should be designed to minimise the extent of new works on previously undisturbed ground. For example, a layout which makes use of lots of spurs or loops is unlikely to be acceptable. Cabling must be laid in ground already disturbed such as verges. A comparison of the environmental effects of alternative locations of infrastructure elements, such as tracks, may be required.

2. Engineering activities which may have adverse effects on the water environment

1. The site layout should be designed to minimise watercourse crossings and avoid other direct impacts on water features. The submission must include a map showing:

a. All proposed temporary or permanent infrastructure overlain with all lochs and watercourses.

b. A minimum buffer of 50m around each loch or watercourse. If this minimum buffer cannot be achieved each breach must be numbered on a plan with an associated photograph of the location, dimensions of the loch or watercourse and drawings of what is proposed in terms of engineering works. Measures should be put in place to protect any downstream sensitive receptors.

2. Further advice and our best practice guidance are available within the water engineering section of our website. Guidance on the design of water crossings can be found in our Construction of River Crossings Good Practice Guide.

3. Refer to our Flood Risk Standing Advice for advice on flood risk. Crossings must be designed to accommodate the 0.5% Annual Exceedance Probability flows (with an appropriate allowance for climate change), or information provided to justify smaller structures. If it is considered the development could result in an increased risk of flooding to a nearby receptor then a Flood Risk Assessment (FRA) must be submitted. Our Technical flood risk guidance for stakeholders outlines the information we require to be submitted in an FRA. Please also refer to Controlled Activities Regulations (CAR) Flood Risk Standing Advice for Engineering, Discharge and Impoundment Activities.

3. Disturbance and re-use of excavated peat and other carbon rich soils

1. Where proposals are on peatland or carbon rich soils the following should be submitted to address the requirements of NPF4 Policy 5:

a. layout plans showing all permanent and temporary infrastructure, with extent of excavation required, which clearly demonstrates how the mitigation hierarchy outlined in NPF4 has been applied. These plans should be overlaid on:

i. peat depth survey (showing peat probe locations, colour coded using distinct colours for each depth category and annotated at a usable scale);

ii. peat depth survey showing interpolated peat depths;

iii. peatland condition mapping;

iv. National Vegetation Classification survey (NVC) habitat mapping.

b. an outline Peat Management Plan (PMP);

c. an outline Habitat Management Plan (HMP).

Detailed advice

a. Development design in line with the mitigation hierarchy

2. In order to protect peatland and limit carbon emissions from carbon rich soils, the submission should demonstrate that proposals:

- Avoid peatland in near natural condition, as this has the lowest greenhouse gas emissions of all peatland condition categories;
- Minimise the total area and volume of peat disturbance. Clearly demonstrate how the infrastructure layout design has targeted areas where carbon rich soils are absent or the shallowest peat reasonably practicable. Avoid peat > 1m depth;
- Minimise impact on local hydrology; and
- Include adequate peat probing information to inform the site layout and demonstrate that the above has been achieved. As a minimum this should follow the requirements of the Peatland Survey – Guidance on Developments on Peatland (2017).

3. The Peatland Condition Assessment photographic guide lists the criteria for each condition category and illustrates how to identify each condition category. This should be used to identify peatland in near natural condition and can be helpful in identifying areas where peatland restoration could be carried out.

4. In line with the requirements of Policy 5d of NPF4, the development proposal should include plans to restore and/or enhance the site into a functioning peatland system capable of achieving carbon sequestration.

b. The outline PMP should also include:

- Information on peatland condition;
- Information demonstrating avoidance and minimisation of peat disturbance;

- Excavation volumes of acrotelmic, catotelmic and amorphous peat. These should include a contingency factor to consider variables such as bulking and uncertainties in the estimation of peat volumes;
- Proposals for temporary storage and handling;
- Reuse volumes in different elements of site reinstatement and restoration.

5. Handling and temporary storage of peat should be minimised. Catotelmic peat should be kept wet, covered by vegetated turves and re-used in its final location immediately after excavation. It is not suitable for use in verge reinstatement, re-profiling/ landscaping, spreading, mixing with mineral soils or use in bunds.

6. Disposal of peat is not acceptable. It should be clearly demonstrated that all peat disturbed by the development can be used in site reinstatement (making good areas which have been disturbed by the development) or peatland restoration (using disturbed peat for habitat restoration or improvement works in areas not directly impacted by the development, which may need to include locations outwith the development boundary).

7. The faces of cut batters, especially in peat over 1m, should be sealed to reduce water loss of the surrounding peat habitats, which will lead to indirect loss of habitat and release of greenhouse gases. This may be achieved by compression of the peat to create an impermeable subsurface barrier, or where slope angle is sufficiently low, by revegetation of the cut surface.

c. The outline HMP should include:

- Proposals for reuse of disturbed peat in habitat restoration, if relevant;
- Details of restoration to compensate for the area of peatland habitat directly and indirectly impacted by the development;

- Outline proposals for peatland enhancement in other areas of the site;
- Monitoring proposals.

8. To support the principle of peat reuse in restoration the applicant should demonstrate that they have identified locations where the addition of excavated peat will enhance the wider site into a functional peatland system capable of achieving carbon sequestration. The following information is required:

- Location plan of the proposed peatland re-use restoration area(s), clearly showing the size of individual areas and the total area to be restored;
- Photographs, aerial imagery, or surveys to demonstrate that the area identified is appropriate for peat re-use and can support carbon sequestration. This should include consideration of an appropriate hydrological setting and baseline peatland condition.

9. In addition, if any proposed re-use restoration areas are outwith the ownership of the applicant, information should be provided to demonstrate agreement in principle with the landowner, including agreed timescales for commencement of the works, and proposed management measures to ensure the restored areas can be safeguarded in perpetuity as a peatland.

10. NatureScot's technical compendium of peatland restoration techniques provides a useful overview of the procedural and technical requirements for peatland restoration.

4. Disruption to GWDTE and existing groundwater abstractions

1. Groundwater Dependent Terrestrial Ecosystems (GWDTE) are protected under the Water Framework Directive. Excavations and other construction works can disrupt groundwater flow and impact on GWDTE and existing groundwater abstractions. The layout and design of the development must avoid impacts on such areas. A National Vegetation Classification survey which includes the following information should be submitted:

a. A map demonstrating all GWDTE and existing groundwater abstractions are outwith a 100m radius of all excavations shallower than 1m and outwith 250m of all

excavations deeper than 1m and proposed groundwater abstractions. The survey needs to extend beyond the site boundary where the distances require it.

b. If the minimum buffers cannot be achieved, a detailed site specific qualitative and/or quantitative risk assessment will be required. Please refer to Guidance on Assessing the Impacts of Development Proposals on Groundwater Abstractions and Groundwater Dependent Terrestrial Ecosystems for further advice and the minimum information we require to be submitted.

5. Forest removal and forest waste

1. If forestry is present on the site, we prefer a site layout which avoids large scale felling as this can result in large amounts of waste material and a peak in release of nutrients which can affect local water quality. The submission must include a map with the boundaries of where felling will take place and a description of what is proposed for this timber in accordance with Use of Trees Cleared to Facilitate Development on Afforested Land – Joint Guidance from SEPA, SNH and FCS.

6. Borrow pits

1. The following information should also be submitted for **each borrow pit**:

a. A map showing the location, size, depths and dimensions;

b. A map showing any stocks of rock, overburden, soils and temporary and permanent infrastructure including tracks, buildings, oil storage, pipes and drainage, overlain with all lochs and watercourses to a distance of 250m. You need to demonstrate that a site specific proportionate buffer can be achieved. On this map, a site-specific buffer must be drawn around each loch or watercourse proportionate to the depth of excavations and at least 10m from access tracks;

c. Sections and plans detailing how restoration will be progressed including the phasing, profiles, depths and types of material to be used.

7. Pollution prevention and environmental management

1. A schedule of mitigation supported by the above site specific maps and plans must be submitted. These must include reference to best practice pollution prevention and construction techniques (for example, limiting the maximum area to be stripped of soils at any one time) and regulatory requirements. They should set out the daily responsibilities of Ecological Clerk of Works, how site inspections will be recorded and acted upon and proposals for a planning monitoring enforcement officer. Please refer to the Guidance for Pollution Prevention (GPPs) and our water run-off from construction sites webpage for more information.

8. Life extension, repowering and decommissioning

1. Proposals for life extension, repowering and/or decommissioning must demonstrate accordance with SEPA Guidance on the life extension and decommissioning of onshore wind farms. Table 1 of the guidance provides a hierarchical framework of environmental impact based upon the principles of sustainable resource use, effective mitigation of environmental risk (including climate change) and optimisation of long term ecological restoration. The submission must demonstrate how the hierarchy of environmental impact has been applied, within the context of latest knowledge and best practice, including justification for not selecting lower impact options when life extension is not proposed.

2. The submission needs to state that there will be no discarding of materials that are likely to be classified as waste as any such proposals would be unacceptable under waste management licensing. Further guidance on this may be found in the document Is it waste - Understanding the definition of waste

A20

HISTORIC ENVIRONMENT SCOTLAND | ÀRAINNEACHD EACHDRAIDHEIL ALBA

By email to: Nicola.Ferguson@gov.scot

Nicola Ferguson
Case Officer
Energy Consents Unit
Onshore Electricity, Strategy and Consents
Directorate for Energy and Climate Change
Scottish Government

Longmore House
Salisbury Place
Edinburgh
EH9 1SH

Enquiry Line: 0131 668 8716
HMConsultations@hes.scot

Our case ID: 300071355
Your ref: ECU00004958
11 April 2024

Dear Nicola Ferguson

The Electricity Works (Environmental Impact Assessment) (Scotland) Regulations 2017
Sauchrie Burn Wind Farm, South Ayrshire
Scoping Report

Thank you for your consultation which we received on 22 February 2024 about the above scoping report. We have reviewed the details in terms of our historic environment interests. This covers world heritage sites, scheduled monuments and their settings, category A-listed buildings and their settings, inventory gardens and designed landscapes, inventory battlefields and historic marine protected areas (HMPAs).

The relevant local authority archaeological and cultural heritage advisors will also be able to offer advice on the scope of the cultural heritage assessment. This may include heritage assets not covered by our interests, such as unscheduled archaeology, and category B- and C-listed buildings. In this case, you should contact the West of Scotland Archaeology Service (WoSAS) (enquiries@wosas.glasgow.gov.uk).

Proposed Development
We understand that the proposed wind farm development comprises nine 200m turbines and associated infrastructure. The proposals are located between the A77 and the A719 on the Carrick Hills and approximately 2km East of Fisherton and Dunure in South Ayrshire.

Scope of assessment
We welcome that the environmental impact assessment (EIA) undertaken in support of the development will include an assessment of impacts on the historic environment. This assessment should be undertaken by a suitably experienced heritage professional with an understanding of heritage issues. The assessment should meet the requirements of Scottish Planning Policy (SPP, 2014), the Historic Environment Policy for Scotland (HEPS, 2019) and associated Managing Change Guidance Notes. Additional guidance can also be found in the Cultural Heritage Appendix to the EIA Handbook (SNH, HES, 2018).

HISTORIC ENVIRONMENT SCOTLAND | ÀRAINNEACHD EACHDRAIDHEIL ALBA

At this stage it is not possible to be certain that the proposed development could be accommodated in this location without affecting the setting of heritage assets within our remit to the extent that we would object. Further information is required before we can provide a more informed response.

Further comments regarding the proposed development are included in the annex below.

Further information
Guidance about national policy can be found in our 'Managing Change in the Historic Environment' series available online at www.historicenvironment.scot/advice-and-support/planning-and-guidance/legislation-and-guidance/managing-change-in-the-historic-environment-guidance-notes. Technical advice is available on our Technical Conservation website at https://www.engineshed.scot.

We hope this is helpful. Please contact us if you have any questions about this response. The officer managing this case is Sam Fox and they can be contacted by phone on 0131 668 6890 or by email on samuel.fox@hes.scot.

Yours sincerely

Historic Environment Scotland

HISTORIC ENVIRONMENT SCOTLAND | ÀRAINNEACHD EACHDRAIDHEIL ALBA

Annex

Background

We have had no previous involvement with this proposed planning application. However, we have previously been contacted in relation to Howmoor Wind Farm, comprising six 125m high turbines (Our reference 300047173) to the immediate south of the proposals. In our response (November 2020), we highlighted the following assets within our remit for assessment.

Scheduled monuments

- Howmoor Quarry, dun (SM2193)
- Balchriston Crossing, dun (SM5785)
- Dunure Castle and dovecot (SM6105)
- Dunduff, fort (SM4602)

A-listed buildings and GDLs

- Culzean Castle garden and designed landscape (GDL00124)
- Culzean Castle Estate, Culzean Castle (LB7595)
- Culzean Castle Estate, Walled Gardens including gates, garden's house, garden's cottage, summerhouse, grotto, sundial, potting shed and frame yard (LB7612)
- Culzean Castle Estate, Ruined Arch and Viaduct (LB51827)

Our Interests

Scheduled Monuments
At this stage it is not yet possible to be certain that the proposed development could be accommodated in this location without affecting the setting of scheduled monuments to the extent that we would object.

The ZTV supplied with the current consultation indicates that the proposed development would be visible from, and likely to have negative impacts on the setting of, the following monuments.

- Heads Of Ayr, Fort 1050m Nnw Of Genoch Farm (SM5594)
- Dunduff, Fort (SM4602)
- Dunure Castle And Dovecot (SM6105)
- Katie Gray's Rocks, Settlement (SM10358)
- Howmoor Quarry, Dun (SM2193)
- Crossraguel Abbey (SM90087)
- Balchriston Crossing, Dun (SM5785)
- Greenan Castle (SM319)

In addition the following assets lie greater than 10km from the proposed development, but would have visibility of the turbines. This may result in a negative impact on their settings.

- Turnberry Castle (SM6183)
- Martnaham Castle (SM5280)

We consider that the development would be likely to have a highly significant adverse impacts on the setting of the following monuments;

- Dunduff, Fort (SM4602)
- Heads Of Ayr, Fort 1050m Nnw Of Genoch Farm (SM5594)
- Dunure Castle And Dovecot (SM6105)
- Howmoor Quarry, Dun (SM2193)
- Greenan Castle (SM319)

As a minimum, photomontage visualisations should be produced for views towards the proposed development from Dunduff, Fort (SM4602), Howmoor Quarry, Dun (SM2193), and Dunure Castle and Dovecot (SM6105). Wireframe visualisations should be provided for views towards the development from Heads Of Ayr, Fort 1050m Nnw Of Genoch Farm (SM5594) and Greenan Castle (SM319).

The assessment should also consider whether there are important views towards these assets where the turbines would be visible in the background, causing significant setting impacts.

Listed Buildings and Garden & Designed Landscapes (GDLs)
We require further information on potential impacts of the proposed development on the settings of Category A listed buildings and Inventory Gardens and Designed Landscapes at Culzean Castle before we can offer a view on the principle of the proposal.

<u>Culzean Castle (LB7595) and its Inventory Garden and Designed Landscape (GDL00124)</u>

These assets lie around 5km to the southwest of the proposals and, according to the ZTV, 7-9 turbines would be visible from the Castle and associated GDL.

Culzean Castle is a classical country house which was built in the late 18th century by Robert Adam. It's designed landscape forms the landscape setting for the house. Culzean house and landscape are acknowledged as the epitome of the Picturesque movement in Scotland.

The Castle forms part of a Category A listed group comprising: Culzean Castle; Castle Walls etc; Fountain Court etc; Ruined Arch and Viaduct; Stable Block etc; Camellia House; Cat Gates; Home Farm; Powder House; Ardlochan Lodge; Dolphin House; Hoolity Ha'; Swan Pond Complex; Swan Pond Ice House; Walled Garden; Bathing

Complex; Water Works; Shore Boat House; Battery and Mast House; Main Drive Walls and Piers; Gas Works.

For Culzean Castle and other A-listed buildings within the estate, the assessment should consider how important views to and from the buildings would be affected. Important views can include views from principal rooms and views that include the building in its setting. The assessment should also consider how important views between buildings may be affected.

For the designed landscape, the assessment should consider how important views to and from the designated landscape would be affected. Important views can include views from within the landscape that are important to its design and views of the landscape from other points. If the potential for significant adverse impacts is identified, wireframes or photomontages should be produced to help assess these impacts and design mitigation where appropriate. We would be happy to engage further in relation to these visualisations once the assessment has progressed and the potential for significant impacts is clearer.

Scoping Report

We welcome that cultural heritage effects are scoped into the assessment. We do not consider that scoping in only those heritage assets within the ZTV and less than 10km from the proposed turbines would be sufficient to properly assess the potential impact on nationally important heritage assets. Consideration should also be given to designated heritage assets beyond 10km, where long-distance views and intervisibility are an important aspect of their settings, and to designated heritage assets where there is no predicted visibility, but where views from or across the asset are important factors contributing to its cultural significance.

We also note that none of the proposed viewpoints included in Figure 7.1 specifically relate to designated heritage assets. The currently proposed viewpoints would not provide sufficient information for us to properly assess the potential impact of the development and dedicated visualisations from designated heritage assets should be included in the EIA.

Section 7.139 of the scoping report suggests that impacts on the settings of designated heritage assets would be assessed in association with the landscape and visual impact assessment. Previous experience has demonstrated that this approach may lead to confusion in assessment and conclusions. As the Visual Impact Assessment and Heritage Impact assessment use discrete methodologies, the terminology utilised, and the cross reference of the conclusions may lead to confusion. To avoid this we would recommend a topic specific methodology for assessing setting impacts on Cultural Heritage, such as that laid out in Appendix 1 of the EIA Handbook, should be used.

A25

HISTORIC ENVIRONMENT SCOTLAND | ÀRAINNEACHD EACHDRAIDHEIL ALBA

Our Advice

From the information provided it is not yet possible to be certain that the proposed development could be accommodated in this location without affecting the setting of heritage assets within our remit to the extent that we would object.

We recommend further consultation with us in advance of the submission of the planning application and would welcome the opportunity to provide further comments on draft viewpoint locations and visualisations.

Historic Environment Scotland
11 April 2024

NatureScot
Scotland's Nature Agency
Buidheann Nàdair na h-Alba

By email to Nicola.Ferguson@gov.scot

Nicola Ferguson
Case Officer - Energy Consents Unit
Onshore Electricity, Strategy and Consents
Directorate for Energy and Climate Change
Scottish Government - 5 Atlantic Quay, 150
Broomielaw, Glasgow G2 8LU

08 April 2024
Our ref: CDM174464
Your ref ECU00004958

Dear Ms Ferguson,

Electricity Act 1989
The Electricity Works (Environmental Impact Assessment) (Scotland) Regulations 2017
Request for Scoping Opinion for Proposed Section 36 Application for Sauchrie Burn Wind Farm

Thank you for consulting us on the scope of the environmental impact assessment (EIA) for the proposed Sauchrie Burn Wind Farm and for allowing us additional time in which to submit our response. Our advice is based on the proposed Sauchrie Burn Wind Farm EIA Scoping Report, prepared by Energiekontor UK Ltd, dated October 2023.

The proposed development is up to 9 wind turbines, each turbine up to 200m in height to blade tip and a battery storage facility, to be located in the planning authority area of South Ayrshire. Fisherton and Dunure both lie within 2km to the west and the nearest larger settlements are Ayr (4km northeast), Dalrymple (6km east) and Maybole (9km south).

Summary

Key natural heritage issues requiring consideration within the EIA are:

- Landscape and visual impacts, including cumulative impacts.
- Potential impacts on the Ailsa Craig Special Protection Area (SPA) and related Site of Special Scientific Interest (SSSI) and the Maidens to Doonfoot SSSI.
- Potential impacts on carbon-rich soil and priority peatland habitats.

Scoping Advice

In addition to the detailed advice given in Annex 1 of this letter, the applicant should refer to the February 2024 'NatureScot pre-application guidance for onshore wind farms'[1]. This provides guidance on the issues that developers and their consultants should consider for wind farm developments and includes information on recommended survey methods, sources of further information and guidance and data presentation. Attention should be given to the full range of

[1] https://www.nature.scot/doc/naturescot-pre-application-guidance-onshore-wind-farms

advice included in the guidance note, which sets out our expectations of what should be included in the Environmental Impact Assessment Report (EIAR). The updates to the guidance encompass, for example, advice on our peatland restoration expectations as well as in relation to biodiversity enhancement. Where relevant we have discussed our pre-application guidance advice below.

Concluding Remarks

Please note that while we are supportive of the principle of renewable energy, this advice is given without prejudice to a full and detailed consideration of the impacts of the proposal if submitted for formal consultation as part of the EIA or planning process.

This advice is provided by NatureScot, the operating name of Scottish Natural Heritage.
I hope that you will find these comments helpful and please contact me should you wish to discuss this proposal further.

Yours sincerely,

By email

Ian Cornforth
Operations Officer – West Central Scotland
Ian.Cornforth@nature.scot

Enc Annex 1- Key natural heritage interests requiring consideration within the EIA.

Annex 1 – Sauchrie wind Farm S36 Scoping Consultation
Key natural heritage interests requiring consideration within the EIA.

1. Protected areas

1.1 Details of protected areas, including their conservation objectives / site management statements, can be found below. The applicant should assess the direct and indirect impacts of the proposed development on protected areas and their notified features in the context of their site management statements. The assessment should be for the proposal on its own and cumulatively with other plans or projects also affecting the protected areas.

Special Protection Areas (SPA)

Ailsa Craig SPA

1.2 The proposal could affect the Ailsa Craig SPA, classified for its migratory gannet and lesser black-backed gull and seabird assemblage. Information on the SPA can be found on the SiteLink pages of our website[2]
The proposal site is located approximately 30km from the SPA which is within the mean maximum foraging distance of lesser black backed gull and within the foraging distance of herring gull.

1.3 A recent BTO research report provides up to date information relevant to foraging ranges and potential connection to the SPA[3].

1.4 The status of the SPA means that the requirements of the Conservation (Natural Habitats, &c.) Regulations 1994 as amended (the "Habitats Regulations") or, for reserved matters, The Conservation of Habitats and Species Regulations 2017 apply. Consequently, Scottish Ministers will be required to consider the effect of the proposal on the SPA before it can be consented (commonly known as Habitats Regulations Appraisal). Advice on this process is available on our website[4].

1.5 The scoping report does not mention whether lesser black-backed gull or herring gull (a component of the SPA's seabird assemblage) have been recorded during flight activity surveys.

1.6 Our advice is that at present it is not possible to determine if the proposal is therefore likely to have a significant effect on lesser black-backed gull and herring gull qualifying interests of site. Consequently, Scottish Ministers, as competent authority, will be required to carry out an appropriate assessment in view of the site's conservation objectives for its qualifying interests. To help you do this, we propose to carry out an appraisal to inform your appropriate assessment. To enable us to carry out this appraisal, the following information is required as part of the EIA Report:

- An assessment of potential collision risk for lesser black-backed and herring gulls and how this may affect the viability of the relevant species' SPA population. We advise that this information should include showing flight lines from Vantage Point watches.

[2] https://sitelink.nature.scot/site/8463
[3] BTO Desk-based revision of seabird foraging ranges used for HRA screening, Woodward et al 2019.
[4] https://www.nature.scot/professional-advice/planning-and-development/environmental-assessment/habitats-regulations-appraisal-hra

Ailsa Craig Site of Special Scientific Interest (SSSI)

1..7 The proposed application site is within foraging distance of the resident herring gull and lesser black-backed gull of Ailsa Craig SSSI.
The relevant protected natural feature of the SSSI is the breeding bird assemblage which includes herring gull and lesser black-backed gull. Information on the SSSI can be found on the SiteLink pages of our website. The assessment undertaken for the SPA can be used to assess impacts on the SSSI.

Maidens to Doonfoot SSSI

1.8 The proposed application site is approximately 1.7km from the Maidens to Doonfoot Site of Special Scientific Interest (SSSI)[5] This nationally important site is designated for a range of notified features, including woodland, coastland and invertebrate features. As this SSSI appears to be hydrologically connected to the proposal by the burns that drain the proposed wind farm site, consideration must be given to potential direct and indirect effects of construction, operation and decommissioning of the proposed development on the notified feature of the SSSI.

2. Landscape and Visual Impacts

2.1 We recognise that significant landscape and visual impacts are likely to arise as a result of this proposal. However, our approach to advising on wind farm applications is to focus upon impacts on Scotland's landscapes that potentially raise issues of national interest (i.e. as identified in our National Interest guidance[6]). In this case, it is unlikely that we will consider that the landscape and visual effects of the proposal will raise natural heritage issues of national interest, and we are therefore unlikely to provide any specific landscape advice at application stage.

2.2 NatureScot guidance on landscape and visual impacts of wind farms can be found on our website[7]. Our recently update pre-application guidance for onshore wind farms[8](February 2024) includes updated advice on turbine lighting assessment, including potential mitigation options.

3. Protected Species

3.1. We welcome the proposed protected species surveys outlined in the scoping report. If these surveys record any protected species activity, then we advise that the relevant species should be scoped into the EIA for further assessment. If any impacts are identified, then mitigation measures should be outlined within a species protection plan. There is a range of standing advice for protected species on the NatureScot webpage[9] which the applicant may find helpful.

3.2 We note that pre-construction surveys are not discussed within the Scooping report. We advise that our current guidance is followed[1]. The timing of pre-construction surveys depends on whether it is possible to survey a species at any time of year (e.g. otter and badger) or if there is restricted window within which a survey can be undertaken (e.g. breeding birds, bats and water vole). For species that can be surveyed at any time of year,

[5] https://sitelink.nature.scot/site/1121
[6] https://www.nature.scot/doc/guidance-notice-no-019-identifying-natural-heritage-issues-national-interest-development-proposals
[7] https://www.nature.scot/professional-advice/planning-and-development/planning-and-development-advice/renewable-energy/onshore-wind-energy/wind-farm-impacts-landscape
[8] https://www.nature.scot/doc/naturescot-pre-application-guidance-onshore-wind-farms
[9] https://www.nature.scot/professional-advice/planning-and-development/planning-and-development-advice/planning-and-development-protected-species

pre-construction surveys should be undertaken as close to the construction period as possible, and no more than 3 months before the start of works. For species that have a restricted survey window the pre-construction surveys should be undertaken as close to the start of works as possible, and always within the most recent survey window.

3.3 As noted in our pre-application guidance, we generally recommend the collection of a minimum of two complete years of bird survey data to allow for variation in bird use, unless it can be demonstrated that a shorter period of survey is sufficient. We advise that as the applicant is proposing less than two years of bird survey, it seeks agreement from Energy Consents Unit, who may then consult with NatureScot where appropriate. The rationale for less than two full years should be provided, in light of the most recent survey results.

4. Peatland

4.1 The Scoping report notes that areas of potential peat are mapped to locations in the centre and north of the Site.

4.2 Our detailed peatland advice for applicants is contained in our guidance on Advising on peatland, carbon-rich soils and priority peatland habitats in development management[10] (November 2023). Our onshore wind pre-application guidance[1] (February 2024) also highlights key messages in relation to peatland assessment, recommendations on peatland restoration, and the level of information to be submitted with the application.

5. **Enhancing Biodiversity**

5.1 We refer the applicant to updated advice on enhancing biodiversity that is contained in the latest (February 2024) version of our pre-app guidance[1].

ENDS

[10] https://www.nature.scot/doc/advising-peatland-carbon-rich-soils-and-priority-peatland-habitats-development-management

From:	radionetworkprotection@bt.com
To:	Nicola Ferguson
Subject:	RE: Request for Scoping Opinion Sauchrie Burn Wind Farm WID13348
Date:	28 February 2024 09:23:59
Attachments:	image002.png image003.png image001.png SAUCHRIE BURN WIND FARM.pdf

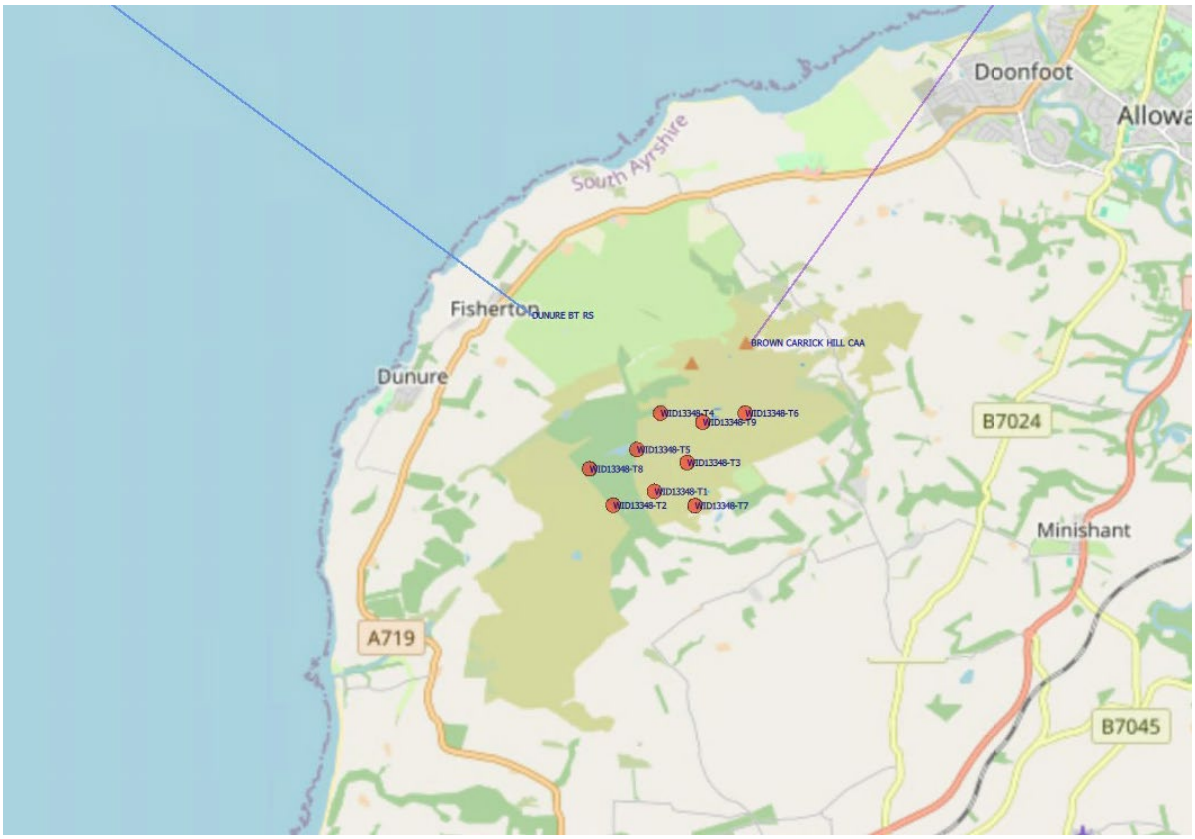
OUR REF:- WID13348

Good morning Nicola

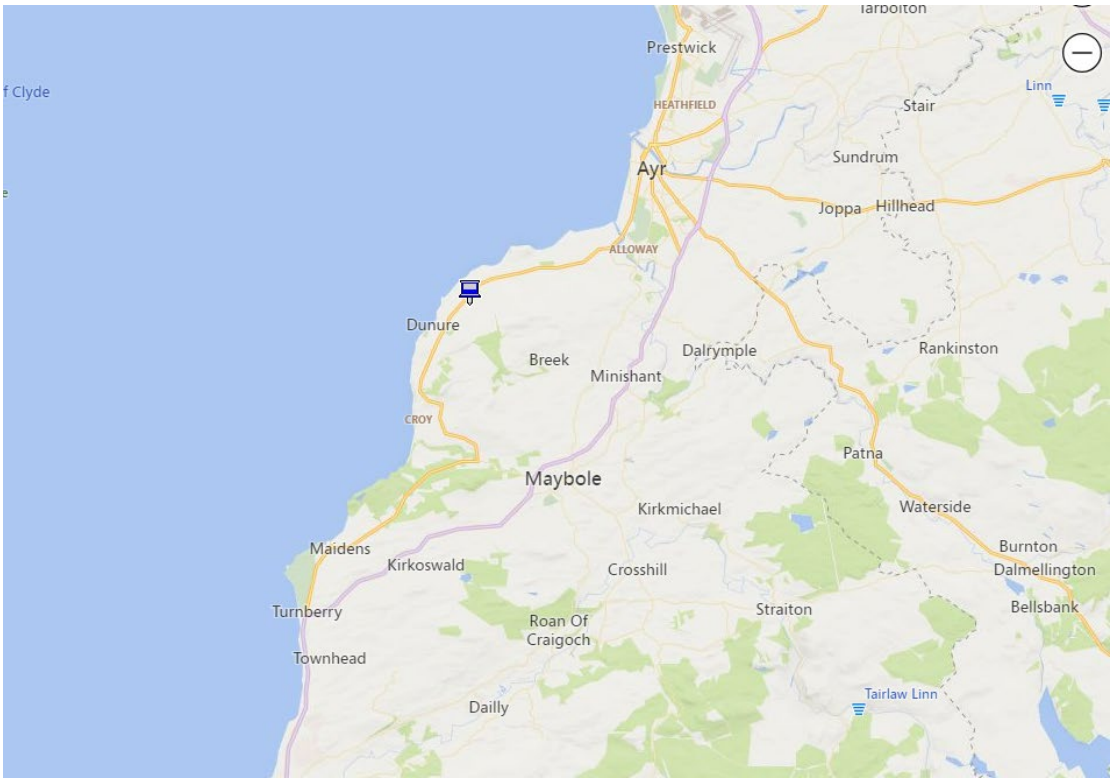
Thank you for your email dated 22/02/2024

We have studied the proposed windfarm development with respect to EMC and related problems to BT point-to-point microwave radio links.
The conclusion is that the Project indicated should not cause interference to BT's current and presently planned radio network.

Kind Regards
Chris



A32


Prestwick
HEATHFIELD
Ayr
ALLOWAY
Dunure
Breek
Minishant
Dalrymple
Rankinston
CROY
Maybole
Kirkmichael
Patna
Waterside
Maidens
Kirkoswald
Crosshill
Burnton
Dalmellington
Turnberry
Roan Of
Craigoch
Straiton
Bellsbank
Townhead
Dailly
Tairlaw Linn
Stair
Linn
Sundrum
Joppa
Hillhead

A33

Defence Infrastructure Organisation

Stefany Alves Veronese
Assistant Safeguarding Manager
Ministry of Defence
Safeguarding Department
St George's House
DIO Headquarters
DMS Whittington
Lichfield
Staffordshire
WS14 9PY

Telephone [MOD]: 07977 726 851

E-mail: Stefany.AlvesVeronese100@mod.gov.uk

Your Reference: ECU00004958

Our Reference: DIO10061800

Nicola Ferguson
Energy Consents Unit
5 Atlantic Quay
150 Broomielaw
Glasgow
G2 8LU

By email only

20 March 2024

Dear Nicola,

Application reference:	ECU00004958
Site Name:	Sauchrie Burn Wind Farm
Proposal:	The proposed development is for of up to 9 wind turbines, each up to 200m in height to blade tip. located in the planning authority area of South Ayrshire, in line with regulation 12 of The Electricity Works (Environmental Impact Assessment) (Scotland) Regulations 2017.
Site address:	Land 4km southwest of Ayr.

Thank you for consulting the Ministry of Defence (MOD) in relation to the Scoping through your communication dated 22 February 2024.

The Defence Infrastructure Organisation (DIO) Safeguarding Team represents the MOD as a consultee in UK planning and energy consenting systems to ensure that development does not compromise or degrade the operation of defence sites such as aerodromes, explosives storage sites, air weapon ranges, and technical sites or training resources such as the Military Low Flying System.

I am writing to advise you that the MOD has concerns with the proposal.

The proposal concerns a development of 9 turbines with maximum blade tip heights of 200 metres above ground level. The proposed development has been assessed using the location data (Grid References) below provided in Scoping Report dated October 2023.

Turbine no.	Easting	Northing
1	228085	614609
2	227635	614477
3	228450	614906

4	228184	615449
5	227913	615067
6	229097	615414
7	228516	614438
8	227395	614879
9	228636	615335

The principal safeguarding concerns of the MOD with respect to this development of wind turbines relates to their potential to create a physical obstruction to air traffic movements.

Physical Obstruction

In this case the development falls within Low Flying Area 16 (LFA 16), an area within which fixed wing aircraft may operate as low as 250 feet or 76.2 metres above ground level to conduct low level flight training. The addition of turbines in this location has the potential to introduce a physical obstruction to low flying aircraft operating in the area.

To address this impact, and given the location and scale of the development, the MOD require conditions are added to any consent issued requiring that the development is fitted with aviation safety lighting and that sufficient data is submitted to ensure that structures can be accurately charted to allow deconfliction.

As a minimum the MOD would require that the development be fitted with MOD accredited aviation safety lighting in accordance with the Air Navigation Order 2016. It is likely that the CAA specified lighting will exceed that required by the MOD but to ensure the safeguarding of any low flying/rotary military aircraft, the MOD would request the wind farm is lit with no less than 25cd visible or infra-red (IR) lighting on perimeter turbines.

Summary

The MOD has concerns with this proposal for the following reasons:

- The potential to create a physical obstruction to air traffic movements.

The MOD must emphasise that the advice provided within this letter is in response to the information detailed in the developer's document titled 'Scoping Report', 'Indicative Turbine Positions Plan' and 'Location Plan' dated October 2023. Any variation of the parameters (which include the location, dimensions, form, and finishing materials) detailed may significantly alter how the development relates to MOD safeguarding requirements and cause adverse impacts to safeguarded defence assets or capabilities. In the event that any amendment, whether considered material or not by the determining authority, is submitted for approval, the MOD should be consulted and provided with adequate time to carry out assessments and provide a formal response.

I hope this adequately explains our position on the matter. If you require further information or would like to discuss this matter further, please do not hesitate to contact me.

Further information about the effects of wind turbines on MOD interests can be obtained from the following websites:

***MOD*:** https://www.gov.uk/government/publications/wind-farms-ministry-of-defence-safeguarding

Yours sincerely,

REDACTED

Stefany Alves Veronese (Assistant Safeguarding Manager)

From: Safe Guarding
To: Econsents Admin; Nicola Ferguson
Cc: Safe Guarding
Subject: ECU00004958 - Sauchie Burn Wind Farm
Date: 08 March 2024 10:56:11
Attachments: image003.png

Good morning,

In respect of the above, I can confirm the location of this development falls out with our Aerodrome Safeguarding zone for Edinburgh Airport therefore we have no objection/comment.

With best regards,
Claire

Claire Brown
Aerodrome Safeguarding & Compliance Officer

Edinburgh Airport
Where Scotland meets the world

Our values

t: +44 (0)131 344 3845 m: 07771 842927
www.edinburghairport.com

Edinburgh Airport Limited
Room 3/54, 2nd Floor Terminal Building
EH12 9DN, Scotland

From:	Brian Davidson
To:	Nicola Ferguson
Cc:	REDACTED Stuart Brabbs (stuart@ayrshireriverstrust.org)
Subject:	RE: Request for Scoping Opinion Sauchrie Burn Wind Farm
Date:	07 March 2024 15:29:47
Attachments:	image001.png

Dear Nicola,

Thank you for your correspondence concerning the proposed Sauchrie Burn Wind Farm.

Fisheries Management Scotland (FMS) represents the network of 40 Scottish District Salmon Fishery Boards (DSFBs) including the River Tweed Commission (RTC), who have a statutory responsibility to protect and improve salmon and sea trout fisheries and the 26 fishery trusts who provide a research, educational and monitoring role for all freshwater fish.

FMS act as a convenient central point for Scottish Government and developers to seek views on local developments. However, as we do not have the appropriate local knowledge, or the technical expertise to respond to specific projects, we are only able to provide a general response with regard to the potential risk of such developments to fish, their habitats and any dependent fisheries. Accordingly, our remit is confined mainly to alerting the relevant local DSFB/Trust to any proposal.

The proposed development falls within the district of the Ayr District Salmon Fishery Board, and the catchment relating to the Ayrshire Rivers Trust. It is important that the proposals are conducted in full consultation with these organisations (see link to FMS member DSFBs and Trusts below). We have also copied this response to these organisations.

Due to the potential for such developments to impact on migratory fish species and the fisheries they support, FMS have developed, in conjunction with Marine Scotland Science, advice for DSFBs and Trusts in dealing with planning applications. We would strongly recommend that these guidelines are fully considered throughout the planning, construction and monitoring phases of the proposed development.

- LINK TO ADVICE ON TERRESTRIAL WINDFARMS
- LINK TO FMS MEMBER NETWORK CONTACT DETAILS

Kind regards,

Brian

Brian Davidson | Dir Communications & Administration
Fisheries Management Scotland
11 Rutland Square, Edinburgh, EH1 2AS
Tel: 0131 221 6567 | 075844 84602
www.fms.scot

From: #GLA Safeguarding
To: Nicola Ferguson
Subject: RE: Request for Scoping Opinion Sauchrie Burn Wind Farm
Date: 11 March 2024 14:25:42
Attachments: image001.png
image946606.png
image515179.png
image480510.png
image007590.png
image153046.png
image408881.png

Hi Nicola

This proposed development is located outwith our radar consultation zone and is below the height required (300m AGL) for instrument flight procedure assessment in this location. We have no comment to make and need not be consulted further.

Kind regards
Kirsteen

GLASGOW AIRPORT

#GLA Safeguarding
#GLA Safeguarding

07808 115 881
glasafeguard@glasgowairport.com
www.glasgowairport.com

Glasgow Airport, Erskine Court, St Andrews Drive, Paisley, PA3 2TJ

By email only

The Scottish Government
Energy Consents Unit
5 Atlantic Quay
150 Broomielaw
Glasgow
G2 8LU
FAO: Nicola Ferguson

13 March 2024

Dear Nicola

Glasgow Prestwick Airport

ELECTRICITY ACT 1989
THE ELECTRICITY WORKS (ENVIRONMENTAL IMPACT ASSESSMENT) (SCOTLAND) REGULATIONS 2017

REQUEST FOR SCOPING OPINION – SAUCHRIE BURN WIND FARM.

Glasgow Prestwick Airport Ltd ("GPA", "the Airport") is supporting the Scottish and UK Governments' drive to release 20GW of renewable energy projects by 2030, working to facilitate over 4GW of potential wind power within a 45 nautical mile radius of the aerodrome. We continue to be actively engaged with numerous developers to address aviation safeguarding issues, including the resolution of infringements to published instrument flight procedures associated with The Airport.

We have reviewed the planning application documents available on the Energy Consents Unit (ECU) portal for the Sauchrie Burn Wind Farm (**ECU00004958**) and respond to the scoping consultation on aviation matters only.

Glasgow Prestwick Airport Ltd
Aviation House, Prestwick, Ayrshire, Scotland, KA9 2PL

T: +44 (0)1292 511038 **E:** ihutchinson@glasgowprestwick.com
www.glasgowprestwick.com safeguarding@glasgowprestwick.com

The Airport's Windfarm Safeguarding Assessment Process

1. In aviation, safety in the air is paramount. That being the case, the Airport has considered the planning application in line with its Windfarm Safeguarding Assessment Process. The steps of that process are undertaken to ensure the Airport meets the requirements imposed upon it through the Civil Aviation Publications (CAPs) which are promulgated by the Airport's regulator, the Civil Aviation Authority (CAA).

The Airport's Initial Safeguarding Assessment

2. The Initial Safeguarding Assessment confirms that this proposed development is within the lateral limits of Glasgow Prestwick Airport's Controlled Airspace (CAS) and is in an area where the Airport's ATC regularly provide an air traffic control service.

3. Other issues identified in the assessment include:

    i. Direct radar line of sight between the Primary Surveillance Radar(s) at GPA and the turbines.

    ii. Infringement of the Airport's Obstacle Limitation Surfaces.

    iii. Potential disruption to multiple Instrument Flight Procedures and minimum safe altitudes due to the site's location and proximity to GPAs controlled airspace, in particular the Instrument Flight Procedures for Runway 21 (becoming Runway 20 in May 2024).

    iv. The need for aviation lighting for obstacles above 150m in height;

    v. Potential loss of VHF Ground to Air communications in the vicinity of the windfarm as a consequence of the large turbines and proximity to other developments in the area.

Glasgow Prestwick Airport Ltd
Aviation House, Prestwick, Ayrshire, Scotland, KA9 2PL

T: +44 (0)1292 511038 **E:** ihutchinson@glasgowprestwick.com
www.glasgowprestwick.com safeguarding@glasgowprestwick.com

vi. Increasing cumulative impact due to the proliferation of turbines in the area to the South and South East of the Airport.

Primary Surveillance Radar (PSR)

4. Preliminary Radar Line of Sight ("RLoS") analysis at maximum turbine tip heights of 200m for the proposed Sauchrie Burn Wind Farm indicates that all of the proposed turbines will be visible to the Airport's primary radar. Further assessments will be required to establish and confirm the actual number of turbines visible to the Airport's primary radar. We would welcome early engagement with the Developer once a mature layout design of the wind farm is realised, to allow final RLoS assessments to be conducted.

Turbines which are visible to the Airport's primary radar will cause turbine clutter on the Airport's radar controllers display(s). They may also cause other degradative effects on the airspace above and in the vicinity of the turbines (e.g. shadowing, loss of base radar cover, etc).

With regard to the clutter on the Airport ATC radar controllers display(s), the Airport's Terma Scanter 4002 radar ("Terma") contains software which provides the potential for Terma to be optimised to mitigate the clutter. However, mitigation is not an automatic process nor is it guaranteed to work. In line with the Airport's Windfarm Safeguarding Assessment Process, it will be necessary to conduct baseline flight trials and radar modelling assessments to assess the anticipated Probability of Detection ("PD") in the airspace above the turbines post windfarm construction and post optimisation of Terma.

The anticipated PD will of course have to be acceptable from an aviation safety perspective. Although it is possible to estimate the PD following optimisation of Terma, the results are not guaranteed. The actual PD which is achieved after optimisation will have to be confirmed by a post construction flight trial with support from Terma engineers.

Assuming that an acceptable, and confirmed, PD is achieved post optimisation, the mitigation will have to be kept in place by the Airport for the lifetime of the windfarm. There will be costs and risks for the Airport in that process and a mitigation agreement between Airport and Developer will be

required to cover those demonstrable costs incurred by the Airport in discharging its regulatory responsibility to safeguard the airspace.

Instrument Flight Procedures (IFPs)

5. Furthermore, given the proposed maximum tip height (200m) of the turbines and a height above sea level of 477m (1565ft), combined with the proximity of the development to GPA – the closest turbine being 13.65km (7.37 Nautical miles) from the Airport - there is potential for significant infringement of safety buffers for multiple Airport departure and arrival procedures as well as the GPA specific minimum safety altitudes. If changes to climb or descent gradients were to be required to accommodate the wind farm, there would be a resulting reduction in operational safety margins to aircraft operating to and from the Airport, with the potential for certain types of aircraft that do not have the performance characteristics required ceasing their use of the Airport.

Technical Safeguarding – VHF Communication Equipment

6. Preliminary analysis indicates it will be necessary to conduct a detailed Technical Safeguarding Assessment in respect of the protection of the Airport's VHF Radio Navigation Equipment in accordance with *CAP670 - Part B, Section 4: GEN 02: Technical Safeguarding of Aeronautical Radio Stations Situated at UK Aerodromes and Appendix A to GEN 02: Methodology for the Prediction of Wind Turbine Interference Impact on Aeronautical Radio Station Infrastructure*.

   Any adverse effects identified as a result of any assessment will require to be mitigated for the lifetime of the windfarm.

Obstacle Limitation Surfaces (OLS)

7. The proposed development is within 15km of the Airport and is the first proposed development to infringe on the Airport's OLS, in this case the Outer Horizontal Surface (Outer HZ). While infringements from surrounding terrain are unavoidable – the terrain upon which the turbines would stand already infringes the Outer HZ by 80m - and exceptions can be made with minor infringements to the surface depending upon the height of a proposed development and

surrounding terrain, a further infringement of 200m would not be deemed operationally acceptable by the Airport and would likely require extensive further consultation with the CAA in the event that a solution could be found.

Aviation Lighting

8. The Airport are keen to understand how the Developer intends to address the aviation warning obstruction lighting as required by UK CAA for obstacles greater than 150m in height above local ground level in accordance with Article 222 of the UK Air Navigation Order (ANO) 2016.

9. GPA note that while solely a matter for the CAA to consider, should the aviation lighting scheme consider the use of Aircraft Detection Lighting System (ADLS) dependent upon Electronic Conspicuity (EC) Equipment, GPA respectfully request that they are consulted with further, should such an ADLS lighting scheme be incorporated into the finalised design.

Cumulative Impact

10. The Airport also raises concerns in respect of the cumulative impact. While the proposed site is relatively isolated, the proliferation of existing and proposed developments to the South and South East are an increasing concern for the Airport. If consented, this development could set precedent for further developments in what is obviously an attractive area for wind farm development.

    Those risks include: (1) Terma alone not being able to provide the required level of mitigation; and (2) adverse impact on VHF Communication Equipment. The cumulative issues across the whole coverage volume are increasingly likely to result in the need for additional surveillance and communication equipment to address the cumulative impact of multiple windfarms in close proximity to each other to ensure the continued safe provision of air traffic control services.

Glasgow Prestwick Airport Ltd
Aviation House, Prestwick, Ayrshire, Scotland, KA9 2PL

T: +44 (0)1292 511038 **E:** ihutchinson@glasgowprestwick.com
www.glasgowprestwick.com safeguarding@glasgowprestwick.com

Sauchrie Burn Wind Farm Scoping Report

11. In response to the aviation section commencing at Section 7.4 of the Sauchrie Burn Wind Farm Scoping Report, the Airport request that dialogue commences with the Developer to undertake the following aviation safeguarding assessments.

    i. A radar flight trial in the airspace above the proposed windfarm to establish the Baseline Probability of Detection (PD) of the radar prior to the windfarm being constructed.

    ii. A radar modelling assessment (inc detailed Radar Line of Sight analysis) against the Airport's primary surveillance radar(s) to establish if the Terma radar has the capability to mitigate the clutter from the visible turbines;

    iii. An IFP assessment against the Airport's published flight procedures (both RNAV/RNP and conventional); In this case, given the scale and location of the proposed development, we would recommend proceeding directly to a Stage 2 assessment (if provided by the Airport's contracted IFP Safeguarding provider), which provides solutions (if any) to any identified IFP infringements.The findings of any Developer provided IFP reports would also need to be verified by our contracted IFP Safeguarding provider.

    iv. A VHF radio communication assessment in the vicinity of the proposed windfarm against the Airport's VHF Ground to Air radio equipment infrastructure;

    v. Consultation on any changes to the proposed aviation lighting scheme.

In addition, the Airport will have to consult with the CAA regarding the significant OLS infringements and its implications (including Visual Circuit operations and training, which indicates the level of proximity to the Airport of this proposed deverlopment), and a detailed Operational Impact Assessment will be necessary.

Glasgow Prestwick Airport Ltd
Aviation House, Prestwick, Ayrshire, Scotland, KA9 2PL

T: +44 (0)1292 511038 **E:** ihutchinson@glasgowprestwick.com
www.glasgowprestwick.com safeguarding@glasgowprestwick.com

Conclusions

12. This development raises aviation safety concerns, and would have a potential operational impact on the Airport as an Air Navigation Services Provider (ANSP). The Airport will continue to work towards its full ATC Operational Impact Assessment and the Technical Safeguarding Assessment(s) to consider the various impacts once the proposed development is at a developmental stage appropriate to the commission of those assessments and a credible result can be obtained. As part of those assessments, the Airport would wish to discuss with the Developer the terms of a suitable agreement to address the demonstrable costs and risks which will be imposed upon it as a result of the proposed development.

13. Consequently, the Airport would lodge an **objection** to this development should the scoping proceed to a full Section 36 application.

14. As proposed developments become larger in terms of turbine size and encroach closer to the Airport, the likelihood of being able to resolve aviation safeguarding issues in a way satisfactory to both Airport and Developer diminishes. This particular development will present significant and possibly insurmountable issues for one party or the other, with any technically feasible solution likely to render either the development non-viable or be unacceptable to the Airport from an operational perspective.

15. The Airport requests engagement with the Developer regarding the aviation safety issues discussed above at their earliest convenience.

Yours faithfully

REDACTED

Ian Hutchinson
Aerodrome Safeguarding Manager
For and on behalf of Glasgow Prestwick Airport Limited

Glasgow Prestwick Airport Ltd
Aviation House, Prestwick, Ayrshire, Scotland, KA9 2PL

T: +44 (0)1292 511038 **E:** ihutchinson@glasgowprestwick.com
www.glasgowprestwick.com safeguarding@glasgowprestwick.com

A45

From: JRC Windfarm Coordinations Old
To: Nicola Ferguson
Cc: Wind SSE
Subject: Sauchrie Burn Wind Farm [WF286803]
Date: 23 February 2024 09:37:59
Attachments: image.png

Dear nicola,

A Windfarms Team member has replied to your co-ordination request, reference **WF286803** with the following response:

If any details of this proposal change, particularly the disposition or scale of any turbine(s), this clearance will be void and re-evaluation of the proposal will be necessary.

Please do not reply to this email - the responses are not monitored.
If you need us to investigate further, then please use the link at the end of this response or login to your account for access to your co-ordination requests and responses.

Dear Sir,Madam:

***Planning Ref**:*

ECU00004958

***Name/Location**:*

Sauchrie Burn Wind Farminto

***Site Centre/Turbine(s) at NGR**:*

Turbine Number	Easting	Northing	Turbine Hub Height	Turbine Rotor Diameter
T1	228085	614609	122.5m	155m
T2	227635	614477	122.5m	155m
T3	228450	614906	122.5m	155m
T4	228184	615449	122.5m	155m
T5	227913	615067	122.5m	155m
T6	229097	615414	122.5m	155m
T7	228516	614438	122.5m	155m
T8	227395	614879	122.5m	155m
T9	228636	615335	122.5m	155m

***Development Radius**:*

0.1km

***Hub Height**: 122.5m **Rotor Radius**: 77.5m*

*This proposal is **cleared** with respect to radio link infrastructure operated by the local energy networks.*

JRC analyses proposals for wind farms on behalf of the UK Fuel & Power Industry. This is to assess their potential to interfere with radio systems operated by utility companies in support of their regulatory operational requirements.

In the case of this proposed wind energy development, JRC does not foresee any potential problems based on known interference scenarios and the data you have provided. However, if any details of the wind farm change, particularly the disposition or scale of any turbine(s), it will be necessary to re-evaluate the proposal.

In making this judgement, JRC has used its best endeavours with the available data, although we recognise that there may be effects which are as yet unknown or inadequately predicted. JRC cannot therefore be held liable if subsequently problems arise that we have not predicted.

It should be noted that this clearance pertains only to the date of its issue. As the use of the spectrum is dynamic, the use of the band is changing on an ongoing basis and consequently, developers are advised to seek re-coordination prior to considering any design changes.

Regards

Wind Farm Team

Friars House
Manor House Drive
Coventry CV1 2TE
United Kingdom

Office: 02476 932 185

JRC Ltd. is a Joint Venture between the Energy Networks Association (on behalf of the UK Energy Industries) and National Grid.
Registered in England & Wales: 2990041
About The JRC | Joint Radio Company | JRC

We maintain your personal contact details and are compliant with the Data Protection Act 2018 (DPA 2018) for the purpose of 'Legitimate Interest' for communication with you. If you would like to be removed, please contact anita.lad@jrc.co.uk.

We hope this response has sufficiently answered your query.
If not, please **do not send another email** as you will go back to the end of the mail queue, which is not what you or we need. Instead, **reply to this email by clicking on the link**

below or login to your account for access to your co-ordination requests and responses.

https://breeze.jrc.co.uk/tickets/view.php?id=32606

From:	NATS Safeguarding
To:	Nicola Ferguson
Cc:	Econsents Admin
Subject:	RE: Request for Scoping Opinion Sauchrie Burn Wind Farm [SG36971]
Date:	13 March 2024 09:50:51
Attachments:	image001.png image004.png image005.png image006.png image007.png image008.png image009.png image010.png SG36971 Sauchrie Burn Wind Farm - TOPA Issue 1.pdf

---

Our Ref: SG36971

Dear Sir/Madam

We refer to the application above. The proposed development has been examined by our technical safeguarding teams and conflicts with our safeguarding criteria.

Accordingly, NATS (En Route) plc objects to the proposal. The reasons for NATS's objection are outlined in the attached report TOPA SG36971.

We would like to take this opportunity to draw your attention to the legal obligation of local authorities to consult NATS before granting planning permission. The obligation to consult arises in respect of certain applications that would affect a technical site operated by or on behalf of NATS (such sites being identified by safeguarding plans that are issued to local planning authorities).

In the event that any recommendations made by NATS are not accepted, local authorities are obliged to follow the relevant directions within Planning Circular 2 2003 - Scottish Planning Series: Town and Country Planning (Safeguarded Aerodromes, Technical Sites and Military Explosives Storage Areas) (Scotland) Direction 2003 or Annex 1 - The Town And Country Planning (Safeguarded Aerodromes, Technical Sites And Military Explosives Storage Areas) Direction 2002.

These directions require that the planning authority notify both NATS and the Civil Aviation Authority ("CAA") of their intention. As this further notification is intended to allow the CAA to consider whether further scrutiny is required, the notification should be provided prior to any granting of permission.

It should also be noted that the failure to consult NATS, or to take into account NATS's comments when determining a planning application, could cause serious safety risks for air traffic.

Should you have any queries, please contact us using the details below.

Yours faithfully

NATS

NATS Safeguarding
E: natssafeguarding@nats.co.uk
4000 Parkway, Whiteley,
Fareham, Hants PO15 7FL
www.nats.co.uk

NATS Public

From: NATS Safeguarding
Sent: Tuesday, March 12, 2024 12:29 PM
To: Nicola.Ferguson@gov.scot
Cc: Econsents_Admin@gov.scot
Subject: RE: Request for Scoping Opinion Sauchrie Burn Wind Farm [SG36971]

Our Ref: SG36971

Dear Sir/ Madam

We refer to the application above. The proposed development has been examined by our technical safeguarding teams. In the timeframe given to us we have been unable to thoroughly investigate the effects of the proposed development on our Operations, however, the relevant teams are being consulted.

Based on our preliminary technical findings, the proposed development does conflict with our safeguarding criteria. Accordingly, NATS (En Route) plc objects to the proposal. We will notify you within 4-6 weeks of the results of our operational assessment. Only if this assessment shows the impact to be acceptable will we be able to withdraw our objection.

We would like to take this opportunity to draw your attention to the legal obligation of local authorities to consult NATS before granting planning permission for a wind farm. The obligation to consult arises in respect of certain applications that would affect a technical site operated by or on behalf of NATS (such sites being identified by safeguarding plans that are issued to local planning authorities).

In the event that any recommendations made by NATS are not accepted, local authorities are further obliged to notify both NATS and the Civil Aviation Authority ("CAA") of that fact (which may lead to the decision made being subject to review whether by the CAA referring the matter for further scrutiny or by appropriate action being taken in the courts).

As this further notification is intended to allow the CAA sufficient time to consider whether further scrutiny is required, we understand that the notification should be provided prior to any granting of permission. You should be aware that a failure to consult NATS, or to take into account NATS's comments when deciding whether to approve a planning application, could cause serious safety risks for air traffic.

If you have any queries regarding this matter you can contact us using the details as below.

Yours faithfully

NATS

NATS Safeguarding

E: natssafeguarding@nats.co.uk

4000 Parkway, Whiteley,
Fareham, Hants PO15 7FL
www.nats.co.uk

A50

Prepared by:
NATS Safeguarding Office

Technical and Operational Assessment (TOPA)

For Sauchrie Burn

Wind Farm Development

NATS ref: SG36971

Scottish Goverment ref: ECU00004958

Issue 1

Contents

Publication History

Issue	Month/Year	Change Requests and summary
1	March 2024	Scoping Request

Document Use

External use: Yes

Referenced Documents

1. Background

1.1. En-route Consultation

NATS en-route plc is responsible for the safe and expeditious movement in the en-route phase of flight for aircraft operating in controlled airspace in the UK. To undertake this responsibility it has a comprehensive infrastructure of RADAR's, communication systems and navigational aids throughout the UK, all of which could be compromised by the establishment of a wind farm.

In this respect NATS is responsible for safeguarding this infrastructure to ensure its integrity to provide the required services to Air Traffic Control (ATC).

In order to discharge this responsibility NATS is a statutory consultee for all wind farm applications, and as such assesses the potential impact of every proposed development in the UK.

The technical assessment sections of this document define the assessments carried out against the development proposed in section 3.

2. Scope

This report provides NATS En-Route plc's view on the proposed application in respect of the impact upon its own operations and in respect of the application details contained within this report.

Where an impact is also anticipated on users of a shared asset (e.g. a NATS RADAR used by airports or other customers), additional relevant information may be included for information only. While an endeavour is made to give an insight in respect of any impact on other aviation stakeholders, it should be noted that this is outside of NATS' statutory obligations and that any engagement in respect of planning objections or mitigation should be had with the relevant stakeholder, although NATS as the asset owner may assist where possible.

3. Application Details

Scottish Government submitted a request for a NATS technical and operational assessment (TOPA) for the development at Sauchrie Burn Wind Farm. It will comprise turbines as detailed in Table 1 and contained within an area as shown in the diagrams contained in Appendix B.

Turbine	Lat	Long	East	North	Hub (m)	Tip (m)
T1	55.3952	-4.7161	228085	614609	122.5	155
T2	55.3939	-4.7231	227635	614477	122.5	155
T3	55.3980	-4.7105	228450	614906	122.5	155
T4	55.4028	-4.7150	228184	615449	122.5	155
T5	55.3993	-4.7191	227913	615067	122.5	155
T6	55.4028	-4.7006	229097	615414	122.5	155
T7	55.3938	-4.7092	228516	614438	122.5	155
T8	55.3974	-4.7271	227395	614879	122.5	155
T9	55.4019	-4.7078	228636	615335	122.5	155

Table 1 – Turbine Details

4. Assessments Required

The proposed development falls within the assessment area of the following systems:

En-route Surv	Lat	Long	nm	km	Az (deg)	Type
Great Dun Fell Radar	54.6841	-2.4509	88.9	164.6	299.7	CMB
Lowther Hill Radar	55.3778	-3.7530	32.5	60.1	272.5	CMB
Perwinnes Radar	57.2123	-2.1309	138.6	256.7	219.4	CMB
Tiree Radar	56.4556	-6.9230	97.7	180.9	129.5	CMB
En-route Nav	**Lat**	**Long**	**nm**	**km**	**Az (deg)**	**Type**
Turnberry	55.3134	-4.7839	5.3	9.8	24.9	DVOR/DME
En-route AGA	**Lat**	**Long**	**nm**	**km**	**Az (deg)**	**Type**
None						

Table 2 – Impacted Infrastructure

4.1. En-route RADAR Technical Assessment

4.1.1. Predicted Impact on Lowther RADAR

Using the theory as described in Appendix A and development specific propagation profile it has been determined that the terrain screening available will not adequately attenuate the signal, and therefore this development is likely to cause false primary plots to be generated. A reduction in the RADAR's probability of detection, for real aircraft, is also anticipated.

4.1.2. En-route operational assessment of RADAR impact

Where an assessment reveals a technical impact on a specific NATS' RADAR, the users of that RADAR are consulted to ascertain whether the anticipated impact is acceptable to their operations or not.

Unit or role	Comment
Prestwick Centre ATC	Unacceptable
Military ATC	Acceptable

Note: The technical impact, as detailed above, has also been passed to non-NATS users of the affected RADAR, this may have included other planning consultees such as the MOD or other airports. Should these users consider the impact to be unacceptable it is expected that they will contact the planning authority directly to raise their concerns.

4.2. En-route Navigational Aid Assessment

4.2.1. Predicted Impact on Navigation Aids

The anticipated impact on NATS' navigation aids has been deemed to be unacceptable.

4.3. En-route Radio Communication Assessment

4.3.1. Predicted Impact on the Radio Communications Infrastructure

No impact is anticipated on NATS' radio communications infrastructure.

5. Conclusions

5.1. En-route Consultation

The proposed development has been examined by technical and operational safeguarding teams. A technical impact is anticipated, this has been deemed to be unacceptable.

Appendix A – Background RADAR Theory

Primary RADAR False Plots

When RADAR transmits a pulse of energy with a power of P_t the power density, P, at a range of r is given by the equation:

$$P = \frac{G_t P_t}{4\pi r^2}$$

Where G_t is the gain of the RADAR's antenna in the direction in question.

If an object at this point in space has a RADAR cross section of σ, this can be treated as if the object re-radiates the pulse with a gain of σ and therefore the power density of the reflected signal at the RADAR is given by the equation:

$$P_a = \frac{\sigma P}{4\pi r^2} = \frac{\sigma G_t P_t}{(4\pi)^2 r^4}$$

The RADAR's ability to collect this power and feed it to its receiver is a function of its antenna's effective area, A_e, and is given by the equation:

$$P_r = P_a A_e = \frac{P_a G_r \lambda^2}{4\pi} = \frac{\sigma G_t G_r \lambda^2 P_t}{(4\pi)^3 r^4}$$

Where G_t is the RADAR antenna's receive gain in the direction of the object and λ is the RADAR's wavelength.

In a real world environment this equation must be augmented to include losses due to a variety of factors both internal to the RADAR system as well as external losses due to terrain and atmospheric absorption.

For simplicity these losses are generally combined in a single variable L

$$P_r = \frac{\sigma G_t G_r \lambda^2 P_t}{(4\pi)^3 r^4 L}$$

Secondary RADAR Reflections

When modelling the impact on SSR the probability that an indirect signal reflected from a wind turbine has the signal strength to be confused for a real interrogation or reply can determined from a similar equation:

$$P_r = \frac{\sigma G_t G_r \lambda^2 P_t}{(4\pi)^3 r_t^2 r_r^2 L}$$

Where r_t and r_r are the range from RADAR-to-turbine and turbine-to-aircraft respectively. This equation can be rearranged to give the radius from the turbine within which an aircraft must be for reflections to become a problem.

$$r_r = \sqrt{\frac{\lambda^2}{(4\pi)^3}} \sqrt{\frac{\sigma G_t G_r P_t}{r_t^2 P_r L}}$$

Shadowing

When turbines lie directly between a RADAR and an aircraft not only do they have the potential to absorb or deflect, enough power such that the signal is of insufficient level to be detected on arrival.

It is also possible that azimuth determination, whether this done via sliding window or monopulse, can be distorted giving rise to inaccurate position reporting.

Terrain and Propagation Modelling

All terrain and propagation modelling is carried out by a software tool called ICS Telecom (version 11.1.7). All calculations of propagation losses are carried out with ICS Telecom configured to use the ITU-R 526 propagation model.

Appendix B – Diagrams

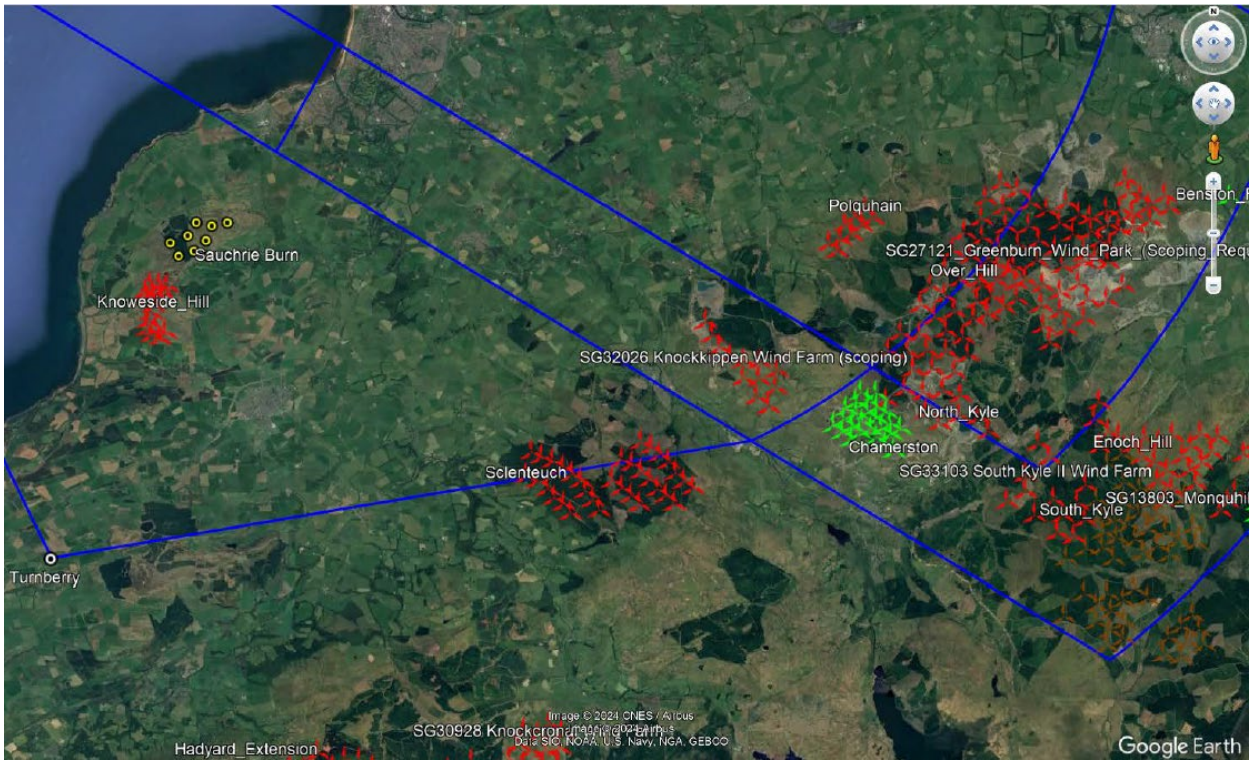


Figure 1: Proposed development location shown on an airways chart

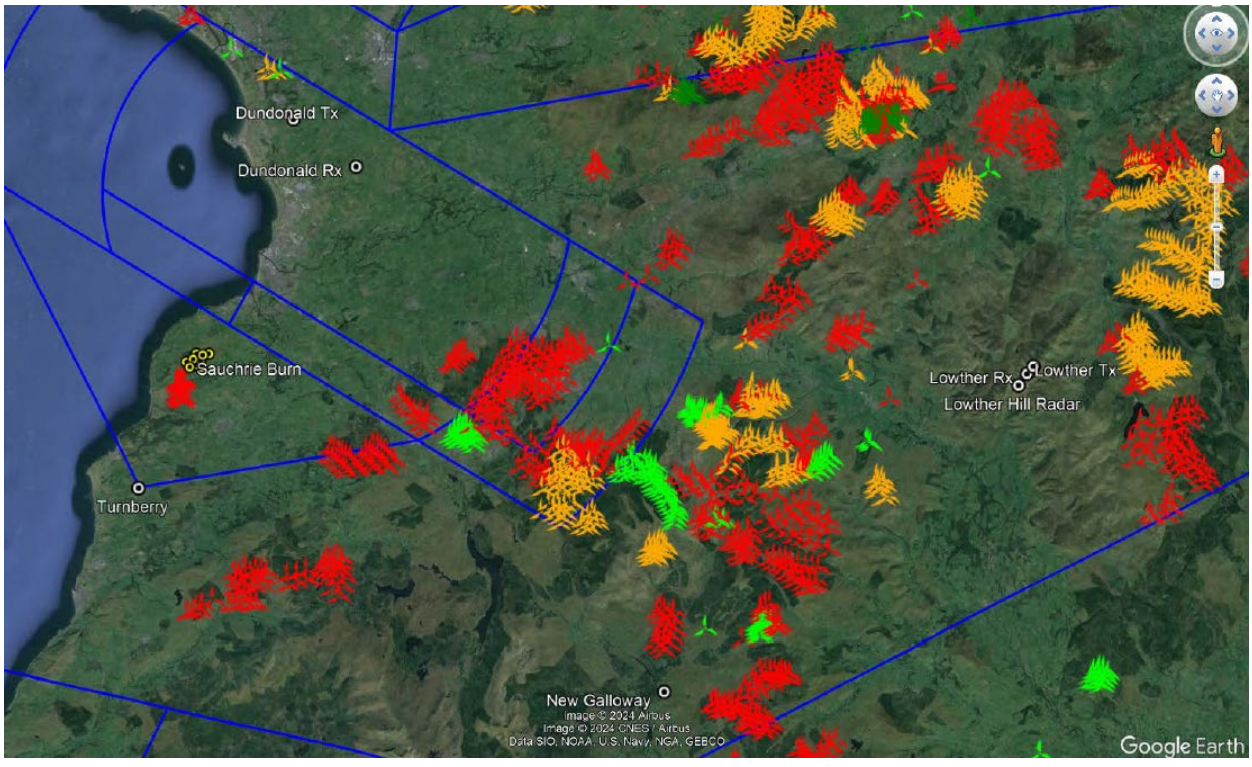


Figure 2: Proposed development shown alongside other recently assessed applications

consented/built | impact –accepted | impact –objection | mitigated
mitigation –proposed | no impact | refused/withdrawn

A59

From:	ONR Land Use Planning
To:	Econsents Admin
Subject:	ONR Land Use Planning - Application ECU00004958
Date:	23 February 2024 15:13:50
Attachments:	image001.png image001.png

Dear Sir/Madam,

With regard to planning application ECU00004958, ONR makes no comment on this proposed development as it does not lie within a consultation zone around a GB nuclear site.

You can find information concerning our Land Use Planning consultation process here: (http://www.onr.org.uk/land-use-planning.htm).

Kind regards,

Land Use Planning
Office for Nuclear Regulation
ONR-Land.Use-planning@onr.gov.uk

A60

From: Doug Howieson
To: Nicola Ferguson
Subject: Sauchrie Burn Windfarm
Date: 25 March 2024 16:17:38

Hi Nicola

Thanks for the opportunity to comment on the scoping report.

Turbines, 2,5 and 8 are located within woodland and the developer has correctly stated that impacts will be covered in the EIAR.

This will need to be in line with SG policy on the control of woodland removal.

Doug.

A61

Thursday, 07 March 2024

Local Planner
Energy Consents Unit
5 Atlantic Quay
Glasgow
G2 8LU

Development Operations
The Bridge
Buchanan Gate Business Park
Cumbernauld Road
Stepps
Glasgow
G33 6FB

Development Operations
Freephone Number - 0800 3890379
E-Mail - DevelopmentOperations@scottishwater.co.uk
www.scottishwater.co.uk
Follow Us

Dear Customer,

Sauchrie Burn Wind Farm, Dunure hill, South Ayrshire, KA19 8EN
Planning Ref: ECU00004958
Our Ref: DSCAS-0105207-ZJC
Proposal: Wind farm development comprising nine turbines at Sauchrie Burn

Please quote our reference in all future correspondence

Audit of Proposal

Scottish Water has no objection to this planning application; however, the applicant should be aware that this does not confirm that the proposed development can currently be serviced. Please read the following carefully as there may be further action required. Scottish Water would advise the following:

Drinking Water Protected Areas

A review of our records indicates that there are no Scottish Water drinking water catchments or water abstraction sources, which are designated as Drinking Water Protected Areas under the Water Framework Directive, in the area that may be affected by the proposed activity.

Surface Water

For reasons of sustainability and to protect our customers from potential future sewer flooding, Scottish Water will not accept any surface water connections into our combined sewer system.

There may be limited exceptional circumstances where we would allow such a connection for brownfield sites only, however this will require significant justification from the customer taking account of various factors including legal, physical, and technical challenges.

In order to avoid costs and delays where a surface water discharge to our combined sewer system is anticipated, the developer should contact Scottish Water at the earliest opportunity with strong evidence to support the intended drainage plan prior to making a connection request. We will assess this evidence in a robust manner and provide a decision that reflects the best option from environmental and customer perspectives.

General notes:

- Scottish Water asset plans can be obtained from our appointed asset plan providers:
    - Site Investigation Services (UK) Ltd
    - Tel: 0333 123 1223
    - Email: sw@sisplan.co.uk
    - www.sisplan.co.uk

I trust the above is acceptable however if you require any further information regarding this matter please contact me on **0800 389 0379** or via the e-mail address below or at planningconsultations@scottishwater.co.uk.

Yours sincerely,

Ruth Kerr.
Development Services Analyst
PlanningConsultations@scottishwater.co.uk

Scottish Water Disclaimer:

"It is important to note that the information on any such plan provided on Scottish Water's infrastructure, is for indicative purposes only and its accuracy cannot be relied upon. When the exact location and the nature of the infrastructure on the plan is a material requirement then you should undertake an appropriate site investigation to confirm its actual position in the ground and to determine if it is suitable for its intended purpose. By using the plan you agree that Scottish Water will not be liable for any loss, damage or costs caused by relying upon it or from carrying out any such site investigation."

Development Management and Strategic Road Safety
Roads Directorate

George House 36 North Hanover St Glasgow G1 2AD
Direct Line: 0141 272 7593, Fax: 0141 272 7350
lain.clement@transport.gov.scot

A63

TRANSPORT SCOTLAND
CÒMHDHAIL ALBA

Nicola Ferguson
Energy Consents Unit
The Scottish Government
5 Atlantic Quay
150 Broomielaw
Glasgow
G2 8LU

Nicola.Ferguson@gov.scot
econsents_admin@gov.scot

Your ref:
ECU00004958

Our ref:
GB01T19K05

Date:
13/03/2024

Dear Sirs,

ELECTRICITY ACT 1989

THE ELECTRICITY (APPLICATIONS FOR CONSENT) REGULATIONS 2017

REQUEST FOR SCOPING OPINION FOR PROPOSED SECTION 36 APPLICATION FOR SAUCHRIE BURN WIND FARM

With reference to your recent correspondence on the above development, we acknowledge receipt of the Scoping Report (SR) prepared by Energiekontor UK Ltd in support of the above development.

This information has been passed to SYSTRA Limited (SYSTRA) for review in their capacity as Term Consultants to Transport Scotland – Roads Directorate. Based on the review undertaken, Transport Scotland would provide the following comments.

Proposed Development

The proposed Sauchrie Burn Wind Farm comprises nine wind turbines with a maximum blade tip height of 200m and a battery energy storage system (BESS) facility. The site is located approximately 4km southwest of Ayr, between the A77(T) (3.2km to the east) and the A719 (1.2km to the west).

Assessment of Environmental Impacts

Chapter 7(ii) of the SR presents the proposed assessment of the impacts of Transportation. This states that the Institute of Environmental Assessment (now IEMA) (1993) Guidelines for the Environmental Assessment of Road Traffic will be used to inform the assessment. Transport Scotland would note that new guidance has been published by IEMA. These Guidelines, entitled Environmental Assessment of Traffic and Movement (July 2023), are intended to update and replace the previous 1993 IEMA guidelines and provide enhanced and up to date advice on the assessment of traffic and movement.

Transport Scotland would request that the thresholds as indicated within these new Guidelines be used as a screening process for the assessment. These specify that road links should be taken forward for further assessment where the following two rules are breached:

- Rule 1: Include road links where traffic flows will increase by more than 30% (or the number of heavy goods vehicles will increase by more than 30%)
- Rule 2: Include road links of high sensitivity where traffic flows have increased by 10% or more.

The SR also states that the Institute of Highways and Transportation (1994) Guidelines for Traffic Impact Assessment will be utilised. Transport Scotland would request that the Transport Assessment Guidance 2012 (Scottish Government) be used instead.

We note that the study area for the traffic and transport assessment is identified as "the public highway network in the vicinity of the site which would be used during the construction and operation of the wind farm". Transport Scotland would add that any trunk roads involved in the transportation of constructions materials should be included in the assessment with at least a threshold assessment undertaken to see if any more detailed assessment of potential environmental effects is required.

We also note that traffic count data will be sourced from the local highways authority. Transport Scotland would add that a source of traffic data is Traffic Scotland's National Traffic Data System, where current traffic data should be utilised where possible. In addition, it should be noted that base traffic data will require to be factored to the peak construction year flows, using National Road Traffic Forecasts (NRTF) Low Growth.

It is noted that any impacts associated with the operational and decommissioning phases of the development are to be scoped out of the Environmental Impact Assessment Report (EIAR). We would consider this to be acceptable in this instance.

Abnormal Loads Assessment

The SR states that a Route Access Description will be provided. It should be noted that Transport Scotland will require to be satisfied that the size of components proposed can negotiate the selected route and that their transportation will not have any detrimental effect on structures within the trunk road route path.

A full Abnormal Loads Assessment report should be provided with the EIAR that identifies key pinch points on the trunk road network. Swept path analysis should be undertaken and details provided with regard to any required changes to street furniture or structures along the route.

We would also state that any proposed changes to the trunk road network must be discussed and approved (via a technical approval process) by the appropriate Area Managers.

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 or alternatively, Alan DeVenny at SYSTRA's Glasgow Office can assist on 0141 343 9636.

Yours faithfully,

REDACTED

Iain Clement

Transport Scotland
Roads Directorate

cc Alan DeVenny – SYSTRA Ltd.

ANNEX B

Marine Directorate – Science Evidence Data and Digital (MD-SEDD) advice on freshwater and diadromous fish and fisheries in relation to onshore wind farm developments.

July 2020 updated September 2023

Marine Directorate – Science Evidence Data and Digital (MD-SEDD) provides internal, non-statutory, advice in relation to freshwater and diadromous fish and fisheries to the Scottish Government's Energy Consents Unit (ECU) for onshore wind farm developments in Scotland.

Atlantic salmon (*Salmo salar*), sea trout and brown trout (*Salmo trutta*) are of high economic value and conservation interest in Scotland and for which MD-SEDD has in- house expertise. Onshore wind farms are often located in upland areas where salmon and trout spawning and rearing grounds may also be found. MD-SEDD aims, through our provision of advice to ECU, to ensure that the construction and operation of these onshore developments do not have a detrimental impact on the freshwater life stages of these fish populations.

The Electricity Works (Environmental Impact Assessment) (EIA) (Scotland) Regulations (2017) state that the EIA must assess the direct and indirect significant effects of the proposed development on water and biodiversity, and in particular species (such as Atlantic salmon) and habitats protected under the EU Habitats Directive. Salmon and trout are listed as priority species of high conservation interest in the Scottish Biodiversity Index and support valuable recreational fisheries.

A good working relationship has been developed over the years between ECU and MD-SEDD, which ensures that these fish species are considered by ECU during all stages of the application process of onshore wind farm developments and are similarly considered during the construction and operation of future onshore wind farms. It is important that matters relating to freshwater and diadromous fish and fisheries, particularly salmon and trout, continue to be considered during the construction and operation of future onshore wind farms.

In the current document, MD-SEDD sets out a revised, more efficient approach to the provision of our advice, which utilises our generic scoping and monitoring programme guidelines (https://www2.gov.scot/Topics/marine/Salmon-Trout-Coarse/Freshwater/Research/onshoreren). This standing advice provides regulators (e.g. ECU, local planning authorities), developers and consultants with the information required at all stages of the application process for onshore wind farm developments, such that matters relating to freshwater and diadromous fish and fisheries are addressed in the same rigorous manner as is currently being carried out and continue to be fully in line with EIA regulations. At the request of ECU, MD-SEDD will still be able to provide further and/or bespoke advice relevant to freshwater and diadromous fish and fisheries e.g. site specific advice, at any stage of the application process for a proposed development, particularly where a development may be considered sensitive or contentious in nature.

MD-SEDD will continue undertaking research, identifying additional research requirements, and keep up to date with the latest published knowledge relating to the

impacts of onshore wind farms on freshwater and diadromous fish populations. This will be used to ensure that our guidelines and standing advice are based on the best available evidence and also to continue the publication of the relevant findings and knowledge to all stakeholders including regulators, developers and consultants.

MD-SEDD provision of advice to ECU

- MD-SEDD should not be asked for advice on pre application and application consultations (including screening, scoping, gate checks and EIA applications). Instead, the MD-SEDD scoping guidelines and standing advice (outlined below) should be provided to the developer as they set out what information should be included in the EIA report;
- if new issues arise which are not dealt with in our guidance or in our previous responses relating to respective developments, MD-SEDD can be asked to provide advice in relation to proposed mitigation measures and monitoring programmes which should be outlined in the EIA Report (further details below);
- if new issues arise which are not dealt with in our guidance or in our previous responses, MD-SEDD can be asked to provide advice on suitable wording, within a planning condition, to secure proposed monitoring programmes, should the development be granted consent;
- MD-SEDD cannot provide advice to developers or consultants, our advice is to ECU and/or other regulatory bodies.
- if ECU has identified specific issues during any part of the application process that the standing advice does not address, MD-SEDD should be contacted.

MD-SEDD Standing Advice for each stage of the EIA process

Scoping

MD-SEDD issued generic scoping guidelines (https://www2.gov.scot/Topics/marine/Salmon-Trout-Coarse/Freshwater/Research/onshoreren) which outline how fish populations can be impacted during the construction, operation and decommissioning of a wind farm development and informs developers as to what should be considered, in relation to freshwater and diadromous fish and fisheries, during the EIA process.

In addition to identifying the main watercourses and waterbodies within and downstream of the proposed development area, developers should identify and consider, at this early stage, any areas of Special Areas of Conservation where fish are a qualifying feature and proposed felling operations particularly in acid sensitive areas.

If a developer identifies new issues or has a technical query in respect of MD-SEDD generic scoping guidelines then ECU should be informed who will then co-ordinate a response from MD-SEDD.

Gate check

The detail within the generic scoping guidelines already provides sufficient information relating to water quality and salmon and trout populations for developers at this stage of the application.

Developers will be required to provide a gate check checklist (annex 1) in advance of their application submission which should signpost ECU to where all matters relevant to freshwater and diadromous fish and fisheries have been presented in the EIA report. Where matters have not been addressed or a different approach, to that specified in the advice, has been adopted the developer will be required to set out why.

EIA Report

MD-SEDD will focus on those developments which may be more sensitive and/or where there are known existing pressures on fish populations (https://www2.gov.scot/Topics/marine/Salmon-Trout-Coarse/fishreform/licence/status/Pressures). The generic scoping guidelines should ensure that the developer has addressed all matters relevant to freshwater and diadromous fish and fisheries and presented them in the appropriate chapters of the EIA report. Use of the gate check checklist should ensure that the EIA report contains the required information; the absence of such information may necessitate requesting additional information which may delay the process:

Developers should specifically discuss and assess potential impacts and appropriate mitigation measures associated with the following:

- any designated area, for which fish is a qualifying feature, within and/or downstream of the proposed development area;
- the presence of a large density of watercourses;
- the presence of large areas of deep peat deposits;
- known acidification problems and/or other existing pressures on fish populations in the area; and
- proposed felling operations.

Post-Consent Monitoring

MD-SEDD recommends that a water quality and fish population monitoring programme is carried out to ensure that the proposed mitigation measures are effective. A robust, strategically designed and site specific monitoring programme conducted before, during and after construction can help to identify any changes, should they occur, and assist in implementing rapid remediation before long term ecological impacts occur.

MD-SEDD has published guidance on survey/monitoring programmes associated with onshore wind farm developments (https://www2.gov.scot/Topics/marine/Salmon-Trout-Coarse/Freshwater/Research/onshoreren) which developers should follow when drawing up survey and/or monitoring programmes.

If a developer considers that such a monitoring programme is not required then a clear justification should be provided.

Planning Conditions

MD-SEDD advises that planning conditions are drawn up to ensure appropriate provision for mitigation measures and monitoring programmes, should the development be given consent. We recommend, where required, that a Water Quality Monitoring Programme, Fisheries Monitoring Programme and the appointment of an Ecological Clerk of Works, specifically in overseeing the above monitoring programmes, is outlined within these conditions and that MD-SEDD is consulted on these programmes.

Wording suggested by MD-SEDD in relation to water quality, fish populations and fisheries for incorporation into planning consents:

1. No development shall commence unless a Water Quality and Fish Monitoring Plan (WQFMP) has been submitted to and approved in writing by the Planning Authority in consultation with Marine Directorate – Science Evidence Data and Digital (MD–SEDD) and any such other advisors or organisations.

2. The WQFMP must take account of the Scottish Government's MD-SEDD guidelines and standing advice and shall include:

    a. water quality sampling should be carried out at least 12 months prior to construction commencing, during construction and for at least 12 months after construction is complete. The water quality monitoring plan should include key hydrochemical parameters, turbidity, and flow data, the identification of sampling locations (including control sites), frequency of sampling, sampling methodology, data analysis and reporting etc.;

    b. the fish monitoring plan should include fully quantitative electrofishing surveys at sites potentially impacted and at control sites for at least 12 months before construction commences, during construction and for at least 12 months after construction is completed to detect any changes in fish populations; and

    c. appropriate site specific mitigation measures detailed in the Environmental Impact Assessment and in agreement with the Planning Authority and MD-SEDD.

3. Thereafter, the WQFMP shall be implemented within the timescales set out to the satisfaction of the Planning Authority in consultation with MD- SEDD and the results of such monitoring shall be submitted to the Planning Authority on a 6 monthly basis or on request.

Reason: To ensure no deterioration of water quality and to protect fish populations within and downstream of the development area.

Sources of further information

NatureScot (previously “SNH”) guidance on wind farm developments - https://www.nature.scot/professional-advice/planning-and-development/advice- planners-and-developers/renewable-energy-development/onshore-wind- energy/advice-wind-farm

Scottish Environment Protection Agency (SEPA) guidance on wind farm developments – https://www.sepa.org.uk/environment/energy/renewable/#wind

A joint publication by Scottish Renewables, NatureScot, SEPA, Forestry Commission Scotland, Historic Environment Scotland, Marine Scotland Science (now MD-SEDD) and Association of Environmental and Ecological Clerks of Works (2019) Good Practice during Wind Farm Construction - https://www.nature.scot/guidance- good-practice- during-wind-farm-construction.

Annex 1 (revised September 2023)

Marine Directorate – Science Evidence Data and Digital (MD-SEDD) – EIA Checklist

The generic scoping guidelines should ensure that all matters relevant to freshwater and diadromous fish and fisheries have been addressed and presented in the appropriate chapters of the EIA report. Use of the checklist below should ensure that the EIA report contains the following information; the absence of such information ***may necessitate requesting additional information*** which could delay the process:

MD-SEDD Standard EIA Report Requirements	Provided in application YES/NO	If YES – please signpost to relevant chapter of EIA Report	If not provided or provided different to **MD-SEDD** advice, please set out reasons.
1. A map outlining the proposed development area and the proposed location of: ○ the turbines, ○ associated crane hard standing areas, ○ borrow pits, ○ permanent meteorological masts, ○ access tracks including watercourse crossings, ○ all buildings including substation, battery storage; ○ permanent and temporary construction compounds; ○ all watercourses; and ○ contour lines;			

2. A description and results of the site characterisation surveys for fish (including fully quantitative electrofishing surveys) and water quality including the location of the electrofishing and fish habitat survey sites and water quality sampling sites on the map outlining the proposed turbines and associated infrastructure. **This should be carried out where a Special Area of Conservation (SAC) is present and where salmon are a qualifying feature, and in exceptional cases when required in the scoping advice for other reasons. In other cases, developers can assume that fish populations are present**;			
3. An outline of the potential impacts on fish populations and water quality within and downstream of the proposed development area;			
4. Any potential cumulative impacts on the water quality and fish populations associated with adjacent (operational and consented) developments including wind farms, hydro schemes, aquaculture and mining;			

5. Any proposed site specific mitigation measures as outlined in **MD-SEDD** generic scoping guidelines and the joint publication "Good Practice during Wind Farm Construction" (https://www.nature.scot/guidance-good-practice-during-wind-farm-construction);			
6. Full details of proposed monitoring programmes using guidelines issued by **MD-SEDD** and accompanied by a map outlining the proposed sampling and control sites in addition to the location of all turbines and associated infrastructure. **At least 12 months of baseline pre-construction data should be included. The monitoring programme can be secured using suitable wording in a condition.**			
7. A decommissioning and restoration plan outlining proposed mitigation/monitoring for water quality and fish populations. **This can be secured using suitable wording in a condition.**			

Developers should specifically discuss and assess potential impacts and appropriate mitigation measures associated with the following:	Provided in application YES/NO	If YES – please signpost to relevant chapter of EIA Report	If not provided or provided different to **MD-SEDD** advice, please set out reasons.
1. Any designated area **(e.g. SAC),** for which fish is a qualifying feature, within and/or downstream of the proposed development area;			
2. The presence of a large density of watercourses;			
3. The presence of large areas of deep peat deposits;			
4. Known acidification problems and/or other existing pressures on fish populations in the area; and			
5. Proposed felling operations.			